INSTITUTIONAL INVESTOR STUDY REPORT OF THE SECURITIES AND EXCHANGE COMMISSION

VOLUME 5

CONSISTING OF

INTRODUCTION TO PART FOUR OF THE STUDY: IMPACTS OF INSTITUTIONAL INVESTORS ON CORPORATE ISSUERS, AND THE FOLLOWING CHAPTERS:

CHAPTER XIV.—INSTITUTIONAL PARTICIPATION IN NEW EQUITY FINANCING

CHAPTER XV.—INSTITUTIONAL RELATIONSHIPS WITH PORTFOLIO COMPANIES

OF THE INSTITUTIONAL INVESTOR STUDY REPORT, BEING A STUDY AND INVESTIGATION OF THE PURCHASE, SALE AND HOLDING OF SECURITIES BY INSTITUTIONAL INVESTORS OF ALL TYPES, PURSUANT TO SECTION 19(e) OF THE SECURITIES EXCHANGE ACT OF 1934 (PUBLIC LAW 90–438, 91–410)

MARCH 10, 1971.—Referred to the Committee on Interstate and Foreign Commerce and ordered to be printed

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SUMMARY TABLE OF CONTENTS OF VOLUME 5

Introduction to Part Four: Impacts of Institutional Investors on Corporate Issuers

Earlier parts of the Study have considered the operational characteristics of various types of financial institutions and their impacts on the securities markets. In Part Four, the Study examines relationships between institutions and the companies whose equity securities they purchase or hold.

A. CORPORATE FINANCING

Chapter XIV focuses on purchases by institutions of equity securities from issuers in non-public offerings and in initial public offerings. As developed in Part Three, institutions have become a major factor in the secondary equity markets, accounting for an increasingly substantial portion of trading volume on national securities exchanges and in the third and fourth markets. Institutional participation in primary financing—that is, purchase of equity securities directly from corporate issuers (or from professional underwriters of new issues)—represents only a small percentage of total institutional holdings. However, such participation is significant because of its direct impact on the availability of external funds to corporate issuers.

Companies generally have no control over the acquisition by institutions of their securities in the secondary markets; the relationships arising out of such purchases ordinarily do not reflect any initiative on the part of the portfolio company. On the other hand, corporate issuers do have the right of initiation with respect to new issues of their securities. Companies determine in the first instance whether to issue additional securities and what kind of securities to issue. Where a non-public offering (or "private placement") is contemplated, the company may, in effect, select its shareholders. By participating in such transactions, the shareholders acquire "restricted" securities that ordinarily cannot be publicly resold except by compliance with the registration requirements of the Securities Act of 1933. Although an initial public offering by a company does not afford the same opportunities to direct the placement of securities because of the customary use of a professional underwriter, there may still be some element of initiative on the part of the issuer to the extent that particular underwriters deal with certain types of investors.

Chapter XIV evaluates the extent to which institutional investors have been a significant factor in primary equity financing:

Their involvement in venture capital investments, which are of great importance to companies in the developmental stage and which, if successful, also may come to dominate the institution's portfolio;

Their involvement in private placements, in which the institution receives unregistered, restricted securities; and

Their involvement in initial public offerings, in which the company for the first time invites general public investment.

The analysis is designed to afford insight into the nature as well as the extent of institutional participation in corporate financing. It covers the number and types of institutions that are most likely to make such investments, the size and types of companies in which institutions are most likely to make such investments, the potential rates of return obtained by institutions from such investments, and the numbers and types of broker-dealers that are most likely to serve as underwriters for first public offerings in which institutions are substantial participants. Consideration also is given to the opportunities and benefits available to institutions relative to the general investing public.

B. CORPORATE DECISION-MAKING AND CONTROL

Chapter XV focuses on institutions as shareholders or representatives of shareholders in publicly-held corporate enterprises. By participation in primary financings and by purchases in the secondary markets, institutions have become major holders of corporate equity securities. Their holdings, considered independently and in conjunction with any personnel or business relationships they may have with portfolio companies, create a potential element of influence or control over many issuers. The fundamental question confronting institutional, corporate and governmental policy-makers is whether the existence and use of this potential economic power can be reconciled with the obligations of institutional financial managers to their own beneficiaries and with the rights and interests of other (noninstitutional) investors.

In the first main section of chapter XV the Study surveys the way in which existing laws define or regulate the role of institutions within the structure of corporate power. The next two sections of the chapter examine, from a statistical point of view, the extent of economic power accruing to institutional investors from shareholding, personnel and business relationships with corporations. An attempt is made to portray the extent to which the largest institutions hold in their portfolios the outstanding shares of a broad sample of public companies. There also is an analysis of intercorrelations between shareholdings and certain types of personnel and business relationships linking institutions and companies.

The final two sections of the chapter examine the extent to which the large institutions surveyed have actually exercised economic power by involvement in corporate decision-making and in transfers of corporate control. The Study explores the reasons for such involvement, its prevalence and its impacts on the companies concerned.

C. SOURCE OF FINDINGS

The findings in chapter XIV are based upon extensive responses to questionnaires, fully described in the chapter. The sections in chapter XV on institutional shareholdings and on institutional personnel and business relationships also are derived from statistical questionnaires, described in the chapter.

While questionnaires were also utilized for the section on involvement in corporate decision-making, they proved to be unsatisfactory in many respects because of the essentially subjective nature of the in-

formation sought: the policies and views of the institutions, and instances of informal participation or consultation all are matters not the subject of ordinary records or susceptible of ready recall and verification. Therefore, reliance necessarily was placed upon interviews with institutional and corporate financial managers.

In the final section on transfers of corporate control, the Study conducted or drew on a number of case studies disclosing specific instances of institutional involvement. Since aggregate statistical data on such involvement would have been virtually impossible to obtain, the case studies provided the only feasible means of investigating, as requested by Congress, the effect of institutional investors on corporate issuers in transfers of control.

CHAPTER XIV

INSTITUTIONAL PARTICIPATION IN NEW EQUITY FINANCING

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CHAPTER XIV

Institutional Participation in New Equity Financing

A. INTRODUCTION

This chapter seeks to define the economic role played by institutions in the various markets from which corporations seek equity financing.[1] The primary focus of Parts B, C and D of this chapter is on institutional participation in the market for "first public offerings" (both primary and secondary offerings of common stock for which no previous trading market existed). The Study estimates that institutional purchases accounted for approximately 25 percent of all purchases of the 1684 underwritten first public offerings, valued at approximately $5.7 billion, that were registered with the Securities and Exchange Commission from January 1, 1967 through March 31, 1970. This percentage of volume compares with the estimate that institutions accounted for more than 50 percent of the public trading in securities listed on the New York Stock Exchange during this period.

In addition to purchasing new issues, as discussed in Parts E and F of this chapter, institutions also participate in equity financing of corporations through purchase of "restricted securities" (securities which are acquired directly or indirectly from an issuer which may not be immediately resold without registration under the Securities Act of 1933), including venture capital investments. Institutions in the Study's sample, representing approximately 64 percent of the assets managed by all institutions, purchased an estimated $3.5 billion worth of restricted securities (common stock or debt with equity features) from January 1, 1966, through June 30, 1969.

Institutions also appear to play a significant part in the venture capital market. The Study defined a venture capital situation to be an investment in an issuer which had an annual average income of $250,000 or less over each of the two years prior to the investment. Institutions unaffiliated with the broker-dealer placing the investment accounted for approximately $350 million or approximately 46 percent of the Study's sample of approximately $765 million in private venture capital investments.

Other than the magnitude of the part played by institutions as a source of equity financing, the Study developed a number of other conclusions from its analysis.

First, the potential profits to institutions from participating in the first offering and restricted securities markets are significant. Due to the frequent incidence of price appreciation in the immediate after-

[1] Institutions, particularly banks and insurance companies, also play a large role in the market for debt securities. The Study has analysed briefly the role institutions play in public offerings of convertible bonds, as well as in private placements of convertible bonds and bonds with attached warrants to purchase stock. The Study has not, however, dealt with institutional purchases of straight debt securities.

market for first offerings,[2] the Study estimates that the potential one week dollar gain to institutions from purchases of first offerings from January 1, 1967, through March 31, 1970, was 17.9 percent of the cost of purchase, and for the Study's selected sample of 84 first offerings, the potential one week dollar gain from January 1, 1968, through June 30, 1969, was an estimated 26.1 percent. On an annual basis, potential gains would be substantial, if institutions disposed of purchases of first offerings immediately; however, these potential gains were not necessarily realized. A sample of larger institutions that purchased $58.6 million of the $148.3 million purchased by all institutions of the 84 first offerings of the Study's sample indicates that institutions do not immediately resell all securities purchased in first offerings. These institutions sold 8.2 percent of the securities purchase in the offering within one week of the offering, an additional 10.6 percent within two to four weeks, and an additional 12.6 percent within five to twelve weeks. These institutions realized a net gain of 30.4 percent on such short-term holdings.

Institutions participate in the after-market for first offerings as buyers as well as sellers. The larger institutions referred to above purchased approximately $30.2 million of securities in the after-market for the 84 offerings in the Study's sample. This after-market participation itself is a reflection of the role played by institutions in corporate financing.

Purchase of restricted securities also results in considerable potential for gain to institutions. Due to restrictions on resale, restricted securities are acquired by institutions at a discount from the market for freely tradable securities of the same class, if any. The average discount for securities in the Study's sample was 24 percent.

The Study's analysis also indicates that, while institutions appear to prefer the offerings of larger corporations, this apparent preference might be explained, in part, by the tendency of these offerings to be underwritten by a certain group of underwriters, while those of smaller companies by a different group of underwriters. When the group of of underwriters who were usually associated with the offerings of larger companies underwrite the offering of a smaller company, the institutions tended to purchase in the same proportion as they did the offerings of larger companies. Offerings by the more prominent underwriters, as classified by syndicate clusters,[3] received significantly greater institutional interest. This tendency of institutions to rely on certain underwriters may result in some concentration among underwriters in regard to institutional sales of first offerings and affect competition among underwriters for first offerings.

Although, as indicated, there is a distinct correlation between institutional purchases of first offerings and the identity of the broker-dealers participating as underwriters of such offerings, a given institution's purchases of first offerings (or the allocation of securities to such institutions) from a given broker-dealer does not appear to be significantly related to the ordinary brokerage business done by such broker-dealer for such institution. As between a given broker-dealer

[2] Pricing of first offerings and the supply and demand for first offerings are discussed in app. A, below.

[3] See app. B for a discussion of the categories of underwriters and app. C for a discussion of syndicate clusters.

and a given institution, the correlation between first offerings allocated to the institution by the broker and brokerage commissions received from the institution by the broker is not significantly different from zero, when the size of the two entities are separately accounted for. Moreover, institutions do not appear to obtain amounts of first offerings that are disproportionate with their overall activity, as manifest, for example, in the total brokerage they pay. In a sample of 47 large banks, 38 large investment advisers and 17 large insurance companies, the banks accounted for 7.5 percent of all brokerage paid and received only 2.5 percent of all first offerings; the investment advisers accounted for 8.4 percent of all brokerage paid and received 2.7 percent of all first offerings; and the insurance companies accounted for 0.6 percent of all brokerage and received 0.2 percent of all first offerings.

Finally, there appears to be significant concentration both with respect to underwriters accounting for sales of first offerings to institutions and among institutions purchasing first offerings. This concentration carries over into various classes of institutions. For example, of the Study's sample of 84 first offerings, 33 underwriters accounted for 51 percent of all sales to institutions and 48 institutions accounted for 40 percent of all purchases. Banks accounted for approximately 28 percent of all institutional purchases, but 10 banks accounted for approximately 40 percent of all purchases by banks. In addition, 10 investment advisers accounted for approximately 43 percent of all purchases by investment advisers.

The Study concludes that institutions are a significant source of corporate equity financing including first offerings, private placements, and venture capital investments. However, other than in their status as a source of equity money, institutions in the aggregate do not appear to exert any significant influence on the allocation of resources in the primary markets for equity capital. Any future consideration given by the Commission to proposals affecting the public distribution of equity securities should however, recognize the important part institutions play as a source of equity capital. In addition, it should be noted that several factors, such as free-riding and withholding prohibitions, investment restrictions in an institution's organizational plan and stated investment purpose, or restrictions administratively imposed by Federal or State regulatory agencies, were not quantifiable but may have an important effect on the data as they are presented in the chapter.

Finally, it should be recognized that much of the data on which the Study bases its analysis relates to a period of unusual market interest in securities which were often risky investments. As a result the Study's conclusions do not necessarily apply to institutional behavior under different market conditions.

B. METHOD OF STUDY

To measure and explain the extent of institutional participation in public offerings, the Study selected a sample of 100 public offerings. Of these, 84 were first offerings of common stock; nine were offerings of convertible debt; and seven were first offerings of investment

companies. In drawing the sample the Study made every effort to capture the variety of issues and broker-dealers involved.[4] The Study sent Form I–6 to every underwriter participating in any of the offerings. In addition, the Study obtained the names from the managing underwriters of any selected dealers participating in the offerings. These selected dealers also received copies of Form I–6. The Form requested the names and addresses of all institutions that purchased securities in the offerings and the amounts purchased. The Study processed the responses to this questionnaire by establishing on magnetic tape one retrievable record for each Issue-Dealer-Institution—more than 30,000 in all. From the institutions listed on this file the Study selected a sample of 100 institutions, representing the more active purchasers from the main categories of institutions.[5] This group of institutions received Form I–72 requesting information as to purchases in the initial offering, as well as purchases and sales during the 90-day period after the offering, with respect to each issue reported by the broker-dealers on Form I–6. In addition, each institution was requested to supply information as to the types of accounts involved, the prices and the intermediaries used with respect to each reported transaction.

Various tabulations of data processed from the responses to these two questionnaires, combined with data obtained from other questionnaires sent by the Study and from published sources, constitute the statistical base of the study of public offerings reflected in this chapter.

C. THE NEW ISSUE MARKET

1. Description of the Market

Sales of newly issued securities (primary sales) are distinguished from sales of outstanding securities by the fact that the proceeds of the sales are at the disposal of the issuing corporations. Sales of outstanding securities (secondary sales), in contrast, involve the redistribution of assets among investors without any immediate direct impact on the funds available to the issuing corporations. The terms under which corporations can sell securities publicly or in private placements are governed by the conditions of supply and demand for its already outstanding securities, if any.[6] Secondary sales considered in this chapter comprise the small percentage of all sales by securities holders that closely resemble primary sales—that is, sales made through public distribution or private placements.[7] Since the willingness of an institution to purchase securities from the issuers is based

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[4] App. B describes the method used to draw the sample.

[5] The sample included 25 underwriters who were also registered with the Commission as investment advisers. For each of these underwriters the Study selected five offerings in which that underwriter participated. Each underwriter was requested to supply information on its sales of any of these five offerings to its investment advisory accounts. For this purpose an advisory account was defined as one for the management of which the underwriter collected an advisory fee.

[6] App. A contains a discussion of pricing of and supply and demand for public offering.

[7] In most cases, the securityholders engaged in this type of secondary sales purchased the securities from the issuing corporations. In some cases, a selling securityholder may have purchased the securities under an investment letter (considered below) or under other circumstances (so-called "statutory" underwriters) from another securityholder or may have acquired securities in the open market that, because of the total size of his holdings, because of his relationship with the issuer or other factors (so-called "controlling persons") may be resold only under circumstances similar to those of a primary sale—i.e., pursuant to registration or private placement.

in large part on conditions affecting resale, some analysis of these conditions is relevant to an analysis of more direct corporate financing.

The mechanics of sales in the primary market, including sales by controlling stockholders and statutory underwriters, differ from those in the secondary market, partly as a result of certain provisions of the Securities Act of 1933 and state blue sky laws,[8] and partly as an adaptation to market needs. Primary sales of securities are made either in a public offering or private placement. Unless an exemption is available,[9] public offerings must be registered with the Commission under the Securities Act. Private placements are exempt from registration pursuant to Section 4(2) of that Act when they are offered to knowledgeable and spohisticated investors, who have access to information concerning the issuer of a type similar to that which would be provided through registration and who do not otherwise require the protections afforded by the Securities Act. In addition, these persons must not be acting as conduits for a public distribution.[10] Wholly apart from the applicable legal requirements, primary offerings have certain characteristics that distinguish them from most ordinary securities transactions. For example, public offerings of securities usually involve amounts that are large relative to amounts outstanding or to the previous volume of trading, if any. The distribution of these securities, therefore, may require a more intensive selling effort by an underwriter, a price concession, or both.

Since the underwriters' risk as well as capital costs of positioning, increases with the duration of the offering, they have a natural incentive to distribute the securities as quickly as possible. For this purpose the underwriters may fix the offering price below the level they expect in the immediate aftermarket. (The expected level is influenced by the indications of interest they receive in response to their dissemination of preliminary prospectuses and oral inquiries.) Where the offering prices of other public offerings are set at or slightly below the market price for the publicly held shares, the offering price for a first offering (an offering of common stock for which no prior public market existed) is determined by negotiation between the underwriters and the issuer or by the issuer where there is no underwriter. Generally little or no information concerning the issuer is available to the public prior to the distribution of preliminary prospectuses, if any, in connection with a first offering. This lack of information may limit the spontaneous demand for the offering.

With respect to private placements, however, in addition to the greater acumen attributed to the small number of professional investors involved, each commits a relatively greater sum of money than in the case of a public offering, and each is required to have more access to information on the issuer's circumstances than in the case of public

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[8] Various states have blue sky laws that in some cases are more restrictive than the federal laws. Some states, for example, place limitations on sales by securities holders.

[9] Among the offerings exempt from registration under the Securities Act are intra-state offerings, made in compliance with Section 3(a)(11) of that Act, securities issued by banks and railroads, pursuant to Section 3(a)(2) and 3(a)(6) of that Act, and offerings that comply with Regulation A under Section 3(b) of that Act, which is limited to offerings not exceeding $500 000 in gross amount.

[10] Securities taken in private placements are sometimes called "restricted securities" because the investors are restricted from reselling them to the public except under certain conditions. Certain of these restrictions may be evidenced by an "investment letter"; hence the designation, "letter stock."

investors. Securities sold privately cannot be resold to the public without registration or an exemption from registration, and are therefore, less liquid. Hence, privately placed securities are usually sold at discounts from the market price of publicly traded securities of the same class. Where no market exists, the discount is more hypothetical. This discount may be analogized to the underwriter compensation and other direct or indirect costs associated with a public offering.[11]

There are, however, many similarities between the new issue market and private placements and certain aspects of the trading markets. The large and growing incidence of institutional trading introduces many of the problems formerly associated with the primary market. The various types of unregistered secondary distributions formerly relied upon to effect large transfers of stock have largely given way to the simpler procedure of block-trading, which places institutions (insofar as possible) on both sides of the transaction instead of balancing institutional sell orders with solicited public buy orders, as in the distribution methods. Either method, however, incorporates the problems associated with moving relatively large quantities of stock over limited periods of time, including, sometimes, the need for market stabilization. However, in addition to simplifying the procedures and thereby expediting the execution, block trading greatly lessens the need for widespread public solicitation.[12] In this regard, they are similar to private placements. To the extent block-trading firms position the stock, whether the entire sell order or only the unsold residual, they operate in a manner similar to underwriters [13] who, in connection with rights offering, often position only the unsubscribed portion of the distribution.

Also, the requirements for public disclosure are not peculiar to the primary markets. The Securities Exchange Act of 1934 contains various reporting requirements for companies with publicly traded securities. As improvements in the requirements come into being, the efficacy under certain circumstances of sharply separating primary from large secondary sales may diminish.

2. Rationing of First Offerings

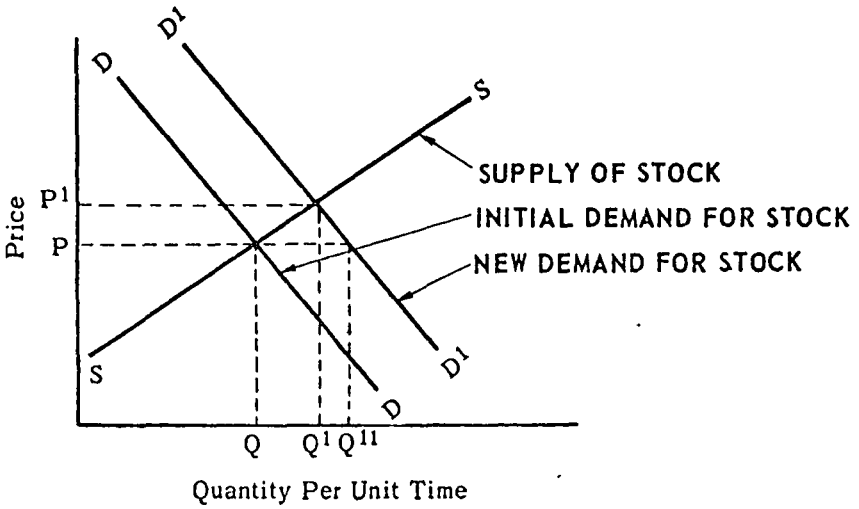
Whenever the quantity of a security demanded exceeds the quantity supplied some method of rationing is necessary. In the secondary markets, under normal circumstances, increases in demand stimulate increases in the quantity supplied, in the price, or—more commonly—in both. Figure 1 represents this situation. Under initial conditions of supply and demand, Q shares are traded at a price of P. When the conditions of demand shift to D^1, $Q^{11}-Q$ additional shares are demanded at P price. But the additional stock is unavailable at this price. After exhausting the supply at this price an over-the-counter-market market-maker would either go short at some higher price or attempt to stimulate supply by soliciting known holders, including other market makers. Typically, this solicitation would involve an increase in his bid price, which would, in turn, typically cause an increase in the offer price. (A stock-exchange specialist would also draw on limit

[11] Sec. E. below, considers this point.

[12] The extra compensation paid to salesmen making these solicitations may influence their consideration of the suitability of the investment for their customer.

[13] They may not be, however, deemed underwriters for purposes of the Securities Act.

FIGURE 1



orders to sell as each upward tic triggered a sale.) As news of the increasing price spread, through oral communication or visual quotations, further supply could materialize.

Figure 1 represents this process as a movement up the supply curve. The more time allowed for the adjustment to the new demand to take place the flatter would be the supply curve.[14] As the price rose under the new conditions of demand,[15] the quantity demanded would fall from the Q^{11}, to Q^1, and the price would settle at P^1. With respect to public offerings, however, the maximum price and the quantity of stock are both fixed prior to the public offering.

Figure 2 represents this situation. The supply curve is drawn as P_oO S, indicating a fixed quantity supplied, Q_o, and a maximum price, P_o. But the quantity demand at that price is Q_d instead of Q_o. Q_d-Q_o is therefore the excess demanded at the offering price. In order for the quantity demanded to correspond with the quantity offered, the offer price would have to be set at P_m instead of P_o. It is this unsatisfied demand that triggers the premium in the after-market. Moreover, any advance knowledge of this excess demand available to underwriters, prospective underwriters, and, in many cases, investors, may aggravate the problem by further stimulating demand.[16]

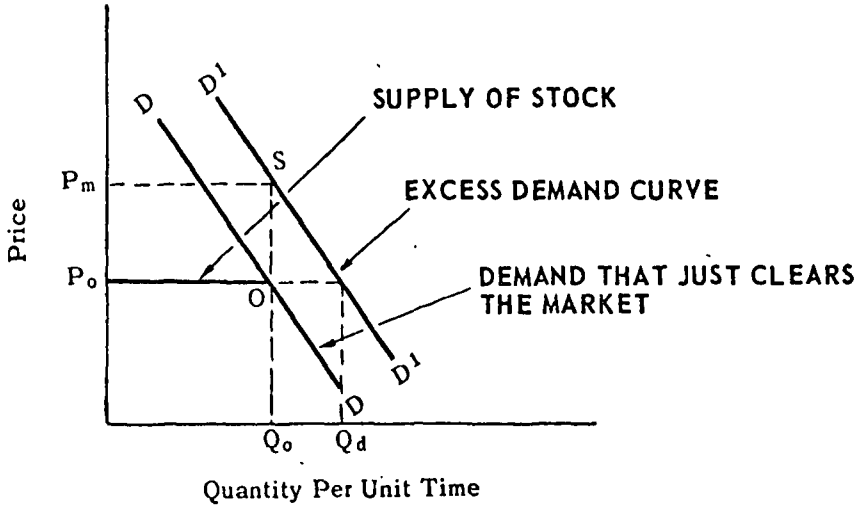
The rationing problem—that is—the allocation of Q_o among investors who demand Q^d—does not of course occur in every first offering. While the price change in the immediate after-market does not entirely reflect the conditions of demand that existed prior to the offering, it is

[14] The slope of the supply curve measures the breadth of the market from the point of view of changes in demand, since it signifies the required change in price necessary to accommodate a change in demand.

[15] The term "conditions of demand" refers to the set of quanties demanded at various prices given the general state of preference for the stock. Given conditions of demand are, therefore, consistent with various quantities demanded.

[16] The diagram is drawn at a point in time. The intensification of the excess demand would appear as a series of dated demand curves, each one higher than those with earlier dates up to some maxium.

FIGURE 2



a helpful guide. Certainly a sharp premium in the immediate after-market is strong evidence of a condition of excess demand at the offering.[17] [18]

The first offering price index described in appendix A is some indication of the extent of the rationing problem in a strong market.

While, from the underwriters' point of view, a rationing problem is preferable to a situation of insufficient demand, it is not an unmixed blessing. Disappointing customers by refusing them stock or curtailing the quantities offered them may discourage customers from giving other business to the firm. In larger, departmentalized firms the retail, institutional, and advisory departments vie to wrest the scarce stock from the syndicate departments.[19] Typically, the departments and salesmen who demonstrate the capacity to place the less scarce first offerings, as well as the offerings of publicly-held companies, receive the scarce stock for their customers. The ordinary brokerage generated by the various institutional accounts (as well as by retail salesmen) and the prospect of new brokerage business may also be factors in the allocation process.

The underwriter must choose between favoring a few customers with relatively large amounts of stock and spreading smaller amounts among more investors. It appears that his business interest coincides

[17] Investors whose appetite had been whetted but who were deprived of the stock at the offering as a result of schemes to temporarily place the stock elsewhere may turn to the after-market for stock. The resulting premium would reflect not a condition of excess demand but one of artificially reduced supply. This situation falls within the subject of withholding and free riding, which is considered in sec. D, below.

[18] The Study sought data directly bearing on this point in connection with its sample of 84 offerings. It sought to obtain information on indications of interest received by underwriters and selected dealers. In conjunction with knowledge of the sizes of the offerings, this information would reveal the relationship between supply and demand at the offering. Unfortunately the answers to the questionnaires were unreliable and often non-existent on this point.

[19] The syndicate department has its own problem in getting into the deal to begin with and getting enough stock to make it worth its while.

with his responsibility to give the offering a broad distribution. Table XIV–1 deals with the relationship between size of separate transactions between underwriters and institutions at the initial offering price and the after-market price change of the securities so acquired. (The after-market price change is assumed here to reflect the extent of the rationing problem.) There were 1601 institutional transactions involving 100 or less shares in offerings that declined in the first week of the after-market compared with 5948 transactions in this size class in issues that rose between 51 and 100 percent in the first week of the after-market. The 1601 transactions accounted for 52.9 percent of all institutional purchases at the offering of issues that declined within the first week of the after-market. In contrast, the 5948 transactions accounted for 70.0 percent of all institutional purchases at the offering of issues that rose between 51 and 100 percent within the first week of the after-market. It appears from this and other details of the table that underwriters are inclined to give wider distribution to premium issues.

Table XIV-1

NUMBER OF SEPARATE INSTITUTIONAL PURCHASE TRANSACTIONS CLASSIFIED BY SIZE OF TRANSACTION AND PRICE CHANGE OF THE RESPECTIVE SECURITIES IN THE FIRST WEEK OF THE AFTER MARKET - 84 EQUITY ISSUES, JANUARY 1968-JUNE 1969

NUMBER OF SHARES IN THE TRANSACTION	PERCENTAGE PRICE CHANGE IN THE FIRST WEEK OF THE AFTERMARKET											
	DECLINE		0% - 20%		21% - 50%		51% - 100%		MORE THAN 100%		TOTAL	
	No. of Trans. / Percentage of Row Total	Percentage of Column Total	No. of Trans. / Percentage of Row Total	Percentage of Column Total	No. of Trans. / Percentage of Row Total	Percentage of Column Total	No. of Trans. / Percentage of Row Total	Percentage of Column Total	No. of Trans. / Percentage of Row Total	Percentage of Column Total	No. of Trans. / Percentage of Row Total	Percentage of Column Total
100 or Less	1,601 10.8%	52.9%	2,110 14.3%	49.3%	4,836 32.7%	66.1%	5,948 40.3%	70.0%	272 1.8%	57.3%	14,767 100.0%	62.6%
101 - 300	779 14.8%	25.7%	1,148 21.9%	26.8%	1,647 31.4%	22.5%	1,548 29.5%	18.2%	129 2.5%	27.2%	5,251 100.0%	22.3%
301 - 500	274 16.9%	9.1%	428 26.4%	10.0%	425 26.3%	5.8%	459 28.4%	5.4%	33 2.0%	6.9%	1,619 100.0%	6.9%
501 - 1,000	170 17.2%	5.6%	283 28.7%	6.6%	222 22.5%	3.0%	293 29.7%	3.4%	18 1.8%	3.8%	986 100.0%	4.2%
1,001- 5,000	167 20.6%	5.5%	245 39.3%	5.7%	161 19.9%	2.2%	216 26.7%	2.5%	21 2.6%	4.4%	810 100.0%	3.4%
More than 5,000	35 21.5%	1.2%	64 39.3%	1.5%	23 14.1%	0.3%	39 23.9%	0.5%	2 1.2%	0.4%	163 100.0%	0.7%
TOTAL	3,026 12.8%	100.0%	4,278 18.1%	100.0%	7,314 31.0%	100.0%	8,503 36.0%	100.0%	475 2.0%	100.0%	23,596 100.0%	100.0%

D. INSTITUTIONAL PARTICIPATION IN THE MARKET FOR FIRST OFFERINGS

1. Institutional Purchases of First Offerings

a. Determinants of institutional purchases

In selecting the sample of 84 first offerings of common stock, the Study used only two criteria: (1) category of managing underwriter (based on syndicate clusters); and (2) coverage of the 18 months in the sample period. It relied on random sampling to capture the variety in the offerings that met the original criteria. Although the sample size is too small to capture all the intersections of the issuers' characteristics, it is adequate for representing some of the statistical characteristics, taken one at a time.[20] This analysis is not intended to indicate, however, that statistical characteristics adequately describe the investment qualities of the various offerings.[21] The following characteristics are considered:

(i) Size of issuer, as measured by sales, earnings, and net worth;

(ii) Price of issue, defined simply as price per share, as well as price in relation to earnings per share;

(iii) After-market behavior, as measured by price changes from the offering price over four different time spans in the after-market.

The Study has assembled a variety of tables that focus on the nature of institutional interest in public offerings. The tables break down total institutional purchases into those purchased by various classes of institutions. The information for these tables was obtained from almost all broker-dealers involved in the offering as underwriter or as selected dealer.[22] A brief explanation of the criteria for inclusion in each class of institution is, therefore, necessary for a correct reading of the tables.

(i) *Banks.*—This class consists of domestic commercial banks. However, the extent to which broker-dealers reported sales to banks who were acting in a purely custodial capacity and the effect of this reporting on the data is unknown. Since these transactions are unrelated to decisions made by banks, they are not institutional purchases, as defined by the Study. The figures on purchases by banks therefore overstate true purchases by the unknown extent of this erroneous reporting.

(ii) *Investment Advisers.*—This class consists of registered investment advisers, and all investment companies.

(iii) *Property and Casualty Insurance Companies.*—Self Explanatory.

(iv) *Life Insurance Companies.*—Self Explanatory.

(v) *Employee Benefit.*—This class consists of self administered employee benefit plans. In some cases, the broker-dealers reported the name of the plan without reporting an adviser when one in fact existed.

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[20] No distinction is made in this section between primary and secondary offerings.

[21] Among the issuers included in the analysis some with current earnings deficits appear to be little more than stock market promotions, and others are well managed companies that appear to have reasonable prospects for success. At the other extreme are senescent, relatively large companies (by the standards of first offerings, but infrequently in absolute terms) with little apparent prospect for growth, whose main purpose in going public may be to obtain a public valuation for estate-tax purposes or as an opening thrust toward diversification of the personal portfolios of the founders. In the same size class are issuers whose public offerings may obtain ultimate market acceptance. While the financial statistics are by no means irrelevant, they explain only one part of the story. In the end, the putative quality of an issue appears to reflect who the underwriter and their customers are more than what the issuer does. The credibility that institutional interest lends to an issue is discussed in app. A.

[22] Some firms failed to respond to the questionnaire. These firms accounted for a very small fraction of the offerings, and their omission has a negligible effect on the results. Broker-dealers who received securities on a reallowance from underwriters or selected dealers were also omitted from the Study. Here, too, the effect is likely to be negligible. The exhaustiveness of information used, however, aggravates the problem of classification of the diverse and sometimes obscure institutions.

(vi) *Tax Exempt Institutions.*—This class consists of charitable organizations, foundations, religious organizations, school, college, and university endowments, and similar organizations.

(vii) *Other Institutions.*—This class consists of unregistered investment advisers, holding companies, and other institutions not elsewhere classified.

(viii) *Hedge Funds.*—This class consists of investment partnerships identified by the SEC, by published sources, or by broker-dealers as hedge funds.

(ix) *Offshore Funds.*—This class consists of foreign funds that the Study identified as directly or indirectly under management of persons residing in the United States.

(x) *Other Business.*—This class consists of small businesses that do not appear to be primarily engaged in investments. In many cases members of this class appear to be the business names for individual investors.

(xi) *Foreign Institutions.*—This class consists of foreign banks and other foreign-managed institutions. In addition, it includes the underwriting allotments of foreign underwriters who, in most cases, did not answer the questionnaire.

The Study excluded all reported institutions that appeared to be investment clubs or other institutions not involving professional management. In addition, it did not obtain information on sales by underwriters to their own managed accounts.[23]

Table XIV–2 shows the percentages of the 84 first offerings of common stock, the 9 offerings of convertible bonds, and the 7 offerings of securities of investment companies purchased by the various classes of institutions. Institutions as a group took 31 percent of the common stock offerings, 51 percent of the convertible debt offerings, and 7 percent of the offerings by investment companies. These percentages refer to the offerings included in the Study's sample. (The projection of institutional purchases of the whole population of first offerings is described later in this section.) Banks accounted for more purchases of the three types of offerings than any other class of institution. They purchased 8.71 percent of the equity offerings, 16.04 percent of the convertible debt offerings, and 2.59 percent of the investment company offerings. Apart from the banks, foreign institutions were the only class that purchased more than 1 percent of the investment company offerings. Below the figures on the percentage of the offering purchased, there is a row called "percentage of class expenditure" in the table for each class of institution. The figures in this row indicate the percentage relationship between the dollar figure in a given column and the total for a given class of institution. Life insurance companies, for example, spent 34.99 percent of their total expenditure on the sample of 100 offerings of corporate securities on first offerings of common stock; 61.16 percent on the nine convertible debt offerings; and 3.85 percent on investment company offerings. Life insurance companies were the only class of institution that spent a larger fraction of their total expenditure on the bond offerings than on the common stock offerings. The remaining tables (Tables XIV–3 through XIV–16) refer only to the first offerings of common stock.

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[23] Another questionnaire, described in sec. D, below, estimates the extent of these sales.

TABLE XIV-2

INSTITUTIONAL PRUCHASES OF FIRST OFFERINGS OF COMMON STOCK, CONVERTIBLE DEPT, AND INVESTMENT COMPANY SHARES, BY CLASS OF INSTITUTION

Class of Institution	Common Stock	Convertible Debt	Investment Company Shares
Total Offering	478,634,438	138,300,000	647,387,500
All Institutions			
Value (dollars)	148,257,300	71,675,000	45,409,228
% of Offering	30.98	51.8	7.01
Banks (Domestic)			
Value (dollars)	41,680,654	22,672,000	16,740,623
% of Offering	8.71	16.4	2.59
Investment Advisers			
Value (dollars)	38,195,831	17,733,000	1,216,300
% of Offering	7.98	12.8	.19
Prop. and Liab. Ins. Cos.			
Value (dollars)	2,458,137	1,466,000	186,550
% of Offering	.51	1.1	.03
Life Insurance Cos.			
Value (dollars)	5,063,774	8,857,000	557,650
% of Offering	1.06	6.4	.09
Self-Admin. Empl. Benefits			
Value (dollars)	6,274,325	1,890,000	5,902,338
% of Offering	1.31	1.4	.91
Tax Exempt Institutions			
Value (dollars)	4,705,035	3,351,000	2,284,915
% of Offering	.98	2.4	.35
Other Institutions			
Value (dollars)	10,968,223	4,250,000	3,383,434
% of Offering	2.29	3.1	.52
Hedge Funds			
Value (dollars)	11,375,868	2,821,000	2,019,210
% of Offering	2.38	2.0	.31
Off Shore Funds			
Value (dollars)	1,054,338	207,000	8.500
% of Offering	.22	.2	*
Other Businesses			
Value (dollars)	5,308,584	1,227,000	2,689,980
% of Offering	1.11	.9	.42
Foreign Institutions			
Value (dollar)	21,172,531	7,201,000	10,419,728
% of Offering	4.42	5.21	1.61

*Less Than .05

Table XIV-3

Institutional Purchases of First Offerings of Common Stock Classified By Category of Managing Underwriter and Class of Institution

CLASS OF INSTITUTION	1	2	3	4	5	TOTAL
TOTAL OFFERING						
value (dollars)	32,315,000	180,237,250	108,548,750	86,560,438	70,973,000	478,634,438
% of total	6.75	37.66	22.68	18.08	14.83	100.00
ALL INSTITUTIONS						
value (dollars)	16,361,056	67,478,424	27,401,113	21,317,650	15,699,057	148,257,300
% of offering	50.63	37.44	25.24	24.63	22.12	30.98
% of class expenditure	11.04	45.51	18.48	14.38	10.59	100.00
BANKS (Domestic)						
value (dollars)	4,009,510	21,339,361	8,555,977	5,238,500	2,537,306	41,680,654
% of offering	12.40	11.83	7.88	6.05	3.57	8.71
% of class expenditure	9.63	51.22	20.53	12.57	6.08	100.00
INVESTMENT ADVISERS						
value (dollars)	4,703,320	16,687,702	6,660,373	6,741,423	3,403,013	38,195,831
% of offering	14.55	9.25	6.13	7.78	4.79	7.98
% of class expenditure	12.32	43.68	17.34	17.65	8.90	100.00
PROP. & LIAB. INS. COS.						
value (dollars)	267,300	761,489	845,337	523,499	60,512	2,458,137
% of offering	.82	.42	.77	.60	.08	.51
% of class expenditure	10.87	30.97	34.38	21.29	2.46	100.00
LIFE INSURANCE COMPANIES						
value (dollars)	467,050	2,648,256	975,030	679,391	294,047	5,063,774
% of offering	1.44	1.46	.89	.78	.41	1.06
% of class expenditure	9.22	52.29	19.25	13.41	5.80	100.00
SELF ADM. EMPLOYEE BENEFIT						
value (dollars)	2,028,970	2,092,352	997,789	777,198	378,016	6,274,325
% of offering	6.27	1.16	.91	.89	.53	1.31
% of class expenditure	32.34	33.34	15.90	12.37	6.01	100.00
TAX EXEMPT INSTITUTIONS						
value (dollars)	522,895	2,528,766	1,006,486	388,114	258,774	4,705,035
% of offering	1.61	1.40	.92	.44	.36	.98
% of class expenditure	11.11	53.73	21.39	8.24	5.49	100.00
OTHER INSTITUTIONS						
value (dollars)	1,187,050	3,242,281	1,687,285	1,807,445	3,044,162	10,968,223
% of offering	3.67	1.79	1.55	2.08	4.28	2.29
% of class expenditure	10.82	29.55	15.37	16.47	27.75	100.00
HEDGE FUNDS						
value (dollars)	891,600	5,441,082	2,645,670	1,447,146	950,370	11,375,868
% of offering	2.75	3.01	2.43	1.67	1.33	2.38
% of class expenditure	7.84	47.82	23.25	12.71	8.35	100.00
OFF SHORE FUNDS						
value (dollars)	12,900	498,643	190,224	310,096	42,475	1,054,338
% of offering	.03	.27	.17	.35	.05	.22
% of class expenditure	1.22	47.29	18.04	29.40	4.03	100.00
OTHER BUSINESSES						
value (dollars)	364,765	1,997,885	1,200,240	681,218	1,064,476	5,308,584
% of offering	1.12	1.10	1.10	.78	1.49	1.11
% of class expenditure	6.87	37.62	22.60	12.82	20.04	100.00
FOREIGN INSTITUTIONS						
value (dollars)	1,905,696	10,240,607	2,636,702	2,723,620	3,665,906	21,172,531
% of offering	5.89	5.68	2.42	3.14	5.16	4.42
% of class expenditure	9.01	48.36	12.45	12.85	17.31	100.00

Table XIV-4

Institutional Purchases of First Offerings of Common Stock Classified By Net Worth of Issuing Companies and Class of Institution

(Headings in Thousands of Dollars)

CLASS OF INSTITUTION	DEFICIT	0 - 999	1,000-4,999	5,000-9,999	10,000 or +	TOTAL
TOTAL OFFERING						
value (dollars)	9,250,000	123,549,000	210,583,704	76,885,234	58,366,500	478,634,438
% of total	1.93	25.81	44.00	16.06	12.19	100.00
ALL INSTITUTIONS						
value (dollars)	713,050	36,398,697	62,423,665	26,096,217	22,625,671	148,257,300
% of offering	7.71	29.46	29.64	33.94	38.76	30.98
% of class expenditure	.48	24.55	42.11	17.60	15.26	100.00
BANKS (DOMESTIC)						
value (dollars)	156,250	8,642,782	19,190,795	7,078,092	6,612,735	41,680,654
% of offering	1.68	6.99	9.11	9.20	11.32	8.71
% of class expenditure	.38	20.74	46.05	16.99	15.87	100.00
INVESTMENT ADVISERS						
value (dollars)	37,000	11,521,871	13,722,040	6,644,685	6,270,235	38,195,831
% of offering	.40	9.32	6.51	8.64	10.74	7.98
% of class expenditure	.10	30.16	35.91	17.39	16.42	100.00
PROP. AND LIAB. INS. COS.						
value (dollars)	13,000	406,609	990,473	742,030	306,025	2,458,137
% of offering	.14	.32	.47	.96	.52	.51
% of class expenditure	.53	16.54	40.28	30.18	12.45	100.00
LIFE INSURANCE COS.						
value (dollars)	7,500	811,567	2,293,412	898,035	1,053,260	5,063,774
% of offering	.08	.65	1.08	1.16	1.80	1.06
% of class expenditure	.15	16.02	45.27	17.73	20.80	100.00
SELF ADMIN. EMPL. BENEFIT						
value (dollars)	41,000	1,410,222	2,379,075	644,583	1,799,445	6,274,325
% of offering	.44	1.14	1.12	.83	3.08	1.31
% of class expenditure	.65	22.47	37.89	10.27	28.68	100.00
TAX EXEMPT INSTITUTIONS						
value (dollars)	14,500	1,527,215	1,922,028	593,212	648,080	4,705,035
% of offering	.15	1.23	.91	.77	1.11	.98
% of class expenditure	.31	32.45	40.83	12.60	13.77	100.00
OTHER INSTITUTIONS						
value (dollars)	56,800	3,859,900	4,129,078	1,349,685	1,572,760	10,968,223
% of offering	.61	3.12	1.96	1.75	2.69	2.30
% of class expenditure	.52	35.18	37.62	12.30	14.34	100.00
HEDGE FUNDS						
value (dollars)	32,800	3,449,096	4,949,326	1,647,496	1,297,150	11,375,868
% of offering	.35	2.79	2.35	2.14	2.22	2.38
% of class expenditure	.29	30.31	43.49	14.48	11.40	100.00
OFF SHORE FUNDS						
value (dollars)	14,400	253,112	562,621	179,480	44,725	1,054,338
% of offering	.15	.20	.26	.23	.07	.22
% of class expenditure	1.37	24.00	53.35	17.02	4.24	100.00
OTHER BUSINESSES						
value (dollars)	75,800	1,558,150	2,362,507	785,242	526,885	5,308,584
% of offering	.81	1.26	1.12	1.02	.90	1.11
% of class expenditure	1.43	29.34	44.48	14.78	9.92	100.00
FOREIGN INSTITUTIONS						
value (dollars)	264,000	2,958,173	9,922,310	5,533,677	2,494,371	21,172,531
% of offering	2.85	2.39	4.71	7.19	4.27	4.42
% of class expenditure	1.25	13.96	46.85	26.13	11.78	100.00

Table XIV-5

INSTITUTIONAL PURCHASES OF FIRST OFFERINGS OF COMMON STOCK
CLASSIFIED BY NET INCOME OF ISSUER AND CLASS OF INSTITUTION

CLASS OF INSTITUTION	(Headings in Thousands of Dollars) Deficit[1]	1-99	100-499	500-999	1,000 and Over	Total
TOTAL OFFERING						
value (dollars)	53,252,500	34,771,500	83,009,954	83,661,250	186,439,234	441,134,438
% of total	12.07	7.88	18.82	18.97	42.26	100.00
ALL INSTITUTIONS						
value (dollars)	12,309,521	12,626,369	18,683,793	26,450,886	59,922,306	129,992,875
% of offering	23.12	36.31	22.51	31.62	32.14	29.47
% of class expenditure	9.47	9.71	14.37	20.35	46.10	100.00
BANKS (DOMESTIC)						
value (dollars)	3,741,592	2,828,063	4,013,735	7,685,166	18,783,323	37,051,879
% of offering	7.03	8.13	4.83	9.18	10.07	8.40
% of class expenditure	10.10	7.63	10.83	20.74	50.69	100.00
INVESTMENT ADVISERS						
value (dollars)	2,751,545	2,353,525	4,669,487	6,597,276	14,464,498	30,836,331
% of offering	5.17	6.76	5.62	7.88	7.75	7.00
% of class expenditure	8.92	7.63	15.14	21.39	46.91	100.00
PROP. AND LIAB. INS. COS.						
value (dollars)	261,350	100,762	226,247	492,195	1,306,333	2,386,887
% of offering	.49	.28	.27	.58	.70	.54
% of class expenditure	10.95	4.22	9.48	20.62	54.73	100.00
LIFE INSURANCE COMPANIES						
value (dollars)	251,575	213,325	314,626	1,422,316	2,586,932	4,788,774
% of offering	.47	.61	.37	1.70	1.38	1.09
% of class expenditure	5.25	4.45	6.57	29.70	54.02	100.00
SELF-ADMIN. EMPL. BENEFIT						
value (dollars)	369,710	781,040	668,566	710,052	2,931,482	5,460,850
% of offering	.69	2.24	.80	.84	1.57	1.24
% of class expenditure	6.77	14.30	12.24	13.00	53.68	100.00
TAX EXEMPT INSTITUTIONS						
value (dollars)	472,947	140,732	693,203	832,499	1,534,404	3,673,785
% of offering	.89	.40	.83	.99	.82	.83
% of class expenditure	12.87	3.83	18.87	22.66	41.77	100.00
OTHER INSTITUTIONS						
value (dollars)	665,975	2,641,852	1,491,836	1,942,262	3,401,248	10,143,173
% of offering	1.25	7.59	1.79	2.32	1.82	2.30
% of class expenditure	6.57	26.05	14.71	19.15	33 53	100.00
HEDGE FUNDS						
value (dollars)	624,845	1,041,800	1,730,444	2,192,375	3,729,404	9,318,868
% of offering	1.17	2.98	2.08	2.62	2.00	2.11
% of class expenditure	6.71	11.18	18.57	23.53	40.02	100.00
OFF SHORE FUNDS						
value (dollars)	72,817	51,650	238,408	107,404	394,059	884,338
% of offering	.14	.14	.28	.12	.21	.20
% of class expenditure	8.42	5.98	27.58	12.43	45.59	100.00
OTHER BUSINESSES						
value (dollars)	824,020	621,420	1,003,645	845,650	1,683,843	4,978,584
% of offering	1.55	1.78	1.20	1.01	.90	1.13
% of class expenditure	16.55	12.48	20.16	16.99	33.82	100.00
FOREIGN INSTITUTIONS						
value (dollars)	2,273,145	1,852,200	3,633,596	3,623,685	9,106,780	20,489,406
% of offering	4.27	5.32	4.37	4.33	4.88	4.64
% of class expenditure	11.09	9.04	17.73	17.69	44.45	100.00

1/ This column excludes two real estate investment trusts that were included in earlier tables.

Table XIV-6

INSTITUTIONAL PURCHASES OF FIRST OFFERINGS OF COMMON STOCK
CLASSIFIED BY AGGREGATE SALES OF ISSUER AND CLASS OF INSTITUTION

(Headings in Millions of Dollars)

CLASS OF INSTITUTION	0 [1]	1 - 4.9	5 - 24.9	25.0 and Over	TOTAL
TOTAL OFFERING					
value (dollars)	26,177,500	123,362,532	165,106,422	126,487,984	441,134,438
% of total	5.93	27.96	37.43	28.67	100.00
ALL INSTITUTIONS					
value (dollars)	4,342,762	33,522,580	47,685,685	44,441,848	129,992,875
% of offering	16.59	27.17	28.88	35.14	29.47
% of class expenditure	3.34	25.79	36.68	36.68	100.00
BANKS (DOMESTIC)					
value (dollars)	1,393,487	8,252,875	13,300.569	14,104,948	37,051,879
% of offering	5.32	6.68	8.05	11.15	8.40
% of class expenditure	3.76	22.27	35.90	38.07	100.00
INVESTMENT ADVISERS					
value (dollars)	460,500	7,516,846	11,945,359	10,913,626	30,836,331
% of offering	1.76	6.09	7.23	8.62	7.00
% of class expenditure	1.49	24.38	38.74	35.39	100.00
PROP. & LIAB. INS. COS.					
value (dollars)	65,000	395,984	1,052,557	873,346	2,386,887
% of offering	.25	.32	.63	.69	.54
% of class expenditure	2.72	16.59	44.10	36.59	100.00
LIFE INSURANCE COS.					
value (dollars)	138,250	660,892	1,893,280	2,096,352	4,788,774
% of offering	.53	.53	1.14	1.65	1.09
% of class expenditure	2.89	13.80	39.54	43.78	100.00
SELF-ADMIN. EMPL. BENEFIT					
value (dollars)	263,250	1,513,277	1,200,608	2,483,715	5,460,850
% of offering	1.01	1.22	.72	1.96	1 24
% of class expenditure	4.82	27.71	21.99	45.48	100.00
TAX EXEMPT INSTITUTIONS					
value (dollars)	191,475	907,045	1,390,680	1,184,585	3,673,785
% of offering	.73	.73	.84	.93	.83
% of class expenditure	5.21	24.69	37.85	32.24	100.00
OTHER INSTITUTIONS					
value (dollars)	289,700	4,080,380	2,952,957	2,820,136	10,143,173
% of offering	1.11	3.80	1.78	2.22	2.30
% of class expenditure	2.86	40.23	29.11	27.80	100.00
HEDGE FUNDS					
value (dollars)	265,600	2,925,876	3,184,513	2,942,879	9,318,868
% of offering	1.01	2.37	1.92	2.32	2.11
% of class expenditure	2.85	31.40	34.17	31.58	100.00
OFF SHORE FUNDS					
value (dollars)	4,750	252,787	299,154	307,647	864,338
% of offering	.02	.20	.18	.24	.20
% of class expenditure	.55	29.25	34.61	35.59	100.00
OTHER BUSINESSES					
value (dollars)	514,150	1,305,665	1,892,913	1,265,856	4,978,584
% of offering	1.96	1.05	1.14	1.00	1.13
% of class expenditure	10.33	26.23	38.02	25.43	100.00
FOREIGN INSTITUTIONS					
value (dollars)	756,600	5,710,953	8,573,095	5,448,758	20,489,406
% of offering	2.89	4.62	5.19	4.30	4.64
% of class expenditure	3.69	27.87	41.84	26.59	100.00

1/ See note to Table XIV-5.

Table XIV–3 divides the 84 first offerings into five classes, one for each category of managing underwriter. These categories are based on the syndicate clusters described in appendix C. Institutional participation declines continuously as the category number increases. Whereas institutions took 50.63 percent of the category I offerings and 37.44 percent of the category II offerings, they took only 25.24 percent, 24.63 percent, and 22.12 percent of the offerings of categories III, IV, and V, respectively. Whereas category I issues accounted for only 6.75 percent of the value of the 84 offerings and category II issues for 37.66 percent, they accounted for 11.04 and 45.51 percent, respectively, of all institutional purchases of the 84 offerings. The emphasis on issues managed by categories I and II underwriters does not hold in the same degree for all classes of institutions. Banks, life insurance companies, employee benefit, and tax exempt institutions show the greatest inclination to purchase from these underwriters, although investment advisers are not far behind. At the other extreme, other institutions, other business, and foreign institutions participated heavily in offerings managed by category V underwriters, in each case devoting a larger fraction of their total expenditure to this class of offering than the fraction this class accounts for of the sample. The column at the right headed "TOTAL", shows the totals purchased by each class of institution. Banks and investment advisers account for the major share of institutional purchases, together accounting for 54 percent of all institutional purchases.

Tables XIV–4, 5, 6, and 7 classify institutional purchases according to the net worth, net income, aggregate sales, and number of years of positive earnings respectively, of the issuers. Institutional interest increases with the net worth of the issuers (Table XIV–4). Institutions particularly avoid issuers who are in a deficit position in regard to net worth. Banks and life insurance companies take monotonically [24] increasing percentages of the offerings as the issuers' net worths increase, while investment advisers reveal some preference for issuers whose net worth fall between zero and 1 million dollars.[25]

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[24] "A" varies montonically with "B" when "A" increase whenever "B" does.

[25] Tables XIV–5, 6, and 7 exclude the two real estate investment trusts in the sample to avoid distorting the findings.

Table XIV-7

INSTITUTIONAL PURCHASES OF FIRST OFFERINGS OF COMMON STOCK
CLASSIFIED BY NUMBER OF YEARS, POSITIVE EARNINGS OF THE ISSUING COMPANIES AND CLASS OF INSTITUTION

CLASS OF INSTITUTION	0	1	2	3	4	5	TOTAL
TOTAL OFFERING							
value (dollars)	53,252,500	35,122,500	15,245,000	24,684,000	45,218,782	267,611,656	441,134,438
% of total	12.07	7.96	3.46	5.60	10.25	60.66	100.00
ALL INSTITUTIONS							
value (dollars)	12,309,521	11,216,899	4,751,644	8,199,145	11,544,302	81,971,364	129,992,875
% of offering	23.12	31.94	31.17	33.22	25.53	30.63	29.47
% of class expenditure	9.47	8.63	3 66	6.31	8.88	63.06	100.00
BANKS (DOMESTIC)							
value (dollars)	3,741,592	2,686,083	738,680	1,808,705	3,776,518	24,300,301	37,051,879
% of offering	7.03	7.64	4.84	7.32	8.35	9.08	8.40
% of class expenditure	10.10	7.25	1.99	4.88	10.19	53.46	100 00
INVESTMENT ADVISERS							
value (dollars)	2,751,545	3,553,000	1,268,179	1,362,405	2,094,442	19,806,760	30,836,331
% of offering	5.17	10.11	8.31	5.51	4.63	7.40	7.00
% of class expenditure	8.92	11.52	4.11	4.42	6.79	64.23	100.00
PROP. & LIAB. INS. COS.							
value (dollars)	261,350	60,737	132,175	126,710	273,175	1,532,740	2,386,887
% of offering	.49	.17	.86	.51	.60	.57	.54
% of class expenditure	10.95	2.54	5.54	5.31	11.44	64.22	100.00
LIFE INSURANCE COMPANIES							
value (dollars)	251,575	506,925	54,485	284,560	298,292	3,392,937	4,788,774
% of offering	.47	1 44	.35	1.15	.65	1.26	1.09
% of class expenditure	5.25	10.59	1.14	5.94	6.23	70.85	100 00
SELF-ADMIN. EMPL. BENEFIT							
value (dollars)	369,710	285,800	551,150	184,510	311,860	3,757,820	5,460,850
% of offering	.69	.81	3.61	.74	.68	.140	1.24
% of class expenditure	6.77	5.23	10.09	3.38	5.71	68.81	100.00
TAX EXEMPT INSTITUTIONS							
value (dollars)	472,947	203,362	129,855	105,370	226,969	2,535,282	3,673,785
% of offering	.89	.57	.85	.42	.50	.94	83
% of class expenditure	12.87	5.54	3.53	2.87	6.18	69.01	100.00
OTHER INSTITUTIONS							
value (dollars)	665,975	594,092	292,705	2,354,500	801,164	5,434,737	10,143,173
% of offering	1.25	1.69	1.92	9.53	1.77	2.03	2.30
% of class expenditure	6.57	5.86	2.89	23.21	7.90	53.58	100.00
HEDGE FUNDS							
value (dollars)	624,845	940,305	701,100	375,705	929,200	5,747,713	9,318,868
% of offering	1.17	2.67	4.59	1.52	2.05	2.14	2.11
% of class expenditure	6.71	10.09	7.52	4.03	9.97	61.68	100.00
OFF SHORE FUNDS							
value (dollars)	72,817	44,000	110,800	11,075	66,400	559,246	864,338
% of offering	.14	.12	.72	.04	.14	.20	.20
% of class expenditure	8.42	5.09	12.82	1.28	7.68	64.70	100.00
OTHER BUSINESSES							
value (dollars)	824,020	299,020	277,970	426,135	797,072	2,354,367	4,978,584
% of offering	1.55	.85	1.82	1.72	1.76	.87	1.13
% of class expenditure	16.55	6.01	5.58	8.56	16.01	47.29	100.00
FOREIGN INSTITUTIONS							
value (dollars)	2,273,145	2,043,575	494,545	1,159,470	1,969,210	12,549,461	20,489,406
% of offering	4.27	5.81	3.24	4.69	4.35	4.68	4.64
% of class expenditure	11.09	9.97	2.41	5.66	9.61	61.25	100.00

2/ See note to Table XIV-5.

The other three measures of size, particularly the earnings measures, are somewhat less indicative of institutional preference for larger companies. Institutions purchased 23.12 percent of the offerings of companies with no record of earnings.

Tables XIV–8 and XIV–9 classify institutional purchases by the offering prices and offering prices relative to earnings. Institutions clearly avoid low priced issues. Issues offered at more than 20 dollars per share accounted for 43.82 percent of the entire sample. However, they accounted for 56.51 percent of purchases by banks, 54.90 percent of purchases by investment advisers, and 62.07 percent of the purchases by life insurance companies. Bank purchases classified by prices-relative-to earnings are fairly evenly spread among the various ranges. Investment advisers, however, are more conspicious in their preference for companies without earnings (for which a price-to-earnings ratio is unavailable), taking 11.07 percent of such offerings. They are least interested in issues having price-to-earnings ratios between 1 and 15, taking only 6.49 percent of such offerings.

TABLE XIV-8

Institutional Purchases of First Offerings of Common Stock Classified By Price of Issue and Class of Institution

CLASS OF INSTITUTION	Less than $7.0	$7.0-$11.9	$12.0-$19.9	Over $20.0	Total
TOTAL OFFERING					
value (dollars)	8,415,000	76,902,406	183,572,532	209,744,500	478,634,438
% of total	1.76	16.07	38.35	43.82	100.00
ALL INSTITUTIONS					
value (dollars)	590,273	15,709,939	51,826,978	80,130,110	148,257,300
% of offering	7.02	20.43	28.23	38.20	30.98
% of class expenditure	.40	10.60	34.96	54.05	100.00
BANKS (DOMESTIC)					
value (dollars)	119,656	2,834,916	15,185,396	23,540,686	41,680,654
% of offering	1.42	3.68	8.27	11.22	8.71
% of class expenditure	.29	6.80	36.44	56.51	100.00
INVESTMENT ADVISERS					
value (dollars)	177,250	2,909,413	12,231,581	22,877,587	38,195,831
% of offering	2.10	3.78	6.66	10.90	7.98
% of class expenditure	.46	7.61	32.01	59.90	100.00
PROP. AND LIAB. INS. COS.					
value (dollars)	2,687	159,747	948,116	1,347,587	2,458,137
% of offering	.03	.20	.51	.64	.51
% of class expenduture	.11	6.49	38.56	54.81	100.00
LIFE INSURANCE COS.					
value (dollars)	3,125	237,794	1,679,524	3,143,331	5,063,774
% of offering	.03	.30	.91	1.49	1.06
% of class expenditure	.06	4.69	33.15	62.07	100.00
SELF ADMIN. EMPL. BENEFIT					
value (dollars)	32,750	761,388	1,699,224	3,780,963	6,274,325
% of offering	.38	.99	.92	1.80	1.31
% of class expenditure	.52	12.12	27.06	60.25	100.00
TAX EXEMPT INSTITUTIONS					
value (dollars)	24,062	261,533	1,584,369	2,835,071	4,705,035
% of offering	.28	.34	.86	1.35	.98
% of class expenditure	.51	5.55	33.66	60.25	100.00
OTHER INSTITUTIONS					
value (dollars)	63,000	2,934,792	3,517,237	4,453,194	10,968,223
% of offering	.74	3.81	1.91	2.12	2.29
% of class expenditure	.57	26.75	32.05	40.59	100.00
HEDGE FUNDS					
value (dollars)	99,375	1,437,239	3,705,806	6,133,448	11,375,868
% of offering	1.18	1.86	2.01	2.92	2.38
% of class expenditure	.87	12.62	32.56	53.91	100.00
OFF SHORE FUNDS					
value (dollars)	3,750	88,096	482,218	480,274	1,054,338
% of offering	.04	.11	.26	.22	.22
% of class expenditure	.36	8.344	45.72	45.55	100.00
OTHER BUSINESSES					
value (dollars)	34,218	1,580,310	1,708,905	1,985,151	5,308,584
% of offering	.40	2.05	.93	.94	1.11
% of class expenditure	.64	29.76	32.17	37.39	100.00
FOREIGN INSTITUTIONS					
value (dollars)	30,400	2,504,711	9,084,602	9,552,818	21,172,531
% of offering	.36	3.25	4.94	4.55	4.45
% of class expenditure	.14	11.82	42.90	45.12	100.00

TABLE XIV-9

INSTITUTIONAL PURCHASES OF FIRST OFFERINGS OF COMMON STOCK
CLASSIFIED BY PRICE/EARNINGS RATIO
AND CLASS OF INSTITUTION

CLASS OF INSTITUTION	UNDEFINED	1 to 14.9	15 to 21.9	22 to 39.9	40 OR OVER	TOTAL
TOTAL OFFERING						
value (dollars)	92,065,000	38,655,156	102,778,032	157,823,250	81,313,000	478,634,438
% of total	19.23	8.08	21.47	32.97	18.24	100.00
ALL INSTITUTIONS						
value (dollars)	30,867,195	9,689,428	31,794,292	47,717,140	28,189,245	148,257,300
% of offering	33.53	25.07	30.93	30.23	32.33	30.98
% of class expenditure	20.82	6.53	21.45	32.19	19.01	100.00
BANKS (DOMESTIC)						
value (dollars)	8,412,242	3,350,223	9,315,613	13,517,577	7,084,999	41,680,654
% of offering	9.13	8.66	9.06	8.56	8.11	8.71
% of class expenditure	20.19	8.04	22.36	32.44	17.00	100.00
INVESTMENT ADVISERS						
value (dollars)	10,142,107	2,511,358	7,318,252	11,823,574	6,400,540	38,195,131
% of offering	11.01	6.49	7.12	7.49	7.33	7.98
% of class expenditure	26.55	6.57	19.15	30.95	16.75	100.00
PROP. AND LIAB. INS. COS.						
value (dollars)	338,850	236,500	533,077	904,911	444,799	2,458,137
% of offering	.36	.61	.51	.57	.50	.51
% of class expenditure	13.78	9.62	21.68	36.80	18.09	100.00
LIFE INSURANCE COS.						
value (dollars)	526,575	634,387	1,464,122	1,748,848	689,842	5,063,774
% of offering	.57	1.64	1.42	1.10	.79	1.06
% of class expenditure	10.40	12.53	28.90	34.53	13.62	100.00
SELF ADMIN. EMPL. BENEFIT						
value (dollars)	1,194,435	193,568	2,163,468	1,470,077	1,252,777	6,274,325
% of offering	1.29	.50	2.10	.93	1.43	1.31
% of class expenditure	19.03	3.08	34.47	23.42	19.96	100.00
TAX EXEMPT INSTITUTIONS						
value (dollars)	1,519,197	184,754	1,130,606	971,518	898,960	4,705,035
% of offering	1.65	.47	1.10	.61	1.02	.98
% of class expenditure	32.28	3.92	24.02	20.64	19.10	100.00
OTHER INSTITUTIONS						
value (dollars)	1,513,212	495,169	2,425,111	2,738,219	3,796,512	10,968,223
% of offering	1.64	1.28	2.35	1.73	4.34	2.29
% of class expenditure	13.79	4.51	22.10	24.95	34.60	100.00
HEDGE FUNDS						
value (dollars)	2,744,345	731,246	2,247,039	3,124,096	2,529,142	11,375,868
% of offering	2.98	1.89	2.18	1.97	2.89	2.38
% of class expenditure	24.12	6.42	19.75	27.45	22.23	100.00
OFF SHORE FUNDS						
value (dollars)	262,817	55,121	88,650	370,763	276,987	1,054,338
% of offering	.28	.14	.08	.23	.31	.22
% of class expenditure	24.92	5.23	8.40	35.16	26.27	100.00
OTHER BUSINESSES						
value (dollars)	1,189,645	297,110	1,299,026	1,312,829	1,209,974	5,308,584
% of offering	1.29	.76	1.26	.83	1.38	1.11
% of class expenditure	22.40	5.59	24.46	24.72	22.79	100.00
FOREIGN INSTITUTIONS						
value (dollars)	3,023,770	999,992	3,809,328	9,734,728	3,604,713	21,172,531
% of offering	3.28	2.58	3.70	6.16	4.12	4.42
% of class expenditure	14.28	4.72	17.99	45.97	17.02	100.00

Although there are differences among classes of institutions in this regard, the balance sheet and income statistics do not appear to be the major determinants of institutional interest in a given offering. Whatever relationships appear to exist between institutional purchases and financial data may be explained by the preference of the different groups of underwriters for certain characteristics. Although underwriters' preferences, in this regard, may also reflect their knowledge of institutional preferences. The data, however, cannot discriminate between the sources of preference. If there were no overlap between the financial characteristics of the issues underwritten by the various groups of underwriters, the question whether the financial characteristics of the issuers or identity of the underwriters determined institutional interest would be statistically moot. Fortunately, the sample of 84 offerings contains some overlap of underwriters and characteristics that permit discrimination between the competing explanations.

TABLE XIV-10

INSTITUTIONAL PURCHASES OF FIRST OFFERINGS OF COMMON STOCK CLASSIFIED BY SALES OF ISSUING COMPANY AND CLASS OF MANAGING UNDERWRITER

SALES (Thousands of Dollars)	1		2		3		4		5	
	NO. ISSUES	% TO INSTITUTIONS	NO. ISSUES	% TO INSTITUTIONS	NO. ISSUES	% TO INSTITUTIONS	NO. ISSUES	% TO INSTITUTIONS	NO. ISSUES	% TO INSTITUTIONS
0 - 99	0	0	1	65.541	2	25.152	2	24.822	6	16.756
100 - 999	0	0	0	0	0	0	0	0	4	10.261
1000 - 4,999	1	55.985	2	35.518	7	27.655	8	13.546	8	31.751
5,000 - 14,999	0	0	6	41.192	5	21.469	7	23.580	2	21.288
15,000 and Over	1	50.220	13	28.152	3	19.961	4	35.006	2	14.320

Table XIV–10 cross-classifies total institutional purchases by category of underwriter and sales of issuer.[26] Underwriters in categories I and II offered securities of only one issuer with sales of less than $100,000, which was a real estate investment trust. More than 65 percent of that offering was sold to institutions. The average percentage of the offerings in this class sold to institutions falls off as the number of managing underwriter category increases, from 25 percent for category III underwriters to 17 percent for category V underwriters. Categories I and II underwriters made three offerings of securities of issuers whose sales were between $1 million and $5 million. More than 55 percent of the offering of the category I underwriter's issue was sold to institutions. The issuer had less than $100,000 net earnings and its securities were sold at a price/earnings ratio of more than 100. However, it had a net worth in excess of $1 million.[27]

The two offerings of securities of issuers in this size class made by category II underwriters had an average institutional participation of more than 35 percent. The percentages of institutional participation in offerings by the three other classes of underwriters for this class of issuer are lower, although category V underwriters show a 31.75 institutional percent participation. In the next class of issuer, sales between $5 million and $15 million, there were 6 offerings by category II underwriters, with an average of 41 percent sold to institutions. The next highest percentage in this issuer size range sold to institutions was 24 percent, by category IV underwriters.

The institutional preferences shown in Table XIV–3 for the offerings of categories I and II managing underwriters result from two observable factors. One factor is the concentration of these underwriters in the offerings of larger issuers. While only 16.6 percent of the offerings by categories I and II underwriters represented issuers with less than five million in dollars sales, 61.6 percent of the offerings of the other three categories fell in this size range. However, for a given range of sizes of issuers, categories I and II underwriters sold in most cases a larger fraction of the offerings to institutions.

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[26] The difference described in this table would be more perceptible if instead of all institutional purchases the tables showed purchases by banks, investment advisers, or life insurance companies.

[27] Net worth is more strongly related to institutional purchases than are other size variables. This difference is consistent with the proposition that differences among underwriters are the main determinants of institutional participation. Companies associated with Category I and II underwriters tend to be better capitalized, partly as a result of venture capital support, than companies with comparable revenues whose securities are underwritten by the other categories of underwriters.

TABLE XIV-11

INSTITUTIONAL PURCHASES OF FIRST OFFERINGS OF COMMON STOCK CLASSIFIED BY EARNINGS OF ISSUING COMPANY AND CLASS OF MANAGING UNDERWRITER

Earnings (Thousands of Dollars)	1		2		3		4		5	
	No. Issues	% To Institutions	No. Issues	% To Institutions	No. Issues	% To Institutions	No. Issues	% To Institutions	No. Issues	% To Institutions
Deficit	0	0	2	60.987	2	25.152	3	25.067	7	14.501
0 - 99	1	55.985	1	48.822	2	40.774	2	9.573	5	32.676
100 - 999	0	0	9	34.872	8	21.584	14	20.876	10	22.312
1,000 and Over	1	50.220	10	30.836	5	22.320	2	36.327	0	0

Table XIV–11 also supports this conclusion for issuers with net earnings between $100,000 and $1 million. Category II underwriters made nine offerings with an average institutional participation of 35 percent. None of the other categories of underwriters had an average institutional participation of more than 23 percent for issuers of this size class. Table XIV–12 cross-classifies the offerings by category of managing underwriter and price/earnings ratio of issuer. Within each class, with one exception, categories I and II underwriters sell a larger fraction of the offerings to institutions.

A similar pattern emerges from a regression analysis relating institutional purchases by class of institution to categories of managing underwriter, sales of issuing company, and the Study's new issue price index (described in appendix A). The regressions consider the percentages of the offerings taken by the various classes of institutions in relation to the variables previously noted. The categories of managing underwriter are denoted by dummy variables. Each observation in a regression describes the institutional purchase of one issue, one associated dummy variable equal to 1 for the appropriate category of managing underwriter, the other dummy variables being set to zero, the value of the issuer's sales, and the value of the new issue price index for the month in which the offering occurred. Table XIV–13 gives the results of these regressions.[28] Only four classes of institutions are shown. Most of the other classes evidence less systematic behavior than the ones shown.

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[28] The table is read in the following way: The dependent variable is the percentage of a given offering that is purchased by a class of institution. There are a different set of parameters, one set per row of the table, for each class of institution. In part B the dependent variable is the percentage of a class' total expenditure on the 84 offerings that is spent on a given offering. The object of the regressions is to predict these percentages using the information contained in the independent variables. The coefficients attached to the four dummy variables, one for each of the first four categories of managing underwriter, are read in conjunction with the intercept term, which alone describes the coefficient of the implied fifth dummy variable. For example, the first row describes the basis for predicting the percentage of a particular offering purchased by banks. If the offering was managed by a category I underwriter, that fact accounts for 9.75 percent (6.51, the coefficient attached to the category I dummy variable, plus 3.24, the intercept) of the offering purchased by banks. Since neither the coefficient attached to "sales of issuer" nor the one attached to "new issue price index" is significantly different from zero, as manifested by the fact that the t-values (in parentheses below the coefficients) have absolute values less than 1.96, the regression has no additional basis for predicting the percentage of the offering purchased by banks. For category 5 issues purchased by life insurance companies, the regression predicts .54 percent, on the basis of the category plus .02 percent for each 100,000 dollars sales of issuer.

TABLE XIV-12

Institutional Purchases of First Offerings of Common Stock Classified By Price/Earnings Ratio of Issuing Companies and Class of Managing Underwriter

PRICE/EARNINGS RATIO	1		2		3		4		5	
	NO. ISSUES	% TO INSTITUTIONS	NO. ISSUES	% TO INSTITUTIONS	NO. ISSUES	% TO INSTITUTIONS	NO. ISSUES	% TO INSTITUTIONS	NO. ISSUES	% TO INSTITUTIONS
Undefined	0	0	2	60.987	2	25.152	4	24.929	7	14.501
0 - 9	0	0	0	0	1	8.552	3	12.692	0	0
10 - 14	0	0	2	33.292	2	34.613	1	28.285	1	9.502
15 - 24	1	50.220	11	29.439	2	11.493	6	20.921	7	13.813
25 and Over	1	55.985	7	38.144	10	26.952	7	29.951	7	32.572

TABLE XIV-13

Institutional Purchases of First Offerings in Relation to Category of Managing Underwriter, Sales of Issuing Company, and New Issue Price Index, 84 Offerings, January 1968 to June 1969

Percentage of Offerings Purchased by Class of Institution

Class of Institution		Category I	Category II	Category III	Category IV	Intercept	Sales of Issuer	New Issue Price Index	R^2 adjusted
Banks	Reg. Coef.	6.51	5.98	3.68	0.68	3.24	0.05	-0.00	0.170
	(t-value)	(1.49)	(3.36)	(2.06)	(3.24)	(2.07)	(1.26)	(-0.01)	
Investment Advisers	Reg. Coef.	7.85	4.18	2.48	1.43	5.98	-0.00	-0.09	0.093
	(t-value)	(1.91)	(2.48)	(0.89)	(4.03)	(4.03)	(-0.12)	(-2.14)	
Life Companies	Reg. Coef.	0.14	0.73	0.19	-0.03	0.54	0.02	-0.01	0.195
	(t-value)	(-0.20)	(2.56)	(0.68)	(-0.11)	(2.16)	(2.62)	(-0.90)	
Employee Benefit	Reg. Coef.	13.07	1.01	0.77	0.42	0.60	-0.03	0.00	0.663
	(t-value)	(12.77)	(2.41)	(1.83)	(1.04)	(1.62)	(-3.45)	(0.23)	

With one exception the values of the regression coefficients get smaller as the number of the managing underwriter category gets larger. Knowledge that a given offering was managed by a category I underwriter increases the predicted percentages relative to that for a category II underwriter; knowledge of a category II offering increases the percentage relative to that for a category III underwriter and so on. (An exception is life insurance companies purchasing category I offerings.) Most of the coefficients associated with categories of managing underwriters are statistically significant in that the t-values exceed 1.96. For banks and investment advisers, the size of the issuer, as reflected in sales, does not significantly affect the percentage of the offering purchased by the respective classes. The percentage purchased by life insurance companies, however, increased by 0.02 percent for each $100,000 of the issuers' sales.

The value of the new issue index had a significant effect only for investment advisers. The new issue index is a series of monthly averages of estimates of the one-week price change of all first offerings that appeared in the period January 1968 through June 1969. In the present context it is used as an indicator of the relative buoyancy [29] of the market for first offerings. The index is expressed as the average percentage change between the offering price and the after-market price one week after the initial offering for all the offerings in a given month. Investment advisers appear to purchase more than proportionately in less buoyant months. For each percentage point decline in the index they purchased 0.09 percent more of the offerings.

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[29] "Buoyancy" is used to denote higher than average price appreciation in the after-market. As used here, a buoyant market is one in which prices of first offerings have a strong tendency to rise in the after-market.

Chart 1

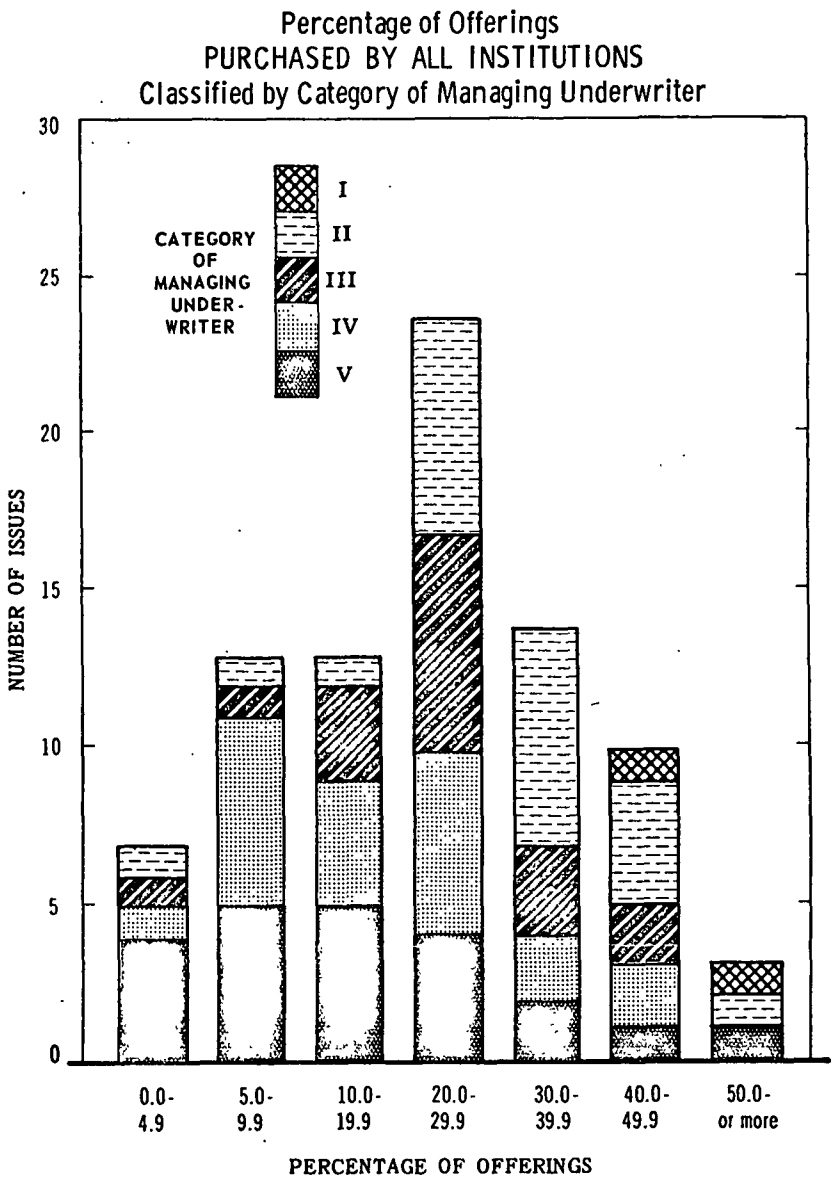

Percentage of Offerings
PURCHASED BY ALL INSTITUTIONS
Classified by Category of Managing Underwriter
CATEGORY OF MANAGING UNDER-WRITER
I
II
III
IV
V
NUMBER OF ISSUES
30
25
20
15
10
5
0
0.0-4.9
5.0-9.9
10.0-19.9
20.0-29.9
30.0-39.9
40.0-49.9
50.0-or more
PERCENTAGE OF OFFERINGS

Chart 2

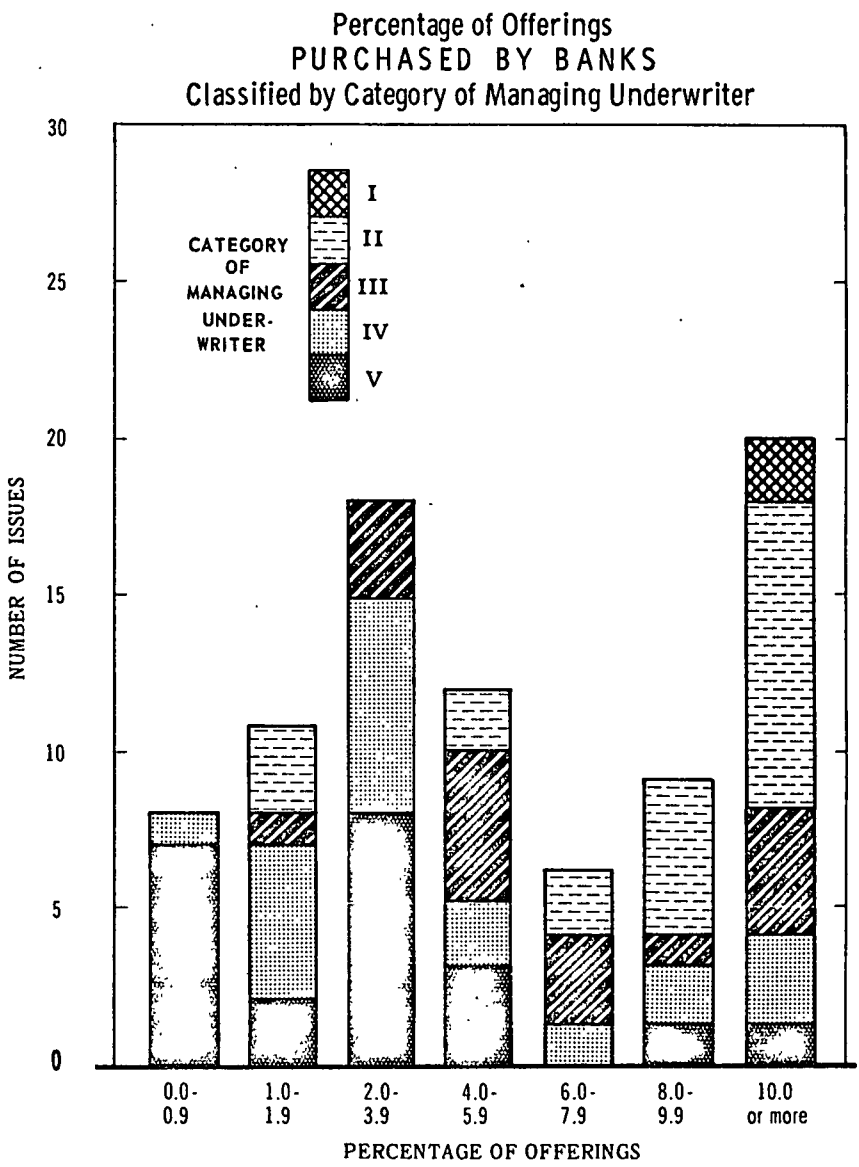
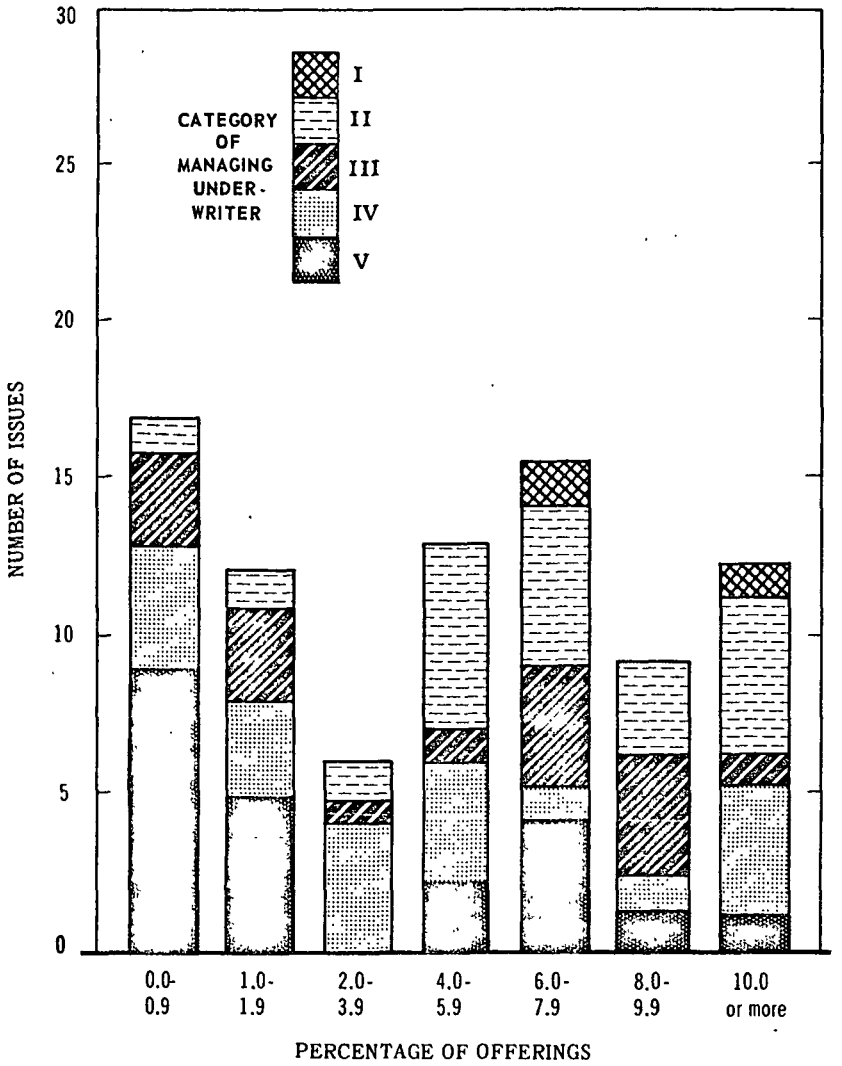

Percentage of Offerings
PURCHASED BY BANKS
Classified by Category of Managing Underwriter
CATEGORY OF MANAGING UNDER-WRITER
I
II
III
IV
V
NUMBER OF ISSUES
30
25
20
15
10
5
0
0.0-0.9
1.0-1.9
2.0-3.9
4.0-5.9
6.0-7.9
8.0-9.9
10.0 or more
PERCENTAGE OF OFFERINGS

Chart 3

Percentage of Offerings
PURCHASED BY INVESTMENT ADVISERS
Classified by Category of Managing Underwriter



Charts 1, 2, and 3 describe the percentages of the offerings purchased by all institutions, banks, and investment advisers, respectively, in relation to the categories of managing underwriters. The modal range for all institutions is between 20 percent and 30 percent of the offerings. Twenty-four of the 84 offerings fell in this range. In this range, seven of the offerings were managed by category II underwriters, seven by category III underwriters, six by category IV underwriters, and four by category V underwriters. Of the 33 offerings of which institutions purchased less than 20 percent, three were managed by category II underwriters and the remainder by underwriters in categories III, IV, and V. The modal range for banks (Chart 2) is 10 percent or more. Of the 20 offerings in this range, 12 were managed by categories I and II underwriters. Of the nine offerings in the 8 percent to 10 percent range of bank purchases at the offering, five were managed by category II underwriters. Of the remaining 55 offerings, seven were managed by category II underwriters and the remainder by underwriters in categories III, IV, and V. Of the eight offerings in the lowest range, 0 percent to 1 percent of the offering, seven were managed by underwriters in category V, and one by an underwriter in category IV. The percentages of the offerings purchased by investment advisers are more evenly distributed. However, of the 17 offerings of which investment advisers purchased less than 1 percent, only one was managed by an underwriter in category II, three by an underwriter in category III, four by underwriters in category IV, and nine by underwriters in category V.

TABLE XIV-14

INSTITUTIONAL PURCHASES OF FIRST OFFERINGS OF COMMON STOCK CLASSIFIED BY AFTER-MARKET PRICE CHANGE (FIRST MARKET PRICE) AND CLASS OF INSTITUTION

CLASS OF INSTITUTION	DECLINE	0% - 19%	20% - 49%	50%-100%	OVER 100%	TOTAL
TOTAL OFFERING						
value (dollars)	38,689,500	183,783,484	167,653,922	64,901,500	23,606,032	478,634,438
% of total	8.08	38.40	35.03	13.56	4.93	100.00
ALL INSTITUTIONS						
value (dollars)	9,740,776	62,251,550	52,916,457	18,340,558	5,007,959	148,257,300
% of offering	25.18	33.87	31.56	28.26	21.22	30.98
% of class expenditure	6.57	41.99	35.69	12.37	3.38	100.00
BANKS (DOMESTIC)						
value (dollars)	905,032	17,313,400	15,897,501	5,998,381	1,566,340	41,680,654
% of offering	2.33	9.42	9.48	9.24	6.63	8.71
% of class expenditure	2.17	41.55	38.16	14.39	3.73	100.00
INVESTMENT ADVISERS						
value (dollars)	5,197,305	16,391,054	11,475,368	4,202,250	929,854	38,195,831
% of offering	13.43	8.91	6.84	6.47	3.93	7.98
% of class expenditure	13.61	42.91	30.03	11.00	2.45	100.00
PROP. AND LIAB. INS. COS.						
value (dollars)	75,160	929,994	862,391	359,492	231,100	2,458,137
% of offering	.19	.50	.51	.55	.97	.51
% of class expenditure	3.06	37.82	35.08	14.62	9.42	100.00
LIFE INSURANCE COS.						
value (dollars)	67,100	1,876,973	2,245,826	704,490	169,385	5,063,774
% of offering	.17	1.02	1.33	1.08	.71	1.06
% of class expenditure	1.32	37.06	44.34	13.91	3.37	100.00
SELF ADMIN. EMPL. BENEFIT						
value (dollars)	368,725	3,610,418	1,447,630	597,692	249,860	6,274,325
% of offering	.95	1.96	.86	.92	1.05	1.31
% of class expenditure	5.87	57.53	23.06	9.52	3.98	100.00
TAX EXEMPT INSTITUTIONS						
value (dollars)	205,612	2,741,879	1,238,867	381,382	137,295	4,705,035
% of offering	.53	1.49	.73	.58	.58	.98
% of class expenditure	4.37	58.26	26.32	8.10	4.02	100.00
OTHER INSTITUTIONS						
value (dollars)	707,770	4,260,042	4,549,755	1,100,341	350,315	10,968,223
% of offering	1.82	2.31	2.71	1.69	1.48	2.29
% of class expenditure	6.45	38.82	41.47	10.03	3.19	100.00
HEDGE FUNDS						
value (dollars)	991,627	5,476,383	3,231,108	1,342,985	333,765	11,375,868
% of offering	2.56	2.97	1.92	2.06	1.41	2.38
% of class expenditure	8.71	48.13	28.39	11.80	3.23	100.00
OFF SHORE FUNDS						
value (dollars)	20,850	546,786	360,938	89,314	36,450	1,054,338
% of offering	.05	.29	.21	.13	.15	.22
% of class expenditure	1.98	51.85	34.23	8.47	3.47	100.00
OTHER BUSINESSES						
value (dollars)	415,235	1,597,847	1,614,828	1,141,024	539,650	5,308,584
% of offering	1.07	.86	.96	1.75	2.28	1.11
% of class expenditure	7.82	30.08	30.41	21.49	10.20	100.00
FOREIGN INSTITUTIONS						
value (dollars)	786,360	7,506,774	9,992,245	2,423,207	463,945	21,172,531
% of offering	2.03	4.08	5.96	3.73	1.96	4.42
% of class expenditure	3.71	35.45	47.18	11.44	2.22	100.00

TABLE XIV-15

Institutional Purchases of First Offerings of Common Stock Classified By One Week After-Market Price Change and Class or Institution

CLASS OF INSTITUTION	DECLINE	0% - 19%	20% - 49%	50% - 100%	OVER 100%	TOTAL
TOTAL OFFERING						
value (dollars	103,150,000	119,381,906	124,393,500	122,869,032	8,840,000	478,634,438
% of total	21.55	24.94	25.99	25.67	1.85	100.00
ALL INSTITUTIONS						
value (dollars)	33,247,896	38,490,901	33,775,992	41,162,722	1,579,789	148,257,300
% of offering	32.23	32.24	27.15	33.50	17.87	30.98
% of class expenditure	22.43	26.15	22.78	27.76	1.07	100.00
BANKS (DOMESTIC)						
value (dollars)	9,937,266	9,274,362	10,601,299	11,445,777	421,950	41,680,654
% of offering	9.63	7.76	8.52	9.31	4.77	8.71
% of class expenditure	23.85	22.26	25.44	27.47	1.01	100.00
INVESTMENT ADVISERS						
value (dollars)	8,466,445	12,586,172	8,381,811	8,633,199	128,204	38,195,831
% of offering	8.20	10.54	6.73	7.02	1.45	7.98
% of class expenditure	22.16	32.95	21.94	22.60	.33	100.00
PROP. AND LIAB. INS. COS.						
value (dollars)	157,515	768,674	787,564	690,184	54,200	2,458,137
% of offering	.15	.64	.63	.56	.61	.51
% of class expenditure	6.40	31.26	32.03	28.07	2.20	100.00
LIFE INSURANCE COS.						
value (dollars)	871,830	1,059,079	1,481,882	1,594,923	56,060	5,063,774
% of offering	.84	.88	1.19	1.29	.63	1.06
% of class expenditure	17.21	20.91	29.26	31.49	1.11	100.00
SELF. ADMIN. EMPL. BENEFIT						
value (dollars	1,160,641	2,273,292	950,322	1,725,020	165,050	6,274,325
% of offering	1.12	1.90	.76	1.40	1.86	1.31
% of class expenditure	18.49	36.22	15.13	27.48	2.63	100.00
TAX EXEMPT INSTITUTIONS						
value (dollars)	1,970,325	940,928	835,821	898,301	59,660	4,705,035
% of offering	1.91	.78	.67	.73	.67	.98
% of class expenditure	41.87	19.99	17.76	19.08	1.27	100.00
OTHER INSTITUTIONS						
value (dollars)	1,909,267	2,968,231	1,867,152	4,107,053	116,520	10,968,223
% of offering	1.85	2.48	1.50	3.34	1.31	2.29
% of class expenditure	17.4	27.05	17.01	37.43	1.06	100.00
HEDGE FUNDS						
value (dollars)	3,442,192	2,541,913	2,385,974	2,919,014	86,775	11,375,868
% of offering	3.33	2.12	1.91	2.37	.98	2.38
% of class expenditure	30.25	22.33	20.97	25.65	.76	100.00
OFF SHORE FUNDS						
value (dollars)	352,517	252,173	118,054	329,594	2,000	1,054,338
% of offering	.34	.21	.09	.26	.02	.22
% of class expenditure	33.43	23.91	11.19	31.25	.19	100.00
OTHER BUSINESSES						
value (dollars	803,397	1,042,843	1,069,401	1,989,893	403,050	5,308,584
% of offering	.77	.87	.85	1.61	4.55	1.11
% of class expenditure	15.125	19.64	20.13	37.47	7.59	100.00
FOREIGN INSTITUTIONS						
value (dollars)	4,176,501	4,783,234	5,296,712	6,829,764	86,320	21,172,531
% of offering	4.04	4.00	4.25	5.55	.97	4.42
% of class expenditure	19.72	22.59	25.01	32.25	.41	100.00

TABLE XIV-16

Institutional Purchases of First Offerings of Common Stock Classified By One-Month Price Change and Class of Institution

CLASS OF INSTITUTION	DECLINE	0% - 19%	20%-49%	50%-100%	Over 100%	Total
TOTAL OFFERING						
value (dollars)	153,983,922	60,156,250	132,472,750	101,571,484	30,450,032	478,634,438
% of total	32.17	12.57	27.68	21.22	6.36	100.00
ALL INSTITUTIONS						
value (dollars)	51,595,736	19,798,728	36,749,787	34,961,445	5,151,604	148,257,300
% of offering	33.51	32.91	27.74	34.42	16.92	31.0
% of class expenditure	34.80	13.35	24.79	23.58	3.48	100.00
BANKS (DOMESTIC)						
value (dollars)	13,375,641	6,281,212	9,972,413	10,828,118	1,223,270	41,680,654
% of offering	8.68	10.44	7.52	10.66	4.01	8.71
% of class expenditure	32.10	15.08	23.95	25.99	2.93	100.00
INVESTMENT ADVISERS						
value (dollars)	14,725,008	4,282,863	10,666,407	7,599,154	922,399	38,195,831
% of offering	9.56	7.11	8.05	7.48	3.02	7.98
% of class expenditure	38.55	11.21	27.92	19.89	2.41	100.00
PROP. AND LIAB. INS. COS.						
value (dollars)	450,840	474,949	788,802	631,646	111,900	2,458,137
% of offering	.29	.78	.59	.62	.36	.51
% of class expenditure	18.33	19.32	32.08	25.69	4.55	100.00
LIFE INSURANCE COS.						
value (dollars)	1,341,292	329,074	1,858,525	1,350,943	183,940	5,063,774
% of offering	.87	.54	1.40	1.33	.60	1.06
% of class expenditure	26.48	6.49	36.69	26.67	3.63	100.00
SELF ADMIN. EMPL. BENEFIT						
value (dollars)	2,882,351	536,552	843,257	1,743,985	268,180	6,274,325
% of offering	1.87	.89	.63	1.71	.88	1.31
% of class expenditure	45.93	8.54	13.43	27.79	4.27	100.00
TAX EXEMPT INSTITUTIONS						
value (dollars)	2,395,183	409,214	985,940	795,053	119,645	4,705,035
% of offering	1.55	.68	.74	.78	.39	.98
% of class expenditure	50.90	8.69	20.95	16.89	2.54	100.00
OTHER INSTITUTIONS						
value (dollars)	3,417,366	1,303,228	4,124,521	1,681,353	441,755	10,968,223
% of offering	2.21	2.16	3.11	1.65	1.45	2.29
% of class expenditure	31.15	11.88	37.59	15.32	4.02	100.00
HEDGE FUNDS						
value (dollars)	5,019,703	1,253,140	2,303,665	2,370,415	428,945	11,375,868
% of offering	3.25	2.08	1.73	2.33	1.40	2.38
% of class expenditure	44.12	11.01	20.24	20.83	3.77	100.00
OFF SHORE FUNDS						
value (dollars)	359,208	273,742	113,002	295,836	12,550	1,054,338
% of offering	.23	.45	.08	.29	.04	.22
% of class expenditure	34.06	25.96	10.71	28.05	1.19	100.00
OTHER BUSINESSES						
value (dollars)	1,311,270	577,156	1,386,405	1,068,918	964,835	5,308,584
% of offering	.85	.95	1.04	1.05	3.16	1.11
% of class expenditure	24.69	10.86	26.11	20.13	18.17	100.00
FOREIGN INSTITUTIONS						
value (dollars)	6,317,874	4,077,598	3,706,850	6,596,024	474,185	21,172,531
% of offering	4.10	6.77	2.79	6.49	1.55	4.42
% of class expenditure	29.83	19.25	17.50	31.15	2.23	100.00

Table XIV-17

Institutional Purchases of First Offerings of Common Stock
Classified By After-Market Price Change (3-Month) and Class of Institution

CLASS OF INSTITUTION	DECLINE	0% - 19%	20% - 49%	50%-100%	OVER 100%	TOTAL
TOTAL OFFERING						
value (dollars)	167,153,922	38,406,250	146,869,500	50,518,234	75,686,532	478,634,438
% of total	34.92	8.02	30.68	10.56	15.81	100.00
ALL INSTITUTIONS						
value (dollars)	52,975,344	13,043,197	50,038,027	11,596,277	20,604,455	148,257,300
% of offering	31.69	33.96	34.07	22.96	27.22	30.98
% of class expenditure	35.73	8.80	33.75	7.82	13.90	100.00
BANKS (DOMESTIC)						
value (dollars)	13,721,231	4,143,667	15,456,793	3,792,574	4,566,389	41,680,654
% of offering	8.20	10.78	10.52	7.50	6.02	8.71
% of class expenditure	32.93	9.94	37.10	9.10	10.95	100.00
INVESTMENT ADVISERS						
value (dollars)	15,238,316	3,252,719	13,465,523	2,618,121	3,621,152	38,195,831
% of offering	9.11	8.46	9.16	5.18	4.78	7.98
% of class expenditure	39.89	8.51	35.25	6.85	9.47	100.00
PROP. AND LIAB. INS. COS.						
value (dollars)	601,290	249,225	748,792	429,327	429,503	2,458,137
% of offering	.35	.64	.50	.84	.56	.51
% of class expenditure	24.46	10.13	30.45	17.46	17.47	100.00
LIFE INSURANCE COS.						
value (dollars)	1,642,387	249,825	2,074,992	459,538	637,032	5,063,774
% of offering	.98	.65	1.41	.90	.84	1.06
% of class expenditure	32.43	4.93	40.97	9.07	12.57	100.00
SELF ADMIN. EMPL. BENEFIT						
value (dollars)	2,843,304	307,564	1,513,695	728,045	881,717	6,274,325
% of offering	1.70	.80	1.03	1.44	1.16	1.31
% of class expenditure	45.31	4.90	24.11	11.60	14.04	100.00
TAX EXEMPT INSTITUTIONS						
value (dollars)	2,499,538	379,909	1,160,860	257,068	407,660	4,705,035
% of offering	1.49	.98	.79	.50	.53	.98
% of class expenditure	53.11	8.07	24.66	5.46	8.66	100.00
OTHER INSTITUTIONS						
value (dollars)	3,412,058	648,795	2,913,845	807,280	3,186,245	10,968,223
% of offering	2.04	1.68	1.98	1.59	4.20	2.29
% of class expenditure	31.10	5.91	26.56	7.35	29.04	100.00
HEDGE FUNDS						
value (dollars)	4,958,633	1,033,040	2,853,589	883,493	1,647,113	11,375,868
% of offering	2.96	2.68	1.94	1.74	2.17	2.38
% of class expenditure	43.58	9.08	25.07	7.76	14.47	100.00
OFF SHORE FUNDS						
value (dollars)	363,146	74,329	347,207	64,377	205,279	1,054,338
% of offering	.21	.19	.23	.12	.27	.22
% of class expenditure	34.44	7.04	32.93	6.10	19.46	100.00
OTHER BUSINESSES						
value (dollars)	1,202,522	388,562	1,544,356	456,213	1,716,931	5,308,584
% of offering	.71	1.01	1.05	.90	2.26	1.11
% of class expenditure	22.64	7.31	29.08	8.59	32.33	100.00
FOREIGN INSTITUTIONS						
value (dollars)	6,492,919	2,315,562	7,958,375	1,100,241	3,305,434	21,172,531
% of offering	3.88	6.02	5.41	2.17	4.36	4.42
% of class expenditure	30.66	10.93	37.58	5.19	15.60	100.00

Tables XIV–14 through XIV–17 show institutional purchases of first offerings classified by the percentage changes in prices between the offering and the first market quote, the first week, the first month, and the first three months, respectively. By value,[30] 8.08 percent of the offerings in the sample had market prices at the time of the first market quote that were lower than the initial offering prices. Only investment advisers and hedge funds allocated more than 8.08 percent of their total expenditure on the sample offerings, 13.61 percent and 8.71 percent, respectively, on offerings in this class. A comparison between the rows labeled "% of class expenditure" for each class of institution and the row labeled "% of total" under the heading "Total Offering" shows the distribution of expenditures by each class of institution with respect to after market price-appreciation relative to the corresponding distribution of the entire sample. The distribution for all institutions, taken as a group, corresponds quite closely with that of the sample, except for slightly less activity in the offerings that declined and the offerings that rose more than 100 percent. Investment advisers and hedge funds did not do as well as the sample and property and casualty companies did better. Table XIV–15 indicates that the distribution of institutional purchases corresponds with that of the sample in regard to price changes one week after the respective offerings. Hedge funds, offshore funds, and tax-exempt institutions allocated disproportionately larger percentages of their total expenditures on offerings that declined within one week of their respective offerings. Tax exempt institutions allocated 41.87 percent of all their expenditures on the sample offerings to offerings that declined in the first week. This expenditure accounted for 1.91 percent of the value of these offerings.

The distribution of institutional purchases corresponds also with that of the sample in regard to price changes one month after the respective offerings (Table XIV–16). Institutions as a group purchased proportionately more of the declining issues. The figures for price changes three months after the respective offerings (Table XIV–17) indicate similar relationships between the distribution of institutional purchases and the distribution of the total sample in regard to after-market price changes.

b. Conclusions with respect to determinants of institutional purchases

The analysis of the characteristics of the offerings purchased by the various classes of institutions leads to the following conclusions:

(i) The membership of the underwriting syndicate on average appears to be the most important determinant of the extent of institutional participation in any given first offering. The Study tested this proposition by classifying the managing underwriters in accordance with their usual position in syndicate clusters. Other classifications, in particular the size of a given underwriter's total institutional business, are possible, but it is unlikely that any other reasonable scheme of classification would overturn this conclusion. The Study is unable, however, to determine whether the importance of the class of underwriter to the size of institutional participation is due to the putative quality of the underwriters' offerings or to the continuation of busi-

[30] All percentage figures are in terms of value.

ness relationships established in other areas of contact. In either case no insidious finding is implied.

(ii) The inclination of institutions on average to purchase a larger fraction of the offerings of more established issuers is explained in large part by the fact that the larger issuers are more often underwritten by the more established underwriters. When the influence on institutional purchases of the category of underwriters is separately accounted for, little of the remaining variation of institutional purchases (i.e., unexplained by the category of underwriter) is explained by the size of the issuer. Two observations may be made concerning this point. First, institutions purchase the offerings of the prominent underwriters regardless of the size of the issuers. Second, institutions do not purchase, on average, large amounts of the offerings of large issuers when these offerings are not underwritten by the more prominent underwriters. This conclusion is less true of life insurance companies, who tended to purchase relatively less of the offerings underwritten by the prominent underwriters on behalf of smaller issuers and relatively more of offerings underwritten by the less prominent underwriters on behalf of larger issuers. While the category of underwriter was by no means unrelated to purchases by life insurance companies, it did not entirely supplant the influence of the size of the issuer.[31]

The finding that the size of the issuer does not have a significant influence on the extent of institutional purchases does not imply institutional indifference to the quality of the issue. Even the larger issuers involved in first offerings are usually small by the standards of companies with securities listed on the major stock exchanges. The relationship between size of issuer and quality of offering is tenuous in the market for first offerings. Among issuers involved in first offerings, the quality of the management is represented to be the paramount concern of institutional investors. This quality, however, is not manifest in the issuer's financial statistics. The amount of stock an institution can ordinarily expect to receive in a popular offering is too small to cover the costs of an intensive investigation of the offering. The institution has little alternative, therefore, but to rely on the reputation of the underwriters. Whether the reputations of the underwriters they rely on are justified by the performance of their offerings is an empirical question the Study has not explored.[32]

(iii) Institutions in the aggregate do not appear to have received disproportionate quantities of offerings that experienced unusual appreciation in the after-market. In this context proportionality can be measured as the corresponding percentages of all offerings and of all institutional purchases accounted for by all offerings and all institu-

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[31] The sample included four offerings of issuers whose net worth exceeded $10 million. Three of the offerings were underwritten by categories I and II underwriters and one by a category III underwriter. The three offerings accounted for 18.8 percent of total expenditures by life companies on the total sample. The fourth, underwritten by a large category III firm, accounted for 1.9 percent of the life companies' total purchases.

[32] It is possible that a more detailed investigation of the financial characteristics of a larger sample of issuers in conjunction with information on institutional purchases would modify this conclusion. It is unlikely, however, that any financial analyses can entirely replace the subjective element in the evaluation of first offerings. Moreover, the reliance on the reputation of the underwriter does not imply any abdication of responsibility. The substitution of their reputation for the relative obscurity of the issuer in regard to the investing public has been one of the traditional roles of investment bankers.

tional purchases with a given level of price appreciation. This conclusion is discussed in a different context below.

2. Influence of Brokerage

Of the 23,596 institutional transactions at the offering price in the 84 first offerings, 62.6 percent involved 100 or less shares; 22.3 percent between 101 and 300 shares; 6.9 percent between 301 and 500 shares; 4.2 percent between 501 and 1,000 shares; 3.4 percent between 1,001 and 5,000 shares; and 0.7 percent more than 5,000 shares. This concentration, in what for most institutions are small transactions, limits the validity of any theories that give undue stress to reciprocity as an explanation for the methods of allocating first offerings.

The tendency of underwriters to divide a popular offering into many small lots illustrated in Table XIV–1, suggests that no smooth relationship exists between brokerage paid by a particular institution to a particular underwriter and that institution's purchase of first offerings from the underwriter. Institutions of varying sizes and with varying brokerage relationships with an underwriter may all receive in the neighborhood of 100 shares of a popular offering. Purchases of similar size, therefore, will be associated with a much greater dispersion of brokerage.[33] This finding is reinforced by the Study's analysis of the observable relationship between the brokerage paid by particular institutions to certain underwriters and the value of the first offerings received by these institutions from these underwriters.

An institution's allocation of brokerage depends on a variety of factors, including research received, competence in execution, other services, and a variety of reciprocal relationships. Because of the limited quantites available of the most sought-after offerings, the receipt of first offerings is not likely to be among the more important determinants of brokerage allocation.[34] Also, apart from the magnitude of the importance of brokerage, there is the question of its stability, (*i.e.*, does the receipt of first offerings systematically account for 5 percent, 2 percent, or 1 percent of brokerage allocation?). This question includes both the actual stability of the relationship between a given underwriter and a given institution and the stability of the *observed* relationship among all underwriters and institutions. Unless one attempts to specify the factors that explain the total allocation of brokerage and of first just offerings the danger is greater that the variation of the omitted variables will swamp the relatively meager effect of first offerings. Due to the limited scope of the Study, the analysis in this chapter does not include the effects of other factors explaining the allocation of brokerage.

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[33] While the difference in dispersion does not itself vitiate the relationship, it does expose any constancy in the true relationship to the distorting effects of other influences that are not subsumed in the analysis. For example, the difference between two institutions' willingness to purchase unpopular issues can swamp the effect of large differences in brokerage payment on the much smaller differences (if any) in the size of their purchase of first offerings.

[34] To the extent prospective rather than past brokerage influences the allocation of first offerings an analysis based on current brokerage will not be fruitful. While it is possible to relate sales of first offerings in one period to brokerage paid in a subsequent period, this relationship would test the underwriters success in using the allocations of offerings to attract brokerage business rather than the existence of such a relationship. Moreover, apart from brokerage payments, institutions may attract popular first offerings through their willingness to purchase less popular first offerings, as well as the offerings of publicly-owned companies.

To examine the relationship between brokerage payments and the distribution of first offerings the Study assembled data on 111 broker-dealers and 133 institutions. Each of the 111 broker-dealers had brokerage and first offering transactions with at least one of the 133 institutions and each of the 133 institutions had brokerage and first offering transactions with at least one of the 111 broker-dealers.[35] From the almost 15,000 (111 times 133) potential paired relationships, the Study had data on either (or both) brokerage and first offering transactions for 2,434 pairs. For each pair the Study has information on the first offerings in the Study's sample of 84 issues purchased (including zero purchases) by the institution from the broker-dealer and the brokerage paid (including zero brokerage) by the institution the broker-dealer—both for the period January 1968 through June 1969. These data formed the basis for the Study's test to determine whether a relationship exists between purchases of first offerings and payments of brokerage between a given institution and a given broker-dealer.

The Study's method ranked the 2,434 paired relationships between broker-dealers and institutions from the highest to the lowest value of brokerage paid by each institution to its paired broker-dealer. The ranked series was divided into deciles, that is, 10 classes each with approximately 243 pairs, the first decile having 243 pairs with the largest brokerage payments, and so on. In this way each pair was identified with a particular brokerage decile. The 2,434 pairs were then ranked in accordance with the values of first offerings sold by the broker-dealers in each pair to the corresponding institutions. Decile classes were established for this variable, and each pair was assigned to a particular decile for first offerings. Thus each pair was assigned to a unique decile in regard both to brokerage and first offerings.

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[35] Both groups were selected from a larger population for which the Study had data. The cases where the broker-dealers in the larger population had neither a brokerage nor a first offering relationship with any of the institutions in the larger population, as well as the corresponding cases of institutions in the larger population having no relationship with broker-dealers in the larger population constitute no statistical problem. However, exclusion of institutions and broker-dealers who had either brokerage or first offering (but not both) transactions with members of the opposite population does bias the results since, if included, these observations would reduce the prospects of finding a significant relationship between brokerage and first offerings. The exclusions were made in order to simplify the data processing. Since the exclusions largely consist of smaller institutions and broker-dealers, the bias is not great.

TABLE XIV-18

Decile Rankings of broker-dealer-Institution Combinations in Regard to Transactions in Brokerage and First Offerings, January 1968 to June 1969

DECILES OF BROKERAGE PAYMENT

DECILES OF VALUES OF FIRST OFFERINGS	1	2	3	4	5	6	7	8	9	10	TOTAL
1	58	38	31	33	23	17	9	12	14	8	243
2	37	36	23	24	30	20	19	19	15	20	243
3	33	26	29	19	31	28	22	17	16	23	244
4	30	28	33	19	25	20	25	18	17	28	243
5	20	19	23	36	23	22	33	27	27	14	244
6	20	25	26	33	19	22	21	26	20	31	243
7	17	20	20	16	23	26	28	31	31	31	243
8	12	15	16	26	28	32	25	32	32	26	244
9	13	17	25	17	20	25	36	23	34	33	243
10	3	19	18	20	22	31	25	39	37	30	244
TOTAL	243	243	244	243	244	243	243	244	243	244	2,434

Table XIV–18 consists of a 10 by 10 grid, showing the number of pairs at the intersection of two decile classes. For example, 58 pairs belonged to the first decile in regard both to brokerage and first offerings; 33 pairs belonged to the third decile of brokerage and the fourth decile of first offerings. If the relationship between brokerage and first offerings was perfect, that is, if brokerage payments by a given institution to a given broker-dealer were entirely explained by the first offerings received by that institution from that broker-dealer, all non-zero observation would be along the diagonal. The highest values of brokerage would be associated with the highest values of first offerings, and so on. At the other extreme, if no relationship existed between brokerage and first offerings, the observations would vary randomly around the values of 24.5. Of course, even at these extremes chance, occurrence would vitiate the perfect symmetry. As Table XIV–18 indicates, the relationship is at best poorly defined. While there is some tendency for the observations to group around the diagonal, particularly in the case of the higher deciles, there are clearly other factors acting on either variable.[36]

Using the 2,434 ungrouped observations, the Study regressed the value of first offerings received by each institution from each broker-dealer on the brokerage payment for the corresponding pair and obtained the following result:

Value of first offerings = \$14,240 plus .0081 (brokerage payment)
$R^2 = .0083$ (13.33) (3.87)

The weak relationship described in Table XIV–18 is confirmed in the regression. The adjusted coefficient of determination is less than 1 percent. However as in the table, a perceptible relationship does exist, which the *t*-value (in parentheses) indicates is statistically significant. However, the likelihood that a given institution will purchase offerings from a given broker-dealer depends partly on the value of that institution's total purchases of first offerings, as well as on the value of that broker-dealer's total sales of first offerings. The more involved the institution and the broker-dealer are in first offerings, the more likely will their paths cross apart from any other consideration. To meet this point, the Study supplemented the regression described above with data for each paired observation on the value of all first offerings (among the sample of 84 issues) sold by the broker-dealer in the pair to any of the 133 institutions in this sample, as well as the value of all first offerings (among the sample of 84 issues) purchased by the institution in the pair from any of the 111 broker-dealers in this sample. The result of this regression is as follows:

Value of first offerings purchased by institution i from broker-dealer j = \$ −7.203 plus .0135 (value of j's total sales) plus .0191
(−4.31) (11.29) (13.17)
(value of i's total purchases) plus .0031 (brokerage paid by i to j) R^2 = .1364
(1.54)

[36] The statistical significance of the relationship can be tested with a chi-square test. However, the regressions shown below obviate this test. The table itself is a convenient guide to the distribution of the numbers, a factor that helps in the interpretation of the regression results.

When the extent of the total participations of institutions and broker-dealers are separately accounted for, the brokerage exchanged within a pair has a statistically insignificant effect on the value of first offerings exchanges within the pair.[37]

The Study is, therefore, unable to reject the null hypothesis that the brokerage paid by a given institution to a given broker-dealer is unrelated to the first offerings received by the institution from the broker-dealer when the overall participation in first offerings of the two entities is separately accounted for.

It is nevertheless true that the amount of first offerings purchased by an institution is strongly related to the total amount it pays out in brokerage, i.e., institutions which purchase large amounts of publicly traded securities also purchase relatively large amounts of securities issued in first offerings. The regressions below relate the purchases of first offerings and the potential one-week dollar gain on these purchases to the brokerage paid out by each institution. The regressions were run separately for banks, investment advisers, and life insurance companies, with observations of 47, 38, and 17 respectively.

The following symbols are used for convenience:

V = value of purchases of the 84 stocks in the sample at the offering by each institution, January 1968–June 1969

B = brokerage paid out by that institution, January 1968–June 1969

G = the price change in the first week of the after-market for each issue purchased by the given institution multiplied by the number of corresponding shares purchased. (If the shares were held for at least one week, the figure would measure the unrealized gain at the end of one week).

(Note: t-values are given in parentheses.)

Banks

$V = 49,336 + .036B \qquad R^2adj = .56$
$\quad (.172) \quad (7.76)$

$G = 15,396 + .011B \qquad R^2adj = .56$
$\quad (.172) \quad (7.72)$

Investment Advisers

$V = 91,983 + .033B \qquad R^2adj = .32$
$\quad (.166) \quad (4.30)$

$G = 20,729 + .011B \qquad R^2adj = .40$
$\quad (.134) \quad (4.89)$

Life Insurance Companies

$V = 18,149 + .038B \qquad R^2adj = .10$
$\quad (.142) \quad (1.66)$

$G = -2,369 + .018B \qquad R^2adj = .37$
$\quad (-.083) \quad (3.20)$

The results of the regressions indicate that the value of an institution's purchases of the 84 first offerings varied on average at the rate of about $35 of offerings for each $1,000 brokerage. The average rates varied among the three classes of institutions, from $33 per $1,000 for investment advisers to $38 per $1,000 for life insurance compa-

[37] The level of significance is .05 throughout this chapter. That is, the probability is .05 that a variable erroneously will be deemed statistically insignificant. To be deemed significantly different from zero at the .05 level, the regression coefficient must have a t-value greater than or equal to 1.96.

nies. Taking the price one week in the after-market for the respective offerings and computing the dollar gain (or loss) from the offering price to that one-week price, the regressions indicate that on average the institutions enjoyed potential unrealized gains of $11 per $1,000 brokerage, in the case of banks and investment advisers, and $18 per $1,000 brokerage, in the case of the life insurance companies.

Since the amounts of brokerage used for these regressions constitute the full brokerage [38] paid between January 1968 and June 1969, inclusive while, the values of first offerings purchased comprise only the purchases from the sample of 84 offerings, the relationships described above understate the value of offerings purchased per $1,000 of brokerage. In an analysis described later in this chapter the Study estimates that its sample covers approximately 20 percent of institutional purchases of first offerings in this period.[39] Multiplying the purchase and the dollar-gain figures by five yields an estimate of the approximate relationship between these variables and brokerage over the sample period.[40]

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[38] The brokerage variable used for this purpose included free brokerage, as well as designated brokerage. It comprised all brokerage paid, regardless of whether the broker-dealer recipient appeared in the sample of underwriters.

[39] The estimate of the sample's coverage is based on a complex procedure that is described later.

[40] The projections were not made separately for each institution.

TABLE XIV-19

Average purchases of First Offerings Relative to Brokerage Paid by a sample 1/ of Banks, Investment Advisers, and Life Insurance Companies, January 1968 - June 1969

	BANKS	INVESTMENT ADVISERS	INSURANCE COMPANIES
Actual Purchases	$15,378,000	$16,900,000	$1,319,000
Potential Dollar Gain (one week)	4,770,000	5,033,000	438,000
Estimated Purchases 2/	76,890,000	84,500,000	6,595,000
Estimated Potential Dollar Gain 2/	23,850,000	25,165,000	2,190,000
Brokerage Paid	360,584,000	403,522,000	26,724,000
Actual Purchases/Brokerage	4.27%	4.19%	4.94%
Estimated Purchases/ Brokerage	21.32%	20.94%	24.68%
Actual Dollar Gain/ Brokerage	1.32%	1.25%	1.64%
Estimated Dollar Gain/ Brokerage	6.61%	6.24%	8.19%

(1) The sample includes 47 banks, 38 Investment Advisers, and 17 Life Insurance Companies

(2) The basis for the projections are described in the text.

Table XIV–19 shows the percentages of purchases of first offerings and potential dollar gain to brokerage paid on the basis of both the sample observations and the estimates for the whole population of issues.[41] The percentages of the actual purchases of first offerings relative to the brokerage paid by all institutions in the respective classes are 4.27 percent, 4.19 percent, and 4.49 percent for banks, investment advisers, and life insurance companies, respectively. The equivalent estimated figures are 21.32 percent, 20.94 percent, and 24.68 percent, respectively.[42] The projected potential dollar-gain percentages are 6.61 percent, 6.24 percent, and 8.19 percent for banks, investment advisers, and life insurance companies, respectively.

These estimates suggest that institutions on average are exposed to a potential dollar gain within one week of their purchases of first offerings equal to 6 percent of the value of the brokerage they pay out. Several caveats are necessary in connection with the foregoing estimates and any inference to be drawn from them.

First, the volume of brokerage an institution pays out is somewhat related to the value of assets it manages. (This relationship is stronger for the larger institutions considered in these estimates, since the turnover of assets managed varies less for most larger institutions.) Large institutions purchase most types of securities. The figures described above do not suggest that their purchases of first offerings are disproportionate to their overall activity. To determine whether institutional purchases of first offerings were disproportionate, that is to say whether institutions were favored by broker-dealers in the allocation of first offerings as compensation for other business, the Study compared the fraction of total brokerage accounted for by the institutions in the sample under consideration with the fraction of total first offerings that these institutions were estimated to have purchased. For this purpose the Study estimated the total brokerage received by NYSE member firms from all agency transactions. The Study's estimate for the period January 1968 through June 1969 was $4.8 billion. Table XIV–20 lists the percentages of total brokerage and first offerings accounted for by the institutions previously considered. The institutions accounted for approximately three times as much of the total brokerage as they did of the first offerings. Therefore, relative to brokerage payments, these institutions cannot be said to have obtained a disproportionate fraction of the first offerings during this period. Of course, there may be many different measures of proportionality. It might be possible to compare an institution's purchases of first offerings with their purchases of over-the-counter stocks already outstanding.

There are, unfortunately, no adequate volume figures available on total trading in over-the-counter stocks with which to compare the institution's activity in the market for first offerings. Moreover, first offerings account for a very small fraction of total institutional activity. Using very rough estimates of gross purchases of stock by the institutions under consideration, the Study estimates that first offerings

[41] The percentages are computed by summing the purchase (and dollar-gain) figures for each institution in the respective classes and dividing these sums by the sum of the brokerage figures. The percentages differ from the regression coefficients reported earlier because the regression lines do not intersect the axes at the origin. Where the percentages show the averages for all the institutions in the sample, the regression coefficients estimate the *change* in the purchases per unit change in brokerage.

[42] The averages obscure a considerable amount of dispersion within each class of institution. For banks, the percentage of actual purchases to brokerage varied from .1% to 32.3%. The variation among life insurance companies is similar, although it is somewhat less for investment advisers.

TABLE XIV-19a.—PERCENTAGES OF TOTAL BROKERAGE AND OF TOTAL 1ST OFFERINGS PURCHASED BY SAMPLE INSTITUTIONS, JANUARY 1968–JUNE 1969

Class of institution	Percentage of brokerage	Percentage of 1st offerings [1]
Banks (47)	7.5	2.5
Investment advisers '38)	8.4	2.7
Life insurance companies (17)	.6	.2

[1] The study used the estimated institutional purchases shown in table XIV–19 for this calculation.

account for .3 percent of gross purchases of stock by banks and investment advisers and for .4 percent for life insurance companies.[43]

Second, the relatively large potential dollar gains on the purchases of first offerings are indicative of a hot issue period and are not peculiar to institutional purchasers.

Third, the relationship between purchases of first offerings and brokerage payout does not raise the questions of reciprocal business discussed in other chapters of the Study. In this case, the customers of the institutions pay the brokerage but also participate in any gains.[44]

Fourth, the potential dollar-gain figure is hypothetical since it ignores the effect of an institution's holding the securities beyond one week.[45]

3. Concentration of Institutional Purchases of First Offerings

A relatively small number of institutions accounted for a relatively large percentage of all institutional purchases at the initial offering price. Table XIV-20 shows the number of institutions that accounted for various percentages of purchases at the offerings and, in adjacent columns, the number of institutions accounting for various percentages of holdings of common stock. The figures for first offerings are taken from the Study's sample of 84 offerings. The percentages accounted for by any given number of institutions shown in Table XIV-20 are reduced by the fact that institutions are defined to include "foreign purchasers," "other business" and "other institutions". These groups increase the amount of all institutional purchases and thereby lower the stated concentration. Moreover, the Study had no data on the amount of common stock held by these groups.[46] These points aside, the figures show that four institutions accounted for 10 percent, and 48 institutions accounted for 40 percent of all institutional purchases. The concentration among institutions in purchases at the offering price is somewhat less than that in regard to holdings of common stock, where three institutions accounted for 10 percent of all holdings, eight institutions for 20 percent and 25 institutions for 40 percent.

[43] The estimated gross purchases of common stock for the banks, investment advisers, and life insurance companies in this sample were, respectively, $22.5 billion, $25.2 billion, and $1.7 billion. These numbers probably are on the low side. The estimated purchases of first offerings were used to compute the percentages shown in the text.

[44] Whether the accounts participate in proportion to their total activity is a separate question considered elsewhere.

[45] Sec. 7 below estimates that only 8% of institutional purchases in the offering are sold within one week.

[46] The figures on holdings of common stock incorporate the Study's estimates for all the major classes of domestic institutions, in particular banks, investment advisers, life insurance companies, property and liability insurance companies, and some self administered funds such as foundations, college and university endowments, and employee benefit funds. The incomplete coverage of the self-administered funds, hedge funds, and certain miscellaneous groups, like savings banks, should not substantially affect the concentration figures for holdings of common stock shown in Table XIV–20. The figures on holdings are as of year end, 1969, except for those of investment advisers. For investment advisers, the figures are as of June 30, 1969. The figures represent market values to the extent the Study was able to obtain the data in that form. The figures on purchases of first offerings are exhaustive for the sample of 84 offerings.

TABLE XIV-20

NUMBERS OF INSTITUTIONS ACCOUNTING FOR VARIOUS PERCENTAGES OF ALL INSTITUTIONAL PURCHASES OF FIRST OFFERINGS (a) AND ALL INSTITUTIONAL HOLDING OF COMMON STOCK (b)

Percentage of Total Institutional Purchases Of First Offerings Accounted For By The Number of Institutions Shown in Column 2 (Percentage) (1)	Number of Institutions Referred to In Column 1 (2)	Percentage of Total Institutional Holdings of Common Stock Accounted For By the Number of Institutions Shown In Column 4 (Percentage) (3)	Number of Institutions Referred to in Column 3 (4)
2	1	2	1
4	2	4	1
6	2	6	2
8	3	8	2
10	4	10	3
12	5	12	4
14	7	14	5
16	8	16	6
18	10	18	7
20	12	20	8
25	18	25	11
30	25	30	15
35	34	35	20
40	48	40	25

(a) Figures on purchase of first offerings are taken from Study's sample of 84 offerings.

(b) Common Stock holdings are as of December 31, 1969 except for investment advisers, which are as of June 30, 1969.

TABLE XIV-21

NUMBERS OF INSTITUTIONS ACCOUNTING FOR VARIOUS PERCENTAGES OF CLASS PURCHASES OF FIRST OFFERINGS AND CLASS HOLDINGS OF COMMON STOCK

BANKS				INVESTMENT ADVISERS				LIFE INSURANCE COMPANIES			
First Offerings		Holdings of Common Stock		First Offerings		Holdings of Common Stock		First Offerings		Holdings of Common Stock	
Percentage of Total	Number of Institutions	Percentage of Total	Number of Institutions	Percentage of Total	Number of Institutions	Percentage of Total	Number of Institutions	Percentage of Total	Number of Institutions	Percentage of Total	Number of Institutions
19.3%	3	18 4%	3					40.6%	3	18.2%	3
23.3	4	22 4	4					45.5	4	23.0	4
27.2	5	25.7	5	42.8%	5	22.5	5	49.7	5	26.3	5
31.0	6	28.7	6	46.7	6	25.9	6	53.9	6	27.5	6
33.9	7	31.4	7	50.4	7	29.0	7	57.9	7	30.8	7
36.7	8	33.8	8	53.3	8	31.8	8	61.2	8	32.0	8
39.1	9	36.0	9	56.1	9	34.0	9	63.9	9	34.0	9
41.3	10	38.2	10	58.9	10	36.2	10	66.5	10	36.4	10

a/ Figures include holdings of preferred stock.

Table XIV-21 compares the number of institutions accounting for various percentages of common stock holdings and purchases of first offerings within the major classes of institutions. The numbers of banks accounting for various percentages of all bank purchases of first offerings are roughly commensurate with the comparable figures for common stock holdings. Where 10 banks accounted for 41.3 percent of all bank purchases of first offerings, the same number accounted for 38.2 percent of common stock holdings. This proportionality is much less conspicious in connection with investment advisers and life insurance companies. Five investment advisers account for 42.8 percent of all purchases of first offerings by investment advisers, and 10 account for 58.9 percent. The comparable figures for holdings of common stock are 22.5 percent and 36.2 percent for five and 10 investment advisers, respectively. There are substantial differences among investment advisers in the purchase of first offerings. The largest purchaser was not even among the 10 largest holders of common stock. In particular, investment advisers with a large fraction of their assets in other than investment company accounts purchase proportionately far less first offerings. Life insurance companies reveal a similar dispersion. Where three companies account for 40.6 percent of all purchases of first offerings by life insurance companies, three account for only 18.2 percent of the holdings of stock.

The differences between banks, on the one hand, and investment advisers and life insurance companies, on the other, in regard to the relationships between rankings in common stock holdings and purchases of first offerings are consistent with the data described in section C2. There it was found that while total brokerage payments accounted for 56 percent of the variation among banks in regard to purchases of first offerings, total brokerage—like assets, a measure of size-accounted for 32 percent of the variations among investment advisers and for only 10 percent of the variation among life insurance companies in regard to purchase of first offerings. Among the latter two classes of institutions other factors than size play a larger role in determining the extent of purchases of first offerings. These factors include differences in preference for first offerings, particularly with respect to the tolerance for the bother involved in getting what is usually a small alotment; differences in the use of brokerage the various institutions may have; differences in the willingness to buy sticky issues or unappealing offerings of publicly held companies; and differences in the willingness to incur the risk associated with first offerings.

Taken in conjunction with the level of concentration among underwriters, described in section C8, the concentration among institutions implies that a sizeable fraction of the market for first offerings is centered on a relatively small number of buyers and sellers. Whether this fraction is *too* large depends partly on the status of the remainder.

Outside of obtaining the business of the major underwriting firms with their institutional customers there exists within the securities industry a freedom of entry beyond that which characterizes most other industries. Nor is there a lack of customers in a buoyant new issue market. The concentration that exists in the market for first offerings, with respect both to supply and to demand, is more putative than real. Any problem there is in the actual level of concentration lies not in any de facto control over the movement of resources, but rather in the potential effects on public investors of the credibility that attaches to

the acceptance of an offering by the putative elite of institutions and underwriters. Such potential effects include underestimation of the risks involved in purchasing an offering brought out by a major underwriter. This potential effect is aggravated by the diversion of public demand to the aftermarket where purchases often can be made only at premium prices. In this event public investors bear most of the risks associated with a first offering while foregoing at least part of the appreciation that was built into the offering price in order to compensate the bearing of this risk.

4. Estimated Institutional Purchases of First Offerings

The Study has attempted to estimate institutional purchases of first offerings for the period January 1967 through March 1970. Several procedures were involved in these estimates:

a. Identification of first offerings

The problem of distinguishing first offerings from other offerings is described in appendix A.[47] Using the criteria described there, the Study has identified 1,684 registered, underwritten offerings as first offerings in the period January 1967 through March 1970. This group constitutes the population of offerings for the Study's estimated institutional purchases.

b. After-market price changes

For each of the 1684 offerings the Study has determined the price change for up to one week in the after-market of the respective offerings. This procedure is also described in appendix A, in connection with the discussion of the Study's new issue price index. The information on price changes in conjunction with the estimated institutional purchases allow estimates of potential dollar gains available to institutions from their estimated purchases.[48]

c. Institutional sales by each underwriter

Using the information obtained in connection with the Study's sample of 84 first offerings, the Study computed for each of the 625 underwriters that participated in any of the 84 offerings the value of that underwriter's total institutional sales in connection with any of the 84 offerings. For those offerings in which group sales (see appendix C) were used, the Study allocated these sales to each member of the syndicate in proportion to the size of its participation in the underwriting syndicate. The Study also computed the total value of each underwriter's participation in any of the 84 offerings. Dividing the total institutional sales for a given underwriter in any of the 84 offerings in which that underwriter participated (as an underwriter) by the total value of that underwriter's underwriting committments in any of the 84 offerings produced that underwriter's ratio of institutional sales. The Study computed this ratio for each of the 625 underwriters.

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[47] Briefly, a first offering is a public offering of common stock of an issuer for whose stock no previous public market existed. There is some ambiguity in the question whether a previous public market existed. The class of first offerings, as here defined, differs from the class of first registrations because some companies whose shares are traded have not had occasion to register with the Commission and, to a lesser extent, some companies having previously registered an offering may offer additional stock after a period of dormancy.

[48] Disregarding transaction costs.

d. Participation of the 625 underwriters over longer period

Using the IBA tapes (see appendix B) the Study determined the participations of each of the 625 underwriters in any of the first offerings that occurred between January 1967 and March 1970. These participations were calculated on a monthly basis.

e. Estimates of institutional sales

By multiplying the ratio described in sec. 4.c, above by the number described in sec. 4.d separately for each underwriter and then summing over all underwriters, the Study estimated total institutional sales on a monthly basis over the time span indicated in sec. 4.d.

f. Estimates of institutional 1-week dollar gain

The Study multiplied the value of each underwriter's participation in each offering by the percentage after-market price change of the corresponding offering. Summing over all offerings for each underwriter yielded a potential dollar gain figure on all issues offered by each underwriter. Multiplying each potential dollar-gain figure by each underwriter's percentage institutional sales ratio resulted in an estimate of potential dollar gain for institutional buyers. Summing over all issues produced an estimate of potential institutional dollar gain from all first offering. These figures are also shown for each month in the period.

g. Estimates of institutional rates of return

The Study estimated potential rates of return within one week by dividing the dollar gain figures described in sec. 4.f., above by the purchase figures described in sec. 4.e., above.

h. Conclusions

The rationale for the procedure described in (a) through (g) above is the Study's findings, described in section C.1., above, that the identity of the underwriter is the primary determinant of institutional participation in first offerings. To test its procedure the Study used the ratios described in sec. 4.c., above to estimate the institutional purchases in the 84 sample offerings. Since the actual purchases were known, the Study was able to calculate the error made in estimating the institutional purchases in each of the offerings. The Study computed the square root of the mean square error to measure the extent of the deviation of the projections from the actual institutional purchases.[49] The total value of institutional purchases from underwriters in the 84 offerings was $138 million. The square root of the mean square error of forecast was $570,000 or 0.4 percent. If the conditions of the sample held for the entire population, the probability would be 0.95 that the Study's estimated institutional purchases from underwriters of all first offerings would be within a range of plus or minus 0.8 percent.

The Study's projection procedure does not make any special allowance for changes in the buoyancy of the market for first offerings apart from any effects these changes may have on the participation of the underwriters under various market conditions. The regression analysis reported in section C.1. indicated that the Study's first offerings price index had no significant effect on the degree of institutional participa-

[49] The square root of the mean square error in the current context corresponds to the standard error of the estimate in regression analysis.

tion. Table XIV–22 gives further evidence of this fact. The table divides the Study's sample of 84 offerings into the amounts that were offered in each of the 18 months of the sample period (Column 2). The percentages purchased by institutions (Column 3) varies widely primarily because the small number of observations per month causes large sampling fluctuation. In most cases the percentage institutional participation varies *inversely* with the various price indices.[50] The sample data, therefore, provide little basis for adjusting the estimates for the character of the market. Insofar as the character of the market affects the extent of the participation of the underwriters who distribute to institutions, it influences the estimates as well.

The Study's estimates actually understate institutional purchases for the following reasons: (1) Sales by selected dealers were excluded because the Study had no way to determine who were selected dealers in offerings outside the Study's sample of 84,[51] and (2) the Study's projection is based only on the estimated institutional sales of the 625 underwriters who participated in the 84 offerings.[52]

Table XIV–23 contains the Study's estimates of institutional purchases of first offerings for each month in the period January 1967 through March 1970. Between January 1967 and March 1970 the value of all first offerings was $5.7 billion. The Study estimates institutional purchases equal to $1.4 billion or 24.3 percent of the total. In the period from which the Study selected its sample of 84 offerings, January 1968 through June 1969, total first offerings were $3.2 billion. The Study estimates institutional purchases equal to $0.8 billion, or 23.9 precent of the total.[53]

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[50] The correlation coefficients are as follows (Column references are to Table XIV–22):
Column 3 and Column 7, R = −.280
Column 3 and Column 8, R = −.205
Column 3 and Column 9, R = .118
Column 3 and Column 10, R = −.075
Column 3 and Column 11, R = −.118

[51] The Study has determined, however, that of the $148 million of the institutional sales in the 84 offerings, 6.75 percent were sold by selected dealers; therefore, selected dealers' sales were 7.24 percent of the $138 million of sales by underwriters. The Study cannot determined whether the offerings in its sample were sold through selected dealers in the same proportion as in the population of all offerings, although it has no reason to question the randomness of its sample in this respect. Increasing the Study's prediction by 7.24 percent should yield a reasonable approximation of the effect of sales by selected dealers to institutions.

[52] These underwriters comprise all the major underwriters and many of the lesser underwriters. They accounted for 88.55 percent of the $5.7 billion of first offerings that appeared in the period January 1967 through March 1970 and for 89.66 percent of the $3.2 billion of first offerings that appeared in the period January 1968 through June 1969. Moreover, given the high degree of concentration among underwriters with regard to institutional sales, the 625 underwriters account for a much larger fraction of institutional sales than the close-to-90 percent of the offerings they account for. A reasonable guess is that these underwriters account for at least 98 percent of all institutional sales. Whatever is the correct figure for the institutional sales of the underwriters who did not participate in the Study's sample of 84 offerings, the Study projection of institutional sales over the whole period does not include that number. Partially offsetting this understatement is the Study's handling of underwriters who did not respond to the Study's questionnaire. In most cases these underwriters were simply assumed to have no institutional sales. (There were about 20 non-respondents, each of them involved in less than three issues. The impact of their exclusion is well within the error tolerance of the Study.) In the event, however, one of these underwriters participated in an offering in which there were group sales, that underwriter was credited with his pro-rata share of those sales. These sales constituted the Study's only knowledge of that underwriter's institutional sales. Instead of dividing these sales by the underwriters' total allotments on all offerings in the sample for the purpose of computing that underwriter's percentage of sales to institutions, it was more convenient to use only the allotments in the offerings in which there were group sales. Hence, the ratio of institutional sales to total underwriting allotments for these underwriters is overstated. The overstated ratios are then used for the predictions outside the sample. This overstatement may be entirely offset by the exclusion from the prediction of the institutional sales, if any, they or other nonresponding underwriters may have had.

[53] The adjustment for sales by selected dealers would increase projected institutional purchases by 7.24 percent. The percentage institutional purchases would become 26.1 and 25.6 for the longer and shorter periods, respectively.

Table XIV-22

Institutional Purchases of First Offerings Over Time, January 1968 through June 1969

Month and Year (1)	Value of Offerings (2)	Percentage Purchases By all Institutions (3)	Percentage Purchased By Banks (4)	Percentage Purchased By Investment Advisers (5)	Percentage Purchased By Foreign Institutions (6)	New Issue Index (unweighted) (7)	New Issue Index (weighted) (8)	S&P Index (9)	(unweighted) Price Change of Sample Issues (10)	(weighted) Price Change of Sample Issues (11)
1968										
January	8,862,500	18.79%	4.55%	3.76%	0.96%	79.7%	64.2%	95.04%	43.6%	44.9%
February	14,113,922	17.86	6.79%	2.21	3.62	39.1	32.8	90.75	10.8	8.8
March	7,620,250	32.29	9.56	6.53	1.76	19.0	14.7	89.09	39.3	25.1
April	14,021,984	24.59	4.96	6.14	4.86	19.9	16.7	95.67	36.3	33.3
May	26,197,500	27.27	9.01	6.99	3.55	58.2	45.9	97.87	29.9	29.0
June	3,000,000	26.82	12.44	5.18	2.27	73.4	49.9	100.53	52.5	52.0
July	9,000,000	9.36	3.61	.86	1.45	52.7	27.2	100.30	34.0	34.0
August	4,556,032	12.35	2.77	3.73	.94	36.9	25.0	98.11	79.4	79.2
Sept.	27,180,000	19.07	6.66	3.68	1.57	40.1	31.2	101.34	32.6	43.1
October	39,276,000	34.83	8.82	4.65	5.49	39.8	28.8	103.76	85.2	68.8
November	46.721,250	43.97	14.31	9.71	9.94	48.2	38.7	105.40	42.4	51.0
December	10,741,500	19.17	4.92	2.50	1.27	49.8	41.7	106.48	50.6	24.0
1969										
January	25,347,500	24.79	6.81	7.65	4.12	26.8	20.1	102.04	30.6	25.4
February	65,620,000	33.03	9.44	10.08	4.60	37.0	29.7	101.46	16.2	17.5
March	37.462,400	32.57	8.05	8.74	7.96	17.8	14.4	99.30	13.7	21.7
April	12,700,000	12.46	2.02	4.13	0.55	19.5	11.6	101.26	26.5	18.2
May	39,334,000	19.03	3.79	6.53	2.02	28.7	24.2	104.62	17.7	28.0
June	86,879,500	44.35	12.11	13.10	3.79	12.4	7.8	99.14	18.6	6.6

TABLE XIV-23

Projected Institutional Purchases of First Offerings and Potential One-Week Dollar Gains, By Month, January 1967 through March 1970

YEAR	MONTH	NUMBER OF OFFERINGS	VALUE OF OFFERINGS (Thousands of Dollars)	PROJECTED INSTITUTIONAL PURCHASES (Thousands of Dollars)	Projected Percentage Purchase Percentage)	PROJECTED POTENTIAL DOLLAR GAINS (One Week) (Thousands of Dollars)	PROJECTED POTENTIAL RATE OF RETURN (One Week) (Percentage)
1967	JAN.	2	2,950	642	21.8	15	2.34
	FEB.	5	19,269	5,097	26.5	674	13.22
	MAR.	8	36,541	8,799	24.1	442	5.02
	APR.	13	51,551	13,372	25.9	2,129	15.92
	MAY	13	59,386	14,287	24.1	2,085	14.59
	JUN.	7	21,653	5,335	24.6	1,997	37.43
	JUL.	11	53,473	14,905	27.9	1,004	6.74
	AUG.	15	31,651	6,861	21.7	3,377	49.22
	SEP.	11	42,302	17,651	41.7	3,898	22.08
	OCT.	17	49,770	12,260	24.6	2,094	17.08
	NOV.	19	50,132	12,891	25.7	6,380	49.49
	DEC.	26	62,965	14,724	23.4	6,107	41.48
1968	JAN.	19	38,340	10,595	27.6	3,391	32.01
	FEB.	19	39,658	8,833	22.3	3,077	34.84
	MAR.	30	83,983	22,453	26.7	1,187	5.29
	APR.	27	42,730	8,455	19.8	2,417	28.59
	MAY	34	93,984	21,795	23.2	14,526	66.65
	JUN.	31	88,710	20,380	23.0	4,999	24.53
	JUL.	39	93,784	21,645	23.1	8,536	39.44
	AUG.	36	140,232	41,169	29.3	9,217	22.39
	SEP.	42	148,649	38,093	25.6	12,357	32.44
	OCT.	66	286,448	75,994	26.5	21,610	28.44
	NOV.	66	252,748	63,934	25.3	13,838	21,64
	DEC.	75	232,350	55,843	24.0	18,937	33.91
1969	JAN.	63	180,334	39,798	22.1	7,393	18.58
	FEB.	74	282,361	66,348	23.5	20,563	30.99
	MAR.	93	297,785	65,006	21.8	11,347	17.46
	APR.	95	349,665	81,121	23.2	8,305	10.24
	MAY	81	204,739	37,156	18.1	7,704	20.73
	JUN.	95	334,293	82,752	24.7	29,634	35.81
	JUL.	53	150,320	34,852	23.2	-1,362	-3.91
	AUG.	47	83,668	17,478	20.9	4,277	24.47
	SEP.	66	187,432	47,614	25.4	-207	-.43
	OCT.	93	344,602	83,193	24.1	-2,387	-2.87
	NOV.	69	339,280	101,020	29.8	-4,809	-4.76
	DEC.	79	371,989	97,544	26.2	-913	-.94
1970	JAN.	60	159,405	37,835	23.7	-1,129	-2.98
	FEB.	38	191,475	48,287	25.2	8,899	18.43
	MAR.	41	113,326	24,863	21.9	-148	-.60
TOTAL							
1967 - 1970		1,678	5,673,935	1,380,878	24.3	235,960	17.9
1968 - 1969		985	3,190,795	761,370	23.9	199,037	26.1

For the former period the Study estimates a potential 1-week dollar gain of $236 million, or 17.9 percent of the cost of the purchase. For the latter period, the Study estimates a potential 1-week dollar gain of $199 million, or 26.1 percent of the cost of the purchase. To compute annualized potential rates of return requires multiplying the stated percentages by at least 52 since the implied holding periods used to compute the price changes were less than or equal to one week. However, in seven of the nine months following June 1969 institutions incurred a potential net loss on their purchases of first offerings. Notwithstanding these losses the estimates do not indicate any falling off of institutional participation in the offerings that were made. However, the number of offerings declined during this period, particularly in 1970.

5. Institutional Purchases of Convertible Bond Offerings

The Study selected a sample of nine convertible bond offerings that appeared in the period January 1968 through June 1969. Table XIV–24 classifies the institutional purchases by category of managing underwriter and class of institution.[54] Institutions purchase larger percentages of convertible debt offerings than they do of first offerings of common stock. They purchased 51.8 percent of the nine offerings in the sample. The influence of the category of managing underwriter on the percentage purchased by institutions is revealed in the table. Institutions purchased 67.6 percent of the category I offerings but only 34.3 percent of the category V offerings. The percentages of the category II and category IV offerings purchased by institutions, 52.7 and 51.0, respectively, are closer than the comparable figures for first offerings of common stock. As indicated in appendix C categories IV and V are far more heterogeneous than the first three categories. In particular, category IV contains some firms that are well known for their institutional contacts. Because of the strong institutional component in the total demand for bonds, convertible or otherwise, these offerings are likely to attract the more institutionally oriented firms within each of the categories. The greater heterogeneity among firms in categories IV and V puts this selection in greater relief.

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[54] No category III offerings were included in the sample. The sample consists of two offerings each of category I, II, and IV underwriters, and three offerings of category V underwriters. One of the category II offerings was jointly managed with a category IV underwriter, who in fact kept the books (see app. C). However, since the category II underwriter sold most of the category IV underwriter's allocation, as well as his own, and since the syndicate comprised firms who would not have participated if the issue were managed by the category IV underwriter alone (see app. A), the offering was designated a category II offering.

TABLE XIV-24

INSTITUTIONAL PURCHASES OF CONVERTIBLE DEBT OFFERINGS CLASSIFIED BY INSTITUTION AND CATEGORY OF MANAGING UNDERWRITER

Class of Institution	1	2	3	4	Total
Total Offering					
value (dollars)	45,000,000	30,000,000	22,300,000	41,000,000	138,300,000
% of total	32.5	21.7	16.1	29.7	100.0
All Institutions					
value (dollars)	30,419,000	15,805,000	11,383,000	14,068,000	71,675,000
% of offering	67.6	52.7	51.0	34.3	51.8
% of class expenditure	42.4	22.1	15.9	19.6	100.0
Banks (Domestic)					
value (dollars)	13,948,000	3,816,000	2,376,000	2,532,000	22.672,000
% of offering	31.0	12.7	10.7	6.2	16.4
% of class expenditure	61.5	16.8	10.5	11.2	100.0
Investment Advisers					
value (dollars)	5,417,000	3,700,000	4,671,000	3,945,000	17,733,000
% of offering	12.0	12.3	21.0	9.6	12.8
% of class expenditure	30.5	20.9	26.3	22.3	100.0
Prop. and Liab. Ins. Cos.					
value (dollars)	939,000	185,000	285,000	57,000	1,466,000
% of offering	2.1	.6	1.3	.1	1.1
% of class expenditure	64.1	12.6	19.4	3.9	100.0
Life Insurance Cos.					
value (dollars)	4,176,000	1,391,000	1,614,000	1,676,000	8,857,000
% of offering	9.3	4.6	7.2	4.1	6.4
% of class expenditure	47.2	15.7	18.2	18.9	100.0
Self Admin. Emp. Benefit					
value (dollars)	1,258,000	359,000	72,000	201,000	1,890,000
% of offering	2.8	1.2	.3	.5	1.4
% of class expenditure	66.6	19.0	3.8	10.6	100.0
Tax Exempt Institutions					
value (dollars)	2,287,000	730,000	235,000	99,000	3,351,000
% of offering	5.1	2.4	1.1	.2	2.4
% of class expenditure	68.3	21.7	7.0	3.0	100.0
Other Institutions					
value (dollars)	645,000	2,008,000	697,000	900,000	4,250,000
% of offering	1.4	6.7	3.1	2.2	3.1
% of class expenditure	15.2	47.2	16.4	21.2	100.0
Hedge Funds					
value (dollars)	627,000	1,153,000	389,000	652,000	2,821,000
% of offering	1.4	3.8	1.7	1.6	2.0
% of class expenditure	22.2	40.9	13.8	23.1	100.0
Off Shore Funds					
value (dollars)	30,000	127,000	0	50,000	207,000
% of offering	.1	.4	0	.1	.2
% of class expenditure	14.5	61.4		24.1	100.0
Other Businesses					
value (dollars)	180,000	449,000	494,000	104,000	1,227,000
% of offering	.4	1.5	2.2	.3	.9
% of class expenditure	14.7	36.6	40.2	8.4	100.0
Foreign Institutions					
value (dollars)	912,000	1,887,000	550,000	3,852,000	7,201,000
% of offering	2.0	6.3	2.5	9.4	5.21
% of class expenditure	12.7	26.2	7.6	53.5	100.0

Banks are an important source of convertible debt capital. They purchased 31.0 percent of the category I offerings and 16.4 percent of the offerings of all categories. Life insurance companies are also more significant in the primary market for convertible debt, securities having purchased 9.3 percent of the category I offerings and 6.4 percent of all offerings. While they accounted for only 3.4 percent of all institutional purchases of first offerings of common stock, they accounted for 12.4 percent of institutional purchases of convertible debt offerings. Foreign institutions were also substantial buyers of convertible bonds, particularly those of category V underwriters. Foreign participation in the category V underwriting syndicates accounts for a substantial part of the 9.4 percent of the offerings attributed to them in the table.

6. Advantages to Issuers of Institutional Distribution

The issuer derives two major advantages from underwriters who provide institutional distribution. The more obvious advantage is the greater potential market for the offering. An "institutional underwriter" can arrange for noninstitutional sales simply by inviting retail firms into the underwriting syndicate or selling group. The reverse, however, is far more difficult. Occasionally retail firms will invite an institutional broker-dealer to become co-manager and through him attract other institutional firms into the syndicate. Also, institutional firms sometimes will agree to serve as selected dealers (as distinct from underwriters) in an issue managed by a retail firm since their role in the selling group is not publicly disclosed.

Less obvious, but more important is the prestige that an institutional firm lends to an issue. One of the traditional functions of an underwriter is to substitute its reputation with the public for the relative obscurity of the issuer. Even a careful reading of a prospectus does not entirely resolve the question whether an issuer has a reasonable prospect for success. The reputation of the underwriter may be the deciding factor in overcoming any residual doubts among investors. An underwriter who enjoys this kind of reputation is able to perform a valuable service for the issuer even beyond the initial distribution of the offering. The willingness of market-makers to trade the stock and of institutions to invest in it is influenced by the underwriter's reputation. The prominence of these interested groups, in turn, increases the likelihood that the issue will attract the attention of the financial press and the statistical services.

While the prominence of an underwriter is not entirely due to its institutional business, most of the well-known underwriters have traditionally done a large institutional business.[55] The well-known underwriters are not known primarily for their first offerings, but rather for their underwriting of the common stock and bonds of large corporations, as well as their activities in private placements, commercial paper, and underwritings of municipal bonds. This business, particularly in regard to debt securities, traditionally has catered to institutions. Partly as a result of the personal relationships developed in the course of this business, many of the major underwriting firms were well situated to participate in the growing institutionalization of the secondary market. The reverse, however, is less true. A broker-dealer who has managed, through aggressive selling or well-regarded re-

[55] The proposition relates to originating or lead underwriters rather than participants in syndicates and selling groups. The proposition is becoming less true as more retail firms are increasing their investment banking activities. Some have become major underwriters. Others have been prominent in both retail and institutional business.

search, to attract an institutional following in the secondary market does not necessarily participate in major underwriting groups. The syndication process is laden with tradition. It is difficult for new firms, regardless of their capital and reputation, to enter major syndicates and virtually impossible for them to manage one. These firms have little opportunity to originate the issues of large corporations, most of whom maintain established relations with prominent firms. The main route of entry for these firms is, therefore, willingness to accept small participations together with relegation to lower parts of the tombstone ads than the firm's stature otherwise would command, as well as a willingness to accept a share of the less marketable issues.

Since some members of the public may be aware of the institutional proclivities of some prominent underwriters, they may infer that issues brought out by such firms have institutional interest or, as some would say, institutional quality. Retail members of the syndicate have been known to advise their customers in advance of the offering that institutions have indicated their intent to buy the issue. (This information is available to the retail firms not only from their knowledge of the usual clientele of the other underwriters but also from the information they receive from these underwriters on indications of interest). While this knowledge of institutional interest may increase the public's appetite for any stock, the effect is greater for small, less established issuers than for large established issuers and still more so for first offerings of such small companies. As noted above, apart from the usual concern of the public investor over whether the price of a stock will rise or fall, investment decisions relating to first offerings may involve concern over the viability of the issuer. The possible public impression that institutions with their purported research capabilities and sophistication, would not allow themselves to be bilked helps explain individual investors' attitudes toward institutional interest. The result, then, of supposed or revealed institutional interest in an offering is to enhance retail interest as well.

Issuers, therefore, have a number of reasons to prefer an underwriter with an institutional following. In addition to increasing the likelihood of a successful offering, these underwriters can impart a credibility to the issue beyond what it would otherwise command, as well as increase the likelihood of a more liquid after-market by attracting competent market-makers and by increasing the overall exposure of the stock to the investing public.[56] The experience with institutional clients may give the institutional firms somewhat greater facility in advising the issuers on financial matters, such as the handling of inquiring security analysts. The issuer's ability to attract bank credit and to place securities privately may be enhanced as well. The ability of underwriters that are less endowed with these prerequisites

[56] Of the 24 offerings in the sample managed by category I and II underwriters, seven were subsequently listed on the American Stock Exchange (AMEX) and 1 on the New York Stock Exchange; of the 17 managed by category III underwriters, six were subsequently listed on the AMEX; of the 21 offerings managed by category IV underwriters, four were listed on the AMEX; and of the 22 managed by category V underwriters, one was listed on the AMEX. These figures are as of December 31, 1969.

to compete for the business against institutional underwriters is therefore limited. The required price concession in the form of a higher offering price or a smaller spread might in many cases be prohibitive.

7. Advantages to Underwriters of Institutional Distribution

Underwriters derive two advantages from institutional distribution. First, instead of having to seek new underwriting business, the institutional firms can count on seeing a number of inquiries from prospective issuers. Whether this advantage is reflected in the performance of the issues, the institutional underwriters do appear to offer issues that, superficially at least, are more impressive.[57] The apparent willingness of institutions to accept the efficacy of the major underwriters' choices reinforces the ability of these underwriters to attract the new proposals; this ability, in turn, increases the institutional interest. This element of self-perpetuation does not circumscribe a closed group, but it probably reduces mobility among underwriters and with that the level of competition.

8. Influence of Institutional Distribution on Competition Among Underwriters

The ability of a limited number of underwriters to insure the issuer some amount of institutional distribution contributes to a degree of polarization among underwriters. On one side are those underwriters who do a substantial institutional business in ordinary brokerage, private placements, and public offerings of publicly held corporations. To a large extent, this institutional clientele participates in first offerings as well. On the other side are underwriters who deal primarily with the public and whose institutional sales of first offerings reflect institutional interest more than the underwriters distributional capacity. Columns 3 and 6 in table XIV–25 show the cumulative percentages of the total value of the 84 offerings ($478,634,438) that were underwritten by the broker-dealers whose institutional sales are listed in descending order in the adjacent columns. Since the firms with the greatest institutional sales are not always the largest underwriters, the figures on underwriting allocations do not reveal the full extent of concentration in this part of the business. The ten underwriters who accounted for about 23 percent of institutional sales accounted for only about 11 percent of the total value of shares underwritten.

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[57] This proposition is difficult to test. In the course of the study the staff has had occasion to read many prospectuses. Even after adjustments for the size of the issuers, the prospectuses of issuers using the major underwriters revealed more prominent or experienced boards of directors and backgrounds of the principals. While the performance of the stock is the primary concern of the investor, certain non-financial characteristics of the issuers, particularly in connection with first offerings, may be deemed reliable prognosticators of such performance.

Table XIV-25

CONCENTRATION AMONG UNDERWRITERS OF INSTITUTIONAL SALES AND UNDERWRITING ALLOCATIONS, EIGHTY-FOUR FIRST OFFERINGS OF COMMON STOCK

Number of Underwriters (1)	Cumulative Percentage of All Institutional Sales (percentage) (2)	Cumulative Percentage of All Underwriting Allocations (percentage) (3)	Number of Underwriters (4)	Cumulative Percentage of All Institutional Sales (percentage) (5)	Cumulative Percentage of All Underwriting Allocations (percentage) (6)
1	3.66	1.67	22	39.75	25.99
2	7.21	3.19	23	40.91	27.57
3	9.84	3.94	24	42.08	28.66
4	12.00	4.50	25	43.23	29.57
5	14.10	6.32	26	44.39	30.81
6	16.17	7.60	27	45.47	31.16
7	18.09	8.49	28	46.54	32.13
8	19.96	9.32	29	47.52	33.73
9	21.63	10.38	30	48.80	35.42
10	23.28	10.55	31	49.37	36.21
11	24.92	12.64	32	50.26	37.23
12	26.53	14.31	33	51.03	38.30
13	28.08	15.15			
14	29.61	16.75			
15	30.95	17.85			
16	32.26	19.15			
17	33.56	20.22			
18	34.87	20.85			
19	36.13	21.71			
20	37.35	22.93			
21	38.55	23.79			

NOTE: 1. The total value of the offerings of the 84 issues was $478,634,438. The total value of the institutional sales was $148,257,300.

2. The percentages are cumulative. For example, 10 underwriters accounted for 23.28 percent of institutional sales; these same underwriters accounted for 10.55 percent of these offerings.

E. INSTITUTIONAL ACTIVITY IN THE AFTER-MARKET

1. Method of Study

The Study's analysis of institutional participation in the after-market is based on the responses of a sample of 100 institutions to the Study's questionnaire, as well as on field interviews. Apart from the broker-dealers in the sample, the institutions were requested to report all their purchases in the offering and all their purchases and sales in the after-market (up to 90 days after the respective offerings) of a list of first offerings provided them by the Study. This list, prepared separately for each institution, comprised all offerings from the Study's sample of 84 that the institution in question was reported to have purchased in the offerings by the broker-dealers responding to the earlier questionnaire (described in section c.1, above). Each broker-dealer in the sample received a separate list of five offerings in which that broker-dealer participated as an underwriter.

Apart from the broker-dealers, the institutions in the sample comprised those who, within their respective classes, were reported to have purchased relatively large amounts of first offerings. The broker-dealers in the sample were selected from among those in the sample of 71 managing underwriters who were registered with the Commission as investment advisers. The sample includes 19 banks, who accounted for 32.0 percent of all bank purchases in the 84 offerings; 33 investment advisers, accounting for 80.1 percent of all such purchases; 15 life insurance companies accounting for 73.5 percent of all such purchases; three self-administered employee benefit plans, accounting for 15.7 percent of all such purchases and 17 other institutions, accounting for 43.9 percent of all such purchases. The Study has no knowledge of the percentage of all purchases by broker-dealer-investment-advisers for their "managed" accounts accounted for by the sample of 13 broker dealers.[58]

2. Limitations on Sales in the Immediate After-Market

The analyses in earlier sections indicated that a major incentive for institutions (or other investors) to purchase first offerings at the offering price lies in the potential of such transactions for rapid and substantial gains. To realize these gains and to minimize potential losses the offerees must be able to sell their securities in the after-market. Moreover, to reduce their perceived risk, the offerees must have freedom to choose the time of sale. The desirability of such freedom, however, is not universally acknowledged, at least with respect to all classes of investors.

The purchase and immediate resale of securities is sometimes deemed to be inconsistent with the purpose of the primary market. However, the deterrence of after-market sales would have the effect of restricting the supply in the after-market, often in the face of an excited demand, and thereby causing a greater premium and a higher price for those buyers who failed to receive stock in the initial offering. Moreover, an effective deterrent could curtail the demand at the offering

[58] For this purpose the Study defined a managed account as one for which the broker-dealer received an advisory fee, regardless whether that fee was offset in whole or part by brokerage payments.

by adding illiquidity to the other risk factors associated with a first offering.

In a release dated March 19, 1969, entitled "Execution of 'New Issue' Sell Orders," the NASD stated that ". . . a member cannot accept any new issue sell order unless the member originally sold the securities to the customer, thereby making the customer long in his account with the member." This "prohibition . . . would continue until the customer has possession of the security or the member in good faith has received reasonable assurance that the security will be delivered in good form within five days."

The stated purpose of this release (and a prior release dated September 4, 1968, dealing with all over-the-counter securities) was to alleviate back office problem due, among other reasons, to the failure of broker-dealers to deliver securities promptly. However, it has had the effect of curtailing after-market trading. Certificates representing stock sold in a public offering are not available to the underwriters until the closing date, when the proceeds are transferred to the issuer or selling stockholders. The closing date for equity offerings occurs about one week after the effective date of the offering. If the offerees were certain to receive their certificates on the closing date, they could sell the day of the offering with the knowledge they would have the certificates on the required settlement date, five business days later. In practice, however, the certificates may not have been prepared in the proper denominations suitable for transfer in the smaller denominations required; nor are they necessarily available to dealers throughout the country. Hence, as a practical matter, some offerees may not be in a position to undertake to deliver the certificates on the settlement date, if in fact they elected to sell on or near the date the offering commenced. Hence, they can legitimately sell, in accordance with the NASD's release, only through the underwriter or selected dealer who sold to them at the offering and with whom their account is long in the stock.

The dealer, however, may flatly refuse to execute the sell order or advise the seller that no more offerings will be made available to him if he insists on the execution of the sell order; therefore, the stock is less liquid than the offeree may have believed at the time of his purchase. While this factor is simply another of the risks to the investor, the dealer is not expressly required to disclose this risk. Also, the NASD's rules do not expressly prohibit discrimination among customers with respect to resales.[59] In addition, the Study has learned that some dealers who did not participate in the offering (but who, as member firms, are covered by the release) have been willing under some circumstances to accept sell orders from good customers in violation of the NASD's rules.

The underwriters' interest in not seeing the stock in the after-market for a time after the offering is based on practical considerations. Where the stock rises to an immediate premium, they are less concerned but would nevertheless prefer not to see the after-market supply outstrip the demand. (Here, too, the manifestations of their dis-

[59] By focusing only on what member firms cannot do, the NASD rules do not provide for the non-discriminatory acceptance by these firms of legitimate sell orders from all customers without penalty to such customers' other interests.

pleasure may differ in accordance with the importance to them of the particular offerees.) Where the offering is "sticky" and the underwriters must support the market [60] at least until the offering is sold out or the closing date is reached, their financial interests are more directly at stake, and they stand to lose favor with the underwriting syndicate. Under these cirmucstances, even good customers who are interested in selling may be inclined to direct their business to non-participating dealers.[61]

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[60] The underwriters support the market by placing a bid with a market maker, sometimes the managing underwriter, at or near the offering price. As stock comes in, the bid serves to peg the price and prevent it from falling. Underwriters are particularly concerned that a falling price would trigger further sales in a self-feeding process. The underwriters participate severally in the stabilization pool, in accordance with their underwriting allotments. Selected dealers, and sometimes underwriters, are penalized when the stock they originally sold comes back to the stabilization pool by their loss of the selling fee. (The fee is used to compensate another dealer for reselling the stock.)

[61] In the case of underwriters who are also investment advisers, a potential conflict may exist between the underwriter s concern for the after-market price of an offering in which he is involved and his advisory clients' interest in receiving proper advice. One underwriter, for example. sold 13,825 shares at the offering to managed accounts (i.e. accounts for which a management fee is payable) at $20 per share and bought for managed accounts an additional 42.820 shares in the after-market at an average price of $39 per share. Institutions sold 52.615 shares in the after-market, of which 16,850, or 32 percent were sold to this underwriter at approximately $39 per share. In connection with a different offering. another underwriter who was also a registered investment adviser, sold to his managed account 1,000 shares at the offering at $22 per share and purchased for these accounts an additional 4,510 shares in the after-market at an average price of $20 per share. In both cases the underwriters were the managing underwriters of the respective offerings and the accounts referred to were fee-paying advisory accounts. These examples, which are not unique among the Study's data obtained from underwriter-advisers, do not imply the accounts in question were disadvantaged, but merely that a potential conflict existed. At least if the underwriter had investment discretion over the accounts and did not obtain prior client consent after full disclosure this potential conflict, which is not peculiar to fee-paying accounts, may be aggravated by the importance to the underwriter of maintaining institutional ties.

Table- XIV-26

PURCHASES OF NEW ISSUES IN THE OFFERING AND AFTER MARKET AND SALES BY CLASS OF INSTITUTION AND TYPE OF ACCOUNT (AFTER-MARKET CONSIDERED FOR 90 DAYS AFTER RESPECTIVE OFFERING)

CLASS OF INSTITUTIONS (NUMBER OF INSTITUTIONS)	TYPE OF ACCOUNT	VALUE OF SHARES PURCHASED IN OFFERING (DOLLARS) (1)	VALUE OF SHARES PURCHASED IN AFTER-MARKET (DOLLARS) (2)	AFTER-MARKET PURCHASES AS PERCENTAGE OF OFFERINGS PURCHASED (PERCENTAGE) (3)	PURCHASES IN OFFERING SOLD WITHIN 90 DAYS AS PERCENTAGE OF PURCHASES IN OFFERING (PERCENTAGE) (4)	COST OF SHARES PURCHASED IN OFFERING AND SOLD WITHIN 90 DAYS (DOLLARS) (5)	NET GAIN ON SALE OF SHARES PURCHASED IN OFFERING (DOLLARS) (6)	PERCENTAGE RETURN ON SHARES PURCHASED IN OFFERING AND SOLD WITHIN 90 DAYS (PERCENTAGE) (7)
BANKS (19)	Common Trust	208,130	112,500	54.1	66.7	138,750	32,782	23.6
	Pooled Employee Benefit	2,897,234	5,098,253	176.0	2.9	82,979	45,650	55.0
	Personal Trust	984,898	70,267	7.1	22.9	225,740	91,970	40.7
	Personal Agency	5,091,120	1,259,452	24.7	18.0	914,649	353,921	38.7
	Employee Benefit	2,221,315	484,741	21.8	18.7	415,167	97,907	23.6
	Corporate or Institutional	1,943,552	1,264,986	65.1	17.5	340,962	243,945	71.6
	TOTAL	13,346,249	8,290,199	62.1	15.9	2,118,247	866,175	40.9
INVESTMENT (33) ADVISERS	Individual	2,908,133	644,896	22.2	21.0	611,756	208,950	34.2
	Registered Investment Company	24,632,521	14,242,946	57.8	25.5	6,272,582	2,470,069	38.4
	Employee Benefit	340,655	131,520	38.6	82.3	280,395	110,860	39.5
	Corporate or Institutional	734,253	146,597	20.0	89.3	655,673	228,424	34.8
	Offshore or Hedge Fund	1,838,180	639,644	34.8	75.3	1,384,630	14,967	1.0
	Advisers' Own	135,040	-	-	86.5	116,840	63,778	54.6
	TOTAL	30,588,782	15,805,603	51.7	30.5	9,321,876	3,097,048	33.2
BROKER-DEALERS (13)	Individual	1,312,897	1,809,879	137.9	14.8	194,685	85,848	44.1
	Offshore or Hedge Fund	54,450	129,974	238.7	-	-	-	
	Employee Benefit	87,325	433,226	496.1	6.4	5,550	2,818	50.8
	Corporate or Institutional	107,937	376,300	348.6	1.4	1,500	1,050	70.0
	Other	3,603,460	75,600	2.1	0.2	5,575	2,115	37.9
	TOTAL	5,166,069	2,824,979	54.7	4.0	207,310	91,831	44.3
LIFE-INSURANCE (15) COMPANIES	General Account	2,202,090	323,965	14.7	76.6	1,686,079	436,623	25.9
	Pooled Individual	347,131	3,100	0.9	43.2	149,850	91,998	61.4
	Employee Benefit	612,350	33,850	5.5	67.0	409,645	112,308	27.4
	Investment Company	429,880	232,664	54.1	3.0	12,900	333	2.6
	Other	132,274	195,000	147.4	50.0	66,693	51,814	77.7
	TOTAL	3,723,725	788,579	21.2	62.4	2,325,167	693,076	29.8
SELF-ADMINISTERED EMPLOYEE BENEFIT PLANS (3)		983,988	292,363	29.7	69.3	681,482	154,446	22.7
OTHER INSTITUTIONS (17)		4,810,461	2,195,754	45.6	80.9	3,890,275	729,560	18.8
GRAND TOTAL		58,619,274	30,197,477	51.5	31.6	18,544,357	5,632,136	30.4

3. Holding Periods and Rates of Return by Class of Institution and Class of Account

Table XIV–26 lists the purchases in the offerings and the purchases and sales in the after-market, in connection with the Study sample of 84 first offerings. The figures are shown separately by class of institution and class of account. Column 1 shows the purchases in the offering, column 2 the purchases in the after-market, and column 3 the percentage of the second to the first. The expenditures in the after-market by all institutions were 51.5 percent of their expenditures at the offering. The percentages were higher for bank-managed pooled employee benefit accounts and most broker-dealer accounts, except for the account designated "other." [62]

Column 4 shows the percentage of the purchases in the offering that was sold within 90 days of the offering. Common trust funds, for example, spent $208,130 in the offerings (column 1). Of these they sold 66.7 percent (based on the values in the offerings) within 90 days of the offering. As a group, institutions sold 31.6 percent (by value) of the shares purchased in the offering within 90 days of the offering.[63] The turnover rates varied widely among classes of institutions and accounts. Broker-dealers turned over very little, while life insurance companies sold 62.4 percent of the value of their purchases in the offerings and other institutions, 80.9 percent.

Column 5 shows the cost of the shares purchased in the offerings and sold within 90 days; column 6, the realized gains on these sales; and column 7, the percentage return (column 6 divided by column 5). As a group, institutions realized a 30.4 percent return on the shares purchased in the offerings and sold within 90 days.[64] Curiously, offshore and hedge funds managed by investment advisers realized a return of only 1.0 percent on the sale of 75.3 percent of their purchases at the offering, although the data may not reflect a broad enough sample to be fairly representative.

The sample of institutions realized a dollar gain on the shares purchased in the offering and sold within 90 days of $5.6 million. Using the approximate blow-up factor of five explained in section C, above, these institutions can be estimated to have realized approximately $28 million within 90 days of the purchases in all first offerings in the period January 1968 through June 1969. Assuming that the institutions not included in the sample sold the same fraction of their purchases at the offerings and that they realized the same rate of return on these sales, an estimate of realized gains within 90 days of the offerings of all institutions in all first offerings in the period is $70.9 million.

To place this realized return in context, one can assume a value of all institutional equity holdings equal to approximately $300 billion. The approximate yield of the Standard & Poor Composite Index of

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[62] At the Study's request the broker-dealers described the various types of accounts included in the designation "other." Among the responses are the following: registered investment company; individual trust; estate; investment clubs; personal holding companies and "purchase by partnership for sale to customers."

[63] This figure represents an annual rate turnover well in excess of 100 percent. During this period institutions turned over their total equity portfolios at a rate of approximately 30 percent per year.

[64] This figure does not include sales of shares purchased in the aftermarket. The turnover of these shares was only 11.1 percent.

500 Stocks for the 18-month period,[65] including both dividends and gains, was approximately 6 percent. Therefore, the realized and unrealized gains on the equity portfolio of all institutions were in the neighborhood of $18 billion. The unrealized return after 12 weeks on the first offerings purchased at the offering and held at least 12 weeks was 9.9 percent (see table XIV–27 below), equal to an unrealized dollar gain of $3.97 million. Extrapolating[66] this figure for all first offerings in the period and all institutions yields an estimated unrealized gain of $50.3 million within 12 weeks of the respective offerings. Hence, realized and unrealized gains within 12 weeks of the respective offerings of all first offerings purchased by institutions between January 1, 1968 and June 30, 1969 is estimated to be $121.2 million, or 0.67 percent of the estimated return on all equity holdings by all institutions. On an annualized basis, the estimated return on institutional purchases of first offerings (held not more than 12 weeks)[67] as a percentage of the return on all institutional equity holdings during the period under consideration is 2.68 percent. Assuming a rate of capital turnover of 30 percent per quarter in the purchase of first offerings, the capital exposed at any given time is approximately 0.09 percent of the capital exposed in the total equity portfolio.[68] One would want to adjust these figures for the differences in risk between purchasing first offerings and purchasing the 500 stocks in the S & P index.

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[65] The closing price on December 29, 1967 was 96.47 and on June 30, 1969, 97.7. The dividend yield during this period was approximately 3 percent per year.

[66] As before the extrapolation involves 2 steps. The sample of institutions in the aftermarket study spent $58.6 million on the sample of 84 first offerings compared with total institutional expenditures of $148.3 million. Hence the unrealized return is multiplied by approximately 2.5 to get an estimate of unrealized returns of all institutions in the 84 offerings. Institutional purchases of the 84 offerings represent approximately 20 percent of institutional purchases of all first offerings in this period. Hence the product of $58.6 million and 2.5 is multiplied by 5. The actual figures shown in the text are slightly larger because they make use of more decimal places.

[67] The Study has not attempted to follow the returns on first offerings for a longer period except for the findings reported in app. A.

[68] With the assumed rate of turnover, based on the rate observed in the sample, an average commitment of only $265 million is required to purchase $742 million of first offering over an 18-month figure. To get the estimate 0.08, divide $265 million by $300 billion, the value of all equity capital. The capital required at the beginning of the period is, of course, less because of the accumulation due to the high return on the capital.

Table XIV-27

HOLDING PERIODS AND RATES OF RETURN OF SECURITIES PURCHASED IN THE OFFERING BY CLASS OF INSTITUTION AND TYPE OF ACCOUNT

CLASS OF INSTITUTION (Number of Institutions)	Type of Account	Value of Purchases of The Offering ($) (1)	Sales Within One Week: Percentage of Value of Purchases Sold (%) (2)	Sales Within One Week: Dollars Gain On Sale ($) (3)	Sales Within One Week: Percentage Return (%) (4)	Sales Within Two to Four Weeks: Percentage of Value of Purchases Sold (%) (5)	Sales Within Two to Four Weeks: Dollar Gain On Sale ($) (6)	Sales Within Two to Four Weeks: Percentage Return (%) (7)
BANKS (19)	Common Trust	208,130	27.6	30,750	53.5	NS	NS	NS
	Pooled Employee Benefit	2,897,234	1.2	14,817	44.1	NS	NS	NS
	Personal Trust	984,898	5.8	33,048	57.7	1.6	6,545	40.7
	Personal Agency	5,091,120	7.8	137,435	34.8	5.5	126,227	45.2
	Employee Benefit	2,221,315	2.3	21,320	41.8	9.4	106,881	51.1
	Corporate or Institutional	1,943,552	3.0	26,147	45.6	5.3	69,260	65.5
	TOTAL	13,346,249	4.9	263,517	40.4	4.6	308,913	50.6
INVESTMENT ADVISERS (33)	Individual	2,908,133	7.4	103,155	47.6	7.0	64,967	31.9
	Registered Investment Co.	24,632,521	3.4	203,970	24.4	8.2	656,448	32.8
	Employee Benefit	340,655	25.7	62,565	71.5	39.2	16,513	12.3
	Corporate or Institutional	734,253	36.6	78,963	29.4	20.3	52,800	35.5
	Offshore or Hedge Funds	1,838,180	17.2	46,079	14.6	22.7	41,785	10.0
	Advisers' Own	135,040	42.3	39,340	68.9	27.1	17,188	47.0
	TOTAL	30,588,782	5.8	534,072	29.9	9.6	849,701	28.9
BROKER-DEALERS (13)	Individual	1,312,897	3.8	22,001	44.3	5.7	26,213	35.2
	Offshore or Hedge Funds	54,450	NS	NS	NS	NS	NS	NS
	Employee Benefit	87,325	NS	NS	NS	2.0	1,513	86.5
	Corporate or Institutional	107,937	NS	NS	NS	1.4	1,050	70.0
	Other	3,603,460	NS	NS	NS	0.1	1,828	43.5
	TOTAL	5,166,069	1.0	22,001	44.3	1.6	30,604	37.4
LIFE INSURANCE (15)	General Account	2,202,090	25.3	144,701	26.0	24.1	144,119	27.2
	Pooled Individual	347,131	NS	NS	NS	11.2	13,876	35.6
	Employee Benefit	612,350	17.9	37,325	34.1	39.0	40,231	16.8
	Investment Company	429,880	NS	NS	NS	NS	NS	NS
	Other	132,274	NS	NS	NS	45.6	48,438	80.2
	TOTAL	3,723,725	17.9	182,026	27.3	23.4	246,664	28.4
SELF-ADMINISTERED EMPLOYEE BENEFIT (3)		983,988	7.3	11,130	15.4	14.1	15,788	11.4
OTHER INSTITUTION (17)		4,810,461	32.4	305,646	19.6	32.9	233,282	14.7
GRAND TOTAL (100)		58,619,274	8.2	1,318,392	27.6	10.6	1,684,952	27.1

NOTE:

NS = NO SALES

* = LESS THAN .5 Percent

Table AM-2 (Cont'd following page)

Table XIV-27 Continued

HOLDING PERIODS AND RATES OF RETURN OF SECURITIES PURCHASED IN THE OFFERING BY CLASS OF INSTITUTION AND TYPE OF ACCOUNT

CLASS OF INSTITUTION (Number of Institution)	Type of Account	Sales Within Five to Twelve Weeks: Percentage of Value of Purchases Sold (%) (8)	Sales Within Five to Twelve Weeks: Dollar Gain on Sale ($) (9)	Sales Within Five to Twelve Weeks: Percentage Return (%) (10)	Held at Least Twelve Weeks: Percentage of Value of Purchases Held (%) (11)	Held at Least Twelve Weeks: Unrealized Gain or Loss ($) (12)	Held at Least Twelve Weeks: Percentage Gain or Loss (%) (13)
BANKS (19)	Common Trust	39.1	2,032	2.5	33.3	37,330	53.8
	Pooled Employee Benefit	1.7	30,833	62.5	97.1	486,250	17.3
	Personal Trust	15.5	52,377	34.4	77.1	260,567	34.3
	Personal Agency	4.7	90,259	37.6	82.0	565,065	13.5
	Employee Benefit	7.0	-30,291	-19.5	81.3	-106,091	-5.9
	Corporate or Institutional	9.1	148,538	83.5	82.6	-151,449	-9.4
	TOTAL	6.4	293,748	34.3	84.1	1,091,672	9.7
INVESTMENT ADVISERS (33)	Individual	6.6	40,828	21.3	79.0	278,451	12.1
	Registered Investment Co.	13.9	1,609,653	46.9	74.5	2,302,410	12.5
	Employee Benefit	17.4	31,782	53.7	17.7	69,545	115.4
	Corporate or Institutional	32.4	96,661	40.6	10.7	19,927	25.4
	Offshore or Hedge Funds	35.4	-72,897	-11.2	24.7	17,343	3.8
	Advisers' Own	17.1	7,250	31.3	13.5	22,475	123.5
	TOTAL	15.1	1,713,277	37.3	69.5	2,710,151	12.7
BROKER-DEALERS (13)	Individual	5.4	37,634	53.3	85.1	514,716	46.0
	Offshore or Hedge Funds	NS	NS	NS	100.0	26,000	47.8
	Employee Benefit	4.4	1,305	34.3	93.6	40,132	49.1
	Corporate or Institutional	NS	NS	NS	98.6	36,138	34.0
	Other	*	287	20.9	99.9	-1,155,760	-32.1
	TOTAL	1.4	39,226	51.7	96.0	-538,774	-10.9
LIFE INSURANCE (15)	General Account	27.2	147,803	24.6	23.4	295,780	57.3
	Pooled Individual	31.9	78,122	70.4	56.9	51,514	26.1
	Employee Benefit	10.0	34,753	56.9	33.1	114,202	56.3
	Investment Company	3.0	333	2.6	97.0	28,847	6.9
	Other	11.8	3,376	53.4	49.6	20,710	31.6
	TOTAL	21.3	264,387	33.4	37.4	511,053	36.5
SELF-ADMINISTERED EMPLOYEE BENEFIT		47.9	127,528	27.1	30.7	-4,268	-1.4
OTHER INSTITUTION (17)		13.1	191,328	30.3	21.6	200,875	19.4
GRAND TOTAL (100)		12.6	2,629,494	35.4	68.6	3,970,709	9.9

NOTE:

NS = NO SALES

* = LESS THAN .5 PERCENT

Table XIV–27 divides the after-market into three segments—the first week after the initial offering; more than one but less than or equal to 4 weeks; more than 4 but less than or equal to 12 weeks. The table shows the percentages of the purchases at the initial offering price that were sold in each of the three segments, as well as the realized returns on these sales. In addition, the table shows the percentages of the initial purchases that were held more than 12 weeks and the unrealized returns on these securities at the end of 12 weeks. As a group, institutions sold 8.2 percent of their purchases in the initial offerings within one week of the respective offerings; an additional 10.6 percent within 4 weeks; and an additional 12.6 percent within 12 weeks. They therefore held 68.6 percent of their original purchases at the end of 12 weeks. Institutions realized a return of 27.6 percent on their sales during the first week after the respective offerings; 27.1 percent on their sales within 1 to 4 weeks; and 35.4 percent within 4 to 12 weeks. However, their unrealized return on the securities held at least 12 weeks after the offering was only 9.9 percent. The broker-dealers' "other" category held 99.9 percent of their purchases at the offering, on which they incurred an unrealized loss of 32.1 percent. The figures indicate some tendency for institutions to continue holding the offerings that experience less appreciation in the after-market. Whether this tendency can be attributed to their reluctance to take losses, their consideration for the underwriters, or their expectation of a subsequent rise cannot be determined with the Study's data.

Table XIV–28 shows the percentages of the purchases in the offerings held at the end of each after-market segment and the unrealized percentage return on these holdings. This table supports the proposition that the institutions tend to retain the weaker offerings. Column 4 of table XIV–27 showed an average rate of return of 27.6 percent for all institutional sales within one week of the initial offerings. Table XIV–28 shows that offerings held by all institutions for at least one week yield an average unrealized return of 20.3 percent; securities held at least 4 weeks, 13.1 percent; and securities held at least 12 weeks, 9.9 percent. Among the classes of institutions, other institutions held the smallest percentage of their purchases at the offering at the end of the twelfth week, 21.6 percent; life insurance companies next, with 37.5 percent; and self-administered employee benefit funds, 30.7 percent. Banks held 84.1 percent; investment advisers, 69.5 percent, and broker-dealers, 96.0 percent.

Table XIV-28

HOLDING PERIODS AND RATES OF UNREALIZED RETURN ON SECURITIES PURCHASED
IN OFFERINGS BY CLASS OF INSTITUTION AND TYPE OF ACCOUNT

CLASS OF INSTITUTION (Number of Institutions)	TYPE OF ACCOUNT	Value of Purchases in the Offering ($)	Held at Least One Week: Percentage of Value of Purchases Held (%)	Held at Least One Week: Unrealized Dollar Gain ($)	Held at Least One Week: Percentage Unrealized Return ($)	Held at Least Four Weeks: Percentage of Value of Purchases Held (%)	Held at Least Four Weeks: Unrealized Dollar Gain ($)	Held at Least Four Weeks: Percentage Unrealized Return (%)	Held at Least Twelve Weeks: Percentage of Value of Purchases Held (%)	Held at Least Twelve Weeks: Unrealized Dollar Gain ($)	Held at Least Twelve Weeks: Percentage Unrealized Return (%)
BANKS (19)	Common Trust	208,130	72.4	95,815	63.6	72.4	63,477	42.1	33.3	37,330	53.8
	Pooled Employee Benefit	2,897,234	98 8	643,987	22.5	98.8	472,171	16.5	97.1	486,250	17.3
	Personal Trust	984,898	94.2	757,582	81.7	92.6	249,682	27.4	77.1	260,567	34.3
	Personal Agency	5,091,120	92.2	792,642	16.9	86.7	379,754	8.6	82.0	565,065	13.5
	Employee Benefit	2,221,315	97.7	328,552	15.1	88.3	-27,965	-1.4	81.3	-106,091	-5.9
	Corporate or Institutional	1,943,552	94.0	663,917	35.1	91.7	83,401	4.7	82.6	-151,449	-9.4
	TOTAL	13,346,249	95.1	3,282,495	25.9	90.5	1,220,520	10.1	84.1	1,091,672	9.7
INVESTMENT ADVISERS (33)	Individual	2,908,133	92.6	41,212	1.5	85.6	236,017	9.5	79.0	278,451	12.1
	Registered Investment Co	24,632,521	96.6	4,859,203	20.4	88.4	3,392,166	15.6	74.5	2,302,410	12.5
	Employee Benefit	340,655	74.3	84,400	33.3	35.1	75,477	63.2	17.7	69,545	115.4
	Corporate or Institutional	734,253	63.4	198,458	42.6	43.1	138,581	43.8	10.7	19,927	25.4
	Offshore or Hedge Funds	1,838,180	82.8	185,066	12.2	60.1	34,598	3.1	24.7	17,343	3.8
	Advisers' Own	135,040	57.7	37,200	47.7	30.6	20,825	50.3	13.5	22,475	123.5
	TOTAL	30,588,782	94.2	5,405,539	18.8	84.6	3,897,664	15.1	69.5	2,710,151	12.7
BROKER-DEALERS (13)	Individual	1,312,897	96.2	655,423	51.9	90.5	688,784	57.9	85.1	514,716	46.0
	Offshore or Hedge Funds	54,450	100.0	33,775	62.0	100.0	33,075	60.7	100.0	26,000	47.8
	Employee Benefit	87,325	100.0	51,987	59.5	98.0	57,675	67.4	93.6	40,132	49.1
	Corporate or Institutional	107,937	100.0	39,031	36.2	98.6	36,194	34.0	98.6	36,138	34.0
	Other	3,603,460	100.0	-383,503	-89.4	99.9	-824,095	-22.9	99.9	-1,155,760	-32.1
	TOTAL	5,166,069	99.0	396,713	7.8	97.4	-8,367	-.2	96.0	-538,774	-10.9
LIFE INSURANCE (15)	General Account	2,202,090	74.7	611,716	37.2	50.6	408,062	36.6	23.4	295,780	57.3
	Pooled Individual	347,131	100.0	131,724	37.9	88.8	126,698	41.1	56.9	51,514	26.1
	Employee Benefit	612,350	82.1	116,268	23.1	43.1	102,282	38.8	33.1	114,202	56.3
	Investment Company	429,880	100.0	105,070	24.4	100.0	76,272	17.7	97.0	28,847	6.9
	Other	132,274	100.0	60,282	45 6	54.4	33,591	46.7	49.6	20,710	31.6
	TOTAL	3,723,725	82.1	1,025,060	33.5	58.7	746,905	34.1	37.4	511,053	36.5
SELF-ADMINISTERED EMPLOYEE BENEFIT (3)		983,988	92.7	197,073	21.6	78.6	119,276	15.4	30.7	-4,268	-1.4
OTHER INSTITUTION (17)		4,810,461	67.6	635,910	19.6	34.7	240,629	14.4	21.6	200,875	19.4
GRAND TOTAL (100)		58,619,274	91.8	10,942,790	20.3	81.2	6,216,627	13.1	68.6	3,970,709	9.9

The tendency for institutions to sell more of the issues that experienced greater price appreciation in the after-market is presented another way in Table XIV–29. (The table is divided into two sections, the first dealing with the first week of the after-market and the second with the first three months of the after-market.) The offerings were divided into five classes according to their price change in the after-market. These classes are characterized in the table as "decline," "0.0 percent—20.0 percent", etc. The first column indicates the aggregate purchases of first offerings. Next, for each class, four columns of numbers are shown: (1) value of the purchases in the offerings of issues in the respective price classes; (2) the percentage of all purchases in the offerings accounted for by the purchases just noted; (3) value of the securities in this class that were sold (values are at the offering prices); and (4) percentage of sales to purchases. For example, referring to Part A, all institutions spent $58,619,274 for all purchases in the offerings of the 84 securities. Of this total, they spent $17,460,718, or 29.8 percent, on offerings that declined in the first week of the after-market. Of these, they sold securities that were valued at the offering at $984,807, or 5.6 percent of all purchases of securities that declined in the first week of the after-market. Institutions spent 27.8 percent of all their expenditures on offerings that rose by between 0 and 20 percent in the after-market. They sold 6.9 percent of their purchases of these securities. In the next price range, the percentages were, respectively, 21.6 and 11.6; in the next, 20.3 and 9.5, and in the final price range, 0.5 and 19.7. There were relatively few sales by institutions of offerings that declined in the first week of the after-market. An exception was the group of corporate and institutional accounts of investment advisers, which sold half of their declining issues in the first week.

Part B of Table XIV–29, referring to sales within 3 months and price changes over a 3–month span, shows the relationship between frequency of sale and after-market price change in greater relief. All institutions sold 22.7 percent of their purchases of declining offerings; 33.1 percent of their purchases of offerings that rose by between zero percent and 20 percent; 32.9 percent, 48.9 percent, and 58.7 percent of their purchases of offerings that rose by between 20 percent and 50 percent, 50 percent and 100 percent, and more than 100 percent, respectively.

Table XIV-29
(Part A)

PERCENTAGE OF SHARES PURCHASED IN OFFERINGS AND SOLD WITHIN ONE WEEK, CLASSIFIED BY AFTER-MARKET PRICE CHANGE, CLASS OF INSTITUTION, AND TYPE OF ACCOUNT

CLASS OF INSTITUTION (Number of Institutions)	TYPE OF ACCOUNT	Value of All Purchases in the Offering ($)	AFTER-MARKET PRICE CHANGE: Decline: Value of Shares Purchased ($)	Decline: Percentage of All Purchases (%)	Decline: Cost of Shares Sold ($)	Decline: Percentage of Value of Shares Purchased (%)	0.0% - 20.0%: Value of Shares Purchased ($)	0.0% - 20.0%: Percentage of All Purchases (%)	0.0% - 20.0%: Cost of Shares Sold ($)	0.0% - 20.0%: Percentage of Value of Shares Purchased (%)
BANKS (19)	Common Trust	208,130	-	-	-	-	-	-	-	-
	Pooled Employee Benefit	2,897,234	1,175,500	40.6	-	-	41,496	1.4	6,900	16.6
	Personal Trust	984,898	309,725	31.4	4,400	1.4	141,376	14.4	4,050	2.9
	Personal Agency	5,091,120	2,398,190	47.1	12,500	.5	502,433	9.9	116,870	23.3
	Employee Benefit	2,221,315	357,670	16.1	5,000	1.4	1,299,975	58.5	5,400	.4
	Corporate or Institutional	1,943,552	374,500	19.3	-	-	100,550	5.2	4,125	4.1
	TOTAL	13,346,249	4,615,585	34.6	21,900	.5	2,085,830	15.6	137,345	6.6
INVESTMENT ADVISERS (33)	Individual	2,908,133	831,600	28.6	12,500	1.5	1,642,175	56.4	38,025	2.3
	Registered Investment Co.	24,632,521	4,705,768	19.2	93,175	2.0	9,840,346	39.9	191,212	1.9
	Employee Benefit	340,655	5,000	1.5	-	-	83,750	24.6	-	-
	Corporate or Institutional	734,253	167,550	22.8	84,800	50.6	-	-	-	-
	Offshore or Hedge Funds	1,838,180	959,500	52.2	184,000	19.2	216,375	11.8	45,950	21.2
	Adviser's own	135,040	-	-	-	-	32,850	24.3	28,350	86.3
	TOTAL	30,588,782	6,669,418	21.8	374,475	5.6	11,815,496	38.6	303,537	2.6
BROKER-DEALERS (13)	Individual	1,312,897	31,650	2.4	-	-	138,950	10.6	7,500	5.4
	Offshore or Hedge Funds	54,450	-	-	-	-	-	-	-	-
	Employee Benefit	87,325	-	-	-	-	-	-	-	-
	Corporate or Institutional	107,937	12,062	11.2	-	-	31,000	28.7	-	-
	Other	3,603,460	3,540,000	98.2	-	-	-	-	-	-
	TOTAL	5,166,069	3,583,712	69.4	-	-	169,950	3.3	7,500	4.4
LIFE INSURANCE (15)	General Account	2,202,090	484,700	22.0	68,660	14.1	335,446	15.2	167,775	50.1
	Pooled Individual	347,131	37,500	10.8	-	-	58,975	17.0	-	-
	Employee Benefit	612,350	129,475	21.1	-	-	203,025	33.2	43,200	21.3
	Investment Company	429,880	-	-	-	-	207,100	48.2	-	-
	Other	132,274	-	-	-	-	-	-	-	-
	TOTAL	3,723,725	651,755	17.5	68,660	10.5	804,546	21.6	210,975	26.2
SELF-ADMINISTERED EMPLOYEE BENEFIT (3)		983,988	246,075	25.0	-	-	304,537	30.9	49,975	16.4
OTHER INSTITUTIONS (17)		4,810,461	1,694,173	35.2	519,772	30.7	1,093,145	22.8	418,923	38.3
GRAND TOTAL (100)		58,619,274	17,460,718	29.8	984,807	5.6	16,273,504	27.8	1,128,255	6.9

(Cont'd on next page)

Table XIV-29 (continued)

PERCENTAGE OF SHARES PURCHASED IN OFFERINGS AND SOLD WITHIN ONE WEEK, CLASSIFIED BY AFTER-MARKET PRICE CHANGE, CLASS OF INSTITUTION AND TYPE OF ACCOUNT

CLASS OF INSTITUTION (Number of Institutions)	TYPE OF ACCOUNT	AFTER-MARKET PRICE CHANGE											
		20.1% - 50.0%				50.1% - 100.0%				100.1% or More			
		Value of Shares Purchased ($)	Percentage of All Purchases (%)	Cost of Shares Sold ($)	Percentage of Value of Shares Purchased (%)	Value of Shares Purchased ($)	Percentage of All Purchases (%)	Value of Shares Sold ($)	Percentage of Value of Shares Purchased (%)	Value of Shares Purchased ($)	Percentage of All Purchases (%)	Cost of Shares Sold ($)	Percentage of Value of Shares Purchased (%)
BANKS (19)	Common Trust	68,160	32.7	19,200	28.2	139,970	67.3	38,250	27.3	-	-	-	-
	Pooled Employee Benefit	821,583	28.4	16,537	2.0	858,655	29.6	10,175	1.2	-	-	-	-
	Personal Trust	194,500	19.7	8,180	4.2	330,697	33.6	38,700	11.7	8,600	.9	2,000	23.3
	Personal Agency	1,075,007	21.1	139,505	13.0	1,059,210	20.8	117,430	11.1	56,280	1.1	8,600	15.3
	Employee Benefit	167,440	7.6	34,775	20.8	342,230	15.4	5,800	1.7	54,000	2.4	-	-
	Corporate or Institutional	1,080,137	55.5	25,237	2.3	370,765	19.1	24,075	6.5	17,600	.9	1,000	5.7
	TOTAL	3,406,827	25.5	243,434	7.1	3,101,527	23.1	234,430	7.6	136,480	1.0	11,600	8.5
INVESTMENT ADVISERS (33)	Individual	314,585	10.8	97,375	30.9	118,173	4.1	67,131	56.8	1,600	.1	1,600	100.0
	Registered Investment Co.	5,375,264	21.8	317,565	5.9	4,657,743	18.9	234,600	5.0	53,400	.2	-	-
	Employee Benefit	158,595	46.5	30,950	19.5	83,310	24.5	46,560	55.9	10,000	2.9	10,000	100.0
	Corporate or Institutional	274,875	37.5	101,700	37.0	291,828	39.7	82,418	28.2	-	-	-	-
	Offshore or Hedge Funds	499,280	27.1	45,300	9.0	163,025	8.9	41,300	25.3	-	-	-	-
	Advisers' own	55,750	41.3	3,300	5.9	25,840	19.1	9,840	38.1	20,600	15.3	15,600	75.7
	TOTAL	6,678,349	21.8	596,190	8.9	5,339,919	17.5	481,849	9.0	85,600	.3	27,200	31.8
BROKER-DEALERS (13)	Individual	179,550	13.7	2,400	1.3	962,747	73.3	39,750	4.1	-	-	-	-
	Offshore or Hedge Funds	-	-	-	-	54,450	100.0	-	-	-	-	-	-
	Employee Benefit	6,300	7.2	-	-	81,025	92.8	-	-	-	-	-	-
	Corporate or Institutional	9,600	8.9	-	-	55,275	51.2	-	-	-	-	-	-
	Other	52,450	1.5	-	-	11,010	.3	-	-	-	-	-	-
	TOTAL	247,900	4.8	2,400	1.0	1,164,507	22.5	39,750	3.4	-	-	-	-
LIFE INSURANCE (15)	General Account	623,683	28.3	246,200	39.5	709,681	32.3	74,325	10.5	48,500	2.2	-	-
	Pooled Individual	107,400	30.9	-	-	143,256	41.3	-	-	-	-	-	-
	Employee Benefit	71,660	11.7	-	-	208,190	34.0	66,375	31.9	-	-	-	-
	Investment Company	118,620	27.6	-	-	104,160	24.2	-	-	-	-	-	-
	Other	81,655	61.7	-	-	50,619	38.3	-	-	-	-	-	-
	TOTAL	1,003,018	26.9	246,200	24.5	1,215,906	32.7	140,700	11.6	48,500	1.3	-	-
SELF-ADMINISTERED EMPLOYEE BENEFITE (3)		190,793	19.4	22,315	11.7	241,583	24.6	-	-	1,000	.1	-	-
OTHER INSTITUTIONS (17)		1,145,421	23.8	360,710	31.5	833,982	17.3	235,343	28.2	43,740	.9	23,240	53.1
GRAND TOTAL (100)		12,672,308	21.6	1,471,249	11.6	11,897,424	20.3	1,132,072	9.5	315,320	.5	62,040	19.7

Table XIV-29
(Part B)

PERCENTAGE OF SHARES PURCHASED ON OFFERINGS AND SOLD WITHIN TWELVE WEEKS, CLASSIFIED BY AFTER-MARKET PRICE CHANGE, CLASS OF INSTITUTION, AND TYPE OF ACCOUNT

CLASS OF INSTITUTION (Number of Institutions)	TYPE OF ACCOUNT	Value of All Purchases in The Offering ($)	AFTER- MARKET PRICE CHANGE							
			DECLINE				0.0% - 20.0%			
			Value of Shares Purchased ($)	Percentage of All Purchases (%)	Cost of Shares Sold ($)	Percentage of Value of Shares Purchased (%)	Value of Shares Purchased ($)	Percentage of All Purchases (%)	Cost of Shares Sold ($)	Percentage of Value of Shares Purchased (%)
Banks (19)	Common Trust	208,130	-	-	-	-	-	-	-	-
	Pooled Employee Benefit	2,897,234	1,291,150	44.6	-	-	6,900	.2	6,900	100.0
	Personal Trust	984,898	159,650	16.2	37,150	23.3	194,925	19.8	6,525	3.3
	Personal Agency	5,091,120	2,540,378	49.9	172,483	6.8	153,277	3.0	43,950	28.7
	Employee Benefit	2,221,315	1,636,095	73.6	221,875	13.6	1,450	.1	1,450	100.0
	Corporate or Institutional	1,943,552	1,348,100	69.5	22,500	1.7	10,562	.5	10,562	100.0
	TOTAL	13,346,249	6,975,373	52.2	454,008	6.5	367,114	2.8	69,387	18.9
Investment Advisers (33)	Individual	2,908,133	857,600	29.5	97,600	11.4	64,500	2.2	14,500	22.5
	Registered Investment Co.	24,632,521	9,716,510	39.4	1,430,098	14.7	1,720,595	7.0	300,562	17.5
	Employee Benefit	340,655	151,750	44.6	146,750	96.7	1,100	.3	1,100	100.0
	Corporate or Institutional	734,253	308,550	42.0	291,300	94.4	-	-	-	-
	Offshore or Hedge Funds	1,838,180	1,292,200	70.3	962,750	74.5	74,700	4.1	74,700	100.0
	Adviser's own	135,040	-	-	-	-	2,750	2.0	2,750	100.0
	TOTAL	30,588,782	12,326,610	40.3	2,928,498	23.8	1,863,645	6.1	393,612	21.1
Broker-Dealers (13)	Individual	1,312,897	36,900	2.8	3,000	8.1	21,700	1.7	14,950	68.9
	Offshore or Hedge Funds	54,450	-	-	-	-	-	-	-	-
	Employee Benefit	87,325	-	-	-	-	-	-	-	-
	Corporate or Institutional	107,937	8,800	8.2	-	-	3,262	3.0	-	-
	Other	3,603,460	3,540,000	98.2	-	-	-	-	-	-
	TOTAL	5,166,069	3,585,700	69.4	3,000	.1	24,962	.5	14,950	59.9
Life Insurance (15)	General Account	2,202,090	900,750	40.9	815,830	90.6	70,550	3.2	45,550	64.6
	Pooled Individual	347,131	74,500	21.5	18,000	24.2	-	-	-	-
	Employee Benefit	612,350	163,675	26.8	129,475	79.1	-	-	-	-
	Investment Company	429,880	207,100	48.2	-	-	-	-	-	-
	Other	132,274	1,200	.9	1,200	100.0	-	-	-	-
	TOTAL	3,723,725	1,347,225	36.2	964,505	71.6	70,550	1.9	45,550	64.6
Self-Administered Employee Benefit (3)		983,988	352,762	35.8	121,650	34.5	36,000	3.7	36,000	100.0
Other Institutions (17)		4,810,461	2,146,232	44.6	1,607,731	74.9	496,462	10.3	386,647	77.9
GRAND TOTAL (100)		58,619,274	26,733,902	45.6	6,079,392	22.7	2,858,733	4.9	946,146	33.1

(Cont'd next page)

Table XIV-29 (Continued)
(Part B)

PERCENTAGE OF SHARES PURCHASED ON OFFERINGS AND SOLD WITHIN TWELVE WEEKS, CLASSIFIED BY AFTER-MARKET PRICE CHANGE, CLASS OF INSTITUTION, AND TYPE OF ACCOUNT

CLASS OF INSTITUTION (Number of Institutions)	TYPE OF ACCOUNT	AFTER-MARKET PRICE CHANGE											
		20.1% - 50.0%				50.1% - 100.0%				100.1% or More			
		Value of Shares Purchased ($)	Percentage of All Purchases (%)	Cost of Shares Sold ($)	Percentage of Value of Shares Purchased (%)	Value of Shares Purchased ($)	Percentage of All Purchases (%)	Cost of Shares Sold ($)	Percentage of Value of Shares Purchased (%)	Value of Shares Purchased ($)	Percentage of All Purchases (%)	Cost of Shares Sold ($)	Percentage of Value of Shares Purchased (%)
Banks (19)	Common Trust	147,460	70.8	100,500	68.2	56,950	27.4	38,250	67.2	3,720	1.8	-	-
	Pooled Employee Benefit	1,375,445	47.5	61,367	4.5	113,400	3.9	-	-	110,339	3.8	14,712	13.3
	Personal Trust	463,820	47.1	126,090	27.2	89,190	9.1	46,000	51.6	77,313	7.8	9,975	12.9
	Personal Agency	1,372,373	30.8	354,881	22.6	353,875	7.0	139,430	39.4	471,217	9.3	203,905	43.3
	Employee Benefit	362,568	16.3	53,987	14.9	75,265	3.4	71,890	95.5	145,937	6.6	65,962	45.2
	Corporate or Institutional	341,040	17.5	97,550	28.6	119,225	6.1	82,675	69.3	124,625	6.4	124,775	100.1
	TOTAL	4,262,706	31.9	794,375	18.6	807,905	6.1	378,245	46.8	933,151	7.0	419,329	44.9
Investment Advisers (33)	Individual	1,763,721	60.7	319,156	18.1	58,950	2.0	51,450	87.3	163,362	5.6	129,050	79.0
	Registered Investment Co.	9,062,713	36.8	2,590,510	28.6	1,917,759	7.8	847,495	44.2	2,214,944	9.0	1,103,915	49.8
	Employee Benefit	86,695	25.4	69,995	80.7	18,600	5.5	18,600	100.0	82,510	24.2	43,950	53.3
	Corporate or Institutional	297,278	40.5	241,573	81.3	72,025	9.8	66,400	92.2	56,400	7.7	56,400	100.0
	Offshore or Hedge Funds	212,355	11.5	121,630	57.3	106,625	5.8	101,250	95.0	152,300	8.3	124,300	81.6
	Adviser's own	39,250	29.1	36,050	91.8	41,500	30.7	31,500	75.9	51,540	38.2	46,540	90.3
	TOTAL	11,462,012	37.5	3,378,914	29.5	2,215,459	7.2	1,116,695	50.4	2,721,056	8.9	1,504,155	55.3
Broker-Dealers (13)	Individual	1,020,907	77.7	137,635	13.5	231,190	17.6	36,900	16.0	2,200	.2	2,200	100.0
	Offshore or Hedge Funds	48,750	89.5	-	-	5,700	10.5	-	-	-	-	-	-
	Employee Benefit	75,425	86.4	800	1.1	11,900	13.6	4,750	39.9	-	-	-	-
	Corporate or Institutional	92,375	85.6	-	-	3,500	3.2	1,500	42.9	-	-	-	-
	Other	54,450	1.5	5,575	10.2	9,010	.3	-	-	-	-	-	-
	TOTAL	1,291,907	25.0	144,010	11.1	261,300	5.1	43,150	16.5	2,200	*	2,200	100.0
Life Insurance (15)	General Account	813,976	37.0	527,837	64.8	125,121	5.7	81,457	65.1	291,693	13.2	215,405	73.8
	Pooled Individual	203,986	58.7	88,450	43.4	34,725	10.0	9,600	27.6	33,920	9.8	33,800	99.6
	Employee Benefit	256,495	41.9	213,614	83.3	171,100	27.9	45,475	26.6	21,080	3.4	21,080	100.0
	Investment Company	213,600	49.7	12,900	6.0	-	-	-	-	9,180	2.1	-	-
	Other	116,199	87.9	50,618	43.6	-	-	-	-	14,875	11.2	14,875	100.0
	TOTAL	1,604,256	43.0	893,419	55.7	330,946	8.9	136,532	41.3	370,748	10.0	285,160	76.9
Self-Administered Employee Benefit (3)		580,211	59.0	508,817	87.7	12,760	1.3	12,760	100.0	2,275	.2	2,275	100.0
Other Institutions (17)		1,118,929	23.3	965,974	86.3	444,715	9.2	306,024	68.8	604,123	12.6	506,142	83.8
GRAND TOTAL (100)		20,320,021	34.7	6,685,509	32.9	4,073,065	6.9	1,993,386	48.9	4,633,553	7.9	2,719,261	58.7

* Less than .05

4. Interpretation of Results

The institutional predilection to sell significant fractions of the offerings that rise in the after-market is subject to various interpretations. An informed judgment with respect to these interpretations should take into account several considerations.

First, distributions of first offerings are often effected through a rationing process [69] that results in a number of unsatisfied investors, whose demand is diverted to the aftermarket. The initial price appreciation that follows is directly attributable to the method of non-price rationing which is not attributable to institutional participation in the market. Second, institutions receive quantities of first offerings that, while large in the aggregate, are not proportionately greater than the amounts of all equity purchases of institutions. The view has been expressed that institutions should receive proportionately less of the first offerings in order that the public can receive proportionately more of what amounts to a gift in the case of "hot issues." This view specifically assumes that first offerings currently distributed resemble gifts and questions whether anyone should receive these gifts. Also, unlike the fiduciaries who are proscribed by NASD regulations [70] from purchasing in the offering except under circumscribed conditions, the institutions, in almost all cases are purchasing for the account of their customers.[71] These customers, particularly in the case of registered investment companies, who accounted for 42 percent of the institutional purchases of the sample of institutions, are not necessarily better situated and less in need of additional wealth than the public customers receiving first offerings. The demotic connotation of the word "public" in the context of first offerings should not be interpreted to exclude such customers.[72]

Third, reducing or eliminating institutional purchases of first offerings would reduce not only the after-market premium but the general demand for first offerings as well. Since institutions account for approximately 25 percent of all purchases of first offerings, any substantial restriction on their purchases might weaken the market for first offerings.

Fourth, the argument sometimes made that institutional purchases at the offerings in effect reduce the supply available to the public and stimulate after-market premia is tautological. With a fixed supply, every purchase preempts another. The analogy between institutional purchases and the withholding of stock at the offering in order to arti-

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[69] See sec. B2.

[70] See sec. D2.

[71] An apparent exception to this proposition is the account type "adviser's own" under the heading "Investment Advisers." (See Table XIV–26.) This account type spent $135,000 on first offerings, sold 86.5 percent of the value of these purchases within 3 months of the respective offerings, and realized a return of 54.6 percent on these sales. The October 26, 1970 letter of the NASD (op. cit., sec. D2) refers specifically to the inclusion of senior officers and other relevant employees of "registered investment advisory firms" among the group of individuals who are proscribed from purchasing first offerings, except under certain conditions, under the NASD's rules on withholding and free-riding. Earlier interpretations did not specifically list this group among those to which their rules applied, but rather referred to officers and other designated employees associated with "other institutional accounts." The data described above refer to the period prior to the October 26, 1970. letter.

[72] Investment advisers, particularly those associated with large investment company complexes are disproportionately represented in the sample of 100 institutions. Their percentage of all institutional purchases in the sample cannot be extrapolated to the whole population of institutions.

ficially limit supply is predicated on the existence of a relationship between underwriters and institutions that is different from that between underwriters and other investors. The existence of such a relationship, implying as it does a common interest in limiting supply, cannot be assumed as an *a priori* fact. Where such relationships exist and result in market manipulations, they are subject to existing laws.

Finally, institutions do not receive proportionately more of the offerings that rise in the after-market; nor do they participate proportionately more in good markets than in bad. The attempt to preserve their participation in weak offerings or markets while curtailing their access to strong offerings or markets would be futile, since acceptance of weak offerings is conditional on their continued access to the good offerings.

A further consideration is that any attempt to curtail institutional sales of offerings that rise to a premium in the after-market would likely bring about a substantial decline in institutional purchases at the offering since loss of liquidity, due to inability to sell, would also substantially diminish the attractiveness of first offerings.

It should also be recognized that institutional sales (like those of other investors) of offerings that rise in the after-market, put a downward pressure on prices. Their tendency to retain offerings whose prices decline assuage the extent of these declines. Even if it were possible to preserve institutional purchases at the offering while curtailing their after-market sales, it might be undesirable to do so. Such a policy would preempt supply and thus increase the amplitude of price changes in the after-market. The major losers in the current system are those investors who are stimulated to pay inflated after-market prices. Any policy that would have the effect of raising these prices, by curtailing after-market supply—for example, through restrictions on trading, would exacerbate the situation for these investors.

F. INSTITUTIONAL PURCHASES OF RESTRICTED SECURITIES

1. Introduction

This section concerns institutional purchases of restricted equity-related securities in the period January 1, 1966 to June 30, 1969. Credit conditions increasingly tightened during this period, and stock prices rose through most of it. The extent and nature of institutional activity in regard to restricted securities were certainly influenced by the impact of these factors on all securities markets. This section does not deal with the legal problems associated with resales of restricted securities and with the valuation of these securities in the portfolios of registered investment companies and other institutions. Instead, the purpose of this section is to establish facts about the volume of restricted securities, as well as characteristics of the issuing companies, size of transactions, types of purchases, and prices. Since the period covered was brief, there was little opportunity to ascertain average holding periods and realized returns on resale. The number of securities that were resold was too small to permit inference in this regard.

2. Method of Study

The Study sent questionnaire I–70 to a group of approximately 300 institutions requesting information on their purchases of restricted

securities (comprising common stock, convertible debt, debt with warrants, and various combinations of these securities) in the period January, 1966 through June 1969. The following classes of institutions received the questionnaire (in parenthesis are the percentage of assets managed by the entire class that are accounted for by the particular institutions in the sample): Banks (69.6%); Investment Advisers (40.0%);[73] Life Insurance Companies (74.7%); Self Administered Employee Benefit Plans (N.A.); Foundations (27.9%); Educational Endowments (29.1%); and Venture Capital Companies (N.A.).[74] The contents of this section are largely based on the information received in the returns to the Study's questionnaire.

3. Background

Restricted securities are securities acquired from an issuer in a transaction (private placement) exempt from registration pursuant to section 4(2) of the Securities Act of 1933. The basis for the exemption is that the transaction is not a public offering and the securities are privately placed with a (usually) small group[75] of sophisticated[76] investors who are given or have access to information of substantially similar scope to that available in a registration statement to public investors and who do not need other protections offered by the Act. The investors must not be acting as conduits for a distribution to the public.[77] In addition, securities acquired in any manner by persons in a control relationship with the issuer become restricted, as do securities, under some interpretations of the so-called "fungibility" doctrine, acquired in the public market by holders of restricted securities of the same class. Restricted securities cannot be sold in a public distribution unless:

a. The issuer registers the securities with the Commission;

b. The seller requests the Commission's staff to render an opinion as to whether it would recommend any enforcement action should he distribute the restricted securities to the public. The basis for this assertion would be that the seller is not acting as underwriter, that is, he did not acquire the securities with a view to distributing them and is not participating in a distribution. One means of demonstrating this original intent has been to demonstrate that the reason for sale results from an unforeseeable change of circumstances that occurred in regard either to the issuer or to himself; or

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[73] This number is an approximation that does not differ from the true number by more than 2 percentage points.

[74] There is no information available on the total assets held by venture capital companies. The Study's sample includes most of the well known companies or groups and probably accounts for more than 50 percent of the assets held as venture capital investments by all venture capital companies. This class of institutions comprises a variety of forms including closed end investment companies, small business investment companies, investment partnerships, family investment pools, and loose organizations of individual investors who decide individually whether and to what extent they will participate in a given transaction.

[75] While the size of the group of offerees is one factor among many in the determination whether the offering is in fact private, no specific maximum number has ever been set. A relatively large number of banks and insurance companies may be deemed private offerees in the placement of a high quality debt instrument, whereas a smaller number of offerees with less experience in finance purchasing a speculative security may be deemed to constitute offerees in a public distribution.

[76] No test exists for sophistication. Professional involvement with investments, particularly restricted securities, would be a relevant factor in the determination whether the investor's circumstances obviate some of the protections available only from a registration.

[77] The issuer often requires the investor to execute an "investment letter", which provides the issuer (or selling shareholder) with some indication that the offering was not a distribution, requiring registration under the Securities Act.

c. The seller, on advice of counsel, is satisfied, with or without a "no-action" letter from the Commission, that the securities may be sold without registration. The seller might also find it necessary to convince the issuer, its transfer agent and any broker executing the transaction that the securities could be sold without registration. Transfer agents have frequently insisted on a "no-action" letter from the Commission before transfering restricted securities.

One factor which may demonstrate the absence of the intent at the time of the purchase to distribute the securities to the public would be the seller's holding the securities for some extended period. However, the holding period, regardless of its length, does not, per se, establish the right to sell the securities without registration under the Securities Act.

Private placements of debt (i.e, bonds without equity features) have been made for a long time. Such placements may be, in effect, long term negotiated loans by one or more institutions to an issuer. To the issuer, private placements of straight debt are advantageous because of their lower transaction costs in comparison with the costs of a registered, underwritten public offering, as well as the ease of adapting the terms of the indenture to the requirements of the borrower and lenders.[78] These advantages permit the issuer to offer a somewhat higher yield on privately placed debt. To the lenders, usually one or more insurance companies and to a lesser extent foundations, employee benefit funds (both self- and bank-administered), and other institutions, the higher yield outweighs the relative illiquidity of these securities since these institutions have little inclination to trade these securities in any case. In this respect these placements are similar to longer term bank loans, although the debt securities acquired in private placements generally have longer maturities. Private placements may be particularly advantageous to issuers whose financial status falls short of the standards set by most public offerings of debt securities, although in some cases financial status is not a factor in the decision to privately place the bonds. Institutions can obtain the higher yield on these securities, higher because of the restriction on trading as well as any quality differentials that may pertain, while alleviating any additional risks due to illiquidity or financial problems of the issuer after the purchase by maintaining contact with the issuer, arranging for restrictive covenants in the indenture in anticipation of contingent events, and diversifying their holdings.

Institutions can therefore count on a positive yield differential in purchasing private placements due to the restriction on trading and to some quality differential, where applicable. Several factors limit this differential. The quality of a prospective issue may fall to the point where the required yield differential becomes prohibitive,[79] as an excessive interest burden may fatally tax a financially weak company. Also an institution may wish to avoid the appearance of charging usuri-

[78] The terms of a public offering usually are designed to appeal to general market tastes. Such appeal would be marred by unfamiliar conditions with respect to, for example, terms of redemption. Moreover, since the securities change hands, the terms cannot be set with any particular lender in mind.

[79] In addition, the lower the quality of the security the more significant becomes the restriction on trading since the probability that the institution may want to sell out increases.

ous interest. Finally, as the market interest rate rises the opportunities diminish for adding to the differential.[80]

Institutions have in recent years supplemented the limited interest yield with so called "equity kickers", usually in the form of detachable warrants to purchase common stock and to a lesser extent conversion rights on the bonds themselves. Equity kickers have been used for a long time to raise the *expected* effective-yield, as distinct from the interest return of debt instruments issued by companies of uncertain financial status. As inflationary forces drove interest rates up in the second half of the 1960's, the need arose more widely among private lenders for additional contributions to expected yield beyond those available from interest return. In addition to providing the premium over interest yields available from publicly traded bonds, the equity features held out the promise, rightly or wrongly, of greater protection against the adverse effects of inflation on long term portfolio yields.[81]

Rising interest rates were an important factor in the increased *supply* of private placements of equity-related securities.[82] In this connection several factors bear mentioning.

(a) Rising interest rates raised the required level of quality for public offerings of equity-related debt. Hence more prospective issuers were diverted to the private market.

(b) Limitations on the supply of bank loans caused some issuers to substitute longer-term securities for bank loans. Many of these issuers lacked sufficient quality to offer straight debt securities, publicly or privately, even in times of less monetary constraint. Hence, they were forced to substitute equity and equity-related debt securities [83] for their previous access to bank and trade credit.

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[80] Part of the effective differential is obtainable through the imposition of more severe terms, particularly in regard to call protection.

[81] Because of required accounting procedures, insurance companies had a further reason for favoring equity kickers even over the direct purchase of equity. Life companies are generally limited in their investments in common stocks to 10 percent of their assets or 100 percent of their surplus (whichever is lower). For big companies the surplus rule is more important. Moreover, the surplus cannot exceed 10 percent of liabilities for mutual companies. However, insurance companies often do not carry the maximum equity permissible under law for several reasons. The valuation of securities is regulated by the National Association of Insurance Commissioners. Common stock is carried at year end market values. A decline in market values would lower the value of assets, while the value of liabilities stayed the same and therefore lower the stated surplus. In this event, the company may acquire the unfavorable image associated with a declining surplus and may suffer as a result lower sales of new policies. To ameliorate this problem insurance companies often hold less than the allowable equity in order to limit the variability of their stated surplus. While there is a reserve separated from the surplus that is designed to cushion changes in the value of bonds and equity, this reserve could be wiped out in the event of a major decline in stock prices. In addition to lobbying for a change in accounting procedures to permit their carrying equity at cost or at some moving average of market values, life insurance companies have demanded equity kickers as a means of acquiring deferred equity participation while avoiding the putatively adverse effects of the accounting procedures. Beside explicit equity participaton, insurance companies had been shifting into lower quality debt in order to raise portfolio returns. As its quality declines the debt takes on more of the characteristic of equity. However, the ceiling on the interest payment, however high it may be, constitutes a major distinction from the potentially unlimited yield of equity. Hence, straight debt of any quality can never replace equity participation, the unlimited potential yield of which is a necessary perquisite for the bearing of risk.

[82] The volume of private placements of straight debt securities peaked in 1965 and declined through the period of the Study's sample. Some of the increased volume of privately placed equity-related debt securities in this period is attributable to the addition of equity kickers to the debt securities that would have been sold previously as straight debt. The remainder of this section deals only with equity-related securities and not with straight debt.

[83] Some of the convertible bonds offered privately were little more than deferred equity offerings that yielded the investor an interest return while he waited for the expected capital appreciation.

(c) Public offerings may be eschewed for any of a number of reasons. The company may need the money quickly and therefore cannot endure the delay incident to an audit, the preparation of a registration statement, and the necessary waiting period after the registration statement is filed, or the possibility that the market may not accept the offering.

(d) The company may require less money than is economic to obtain in an underwritten offering.

(e) The company may benefit from or require special terms that are not usually contained in the indentures for publicly traded bonds.

The institutional demand for private placements, particularly common stock but also equity-related bonds with low relative conversion prices, is more simply explained by the price paid for the securities. Restricted securities usually sell at a discount. Barring unforeseen changes in the circumstances of the company, the institutional offerees stand to realize the gain from the discounted purchase price to the general market price in addition to any appreciation in the market price. This realization can come about through a registered secondary distribution or through an ordinary brokerage transaction in the event the institution is able to sell without registration.

4. Volume of Restricted Securities

Table XIV–30 classifies purchases of restricted equity-related securities by type of security, class of institutional purchaser, and year of purchase. In addition, the table distinguishes primary from secondary distributions, as well as securities of issuers whose common stock is at least in part publicly traded from those of issuers whose common stock is privately held.[84] Of the total $3.5 billion in restricted securities purchased between January 1, 1966 and June 30, 1969,[85] 71.8 percent involved debt securities. Secondary sales accounted for 2.3 percent of all placements of debt securities and 24.5 percent of the equity placements.[86]

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[84] The determination whether any of the issuer's common stock is publicly traded depended on the Study's finding either an exchange listing or an over-the-counter price quotation. Since many OTC stocks trade only sporadically, the Study may have erred in designating some of the issuers as privately held as a result of not finding a quotation for them.

[85] In view of the high degree of concentration (described below) and the influence of size of institution on the volume of purchases, estimates of the purchases of restricted securities by the entire population of institutions would be highly speculative. The percentage of the assets managed by the respective classes of institutions accounted for by the sample of banks and life insurance companies, 69.5 percent and 74.7 percent, are in all likelihood exceeded by the percentages of the respective class purchases of restricted securities by the Study's sample of institutions. In the case of investment advisers, however, the Study did not select the largest institutions. Instead, it selected alternate members from a list of the 80 largest investment advisers that were ranked in descending order of asset size. This selected sample, with combined assets of over $47 billion or 36.2 percent of all assets managed by investment advisers, thus accounts for approximately half the assets of the top 80 investment advisers. Since the selected sample accounts for virtually all the purchases of restricted securities by the Study's sample of investment advisers doubling the Study's figures for purchases of restricted securities by investment advisers would yield a reasonable estimate of the purchases by the top 80 advisers with more than 70 percent of the industry's assets; that is, comparable coverage with that of banks and life insurance companies.

Doubling the figures for investment advisers yields total purchases of restricted securities over the sample period equal to $1.3 billion, second only to the $1.5 billion of life insurance companies. However, where life insurance companies spent $1.3 billion on debt securities, investment advisers are estimated to have spent only $763 million on debt securities. Estimated purchases by investment advisers of $517 million on equity securities are more than twice that of any other class of institution.

[86] Some respondents indicated an avoidance of secondary securities in their purchases of restricted securities. They said they preferred to invest directly with the company in order to increase the likelihood of appreciation of their investment. The relatively small volume of secondary purchases of restricted debt securities reflects the rudimentary state of the secondary market for these securities.

Privately held companies accounted for 16.9 percent of all debt placements and 43.4 percent of all equity placements. Of the $796.6 million spent by the sample of banks on restricted securities, 72.9 percent involved debt; of the $639.8 million spent by investment advisers, 59.6 percent involved debt; of the $1,524.7 million by life insurance companies, 85.8 percent involved debt; and of the $241.0 million by the venture capital companies, 12.6 percent involved debt. Of the $215.5 million spent by the sample of banks in restricted equity securities, 73.5 percent involved equity securities of companies whose common stock was publicly traded; of the $258.5 million spent by investment advisers, 90.3 percent involved publicly traded companies; of the $217.0 million spent by insurance companies, 37.5 percent involved publicly traded companies and of the $210.4 million spent by venture capital companies, 13.6 percent involved publicly traded companies.

The annual volume of restricted securities grew during the period of the sample, particularly between 1967 and 1968, when the volume of debt securities more than doubled and the volume of equity securities almost tripled. Both interest rates and stock prices rose through most of 1967 and 1968. While interest rates continued to rise in 1969, stock prices declined through most of the year.

The regressions below are based on monthly time series. For convenience, the following symbols are used:

RD=Volume of restricted debt securities purchased per month.

PD=Volume of public offering of corporate debt per month.

S&P=Standard and Poors composite index of 500 stocks (monthly average).

FR=Volume of free reserves of commercial banks (monthly average).

Baa=Interest rate on Baa bonds (monthly average).

RE=Volume of restricted equity securities purchased per month.

PE=Volume of public offerings of corporate equity per month.

(All dollar figures are in millions. t-values are shown in parentheses under the respective coefficients. Coefficients of determination are adjusted for degrees of freedom.)

(1) $RD = -333.808 + 2.902\ S\&P + 25.987\ Baa - 0.030\ PD \quad R^2 = 0.546$
$\quad (-5.343)\ (3.165)\ \ (2.691)\ \ (-2.210)$

(2) $RD = -301.186 + 3.775\ S\&P - 0.0423\ FR \quad R^2 = 0.513$
$\quad (-4.611)\ (5.340)\ \ (-2.754)$

(3) $RE = -186.446 + 2.284\ S\&P - 0.016\ FR - 0.020\ PE \quad R^2 = .596$
$\quad (-6.0182)\ (6.326)\ \ (-2.126)\ \ (-1.317)$

In the first regression the volume of restricted debt securities is shown to be positively related to the S&P index and the interest rate and negatively related to the volume of public offerings. The positive relationship with stock index is consistent with the issuers' incentive to increase the supply of equity-related securities at higher levels of stock prices.[87] The regression coefficient indicates an increase of $2.9 million of the monthly flow of equity-related debt securities for each

[87] The relationship between secondary market prices and primary supply of equity securities is some evidence of the economic role of secondary markets.

1 point rise in the stock index. The positive relationship of the monthly volume of debt securities with the interest rate is some evidence of the diversion of borrowing to the private market as a result of tightness in the public capital markets. The negative relationship with public offerings reinforces this interpretation.

In the second regression the volume of debt securities is shown again to be positively related to the stock price index and negatively related to the level of free reserves in commercial banks. While the level of free reserves is not an entirely unambiguous measure of monetary tightness, it is adequate for the current purpose. The higher the level of free reserves (defined as excess [88] reserves less borrowings from the Federal Reserve Banks) the more funds available for banks to lend out. When the free reserves fall, the regression indicates, the volume of private debt offerings increases. Under the conditions of monetary tightness corporations with less than prime credit ratings must often seek long-term capital to finance what they may otherwise prefer to finance with short-term capital. In an attempt to avoid the long-term burden of high interest rates, such corporations are more inclined to combine some equity with the debt.[89] The third regression shows a similar impact of stock prices and free reserves on the volume of equity placements. The statistically insignificant coefficient attached to the volume of public equity offerings (i.e., the t-value is less in absolute value than 1.96) indicates that the public and private markets for common stock are less competitive than are the corresponding markets in debt.

Table XIV–31 shows the purchases of restricted securities classified by type of security, trading market of the common stock of the issuers of the restricted securities, and class of institutional purchaser. The coverage of this table differs from that of Table XIV–30 by the exclusion from this table of all securities that do not specifically fall within the columnar headings. Among the classes of securities that are excluded are preferred stock, unattached warrants, and packages of debt and common stock. The total value of these excluded securities, that is, the difference between the grand totals of Tables XIV–30 and XIV–31, is $373.4 million. Of the total purchases of $3.1 billion reported in Table XIV–30, involving 1,755 separate transactions, the sample of institutions spent $802.6 million on common stock (in 818 transactions), and an additional $62.7 million (in 54 transactions) on common stock combined with warrants to purchase additional common stock. They spent $1.1 billion (in 533 transactions) on restricted

[88] That is, the excess over the reserves required to support bank liabilities.
[89] Although the Study did not obtain data on this point, some respondents indicated they obtained generous call protection to preserve the high rates.

convertible bonds and an additional $1.2 billion (in 350 transactions) on restricted debt with warrants to purchase common stock. Securities of companies whose common stock is traded on the NYSE comprised the largest group of restricted securities, accounting for 37.7 percent of the total. However, 94.0 percent of the value of these purchases involved debt securities. The equity portion of the restricted securities in this group had the smallest value among the various market classes.[90]

Purchases by banks of common stock are relatively evenly spread among the five market classifications, with somewhat greater emphasis on reporting OTC companies and privately held companies and somewhat less emphasis on ASE companies. By contrast, investment advisers allocated 63.1 percent of all their purchases to OTC companies and only 7.9 percent to privately held companies. Of the expenditures of life insurance companies on restricted common stock, 65.2 percent involved privately held companies. This difference between life insurance companies and investment advisers probably is due to differences in their need for liquidity, as well as the reluctance of investment advisers, particularly in connection with investment company accounts, to freeze investment funds during the period in which the issuing company lacks a public valuation for its stock.[91] Without considering specific investments, it is difficult to evaluate differences in liquidity between restricted holdings of OTC companies and of privately held companies.[92] However, for reasons previously discussed, it may be easier to privately sell a restricted holding in a publicly traded company than in a privately held one, because the market provides some measure of valuation.

Using the data shown in Table XIV–30, the Study calculated that only 12.2 percent of all purchases of shares of privately held companies involved purchases from persons other than the issuer in comparison with 33.9 percent for purchases of restricted shares in publicly traded companies from such persons.[93] Part of this difference may be explained by the desire of some investors to invest venture capital productively by investing it directly with the issuer.

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[90] The difference in this respect between large and small companies (taking market listing as an approximate measure of size) is probably greater even than the numbers allow. Some respondents indicated that some of the debt securities contributing to the totals in the table are debt only in form. In some cases the interest payment on these securities is excused; in others, the interest payment represents a small part of the anticipated effective yield on the security.

[91] The valuation of restricted security holdings are considered below.

[92] Certain legal restrictions such as Rule 10b–6 under the Securities Exchange Act, may limit the creation of a market which does not already exist, particularly where the services of an underwriter are not used.

[93] The venture capital companies were the major purchasers of these secondary shares in privately held companies, having taken 64.5 percent by value of all such sales.

Table XIV-30

PURCHASES OF RESTRICTED SECURITIES BY CLASS OF INSTITUTION,

TYPE OF SECURITY, AND YEAR, JAN. 1, 1966-JUNE 30, 1969

(DOLLARS)

CLASS OF INSTITUTION	TOTAL Debt and Equity	DEBT							EQUITY					
			Public			Non-Public				Public			Non-Public	
		Total Debt	Total	Primary	Secondary	Total	Primary	Secondary	Total Equity	Total	Primary	Secondary	Total	Primary	Secondary
Banks	31,817,523	23,167,000	23,167,000	23,035,000	132,000	0	0	0	8,650,523	4,838,125	926,400	3,911,725	3,812,398	3,812,398	0
Investment Advisers	33,009,645	16,929,188	8,929,188	8,925,000	4,188	8,000,000	8,000,000	0	16,080,457	15,833,506	2,105,006	13,728,500	246,951	246,951	0
1 Prop.&Liab. Ins.Cos	19,856,022	18,014,015	13,814,015	12,264,015	1,550,000	4,200,000	4,200,000	0	1,842,007	1,842,007	0	1,842,007	0	0	0
9 Life Ins.	309,240,594	297,735,863	213,212,676	213,212,676	0	84,523,167	84,319,007	204,160	11,504,751	5,277,683	5,277,683	0	6,227,068	6,227,068	0
6 Self-Admin. Empl.	3,155,957	1,000,000	1,000,000	1,000,000	0	0	0	0	2,155,957	2,155,957	2,155,957	0	0	0	0
6 Foundations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Univ. Endow.	2,338,500	2,166,000	1,916,000	1,916,000	0	250,000	250,000	0	172,500	64,000	0	64,000	108,500	108,500	0
Venture Capital	86,854,619	4,087,402	1,995,000	1,995,000	0	2,092,402	2,087,774	4,628	82,767,217	5,016,581	1,100,021	3,916,560	77,750,636	60,376,956	17,373,680
TOTALS	486,272,860	363,099,448	264,033,879	262,347,691	1,686,188	99,065,569	98,856,781	208,788	123,173,412	35,027,859	11,565,067	23,462,792	88,145,553	70,771,873	17,373,680
Banks	99,380,619	79,952,046	77,834,000	77,434,000	400,000	2,118,046	2,118,046	0	19,428,573	15,748,855	6,586,105	9,162,750	3,679,718	2,752,218	927,500
Investment Advisers	90,437,838	59,680,250	43,454,750	43,454,750	0	16,225,500	14,619,000	1,606,500	30,757,588	25,789,348	9,018,000	16,771,348	4,968,240	4,968,240	0
1 Prop.&Liab Ins Cos	27,404,895	12,140,000	5,050,000	5,050,000	0	7,090,000	7,090,000	0	15,264,895	4,271,015	0	4,271,015	10,993,880	8,764,279	2,229,601
9 Life Ins.	317,889,883	270,138,592	154,355,236	154,355,236	0	115,783,356	112,783,356	3,000,000	47,751,291	7,656,567	6,577,135	1,079,432	40,094,724	39,183,424	909,300
6 Self-Admin. Empl.	7,388,871	4,197,565	0	0	0	4,197,565	1,346,285	2,851,280	3,189,306	3,139,306	314,955	2,824,351	50,000	50,000	0
7 Foundations	752,500	500,000	0	0	0	500,000	500,000	0	252,500	252,500	252,500	0	0	0	0
Univ. Edow.	4,996,750	4,012,500	3,350,000	3,350,000	0	662,500	25,000	637,500	984,250	284,250	284,250	0	700,000	700,000	0
Venture Capital	37,596,140	5,434,104	500,000	500,000	0	4,934,104	4,734,094	200,010	32,162,036	3,629,500	3,625,000	4,500	28,532,536	18,189,844	10,342,692
TOTALS	585,845,496	436,055,057	284,543,986	284,143,986	400,000	151,511,071	143,215,781	8,295,290	149,790,439	60,771,341	26,657,945	34,113,396	89,019,098	74,610,005	14,409,093
Banks	335,960,315	226,264,140	213,183,612	209,220,925	3,962,687	13,080,528	11,861,950	1,218,578	109,696,175	88,667,575	42,915,934	45,751,641	21,028,600	19,231,100	1,797,500
Investment Advisers	264,373,042	136,701,703	128,360,203	126,050,625	2,309,578	8,341,500	8,341,500	0	127,671,339	121,238,605	83,512,028	37,726,577	6,432,734	6,199,734	233,000
1 Prop &Liab Ins Cos.	54,046,435	37,106,330	22,906,330	17,156,330	5,750,000	14,200,000	14,200,000	0	16,940,105	10,378,460	7,540,023	2,838,437	6,561,645	2,058,900	4,502,745
9 Life Ins.	566,882,406	471,588,758	389,379,214	389,329,064	50,150	82,209,544	72,473,223	9,736,321	95,293,648	33,513,407	30,123,407	3,390,000	61,780,241	56,588,417	3,191,824
6 Self-Admin.Empl.	11,028,111	5,872,186	5,772,186	5,049,856	722,330	100,000	0	100,000	5,155,925	4,856,925	2,800,000	2,056,925	299,000	299,000	0
8 Foundations	15,941,500	12,500,000	12,500,000	12,500,000	0	0	0	0	3,441,500	3,316,500	0	3,316,500	125,000	125,000	0
Univ. Endow.	12,484,734	7,827,734	6,375,000	6,375,000	0	1,452,734	950,000	502,734	4,657,000	4,257,000	457,000	3,800,000	400,000	400,000	0
Venture Capital	95,908,207	17,030,796	12,823,092	12,823,092	0	4,207,704	3,457,704	750,000	78,877,411	12,846,573	12,363,174	483,399	66,030,838	61,288,935	4,741,903
TOTALS	1,356,624,750	914,891,647	791,299,637	778,504,892	12,794,745	123,592,010	111,284,377	12,307,633	441,733,103	279,075,045	179,711,566	99,363,479	162,658,058	146,191,086	16,466,972
Banks	329,433,537	251,695,000	246,585,000	242,635,000	3,950,000	5,110,000	4,060,000	1,050,000	77,738,537	51,018,162	39,880,038	11,138,124	26,720,375	26,532,199	188,176
1 Investment Advisers	252,010,466	168,039,398	165,114,285	164,350,000	764,285	2,925,113	2,925,113	0	83,971,068	70,655,013	60,795,643	9,859,370	13,316,055	12,833,877	482,178
9 Prop.&Liab Ins.Cos	56,212,626	42,680,325	40,330,325	31,770,325	8,560,000	2,350,000	2,350,000	0	11,532,301	9,547,301	8,008,029	1,539,272	1,985,000	705,000	1,280,000
6 Life Ins.	330,742,044	268,323,817	235,911,317	232,631,317	3,280,000	32,412,500	32,412,500	0	62,418,227	34,885,086	32,879,586	2,005,500	27,533,141	27,408,141	125,000
9 Self-Admin. Empl.	14,700,632	10,550,000	10,550,000	10,550,000	0	0	0	0	4,150,632	3,193,133	540,000	2,653,133	957,499	957,499	0
Foundations	18,500,010	15,400,000	15,000,000	12,000,000	3,000,000	400,000	400,000	0	3,100,010	0	0	0	3,100,010	3,100,010	0
1st Univ. Endow.	12,830,751	9,759,000	9,300,000	9,300,000	0	459,000	459,000	0	3,071,751	1,600,000	800,000	800,000	1,471,751	971,751	500,000
HALF Venture Capital	20,661,162	3,769,176	1,954,464	1,700,000	254,464	1,814,712	1,814,712	0	16,891,986	7,241,545	4,998,845	2,242,700	9,650,441	8,675,570	974,871
TOTALS	1,033,091,228	770,216,716	724,745,391	704,936,642	19,808,749	45,471,325	44,421,325	1,050,000	262,874,512	178,140,240	147,902,141	30,238,099	84,734,272	81,184,047	3,550,225
T Banks	796,591,994	581,078,186	560,769,612	552,324,925	8,444,687	20,308,574	18,039,996	2,268,578	215,513,808	160,272,717	90,308,477	69,964,240	55,241,091	52,327,915	2,913,176
O Investment Advisers	639,810,991	381,350,539	345,858,426	342,780,375	3,078,051	35,492,113	33,885,613	1,606,500	258,460,452	233,516,472	155,430,677	78,085,795	24,963,980	24,248,802	715,178
T Prop.& Liab Ins.Cos.	155,519,978	109,940,670	82,100,670	66,240,670	15,860,000	27,840,000	27,840,000	0	45,579,308	26,038,783	15,548,052	10,490,731	19,540,525	11,528,179	8,012,346
A Life Ins.	1,524,754,927	1,307,787,010	992,858,443	989,528,293	3,330,150	314,928,567	301,988,086	12,940,481	216,967,917	81,332,743	74,857,811	6,474,932	135,635,174	129,409,050	6,226,124
L Self-Admin Empl	36,271,571	21,619,751	17,322,186	16,599,856	722,330	4,297,565	1,346,285	2,951,280	14,651,820	13,345,321	5,810,912	7,534,409	1,306,499	1,306,499	0
S Foundations	35,194,010	28,400,000	27,500,000	24,500,000	3,000,000	900,000	900,000	0	6,794,010	3,569,000	252,500	3,316,500	3,225,010	3,225,010	0
Univ. Endow.	32,650,735	23,765,234	20,941,000	20,941,000	0	2,824,234	1,684,000	1,140,234	8,885,501	6,205,250	1,561,250	4,644,000	2,680,251	2,180,251	500,000
Venture Capital	241,020,128	30,321,478	17,272,556	17,018,092	254,464	13,048,922	12,094,284	954,638	210,698,650	28,734,199	22,087,040	6,647,159	181,964,451	148,531,305	33,433,146
GRAND TOTALS	3,461,834,334	2,484,262,868	2,064,622,893	2,029,933,211	34,689,682	419,639,975	397,778,264	21,861,711	977,571,466	553,014,485	365,836,719	187,177,766	424,556,981	372,757,011	51,799,970

Table XIV-31

PURCHASES OF RESTRICTED SECURITIES CLASSIFIED BY MARKET OF OUTSTANDING SHARES, TYPE OF SECURITY, AND TYPE OF INSTITUTION

	Common Stock		Common Stock With Warrants		Convertible Debt		Debt With Warrants		Total	
	Number of Transactions	Total Value	Number of Transactions	Total Value	Number of Transactions	Total Value	Number of Transactions	Total Value	Number of Transactions	Total Value
NEW YORK STOCK EXCHANGE										
Banks	23	$26,981,945	0	0	47	$299,134,000	16	$42,359,240	86	368,475,185
Investment Advisors	5	22,612,593	0	0	16	53,904,188	8	134,458,750	29	210,975,531
Prop. & Liab Ins. Cos	2	3,242,007	0	0	11	24,585,000	7	28,020,325	20	55,847,332
Life Insurance	2	2,029,500	0	0	62	214,826,954	43	256,401,073	107	473,257,527
Self-Administered Funds	6	8,430,463	0	0	4	8,300,000	0	0	10	16,730,463
Foundations	3	3,569,000	0	0	5	8,000,000	2	10,000,000	10	21,569,000
University Endowments	1	284,250	0	0	14	11,903,000	1	500,000	16	12,687,250
Venture Capital	2	2,693,000	0	0	2	5,000,000	0	0	4	7,693,000
Total	44	69,842,758	0	0	161	623,653,142	77	471,739,388	282	1,165,235,288
AMERICAN STOCK EXCHANGE										
Banks	11	$18,518,160	2	$ 3,442,000	9	$ 31,567,687	16	$46,097,548	38	99,625,395
Investment Advisors	14	24,634,490	3	7,833,250	10	28,866,000	8	27,750,203	35	89,083,943
Prop. & Liab Ins. Cos.	0	0	0	0	1	1,000,000	1	1,000,000	2	2,000,000
Life Insurance	5	3,845,024	1	1,620,020	26	39,250,000	40	131,668,752	72	176,383,796
Self-Administered Funds	2	740,000	0	0	3	2,750,000	3	2,899,856	8	6,389,856
Foundations	0	0	0	0	1	500,000	1	3,000,000	2	3,500,000
University Endowments	2	600,000	0	0	2	800,000	2	1,000,000	6	2,400,000
Venture Capital	1	3,063,060	0	0	5	6,233,092	0	0	6	9,296,152
Total	35	51,400,734	6	12,895,270	57	110,966,779	71	213,416,359	169	388,679,142
OVER-THE-COUNTER, REPORTING COMPANIES										
Banks	41	$39,380,231	5	$10,376,997	42	$ 78,557,637	8	$11,691,000	96	140,005,865
Investment Advisors	48	61,016,463	7	22,546,500	24	46,014,285	5	32,750,000	84	162,327,248
Prop. & Liab Ins. Cos	6	7,398,662	0	0	7	8,250,000	3	3,931,250	16	19,579,912
Life Insurance	21	15,158,226	0	0	36	58,900,000	33	101,888,000	90	175,946,226
Self-Administered Funds	30	3,865,858	0	0	4	3,397,280	2	900,000	36	8,163,138
Foundations	0	0	0	0	3	2,000,000	0	0	3	2,000,000
University Endowments	3	3,500,000	1	207,000	4	3,000,000	0	0	8	6,707,000
Venture Capital	17	11,329,423	2	1,228,667	7	4,329,464	1	650,000	27	17,537,554
Total	166	141,648,863	15	34,359,164	127	204,448,666	52	151,810,250	360	532,266,943
OVER-THE-COUNTER, NON-REPORTING COMPANIES										
Banks	34	$27,065,456	4	$ 1,600,000	16	$ 35,467,000	4	$ 4,625,000	58	68,757,456
Investment Advisors	42	41,628,822	6	9,266,854	11	20,950,000	0	0	59	68,845,676
Prop. & Liab Ins Cos.	4	1,308,000	0	0	10	8,673,000	3	6,641,015	17	16,622,015
Life Insurance	15	12,463,754	1	3,600,000	25	38,125,000	33	117,594,084	74	171,782,838
Self-Administered Funds	1	309,000	0	0	1	500,000	0	0	2	809,000
Foundations	0	0	0	0	1	4,000,000	0	0	1	4,000,000
University Endowments	2	1,364,000	0	0	7	3,488,000	1	250,000	10	5,102,000
Venture Capital	20	6,109,549	5	1,260,500	2	570,000	1	490,000	28	8,430,049
Total	118	90,248,581	16	12,727,354	73	111,773,000	42	129,600,099	249	344,349,034
NON-PUBLICLY TRADED COMPANIES										
Banks	70	$38,693,788	2	$ 527,000	16	$ 9,506,724	5	$ 7,862,500	93	56,590,012
Investment Advisors	61	12,820,486	2	580,000	24	18,148,000	4	9,950,000	91	41,498,486
Prop. & Liab. Ins. Cos	12	9,838,030	0	0	10	5,300,000	17	22,540,000	39	37,678,030
Life Insurance	73	62,692,307	1	247,500	32	61,148,276	67	206,921,428	173	331,009,511
Self-Administered Funds	6	1,306,499	0	0	4	1,607,245	1	2,087,785	11	5,001,529
Foundations	2	625,010	0	0	1	400,000	1	500,000	4	1,525,010
University Endowments	9	1,559,750	1	360,500	5	1,246,500	3	1,552,734	18	4,719,484
Venture Capital	222	170,119,380	11	997,502	23	7,131,310	10	1,602,402	266	179,850,594
Total	455	297,655,250	17	2,712,502	115	104,488,055	108	253,016,849	695	657,872,656
TOTALS										
Banks	179	$150,639,580	13	$15,945,997	130	$454,233,048	49	$112,635,288	371	$733,453,913
Investment Advisers	170	162,712,854	18	37,226,604	85	167,882,473	25	204,908,953	298	572,730,884
Prop. & Liab Ins Cos	24	21,786,699	0	0	39	47,808,000	31	62,132,590	94	131,727,289
Life Insurance Cos.	116	96,188,811	3	5,467,520	181	412,250,230	216	814,473,337	516	1,328,379,898
Self-Administered Funds	45	14,651,820	0	0	16	14,554,525	6	5,887,641	67	35,093,986
Foundations	5	4,194,010	0	0	11	14,900,000	4	13,500,000	20	32,594,010
University Endowments	17	7,308,000	2	567,500	32	20,437,500	7	3,302,734	58	31,615,734
Venture Capital	262	193,314,412	18	3,486,669	39	23,263,866	12	2,742,402	331	222,807,349
GRAND TOTAL	818	650,796,186	54	62,694,290	533	1,155,329,642	350	1,219,582,945	1,755	3,088,403,063

5. Differences Among Institutions With Respect to Purchases of Restricted Securities

As the regressions below indicate size is an important factor in the differences among institutions of a given class with regard to purchases of restricted securities. In estimating a linear relationship between purchases of restricted securities and size of institution it is important to consider the effect on these estimates of the relatively high degree of concentration among institutions with regard to the purchase of restricted securities. Table XIV–32 shows the extent of this concentration. One bank purchased 41.7 percent of all the restricted equity purchased by the 47 banks. Five banks purchased 77.4 percent. The comparable figures for bank purchases of debt were 35.8 percent and 79.8 percent. One investment adviser purchased 37.8 percent of all restricted equity securities purchased by the Study's sample of investment advisers, and five investment advisers purchased 83.7 percent. The comparable figures for debt were 37.0 percent and 89.8 percent. One life insurance company purchased 32.5 percent of all restricted equity securities purchased by life insurance companies in the Study's sample, and five companies purchased 72.9 percent. The comparable figures for debt were 22.7 percent and 63.9 percent. The institutions in the top five of their respective classes in regard to purchases of restricted securities were not always among the five largest institutions in their respective classes, as measured either by size of assets under management or amount of brokerage paid.

The level of concentration, however, was sufficiently related to size to permit a relatively strong relationship between size and purchases of restricted securities. The following regressions include only those institutions for which the Study had data on their assets under management and brokerage payments. The following symbols are used (all variables are expressed in millions of dollars and refer to a given institution).

TABLE XIV-32

Percentages of all purchases of restricted securities by institutions in a given class accounted for by numbers of institutions in that class, January 1, 1966 through June 30, 1969.

	Banks		Investment Advisers		Life Insurance Companies	
	Equity	Debt	Equity	Debt	Equity	Debt
Percentage of Class Purchases by largest Purchaser	41.7	35.8	37.8	37.0	32.5	22.7
Percentage of Class Purchases by 2 largest Purchasers	53.3	67.3	64.0	67.1	46.8	35.6
Percentage of Class Purchases by 3 largest Purchasers	63.1	72.7	76.3	30.7	56.6	47.0
Percentage of Class Purchases by 4 largest Purchasers	72.3	76.3	80.4	85.7	66.2	55.8
Percentage of Class Purchases by 5 largest Purchasers	77.4	79.8	83.7	89.8	72.9	63.9

NOTE: Of the institutions who received the questionnaire, 47 banks, 35 investment advisers, and 24 life insurance companies reported at least one purchase of a restricted security.

RE=Volume of purchases of restricted equity securities, January 1, 1966—June 30, 1969.

RD=Volume of purchases of restricted debt securities, January 1, 1966—June 30, 1969.

A=Assets under management, December 30, 1969 (for investment advisers, June 30, 1969).

B=Volume of brokerage paid in the period January 1, 1968—June 30, 1969.

(NOTE: The constant terms are in all cases insignificantly different from zero; hence the t-values for them are not shown. The coefficient of determination (R^2), i.e., the measure of the percentage of the variation of the dependent variable that is accountable for by the variation of the independent variable, is in all cases adjusted for degrees of freedom.)

Banks (47 observations)

(1)	$RE=-1.775+0.001\ A$ (6.285)	$R^2=.456$
(2)	$RE=-0.901+0.466\ B$ (7.243)	$R^2=.528$
(3)	$RD=-12.269+0.005\ A$ (4.959)	$R^2=.339$
(4)	$RD=-8.346+2.192\ B$ (5.642)	$R^2=.401$

Investment Advisers (15 observations)

(5)	$RE=-2.601+0.009\ A$ (2.169)	$R^2=.209$
(6)	$RE=-3.555+1.292\ B$ (2.445)	$R^2=.262$
(7)	$RD=1.109+0.007\ A$ (1.487)	$R^2=.080$
(8)	$RD=-2.521+1.261\ B$ (2.136)	$R^2=.203$

Life Insurance Companies (16 observations)

(9)	$RE=8.823+0.0004\ A$ (0.503)	$R^2=.000$
(10)	$RE=-2.655+7.953\ B$ (2.677)	$R^2=.291$
(11)	$RD=18.141+0.006\ A$ (4.086)	$R^2=.511$
(12)	$RD=15.211+19.508\ B$ (2.008)	$R^2=.168$

In addition, the Study ran the following six regressions with observations for a larger number of institutions for which the Study had data on assets, but not brokerage:

Banks (49 observations)

(13)	$RE=-5.957+0.003\ A$ (7.500)	$R^2=.535$
(14)	$RD=-17.573+0.007\ A$ (7.413)	$R^2=.529$

Investment Advisers (84 observations)

$$(15) \quad RE = .140 + 0.005\ A \qquad R^2 = .166$$
$$(4.181)$$
$$(16) \quad RD = 1.780 + 0.005\ A \qquad R^2 = .059$$
$$(2.496)$$

Life Insurance Companies (25 observations)

$$(17) \quad RE = 7.537 + 0.0002\ A \qquad R^2 = .000$$
$$(0.462)$$
$$(18) \quad RD = 6.186 + 0.008\ A \qquad R^2 = .702$$
$$(7.588)$$

According to regression (13) above, the purchase of restricted equity securities over the sample period differed among banks at the rate of $3,000 of purchases for each $1 million difference in assets under management. The influence of asset size on the differences among insurance companies with respect to purchases of restricted securities is even greater accounting for 70 percent of the variation among insurance companies, as indicated in regression (18) above. However, the amount of assets does not explain the variation among insurance companies in regard to purchases of restricted equity securities as indicated in regression (17) above. Similarly, the amount of assets explain less of the variation among investment advisers in regard to restricted purchases, particularly of debt (regressions 15, 16 above). Where the purchase of restricted securities in intrinsic to the function of a particular class of institution, differences among institutions are largely explained by differences in size; for example, restricted debt among insurance companies and restricted equity and debt among banks, particularly for their employee benefit accounts. Where the purchase of restricted securities is largely a matter of preference among the managers, size is not an important influence on the differences among institutions. For example, the amount of assets under management explains none of the variation among insurance companies' purchases of restricted equity because management preference is the major factor in a given institution's participation. Brokerage (regression 10, above), however, is a factor since it reveals, at least, the insurance company's participation in the equity market. Similarly, brokerage is a more significant factor than asset size in explaining the differences among investment advisers with respect to the purchases of restricted securities (regressions 5–8 above), perhaps because turnover more accurately reflects the preferences of the various managements than does size. Purchases of restricted securities are not an instrinic part of investment advisers' activities in the same degree as purchases of debt is with respect to the insurance industry or debt and equity to bank trust departments, the latter because of the significance of employee benefit accounts.

6. Characteristics of Issuers

Table XIV–33 classifies the purchases of restricted securities by the sales of the issuing companies and the class of institutional purchasers. Except in the case of the purchases by venture capital companies (some of which supplied the Study with information on the issuing com-

panies), the information on the issuing companies was obtained from public sources. These data are thus confined to publicly held issuing companies. As a result, the sizes of the issuing companies appears on average to be somewhat larger than they in fact were. (The securities purchased by the venture capital companies, as noted, are exceptions to this point.) It is clear that restricted securities involve smaller issuing companies than the companies whose marketable securities are held in institutional portfolios. Of the purchases by banks, 42.6 percent (by value) involved issuing companies whose sales were less than $20 million. For investment advisers, the figure was 31.7 percent; for life insurance companies 21.1 percent; for self-administered employee benefit funds, 35.3 percent. Since transaction size tends to increase with the size of the issuing companies, the above figures actually understate the number of transactions involving smaller companies. Of the transactions of banks, 53.6 percent involved securities of companies whose sales were less than $20 million. The figure for investment advisers was 59.3 percent; for life insurance companies, 40.5 percent; for employee benefit, 73.2 percent.

Table XIV–34 classifies the purchases of restricted securities by the earnings of the issuing companies. Banks allocated 34.8 percent of the value and 49.2 percent by number of transactions to securities issued by companies with earnings of less than $1 million; for investment advisers, the percentages were, respectively, 63.3 percent and 70.9 percent; for life insurance companies 31.7 percent and 47.9 percent, respectively. While the figures reveal the disproportionate significance [94] of smaller companies in restricted securities in comparison with their importance in institutional portfolos of freely traded securities, in only three instances, involving less than one million dollars, did institutions purchase restricted securities of companies with a current earnings deficit.

Several factors contribute to an explanation of the disproportionate significance of smaller companies in the supply of restricted securities. It is more difficult to publicly market the securities (i.e., equity securities; debt is still more difficult) of smaller companies, especially those with stocks already in public hands.[95] Often the amounts of money required by these companies are smaller than can be economically obtained in a public offering. The tight money condition that prevailed during this period probably affected the smaller companies to a greater extent and diverted their borrowing to the long-term market.

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[94] The sizes of portfolio companies held by institutions are described in ch. IX.

[95] The demand for speculative offerings depends partly on the anticipation of a rapid appreciation of the stock. This rapid appreciation, however, is partly dependent on the original underpricing of the stock at the offering, which is more difficult where a market price is available for stock of the same class previously outstanding.

Table XIV-33

PURCHASES OF RESTRICTED SECURITIES CLASSIFIED BY
TYPE OF INSTITUTION AND SALES OF ISSUER

INSTITUTIONS	Total Transactions	Simple Avg. Sales of Issuer ($000)	SALES OF ISSUER ($000 of dollars)											
			0 - 99		100 - 999		1,000 - 4,999		5,000 - 19,999		20,000 - 99,999		100,000 or More	
			No. Trans.	Value of Purchases ($)	No. Trans.	Value of Purchases ($)	No. Trans.	Value of Purchases ($)	No. Trans.	Value of Purchases ($)	No. Trans.	Value of Purchases ($)	No. Trans.	Value of Purchases ($)
BANKS	250	103,714	3	4,088,200	10	4,813,500	41	86,743,449	80	188,764,666	66	144,092,125	50	239,389,744
INVESTMENT ADVISERS	172	58,032	3	8,326,000	8	9,493,540	42	49,157,098	49	89,650,723	53	134,156,307	17	203,225,531
PROPERTY AND CASUALTY INSURANCE	53	170,118	1	400,000	2	750,000	2	3,000,126	21	21,447,974	16	34,117,013	11	36,853,325
LIFE INSURANCE	311	132,058	3	3,080,000	8	8,818,650	36	56,862,659	79	134,243,212	104	280,650,240	81	476,526,877
SELF-ADMINISTERED EMPLOYEE BENEFIT	56	81,264	1	1,000,000	1	2,000,000	5	2,849,856	34	4,812,126	6	7,750,000	9	11,946,515
FOUNDATIONS	14	98,548	0	0	1	2,887,500	0	0	6	9,752,500	3	2,500,000	4	11,429,000
EDUCATIONAL ENDOWMENTS	38	95,889	0	0	1	207,000	3	2,800,000	15	9,022,250	11	5,450,000	8	8,353,000
VENTURE CAPITAL	62	42,079	4	153,160	6	2,112,500	22	11,384,380	20	14,629,599	7	8,296,838	3	6,500,000

Table XIV-34

PURCHASES OF RESTRICTED SECURITIES CLASSIFIED BY TYPE OF INSTITUTION AND EARNINGS OF ISSUER

INSTITUTIONS	Total Transactions	Simple Avg. Earnings of Issuer ($000)	EARNINGS OF ISSUER ($000 of Dollars)									
			Deficit		0 - 99		100 - 999		1,000 - 9,999		10,000 or More	
			No. Trans.	Value of Purchases ($)	No. Trans.	Value of Purchases ($)	No. Trans.	Value of Purchases ($)	No. Trans.	Value of Purchases ($)	No. Trans.	Value of Purchases ($)
BANKS	250	4,323	0	0	65	160,261,916	58	72,339,114	96	274,843,150	31	160,447,504
INVESTMENT ADVISERS	172	1,837	0	0	72	241,283,033	50	71,450,217	42	97,009,168	8	84,266,781
PROPERTY AND CASUALTY INSURANCE	53	7,833	0	0	10	11,202,250	11	11,055,724	23	42,340,139	9	31,970,325
LIFE INSURANCE	311	4,606	2	270,800	50	163,116,265	97	147,394,263	113	371,772,703	49	277,627,607
SELF-ADMINISTERED EMPLOYEE BENEFIT	56	2,291	0	0	40	13,063,188	4	1,600,000	8	8,579,811	4	7,115,508
FOUNDATIONS	14	4,652	0	0	4	2,500,000	1	2,887,500	6	10,752,500	3	10,429,000
EDUCATIONAL ENDOWMENTS	38	5,061	0	0	6	4,807,000	9	5,375,000	16	9,547,250	7	6,103,000
VENTURE CAPITAL	62	1,143	1	400,000	31	15,043,151	23	11,673,326	5	13,460,000	2	2,500,000

7. Sizes of Transactions, Percentage of Equity Interest Acquired and Cost of Equity Interest

Table XIV–35 shows size of transaction, percentage of equity interest acquired, and average cost per percentage point of equity interest acquired for all institutional purchases of restricted equity securities of publicly traded companies. Transactions involving five per cent or less of the total equity of the issuing companies represented 51.6 per cent of the aggregate dollar value of all such transactions and 70.3 per cent of the number of such transactions. Transactions involving 10 per cent or less of the equity of the issuing companies represented 72.7 per cent of the aggregate dollar value and 84.4 per cent of the number of such transactions. Transactions of $500,000 or less [96] represented 9.4 per cent of the value and 51.9 per cent of the number of transactions. Transactions of $1 million or less represented 19.9 per cent and 67.2 per cent of the number and value of transactions. The average cost per percentage of equity interest generally rose with the size of the transaction. Table XIV–36 shows that the larger transactions are generally associated with larger issuers. As the size of the issuer (as measured by sales during the year preceding that of the transaction) increases the cost per percentage of equity interest increases as well. In only one case did an institution acquire more than a five per cent interest in a company with sales over $100 million, although institutions acquired less than a five percent interest in companies in this size class in 23 separate transactions. The average cost per percentage of equity interest in these companies was $3.7 million.

[96] An issuer may place securities with more than one institution. The transactions reported in the text refer to the purchase by one institution.

Table XIV-35

Cost of Equity Interest by Size of Transaction and Percentage of Equity Interest Acquired
January 1, 1966 - June 30, 1969

(In purchases of restricted equity securities by all institutions)

(thousands of dollars)

Size of Transaction	Percentage of Equity Interest Acquired																	
	0% - 5%			5.1% - 10%			10.1% - 15%			15.1% - 20%			More Than 20%			Totals		
	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	
Less than 100	64	2,130	526	1	10	2	1	70	5	--	--	--	2	103	2	68	2,313	
101 - 500	71	19,953	662	12	4,386	52	9	2,900	27	2	417	13	4	1,300	14	98	28,956	
501 - 1,000	33	23,569	622	10	6,825	88	2	1,392	59	2	1,140	36	2	1,801	36	49	34,727	
1,000 - 5,000	54	101,089	1,701	21	52,980	390	8	18,619	202	3	8,462	152	10	19,144	59	96	200,294	
Greater than 5,000	3	24,385	4,859	1	5,625	1,072	2	13,901	658	1	7,000	365	2	14,300	147	9	65,211	
TOTAL	225	171,126		45	69,826		22	36,882		8	17,019		20	36,648		320	331,501	

Table XIV-36

Cost of Equity Interest by Sales of Issuer and Percentage of Equity Interest Acquired:
January 1, 1966 - June 30, 1969

(In purchases and restricted equity securities by all institutions)

(thousands of dollars)

Sales of Issuer (thousands of dollars)	Percentage of Equity Interest Acquired														
	0% - 5%			5.1% - 10%			10.1% - 15%			15.1% - 20%			More Than 20%		
	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest
Less than 100	4	518	126	2	3,026	168	--	--	--	--	--	--	4	5,803	51
100 - 999	15	4,843	189	2	3,387	203	2	962	35	--	--	--	1	400	19
1,000 - 4,999	38	20,672	280	16	13,770	128	6	6,140	94	5	3,257	38	8	15,454	86
5,000 - 19,999	106	58,046	634	18	34,476	316	8	9,178	97	2	11,200	292	3	5,450	78
20,000 - 99,999	39	43,997	1,062	6	10,666	248	6	20,601	315	1	2,562	148	4	9,542	64
Greater than 100,000	23	43,051	3,698	1	4,500	807	--	--	--	--	--	--	--	--	--

Tables XIV–37 and XIV–38 show the corresponding figures for debt securities. Transaction sizes are larger for debt than for equity. Only 2.4 per cent of the value and 21.1 per cent of all transactions involved $500,000 or less. Where only 19.7 per cent of the value of equity transactions involved transactions greater than $5 million, 53.1 per cent of the debt transactions exceeded this size. Debt transactions usually involved smaller amounts of the issuers' equity than did purchases of equity. The costs per percentage of equity also tended to be higher in debt transactions.[97] Part of this difference may be due to the larger average size of the issuers of debt securities. For example, in the class of purchases involving 0 to 5 per cent, only 25.2 per cent (by value) of the equity purchases involved issuers with sales over $100 million, compared with 53.5 per cent in the case of debt securities. Adjusting for the size of the issuing company and the percentage of equity acquired, the costs per percentage of equity are between 50 per cent and 100 per cent more in the case of debt than of equity.[98] The higher costs of equity may be offset in the investors' view by the availability of the interest return as well as the expected return of principal.

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[97] In computing the cost per percentage of equity the Study treated the debt as if it were common stock and allocated the full cost of the bond to the common stock into which it was convertible or for which its attached warrants were exerciseable.

[98] This estimate is biased upward by the fact that the issuers of debt are on average less risky than the issuers of equity. The Study, however, lacks sufficient data to adjust for differences in quality of the investments.

Table XIV-37

Cost of Equity Interest by Size of Transaction and Percentage of Equity Interest Acquired:
January 1, 1966 - June 30, 1969

(In purchases of restricted debt securities by all institutions)

(thousands of dollars)

	Percentage of Equity Interest Acquired																	
	0% - 5%			5.1% - 10%			10.1% - 15%			15.1% - 20%			More Than 20%			Totals		
Size of Transaction	Transactions No.	Transactions Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Transactions Value	Average Cost Per Percentage Point of Equity Interest	Transactions No	Transactions Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Transactions Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Transactions Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Transactions Value
Less than 100	14	917	1,229	--	--	--	--	--	--	--	--	--	--	--	--	14	917
101 to 500	98	39,101	1,448	5	2,000	68	2	816	37	1	500	27	4	1,775	14	110	44,192
501 to 1,000	94	84,289	2,194	10	9,760	158	10	9,700	79	3	2,600	52	6	6,000	30	123	112,349
1,001 to 5,000	183	473,980	3,403	46	119,107	369	15	40,800	224	14	39,700	161	13	53,000	68	271	726,587
More than 5,000	37	534,326	31,521	21	297,250	2,111	3	50,000	1,558	4	35,750	485	5	85,500	576	70	1,002,826
TOTAL	426	1,132,613		82	428,117		30	101,316		22	78,550		28	146,275		588	1,886,868

NOTES:

1. The equity interest of the debt securities includes: (a) any common stock into which the debt securities are convertible, (b) any common stock issuable upon the exercise of warrants accompanying the debt securities; and (c) any common stock accompanying the debt securities.

2 The cost of a percentage point of this equity interest was computed as follows.

(a) Convertible debt securities-The total purchase price of debt securities was divided by the product of

$$100 \times \frac{\text{common shares initially issuable on conversion of debt securities purchased}}{\text{total proforma common shares outstanding (including those initially issuable on conversion)}}$$

(b) Debt securities accompanied by warrants-For the purpose of this calculation these debt securities were treated as though they were convertible debt securities purchased for the aggregate cost of the debt securities and warrants (without regard to the exercise price of the warrants). The debt securities were assumed to be convertible into the number of shares initially issuable upon exercise of the warrants.

(c) Debt securities accompanied by common shares-The cost of the package was assumed to be the cost of the shares. The cost was then divided by the number of shares outstanding after the transaction.

Table XIV-38

Cost of Equity Interest by Sales of Issuer and Percentage of Equity Interest Acquired:
January 1, 1966 - June 30, 1969

(In purchases of restricted debt securities by all institutions)

(thousands of dollars)

Sales of Issuer	Percentage of Equity Interest Acquired														
	0% - 5%			5.1% - 10%			10.1% - 15%			15.1% - 20%			More Than 20%		
	Transactions No.	Transactions Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Transactions Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Transactions Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Transactions Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Transactions Value	Average Cost Per Percentage Point of Equity Interest
Less than 100	1	300	3,927	1	2,400	242	1	500	44	--	--	--	2	4,500	25
100 - 999	6	3,925	213	1	1,750	267	3	4,000	94	2	5,650	163	2	775	14
1,000 - 4,999	42	73,697	521	11	17,264	219	3	4,700	124	5	8,450	97	7	16,400	53
5,000 - 19,999	104	158,213	975	20	52,643	389	16	70,816	402	6	20,000	193	7	25,450	123
20,000 - 99,999	147	290,009	1,703	28	118,060	632	6	16,500	221	6	17,000	159	8	32,500	124
Greater than 100,000	126	606,469	14,093	21	236,000	1,660	1	4,800	448	3	27,450	484	2	52,000	1,316

See note to table 8-7.

Tables XIV–39 and XIV–40 show sizes of transactions classified by class of institutional purchaser for equity and debt securities, respectively. The average transaction sizes in equity securities for banks, investment advisers, and life insurance companies are $841,561, $957,134, and $829,213, respectively. By comparison, the NYSE designates a trade involving 10,000 shares or more as a block. At $50 per share (a rough approximation of the price of an average share on the NYSE during the sample period), a block with the minimum number of shares would involve a $500,000 transaction. With that figure as a rough minimum, one can calculate the number of transactions in restricted securities that fell below the block trade category. For banks, 56 percent (by number of transactions) and 10.0 percent (by value of transactions) fell below this minimum. For investment advisers the percentages were 57.1 and 8.9, respectively.[99] The average debt transaction is much larger. For banks, investment advisers, and life insurance companies, the average size of the transactions were $5.8, $10.2 million and $6.0 million. (Curiously, investment advisers had the largest average size of transactions in both debt and equity). For banks, 19.0 percent (by number of transactions) and 96.3 percent (by value of transaction) exceeded $1 million. For investment advisers the percentages were 54.5 and 95.0 respectively; for life insurance companies, 76.6 and 96.3, respectively.

[99] The transaction for this purpose refers to the purchase by one institution. The issuer or selling stockholder may have sold to more than one institution. The Study tried to ascertain the total sizes of the offerings by aggregating the individual transactions in a given issue at a given time. The results of this attempt were in the Study's view unreliable. Although the Study was able to build up several offerings from information on the separate transactions, in some cases the transactions entered the institutions' book at different times and at different prices. In addition, some institutions received different security packages. It was, therefore difficult in some cases, for the Study to circumscribe a particular offering. The resources required to produce reliable data on offerings from data on particular institutional transactions exceeded what the Study could properly devote to this subject.

Table XIV-39

SIZE OF TRANSACTION CLASSIFIED BY CLASS OF INSTITUTIONAL PURCHASER OF RESTRICTED EQUITY SECURITIES

Class of Institution	Average Size of Transaction (Dollars)	(Millions of Dollars) Less Than .1 No. of Transactions	Less Than .1 Value of Transaction (Dollars)	.1 - .49 No. of Transactions	.1 - .49 Value of Transaction (Dollars)	.5 - .9 No. of Transactions	.5 - .9 Value of Transaction (Dollars)
Banks	841,561	49	1,674,171	51	13,381,343	26	17,959,575
Investment Advisers	957,134	47	1,670,062	50	12,832,770	21	14,206,712
Property and Liability Insurance Companies	907,779	1	15,000	12	2,954,960	3	1,500,000
Life Insurance Companies	829,213	42	1,347,049	33	8,200,315	15	9,427,949
Self-Administered Funds	325,596	28	730,901	9	2,344,786	2	1,041,500
Foundations	838,802	0	0	3	806,500	1	500,010
University Endowments	429,882	4	176,750	9	2,031,250	2	1,300,000
Venture Capital	737,841	123	4,326,310	93	21,384,727	23	14,660,289
TOTALS		294	9,940,243	260	63,936,651	93	60,596,035

Class of Institution	(Millions of Dollars) 1 - 4.9 No. of Transactions	1 - 4.9 Value of Transaction (Dollars)	5 or More No. of Transactions	5 or More Value of Transaction (Dollars)	Totals No. of Transactions	Totals Value of Transaction (Dollars)
Banks	51	103,339,891	2	14,284,600	179	150,639,580
Investment Advisers	47	99,002,060	5	35,001,250	170	162,712,854
Property and Liability Insurance Companies	8	17,316,739	0	0	24	21,786,699
Life Insurance Companies	21	38,952,971	5	38,260,527	116	96,188,811
Self-Administered Funds	6	10,534,633	0	0	45	14,651,820
Foundations	1	2,887,500	0	0	5	4,194,010
University Endowments	2	3,800,000	0	0	17	7,308,000
Venture Capital	17	34,018,856	6	118,924,230	262	193,314,412
TOTALS	153	309,852,650	18	206,470,607	818	650,796,186

Table XIV-40

SIZE OF TRANSACTION CLASSIFIED BY CLASS OF INSTITUTIONAL PURCHASER OF RESTRICTED DEBT SECURITIES

Class of Institution	Average Size of Transaction (Dollars)	(Millions of Dollars) Less Than .1 No. of Transactions	Less Than .1 Value of Transaction (Dollars)	.1 - .49 No. of Transactions	.1 - .49 Value of Transaction (Dollars)	.5 - .9 No. of Transactions	.5 - .9 Value of Transaction (Dollars)
Banks	5,792,783	9	322,000	22	4,375,000	26	16,325,502
Investment Advisers	10,171,445	8	308,188	24	5,978,500	18	12,189,488
Property and Liability Insurance Companies	3,230,125	1	20,000	19	5,390,925	13	7,350,000
Life Insurance Companies	6,048,334	3	114,350	33	9,042,520	57	36,644,378
Self-Administered Funds	1,871,248	0	0	5	1,073,240	8	4,806,191
Foundations	4,729,545	0	0	1	400,000	6	3,000,000
University Endowments	1,110,490	1	75,000	12	2,662,000	17	9,503,234
Venture Capital	825,042	5	158,628	32	8,634,866	9	5,112,774
TOTALS		37	998,166	148	37,557,051	154	94,931,567

Class of Institution	(Millions of Dollars) 1 - 4.9 No. of Transactions	1 - 4.9 Value of Transaction (Dollars)	5 or More No. of Transactions	5 or More Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)
Banks	88	188,821,286	34	357,025,048	179	566,868,836
Investment Advisers	42	92,245,250	18	262,070,000	110	372,791,426
Property and Liability Insurance Companies	31	48,228,080	6	48,951,665	70	109,940,670
Life Insurance Companies	241	484,143,150	63	696,779,169	397	1,226,723,567
Self-Administered Funds	10	15,137,785	0	0	23	21,017,216
Foundations	5	10,000,000	3	15,000,000	15	28,400,000
University Endowments	9	11,500,000	0	0	39	23,740,234
Venture Capital	4	7,100,000	1	5,000,000	51	26,006,268
TOTALS	430	857,175,551	125	1,384,825,882	884	2,375,517,218

Tables XIV–41 and XIV–42 classify transactions in restricted equity and debt securities, respectively, by trading markets for the publicly held shares of the issuing companies. The average size of equity transactions declines monotonically from $1.6 million for issuers whose shares are traded on the NYSE to $650 thousand for privately held companies. Where 45.5 percent by number of transactions and 93.1 percent by value of transactions in restricted equity securities of issuers listed on the NYSE involved transactions in excess of $1 million, only 45.7 percent and 13.8 percent, by value and number respectively, of the transactions in the restricted shares of OTC companies involved transactions in excess of $1 million. Transactions in restricted debt securities are larger for all market classifications; 98.0 percent and 89.5 percent of the value of all transactions in debt securities of issuers whose shares are traded on the NYSE and OTC, respectively, involved transactions of more than $1 million.

Table XIV-41

SIZE OF TRANSACTION CLASSIFIED BY TYPE OF SECURITY AND MARKET

COMMON STOCK

(Millions of Dollars)

Market	Average Size of Transaction (Dollars)	Less Than .1		0.1 to .49		.5 to .9		1.0 to 4.9		5.0 or More		Totals	
		No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)
New York Stock Exchange	1,587,335	11	412,546	9	2,109,204	4	2,317,675	17	43,143,733	3	21,859,600	44	69,842,758
American Stock Exchange	1,468,592	1	44,250	7	2,050,003	9	6,568,500	17	32,637,981	1	10,100,000	35	51,400,734
Over-the-Counter (Reporting Companies)	853,306	41	1,344,866	48	14,074,868	23	15,081,700	52	100,147,429	2	11,000,000	166	141,648,863
Over-the-Counter (Non-Reporting Companies)	764,818	23	936,309	51	14,405,771	14	8,811,117	29	59,769,134	1	6,326,250	118	90,248,581
Not Publicly Traded	654,187	218	7,202,272	145	31,296,805	43	27,817,043	38	74,154,373	11	157,184,757	455	297,655,250
TOTALS		294	9,940,243	260	63,936,651	93	60,596,035	153	309,852,650	18	206,470,607	818	650,796,186

Table XIV-42

SIZE OF TRANSACTION CLASSIFIED BY TYPE OF SECURITY AND MARKET

DEBT

(Millions of Dollars)

Market	Average Size of Transaction (Dollars)	Less Than .1		0.1 to .49		.5 to .9		1.0 to 4.9		5.0 or More		Totals	
		No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)
New York Stock Exchange	9,928,935	4	78,688	9	2,355,675	33	19,393,212	125	260,755,186	68	813,384,819	239	1,095,967,580
American Stock Exchange	4,952,650	2	88,200	17	4,846,898	22	14,027,996	72	137,620,076	15	167,800,048	128	324,383,218
Over-the-Counter (Reporting Companies)	4,529,259	3	210,000	21	5,996,994	39	23,418,172	98	195,633,750	18	131,000,000	179	356,258,916
Over-the-Counter (Non-Reporting Companies)	4,616,859	1	50,150	26	6,958,554	20	11,847,500	61	120,876,380	7	101,641,015	115	241,373,599
Not Publicly Traded	3,251,339	17	571,128	75	17,398,930	40	26,244,687	74	142,290,159	17	171,000,000	223	357,504,904
TOTALS		27	998,166	148	37,557,051	154	94,931,567	430	857,175,551	125	1,384,825,882	884	2,375,488,217

Tables XIV–43 and XIV–44 classify percentages of equity acquired and average cost per percentage of equity interest acquired by class of institutional purchaser of equity and debt, respectively. Investment advisers and venture capital companies had relatively more transactions involving more than 15 percent of the equity interest of the issuer, the former allocating 22.4 percent (by value) and the latter 26.1 percent of their total expenditures on equity to such transactions. Transactions by banks, involving acquisitions of 10 percent or more of the outstanding capital stock of an issuer represented 29.8 percent of transactions. The corresponding percentage with respect to investment advisers was 24.5 and, with respect to life insurance companies, 7.7 percent (all percentages by value of total debt transactions). The data also indicate that costs per percentage point of equity generally declined as the percentage of the equity acquired increased.

Table XIV-43

Cost of Equity Interest by Class of Institution and Percentage of Equity Interest Acquired:
January 1, 1966 - June 30, 1969

(In purchases of restricted equity securities)

(thousands of dollars)

Class of Institution	Percentage of Equity Interest Acquired														
	0 - 5%			5.1% - 10%			10.1% - 15%			15.1% - 20%			More Than 20%		
	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest
Banks	79	76,420	1,370	11	13,781	199	6	8,455	124	1	4,200	219	2	9,200	182
Investment Advisers	47	49,734	635	21	39,037	294	5	18,049	338	4	11,893	161	10	18,894	55
Property & Liability Ins. Companies	6	4,919	1,171	2	968	70	1	1,090	78	-	-	-	1	400	12
Life Insurance Companies	24	16,510	497	6	7,456	171	3	2,094	63	-	-	-	1	3,152	45
Self Administered Employee Benefit Plans	37	12,836	1,052	1	200	26	-	-	-	-	-	-	-	-	-
Foundations	2	681	2,836	1	2,887	337	-	-	-	-	-	-	-	-	-
University Endowments	8	5,891	380	-	-	-	-	-	-	-	-	-	-	-	-
Venture Capital	22	4,135	135	3	5,495	295	7	7,194	85	3	927	20	6	5,003	40

Table XIV-44

Cost of Equity Interest by Class of Institution and Percentage of Equity Interest Acquired:
January 1, 1966 - June 30, 1969

(In purchases of restricted debt securities)

(thousands of dollars)

Class of Institution	Percentage of Equity Interest Acquired: 0% - 5%			5.1% - 10%			10.1% - 15%			15.1% - 20%			More Than 20%		
	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest	Transactions No.	Value	Average Cost Per Percentage Point of Equity Interest
Banks	103	256,937	2,723	19	105,860	838	4	39,000	928	6	30,100	273	9	84,750	216
Investment Advisers	47	224,627	2,695	6	17,850	434	10	38,616	328	3	9,950	187	7	30,350	145
Property & Liability Ins. Companies	33	67,951	26,226	2	4,000	301	-	-	-	1	1,150	65	1	2,000	29
Life Insurance Companies	181	519,387	4,111	50	294,407	866	12	19,700	130	10	35,700	201	8	12,600	42
Self Administered Employee Benefit	16	15,322	743	-	-	-	1	1,000	99	-	-	-	1	1,000	13
Foundations	9	21,000	6,981	-	-	-	2	2,000	83	-	-	-	-	-	-
University Endowments	25	16,691	2,376	2	1,500	115	1	1,000	79	-	-	-	1	500	24
Venture Capital	12	10,698	295	3	4,500	193	-	-	-	2	1,650	50	1	425	16

See note to table 8-7

8. Discounts Involved in Purchases of Common Stock

Restricted securities are usually sold at a discount from their coeval market price, if any, primarily because of the restrictions on their resale. With the information supplied by the respondents on the purchase prices of the common stock and the dates of transaction, the Study computed the implied discounts in all cases in which it was able to locate a market price for the respective security on the date of the transaction. Several factors discussed below bear consideration in connection with these computations.

a. The date on which the purchase price is agreed upon is often difficult to determine

While the Study specifically requested the respondent to report this date, in some cases the respondent indicated this date was not preserved in its records. Moreover, respondents differ in the extent to which they consider themselves committed on the so-called commitment date. Some respondents indicated that they considered the commitment binding in regard to the discount, in which case the purchase price could change between the commitment and the closing dates if the market price changed. Others considered themselves bound by the price agreed to on the commitment date. Still others did not feel bound at all until the actual closing. In some cases, where the respondent reported the date on which the transaction entered its books instead of the commitment date, the Study computed a negative discount (or a premium) by relating the purchase price to the market price on the only date available to the Study in connection with the particular transaction. The Study telephoned the respondent in most cases in which it calculated a premium and learned that the explanation often lay in a binding commitment in combination with a falling market price.[100] Therefore, the discounts computed by the Study do not always reflect the intentions of the participants in the transaction.

b. Size of purchase relative to quantity of the same security outstanding

Since the quantities of securities purchased in a private placement are often large relative to the amount available in the market, the use of the market price as the datum for evaluating the purchase price may be misleading. Large amounts of thinly traded stocks are often not available at the market price. Some respondents indicated that their purchases of restricted stock was due to their inability to acquire a large position through purchases in the open market. In some cases, respondents explained the premium they paid for the restricted stock in terms of the superior bargaining position of the issuing company. To the extent the market price is a low estimate of the true price of a large block when the buyer is the initiating party, the computed discounts may be understated. This argument, however, is symmetrical. If, as is often the case, the seller is the initiating party, the market price may overstate what that seller can in fact obtain for a large block.

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[100] This effect can work either way. Part of the error is self-canceling in the average statistics reported in the tables below.

c. Computation of market price

The Study used the average asked price in computing the discount for transactions in securities of issuers whose common stock is traded over-the-counter. The Study's theory was that from the point of view of the institution the datum with which to compare the purchase price is the price the institution would have had to pay on the open market. Other theories may have comparable merit. In the case of low priced stocks, the choice of market price can have a significant bearing on the computed discount.[101]

d. Computation of the discount

There is no simple way to compute the discount for the purchase of a package of securities. The Study lacked the data and the resources to separately value the components of a security package. As a result its analysis of discounts relates only to purchases of a single class of common stock in a given transaction.

Table XIV–45 shows the Study's computed discounts classified by trading market. Of the value of all transactions 7.2 percent [102] involved negative discounts (or premia) at the time of purchase; 18.2 percent involved discounts not exceeding 10 percent; 39.6 percent involved discounts not exceeding 20 percent; 62.7 percent involved discounts not exceeding 30 percent; and 88.4 percent involved discounts not exceeding 40 percent. The size of the discount varied on average among trading markets. Where 55.0 percent of purchasers of stocks listed on the NYSE sold at discounts not exceeding 20 percent, only 34.3 percent of transactions of stocks listed on the ASE and 37.0 percent of stocks traded over-the-counter were purchased at discounts not exceeding 20 percent. Where 36.1 percent of all transactions with discounts between zero and 10 percent involved OTC stocks, 93.5 percent of all transactions with discounts of 40 percent to 50 percent involved the OTC stocks of non-reporting companies. Moreover, only in the 40 to 80 percent range did non-reporting OTC companies account for a larger fraction than the reporting companies of all transactions in the range.

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[101] The fact, shown below, that the computed discounts on OTC stocks were not higher on the average than those for ASE stocks suggests that the use of the average asked price did not bias upward the computed discounts for OTC stocks.

[102] All percentages shown in this section refer to relative values rather than numbers of transactions.

Table XIV-45

DISCOUNTS ON PURCHASE PRICE OF RESTRICTED COMMON STOCK
CLASSIFIED BY TRADING MARKET

JANUARY 1, 1966 TO JUNE 30, 1969

	DISCOUNT															
	-15.0% to 0.0%		0.1 to 10.0%		10.1% to 20.0%		20.1% to 30.0%		30.1% to 40.0%		40.1% to 50.0%		50.1% to 80.0%		Total	
Trading Market	No. of Transactions	Value of Purchases (Dollars)	No. of Transactions	Value of Purchases (Dollars)	No. of Transactions	Value of Purchases (Dollars)	No. of Transactions	Value of Purchases (Dollars)	No. of Transactions	Value of Purchases (Dollars)	No. of Transactions	Value of Purchases (Dollars)	No. of Transactions	Value of Purchases (Dollars)	No. of Transactions	Value of Purchases (Dollars)
Unknown	1	1,500,000	2	2,496,583	1	205,000	0	-	2	3,332,000	0	-	1	1,259,995	7	8,793,578
New York Stock Exchange	7	3,760,663	13	15,111,798	13	24,503,988	10	17,954,085	3	11,102,501	1	1,400,000	4	5,005,068	51	78,838,103
American Stock Exchange	2	7,263,060	4	15,850,000	11	14,548,750	20	46,200,677	7	21,074,298	1	44,250	4	4,802,404	49	109,783,439
Over-the-Counter (Reporting Co.)	11	13,828,757	39	13,613,676	35	38,585,259	30	35,479,946	30	58,689,328	13	9,284,047	21	8,996,406	179	178,477,419
Over-the-Counter (Non-Reporting Co.)	5	8,329,369	9	5,265,925	18	25,122,024	17	11,229,155	25	29,423,584	20	11,377,431	18	13,505,545	112	104,253,033
TOTAL	26	34,681,849	67	52,337,982	78	102,965,021	77	110,863,863	67	123,621,711	35	22,105,728	48	33,569,418	398	480,145,572

Table XIV–46 classifies the discounts by institutional purchaser. The differences among institutional classes in regard to the discounts they obtain are largely a function of the size of the issuing companies. Investment advisers concentrated on smaller companies. These companies tend to issue stock at greater discounts. Since data on sales, earnings, and trading markets are the only relevant data available to the Study, the present analyses cannot fully evaluate the effects of portfolio risk on the size of the discount.

In addition to obtaining larger discounts, institutions can obtain compensation for bearing unusual risks by purchasing warrants at favorable prices. For example, Table XIV–31 shows that whereas there were no purchases of common stock with warrants in connection with NYSE stocks, purchases of such packages equaled 17.5 percent of the purchase of equity securities listed on the ASE or traded in the OTC market. In particular, purchases by investment advisers of equity packages were equal to 22.4 percent of all equity purchases of ASE and OTC securities. Purchases of common stock representing 39.0 percent of purchases by banks, 23.7 percent of purchases by investment advisers, and 40.5 percent by life insurance companies involved discounts not exceeding 20 percent. For discounts not exceeding 30 percent, the percentages were 67.3, 55.6, and 64.1 percent for these three classes of institutions, respectively.

Table XIV-46

DISCOUNTS ON PURCHASE PRICE OF RESTRICTED COMMON STOCK BY CLASS OF INSTITUTION

JANUARY 1, 1966 TO JUNE 30, 1969

Class of Institution	DISCOUNT															
	-15.0% to 0.0%		0.1% to 10.0%		10.1% to 20.0%		20.1% to 30.0%		30.1% to 40.0%		40.1% to 50.0%		50.1% to 80.0%		Total	
	No. of Transactions	Value of Purchase (Dollars)	No. of Transactions	Value of Purchase (Dollars)	No. of Transactions	Value of Purchase (Dollars)	No. of Transactions	Value of Purchase (Dollars)	No. of Transactions	Value of Purchase (Dollars)	No. of Transactions	Value of Purchase (Dollars)	No. of Transactions	Value of Purchase (Dollars)	No. of Transactions	Value of Purchase (Dollars)
Banks	6	10,803,050	17	15,021,358	31	35,624,259	26	44,586,199	18	44,581,008	9	3,838,055	12	3,047,068	119	157,500,997
Investment Advisers	7	6,012,188	13	24,429,493	27	50,390,544	26	37,654,718	32	60,149,780	16	13,630,681	16	20,695,041	137	212,962,445
Property and Liability Insurance Companies	1	1,500,000	2	1,438,375	3	2,418,279	3	7,342,061	0	-	3	1,850,000	2	1,659,995	14	16,208,710
Life Insurance Companies	5	6,909,369	2	2,029,500	8	7,735,412	13	9,720,627	8	10,174,527	2	999,993	5	3,631,414	43	41,200,842
Self-Administered Employee Benefit	4	3,109,932	29	3,733,256	2	3,653,133	3	1,748,856	0	-	0	-	2	2,000,000	40	14,245,177
Foundations	0	-	2	3,140,000	1	429,000	0	-	0	-	0	-	0	-	3	3,569,000
Educational Endowments	1	284,250	1	2,500,000	2	600,000	1	1,300,000	0	-	2	1,000,000	1	207,000	8	5,891,250
Venture Capital	2	6,063,060	1	46,000	4	2,114,394	5	8,511,402	9	8,716,396	3	786,999	10	2,328,900	34	28,567,151
TOTAL	26	34,681,849	67	52,337,982	78	102,965,021	77	110,863,863	67	123,621,711	35	22,105,728	48	33,569,418	398	480,145,572

Tables XIV–47 and XIV–48 show discounts classified by sales and earnings of issuer, respectively. Whereas companies with sales of under $5 million accounted for 66.4 percent of all transactions involving discounts in excess of 50.0 percent and for 68.4 percent of all transactions involving discounts of between 40.1 percent and 50.0 percent, they accounted for only 23.8 percent and 24.8 percent, respectively, of transactions involving discounts of less than 10.0 percent and of between 10.1 percent and 20.0 percent. Whereas companies with sales of $100 million or more accounted for only 6.1 percent of transactions involving discounts of more than 40.0 percent, they accounted for 21.1 percent of transactions involving discounts of not more than 20 percent.

Issuers' earnings are far more related to size of discount than are issuers' sales. For example, there were no transactions in publicly traded common stock of companies with earnings deficits in the fiscal years preceding the dates of the transactions. Whereas transactions in shares of companies with earnings of less than $1 million accounted for 93.9 percent of all transactions involving discounts of more than 40.0 percent, they accounted for only 49.4 percent of transactions involving discounts of 20.0 percent or less. The greater influence on the size of the discounts of earnings than of sales is probably due to the more proximate relationship of earnings than of sales to the riskiness of the investment.

Table XIV-47

DISCOUNTS ON PURCHASE PRICE OF RESTRICTED COMMON STOCK
CLASSIFIED BY SIZE OF TRANSACTION AND SALES OF ISSUER

JANUARY 1, 1966 TO JUNE 30, 1969

(PUBLICLY HELD COMPANIES ONLY)

	DISCOUNT													
	50.1% or More		40.1% to 50.0%		30.1% to 40.0%		20.1% to 30.0%		10.1% to 20.0%		0.1% to 10.0%		Total	
Sales of Issuer (Thousands of Dollars)	No. of Transactions	Size of Transactions (Dollars)	No. of Transactions	Size of Transactions (Dollars)	No. of Transactions	Size of Transactions (Dollars)	No. of Transactions	Size of Transactions (Dollars)	No. of Transactions	Size of Transactions (Dollars)	No. of Transactions	Size of Transactions (Dollars)	No. of Transactions	Size of Transactions (Dollars)
Less than 100	11	2,894,999	7	2,554,000	17	19,642,364	16	12,197,394	6	12,267,292	9	12,566,000	66	62,122,049
100-999	7	474,040	2	1,221,000	0	-	1	500,000	1	1,018,500	2	3,877,500	13	7,091,040
1,000-4,999	8	4,605,505	13	8,170,747	12	10,675,150	15	9,865,951	10	9,351,738	3	2,295,200	61	44,964,291
5,000-19,999	6	1,620,015	4	1,147,305	13	25,986,008	25	27,238,210	24	21,441,347	47	12,750,481	119	90,183,366
20,000-99,999	3	605,689	3	4,372,676	6	11,499,250	8	11,817,954	18	22,231,737	17	36,481,954	55	87,009,260
100,000 or More	2	1,805,068	0	-	2	2,049,998	3	7,903,586	10	24,959,483	7	10,832,925	24	47,551,060
TOTAL	37	12,005,316	29	17,465,728	50	69,852,770	68	69,523,095	69	91,270,097	85	78,804,060	338	338,921,066

Table XIV-48

DISCOUNTS ON PURCHASE PRICE OF RESTRICTED COMMON STOCK
CLASSIFIED BY SIZE OF TRANSACTION AND EARNINGS OF ISSUER

JANUARY 1, 1966 TO JUNE 30, 1969

(PUBLICLY HELD COMPANIES ONLY)

	DISCOUNT													
	50.1% or More		40.1% to 50.0%		30.1% to 40.0%		20.1% to 30.0%		10.1% to 20.0%		0.1% to 10.0%		Totals	
Earnings of Issuer (Thousands of Dollars)	No. of Transactions	Size of Transaction (Dollars)	No. of Transactions	Size of Transaction (Dollars)	No. of Transactions	Size of Transaction (Dollars)	No. of Transactions	Size of Transaction (Dollars)	No. of Transactions	Size of Transaction (Dollars)	No. of Transactions	Size of Transaction (Dollars)	No. of Transactions	Size of Transaction (Dollars)
Deficit	0	-	0	-	0	-	0	-	0	-	0	-	0	-
0-99	27	6,901,243	19	11,003,559	28	37,681,014	31	32,796,968	19	25,122,042	46	29,553,418	170	143,058,244
100-999	8	3,299,005	10	6,462,169	19	26,121,758	24	20,344,492	25	16,790,565	16	12,480,144	102	85,498,133
1,000-9,999	0	-	0	-	3	6,049,998	12	16,313,549	17	27,948,007	15	16,955,530	47	67,267,084
10,000 or More	2	1,805,068	0	-	0	-	1	68,086	8	21,409,483	8	19,814,968	19	43,097,605
TOTAL	37	12,005,316	29	17,465,728	50	69,852,770	68	69,523,095	69	91,270,097	85	78,804,060	338	338,921,066

Tables XIV–49 and XIV–50 show the average [103] discounts, in each of the years in the sample period, classified by sales and earnings of issuers, respectively. Average discounts rose over the period January 1, 1966 through June 30, 1969. They were 15.3 percent in 1966, 17.7 percent in 1967, 24.5 percent in 1968, and 27.9 percent in the first half of 1969. The averages were generally higher for the smaller companies; however, the small number of transactions in the shares of these companies makes the averages sensitive to extreme points. Table XIV–59 shows a monotonic decline from 25.6 percent for companies with earnings between 0 and $99,000 to 15.8 percent for companies with earnings of $10 million or more.

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[103] The averages are weighted by the number of transactions in each sales (or earnings) range. The averages for each range are themselves simple averages of the discounts on the individual transactions within each range.

Table XIV-49

AVERAGE DISCOUNTS ON PURCHASE PRICE OF RESTRICTED COMMON STOCK
CLASSIFIED BY SALES OF ISSUER AND AVERAGE PERCENTAGE DISCOUNT, OVER TIME

(PUBLICLY HELD COMPANIES ONLY)

SALES OF ISSUER
(Thousands of Dollars)

	Less Than 100		100 - 999		1,000 - 4,999		5,000 - 19,999		20,000 - 99,999		100,000 or More		Totals	
Year	No. of Trans-actions	Average Discount (Percentage)	No. of Trans-actions	Average Discount (Percentage)	No. of Trans-actions	Average Discount (Percentage)	No. of Trans-actions	Average Discount (Percentage)	No. of Trans-actions	Average Discount (Percentage)	No. of Trans-actions	Average Discount (Percentage)	No. of Trans-actions	Average Discount (Percentage)
1966	0	-	0	-	1	61.4	7	23.8	10	9.3	3	.2	21	15.3
1967	1	17.2	3	79.4	11	37.4	36	9.5	6	6.2	6	11.2	63	17.7
1968	2	25.6	5	30.0	36	32.6	47	18.7	26	73.9	11	21.1	127	24.5
1969 (First Half)	3	41.4	5	45.5	13	26.9	29	27.1	13	21.4	4	25.8	67	27.9
TOTAL	6	32.1	13	47.4	61	32.7	119	18.3	55	18.7	24	16.8	278	23.1

NOTE:
Averages of discounts are weighted by the number of transactions in each range of sales

Table XIV-50

AVERAGE DISCOUNTS ON PURCHASE PRICE OF RESTRICTED COMMON STOCK
CLASSIFIED BY EARNINGS OF ISSUER AND AVERAGE PERCENTAGE DISCOUNT, OVER TIME

(PUBLICLY HELD COMPANIES ONLY)

EARNINGS OF ISSUER
(Thousands of Dollars)

	Deficit		0 - 99		100 - 999		1,000 - 9,999		10,000 or More		Totals	
Year	No. of Transactions	Average Discount (Percentage)	No. of Transactions	Average Discount (Percentage)	No. of Transactions	Average Discount (Percentage)	No. of Transactions	Average Discount (Percentage)	No. of Transactions	Average Discount (Percentage)	No. of Transactions	Average Discount (Percentage)
1966	0	-	8	14.7	5	25.6	4	10.7	4	8.4	21	15.3
1967	0	-	35	21.8	12	19.2	12	8.1	4	4.9	63	17.7
1968	0	-	48	27.1	49	26.0	21	15.5	9	23.2	127	24.5
1969 (First Half)	0	-	19	33.3	36	26.6	10	23.8	2	19.3	67	27.9
TOTAL	0	-	110	25.6	102	25.4	47	15.0	19	15.8	278	23.1

NOTE:
Averages of discounts are weighted by the number of transactions in each range of earnings.

To capture the simultaneous influence on the size of the discount of some of the variables described above, and certain other variables, the Study regressed the discount in each transaction on dummy variables describing some of the institutional purchasers, the trading market for the publicly-held shares, the S&P index, and the size of the purchase. The estimated co-efficients attached to each of the variables and the t-values are shown in table XIV–51:

TABLE XIV–51.—ESTIMATES OF COEFFICIENTS OF REGRESSION OF DISCOUNTS OBTAINED IN PURCHASES OF RESTRICTED COMMON STOCK ON SELECTED EXPLANATORY VARIABLES, 338 TRANSACTIONS BETWEEN JAN. 1, 1966, AND JUNE 30, 1969

Variable	Regression coefficient	t-value
Intercept	−0.512	3.22
Banks (DV)	.096	3.50
Investments advisers (DV)	.124	4.41
Life insurance companies (DV)	.107	3.07
Venture capital companies (DV)	.233	6.05
N.Y.S.E. (DV)	−.085	−2.65
A.S.E. (DV)	−.046	−1.43
O.T.C. reporting companies (DV)	−.063	−2.93
S. & P. composite index	.007	4.53
Size of purchase	−.018	−2.66

Note: The adjusted R^2 of the regression is 0.202. "DV" means dummy variable.

All variables except for the dummy variable associated with the ASE are statistically significant. The regression is read in two parts—(1) the intercept and dummy variables and (2) the last two variables. To obtain the influence on the discount of bank purchases of restricted stock of a company with securities listed on the NYSE, one sums the intercept, the coefficient for the bank dummy variable, and the coefficient for the NYSE dummy variable (−.512 +.096 −.085). To obtain the effect on discounts of purchases by venture capital companies of NYSE securities one substitutes the coefficient attached to the latter dummy variable for the coefficient attached to the bank dummy variable (−.512 +.233 −.085). Substituting the venture capital company coefficient for the bank coefficient adds 13.7 percentage points to the discount (.233 −.096). Similarly, substituting the OTC coefficient for the NYSE coefficient adds 2.2 percentage points to the discount [−0.63−(−.085)]. In effect, the dummy variables modify the intercept of the regression for each combination of independent dummy variables, in this case one institution variable and one market variable. The second part of the regression involves ordinary variables —the S&P index (coeval with the month in which the given transaction took place) and the size of the purchase. The size of the discount is positively related to the S&P index rising 0.7 percentage points for each one point change in the S&P index.[104] The discount is lower for larger purchases because larger purchases are associated with larger issuers.

Table XIV–52 summarizes the regression assuming the transaction size and the S&P index are at their mean values. The numbers in the

[104] This result may indicate that investors are skeptical about the permanence of rises in stock prices and, therefore, revise upward their estimate of the risk of the restricted security when stock prices are high.

cells were calculated in the manner described in the text above. The discounts in each cell would increase by 0.7 percentage points for each unit change in the S&P index. For example, if instead of its mean value, 98.20, the S&P index were at 100.0, the numbers in each cell would increase by 1.3 (i.e., 0.7 (100.0 −98.2)). The average discount for the 338 transactions was 24.0 percent.

TABLE XIV-52.—AVERAGE DISCOUNTS ON PURCHASES OF RESTRICTED COMMON STOCK CLASSIFIED BY INSTITUTIONAL PURCHASER AND TRADING MARKETS, JAN. 1, 1966-JUNE 30, 1969

Class of institution	Market			
	N.Y.S.E.	A.S.E.	OTC-R.P.G.	OTC-Non-R.P.G.
Banks	18.7	22.5	25.6	31.9
Investment advisers	21.6	25.4	28.5	34.8
Life insurance companies	19.9	23.7	26.8	33.1
Venture capital companies	32.5	36.3	39.4	45.7
Other institutions	9.2	13.0	16.1	22.4

Note: This table is based on the regression coefficients reported in Table XIV-51. The discounts are calculated on the basis of the mean value of the S. & P. index and the mean transactions size. The discounts reported in each cell would increase by 0.7 percentage points for each 1 point change in the S. & P. composite index. The discounts would decrease by 1.8 percentage points for each $1,000,000 increase in the size of transaction.

9. Yields on Equity-Related Debt

The expected effective yield on a convertible bond or bond with attached warrants is made up of two components: (a) the interest return; and (b) the expected capital gain due to the expected appreciation of the value of the underlying stock into which the bond is convertible or for which the attached warrants are exerciseable. While the two types of equity-bonds serve the same purpose, they differ in one important respect. A convertible bond must be either converted into stock, and the stock sold, or be sold itself [105] to permit realization of the capital gain on the equity portion of the bond. In either case, investors surrender the debt portion of the bond as well. In contrast, the equity portion of a bond with attached warrants can be traded without disturbing the debt portion simply by exercising or selling the attached warrants.[106] Insurance companies, who often hold long-term assets reveal a preference for bonds with attached warrants which obviate more frequent turnover of their bond portfolios. Their purchases of debt securities with warrants were almost twice the value of their purchases of convertible bonds. However, the economic differences between the two types of securities are sufficiently small to prevent significant differences in their yields for a given set of conditions. Therefore, the Study has grouped the two types of bonds to avoid diluting its data. For a given quality [107] of issue and given market interest rates, in-

[105] Since the market price of publicly traded convertible bonds varies with the market price of the underlying stock, it is often more convenient to sell the bonds instead of first converting into the stock. Arbitrageurs generally ensure that the two methods of disposing of the bond will not yield significantly different results.

[106] Another technical distinction is the fact that the principal value of the convertible serves as payment for the equity. In contrast, the exercise of warrants usually involves the payment of cash together with the warrants. However, a publicly traded bond can be sold in order to generate the cash to meet the exercise price. Some private placements involving debt with warrants provide for the use of the principal value of the bond in lieu of cash at the exercise of the warrants. This alternate use of the principal value affords some protection against the adverse effect on bond prices of increases in market interest rates.

[107] The concept of quality as applied to an equity-bond includes the reliability of the payment of principal and interest, as well as the stability of the underlying stock.

vestors differ in their preference for the proportions of the total expected yield that take the forms of debt and equity. Some prefer a greater interest yield and others more attractive conversion or exercise rights. Some of the reasons for the differences in preference among investors are the following:

a. Effects of the tax status of investors

Since interest is taxed at ordinary income rates, fully taxed investors have an incentive to realize more of their returns in the form of capital gains. Since yields in the public or private market generally adjust to the circumstances, in this case the tax status of the marginal participants, investors with a lower tax rate than that of the marginal investor stand to gain a higher interest return than they require to preserve their preference for interest over equity options.[108] Tax exempt institutions, like employee benefit plans and foundations, on these grounds, prefer interest yield to equity return, although other factors are considered as well. While the interest return to the general accounts of life insurance companies is taxed at ordinary income rates, the taxable portion of the interest return is substantially less than the whole. As a result, they have little reason to eschew interest return, although their preference for it on tax grounds is not as strong as that of tax-exempt institutions. Investment advisers, however, apart from any tax-exempt accounts they manage, have a stronger incentive to avoid taxable interest return.

b. Variability of return

The interest return on bonds issued by substantial corporations is more predictable than the promise of appreciation of the common stock of these corporations. To the extent an institution requires current yield to meet current liabilities, interest return is preferable to the opportunity for capital gains on equity. To the extent the institution requires portfolio liquidity, or simply stable valuation, their preference is less clear. A period of rising interest rates and stock prices enhances the stability of bonds with a relatively greater equity component over those that emphasize the debt component. The capital declines due to rising interest rates depreciate the debt portions of both types of bonds; but the greater the debt portion to the whole the greater is the depreciation of the bond. Rising stock prices enhance the equity portions of the bonds with greater effect, the greater is the equity portion relative to the whole. Rising interest rates combined with falling stock prices usually cause greater depreciation of bonds with a large equity component, although such determinations depend on the quantitative circumstances of each situation.

c. Preference as to risk

Where the risk of the performance of the issuing company is a major factor, most institutions have a decided preference for proportion-

[108] Investors act on the basis of after-tax income. If they require a given after-tax yield they will revalue the available securities until the pre-tax yield is sufficient to produce the after-tax income to the last investment dollar that is necessary to ensure that all securities are held by investors. This pre-tax yield implies different after-tax yields for different tax rates. Those investors with tax rates below that of the marginal investors receive more after-tax income by receiving the pre-tax yield necessary to supply the after-tax return required by the marginal investor. Hence, such investors profit from their dissimilarity with the marginal investor. This reasoning, of course, applies to other characteristics of the market as well.

ately more equity than interest return. The required compensation for bearing unusual risk usually involves an open-ended prospect for large gains. Since interest return defines, in effect, the maximum that the issuer must pay, it is not consistent with the need to bear unusual risk.

This discussion of the attitudes toward the proportions of debt and equity in a given debt instrument involves the trade-off between the two components of yield in the context of a given investment. In this context one component can rise only at the expense of the other, assuming the total expected yield is given. The Study's data, however, consist of the proportion of debt and equity chosen under varying circumstances. The proportions on two different occasions involving two different classes of institutions may differ either because the two institutions had different preferences in regard to the trade-off between debt and equity or because the total expected yields of the two transactions differed. The statistical analysis and the additional data on the issuers' circumstances needed in order to disentangle these two effects was beyond the scope of the Study.

Table XIV–53 classifies the characteristics of the restricted debt securities purchased by the various classes of institutions. The last column shows the conversion (or exercise) prices relative to coeval market prices. In the case of banks, for example, the implied discount is 11.1 percent. An evaluation of these discounts must consider that the conversion or exercise prices on publicly traded bonds are usually above the coeval market prices of the publicly traded stock.[109]

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[109] The conversion price for a publicly traded convertible bond is implied by the stated number of shares available in the conversion of one bond. As a result the relative conversion price varies with the market price of the bond. Publicly traded bonds with detachable warrants often trade independently of the warrants.

Table XIV-53

YIELDS ON CONVERTIBLE DEBT AND DEBT WITH WARRANTS BY CLASS OF INSTITUTION

Institutions	Number of Purchases	Value of Purchases (Dollars)	Average Coupon Yield (Percentages)	Cost Per Percentage Point of Equity Acquired (Dollars)	Average Equity Interest Acquired Per Transaction (Percentage)	Average Relative Conversion Price (Ratio)
Banks	141	516,647,112	5.94	566,471	6.4684	.889
Investment Advisers	73	321,393,426	6.03	602,979	7.3015	.861
Property & Liability Insurance Cos.	37	75,100,670	6.06	557,194	3.6428	1.014
Life Insurance Cos.	261	881,794,212	6.44	657,044	5.1420	.978
Self Administered Employee Benefit Funds	18	17,322,186	6.00	155,737	6.1793	.826
Foundations	11	23,000,000	5.97	703,915	2.9704	1.099
Educational Endowments	29	19,691,000	5.81	326,756	2.0780	.984
Venture Capital	18	17,272,556	6.41	177,507	5.4059	.756

Except in unusual circumstances conversion prices do not fall below the corresponding coeval market prices by more than the value of a brokerage commission since arbitrageurs would buy the bonds, convert them, and sell the stock until the conversion price assumed a viable relationship with the price of the stock. Because of the variation among transactions with respect to the total expected yield, a trade-off between coupon yield and relative conversion price is not evident in the table. Investment advisers, for example, obtain both a higher coupon yield and a lower relative conversion price than do banks. Investment advisers are therefore obtaining a higher total anticipated yield than are banks and must be bearing a higher risk. The evidence described earlier of their relatively greater emphasis on smaller issuers is consistent with this proposition. Life insurance companies get a substantially higher coupon yield and a substantially smaller conversion discount (i.e., higher relative conversion price) than do banks and investment advisers. Venture capital companies get only a slightly lower coupon return than do life insurance companies (6.41 percent compared with 6.44 percent) but a much greater conversion discount equal to almost 25 percent; hence their total expected yield is greater to compensate for the greater risk they bear on their investments.

Investment advisers obtain the highest average equity interest per transaction, 7.3 percent, of any of the institutions. Most of the explanation lies in their greater average size of trasaction, but the lower conversion prices they obtain also move in this direction.

Table XIV-54 shows quarterly time series of the data just discussed for all institutional investors, and Tables XIV-55 and XIV-56 for insurance companies and banks, respectively. That this period was one of rising interest rates is clear from the generally rising coupon yields and the falling relative conversion prices. While the relative conversion prices for insurance companies exceeded 1.0 in all but one quarter during 1967 and 1968, they were below in all but two quarters in 1968 and the first half of 1969.

Table XIV-54

YIELDS ON CONVERTIBLE DEBT AND DEBT WITH WARRANTS, OVER TIME
ALL INSTITUTIONS

Period	Number of Purchases	Value of Purchases (Dollars)	Average Coupon Yield (Percentages)	Cost Per Percentage Point of Equity Acquired (Dollars)	Average Equity Interest Acquired Per Transaction (Percentage)	Average Relative Conversion Price (Ratio)
1966 Total	77	251,573,929	5.98	863,697	3.7828	1.027
1st Quarter	20	24,311,000	5.62	431,398	2.8177	.982
2d Quarter	28	80,518,203	5.90	639,090	4.4996	1.025
3rd Quarter	12	47,087,676	6.15	1,704,741	2.3018	1.058
4th Quarter	17	99,657,050	6.28	1,225,603	4.7831	1.048
1967 Total	84	263,553,752	6.02	765,199	4.1003	.970
1st Quarter	29	70,066,000	5.94	753,421	3.2068	.942
2d Quarter	12	45,322,500	5.86	384,075	9.8337	.988
3rd Quarter	17	48,210,000	5.89	644,343	4.4012	1.033
4th Quarter	26	99,955,252	6.29	1,705,605	2.2540	.950
1968 Total	257	705,288,657	6.14	524,966	5.2276	.897
1st Quarter	41	62,479,530	6.05	482,825	3.1562	.979
2d Quarter	50	163,673,347	6.44	504,752	6.4853	.890
3rd Quarter	66	191,446,014	6.06	528,851	5.4849	.911
4th Quarter	100	287,689,766	6.07	545,053	5.2782	.859
1969 Total (1st Half)	171	652,379,874	6.48	524,346	7.2759	.946
1st Quarter	98	424,833,610	6.50	646,364	6.7068	.890
2d Quarter	73	227,546,264	6.46	387,705	8.0398	1.019

Table XIV-55

YIELDS ON CONVERTIBLE DEBT AND DEBT WITH WARRANTS, OVER TIME
INSURANCE COMPANIES

Period	Number of Purchases	Value of Purchases (Dollars)	Average Coupon Yield (Percentages)	Cost Per Percentage Point of Equity Acquired (Dollars)	Average Equity Interest Acquired Per Transaction (Percentage)	Average Relative Conversion Price (Ratio)
1966 Total	48	217,401,691	6.14	1,042,250	4.3456	1.116
1st Quarter	13	21,023,000	5.91	392,218	4.1231	1.003
2d Quarter	18	70,391,015	6.00	719,669	5.4339	1.096
3rd Quarter	8	45,537,676	6.32	2,271,070	2.5064	1.156
4th Quarter	9	80,450,000	6.47	2,166,898	4.1252	1.233
1967 Total	47	138,500,002	6.04	643,450	4.5797	1.026
1st Quarter	16	42,150,000	5.87	746,303	3.5299	.986
2d Quarter	8	23,000,000	5.94	310,918	9.2468	1.039
3rd Quarter	11	27,850,000	6.08	544,360	4.6510	1.059
4th Quarter	12	45,500,002	6.35	1,352,910	2.8026	1.040
1968 Total	124	348,887,064	6.29	559,955	5.0247	.935
1st Quarter	21	35,607,658	5.99	612,883	2.7666	1.045
2d Quarter	30	85,850,410	6.47	351,515	8.1410	.918
3rd Quarter	30	77,036,870	6.09	553,342	4.6407	.939
4th Quarter	43	150,392,126	6.44	828,554	4.2212	.888
1969 Total (1st Half)	79	252,106,125	6.91	586,384	5.4422	.958
1st Quarter	50	179,064,325	6.97	645,521	5.5479	.904
2d Quarter	29	73,041,800	6.80	478,828	5.2601	1.060

Table XIV-56

YIELDS ON CONVERTIBLE DEBT AND DEBT WITH WARRANTS, OVER TIME
BANKS

Period	Number of Purchases	Value of Purchases (Dollars)	Average Coupon Yield (Percentages)	Cost Per Percentage Point of Equity Acquired (Dollars)	Average Equity Interest Acquired Per Transaction (Percentage)	Average Relative Conversion Price (Ratio)
1966 Total	8	19,757,000	5.70	759,511	3.2516	.839
1st Quarter	1	50,000	4.75	1,018,329	.0491	.926
2d Quarter	2	6,500,000	5.62	672,224	4.8347	.933
3rd Quarter	0	0	0	0	0	0
4th Quarter	5	13,207,000	5.92	810,544	3.2588	.784
1967 Total	17	77,749,000	5.83	1,266,819	3.6102	.919
1st Quarter	4	24,400,000	5.81	2,191,564	2.7334	.966
2d Quarter	2	15,522,500	5.18	751,113	10.3330	.858
3rd Quarter	4	18,760,000	5.16	1,296,726	3.6168	1.127
4th Quarter	7	19,066,500	6.42	1,262,054	2.1582	.770
1968 Total	72	202,161,112	5.98	478,949	5.8624	.844
1st Quarter	6	11,116,500	6.18	458,771	4.0385	.820
2d Quarter	10	20,177,887	6.30	578,544	3.4877	.837
3rd Quarter	23	88,259,288	6.21	554,660	6.9184	.859
4th Quarter	33	82,607,437	5.68	405,208	6.1777	.841
1969 Total (1st Half)	44	216,980,000	5.95	538,988	9.1493	.966
1st Quarter	22	115,030,000	5.98	583,495	8.9609	.853
2d Quarter	22	101,950,000	5.93	496,278	9.3377	1.051

Table XIV–57 classifies the same information by sales of the issuing companies and year of purchase. While there is a fairly systematic rise in the relative conversion prices as the sales of issuing companies increase, the coupon yields show no corresponding decline. The reason lies in the coincidence of two separate effects: (1) as the size of the issuing companies increases, the riskiness of the bond generally decreases, and the total expected yield declines; (2) but with decreasing riskiness institutions are more inclined to take a larger fraction of the total yield in the form of coupon payment and a correspondingly smaller portion in the form of equity.

Table XIV-57

YIELDS ON CONVERTIBLE DEBT AND DEBT WITH WARRANTS CLASSIFIED BY SALES OF ISSUER, OVER TIME

Sales of Issuer (Thousands of Dollars)	Number of Purchases	Value of Purchases (Dollars)	Average Coupon Yield (Percentages)	Cost Per Percentage Point of Equity Acquired (Dollars)	Average Equity Interest Acquired Per Transaction (Percentage)	Average Relative Conversion Price (Ratio)
1966						
Less Than 100	0	0	0	0	.0000	.000
100-999	5	3,575,000	6.10	71,830	9.9541	.960
1,000-4,999	7	8,470,000	6.62	187,463	6.4546	.930
5,000-19,999	17	22,631,691	5.95	602,605	2.2092	.893
20,000-99,999	31	100,325,000	6.05	852,238	3.7974	1.077
100,000 or More	16	115,997,188	5.61	2,825,781	2.5656	1.069
1967						
Less Than 100	0	0	0	0	.0000	.000
100-999	0	0	0	0	.0000	.000
1000-4999	3	750,000	6.66	53,988	4.6307	.783
5,000-19,999	19	30,266,000	6.40	292,848	5.4395	.962
20,000-99,999	28	49,582,500	5.81	436,729	4.0547	.982
100,000 or More	34	182,955,252	5.93	1,609,788	3.3427	.980
1968						
Less Than 100	0	0	0	0	.0000	.000
100-999	2	5,050,150	5.50	284,115	8.8875	.496
1,000-4,999	42	78,472,135	6.00	296,536	6.3007	.739
5,000-19,999	66	124,578,899	6.17	297,403	6.3468	.867
20,000-99,999	94	207,431,369	6.09	457,702	4.8213	.936
100,000 or More	53	289,756,104	6.30	153,160	3.5659	.986
1969 (First Half)						
Less Than 100	5	7,700,000	6.00	39,580	38.9086	.913
100-999	7	7,475,000	6.50	102,992	10.3684	.631
1,000-4,999	16	32,818,464	6.98	109,645	18.7072	.694
5,000-19,999	51	149,646,085	6.06	490,716	5.9795	.994
20,000-99,999	42	116,730,000	6.28	425,618	6.5300	.950
100,000 or More	50	338,010,325	7.06	3,430,880	1.9704	1.011

Hence, the larger relative conversion prices for securities of the larger issuers are consistent with lower total yields, as well as smaller fractions of the total investment taking the form of equity; while the higher coupons are consistent with larger fractions of the total yield taking the form of interest return. The total expected yield is lower in these securities because the reduction of the expected equity return outweighs the increase in the expected interest return. Thus, the data correspond with reasonable expectations when the two effects are separately considered.

In order to observe the simultaneous effects on the relative conversion prices of the variables that were considered separately in tabular form, the Study ran several regressions of relative conversion prices on various combinations of these variables. The variation of relative conversion prices is more complex than that of discounts on common stock because of the effects of the interest return.[110] The Study found no systematic relationship between trading market and relative conversion prices, probably because of the complex interaction between relative conversion prices and coupon yields. The regression with dummy variables for the trading market is, therefore, not shown below. Table XIV–58 lists the variables, regression coefficients, and t-values for one of the regressions the Study ran. The negative signs and the rising absolute values of the coefficients attached to the dummy variables for banks, investment advisers, and venture capital companies, respectively, indicate that the relative conversion prices decline from the first to the last institution noted. Neither the coefficient attached to sales of the issuer nor the one attached to the dummy variables for insurance companies is statistically significant. Neither of these variables serves to adjust the transaction for the risk of the issue in order to highlight the trade-off between coupon payment and relative conversion price. The negative coefficient attached to the coupon rate relative to the coeval interest rate implies that the total effective yield in a given transaction swamps the trade-off between debt and equity yields. As in the case of discounts on common stock, the relative conversion price is negatively related to the S&P index, implying that a high level of stock prices increases the discount on restricted debt securities. The coefficient of determination is only .092. The regression's

TABLE XIV-58.—ESTIMATE STATISTICS FOR REGRESSION OF RELATIVE CONVERSION PRICES OF PURCHASES OF RESTRICTED EQUITY-RELATED DEBT SECURITIES ON SELECTED VARIABLES: 311 OBSERVATIONS, JAN. 1, 1966–JUNE 30, 1969

Variable	Regression coefficient	t-value
Intercept	1.880	8.28
Sales of issuer (millions of dollars)	0.040	1.01
Banks (D.V.)	−0.094	−2.57
Investment advisers (D.V.)	−0.114	−2.71
Life insurance companies (D.V.)	0.012	0.35
Venture capital companies (D.V.)	−0.198	−2.53
S. & P. composite index (coeval value)	−0.007	−3.63
Coupon relative to coeval Baa interest rate	−0.277	−2.97

Note: D.V. means dummy variable. Values for S. & P. composite index and Baa interest rate are taken for the month in which the transaction in question occured. The adjusted coefficient of determination is .092.

[110] This complexity is by no means peculiar to *restricted* debt securities. The available analyses of publicly traded convertible bonds and warrants are still in a rudimentary form.

relatively poor explanatory power can be attributed to the Study's inability to obtain information on the quality of the investments because of the prohibitive scope of the task.

10. Provisions for Resale of Restricted Securities

Apart from the relatively few occasions on which institutions purchase restricted securities because of insufficient supply of a given security in the public market, the discounts on the purchase or conversion prices provide the main incentive for institutions to purchase restricted securities. Even if the market price of the publicly traded stock of the same class does not increase, the institution may realize a return on the investment if it can find the means to dispose of the securities.[111] From the buyer's point of view the discount associated with the purchase of the restricted security may be analysed as the combination of two separate factors: (a) the risk that the underlying value of the stock would change in a way that under normal circumstances would precipitate a decision to sell (a decision that may be preempted by the restriction on resale) and (b) the risk that the contemplated means of legally disposing of the stock may not materialize, and the buyer will suffer the opportunity costs of the frozen funds. From the seller's point of view the discount replaces the costs associated with a public offering, including the direct costs of registration and distribution, as well as the exposure to the risk the market will adversely change before the offering is effected. The negotiation between the buyer and the seller involves the interaction of these and other considerations.[112]

In addition to these general considerations, the terms of a given purchase are influenced by the relative bargaining strengths of the principals. A small issuer in need of money may acquiesce to terms that are less favorable than those available from other investors, assuming the issuer was in a position to turn down one proposal for the uncertain prospects of a better one. In a period of tight credit, such as the one covered by the Study's sample, the bargaining positions are usually stronger on the lenders' side, especially on the side of those lenders whose source of funds is not unduly affected by the credit tightness. The fact that the financial institutions generally dwarf the issuers in regard both to size and prestige may aggravate the imbalance in bargaining strengths.[113] This inequality of bargaining strengths in particular

[111] The impact of discounts on unrealized returns is considered in the next section.

[112] The discount is not the only variable that is determined in the negotiation. Other terms of the agreement may influence (and be influenced by) the size of the discount. These terms may include (among others): call protection, in the case of debt; provisions for resale (discussed below); provisions for continuous disclosure of information on the issuer's status; selection of one or more directors; and provisions for various contingent events. The last term may include the buyer's obtaining a greater voice in the company's affairs in the event the company fails to meet a previously agreed on standard of performance; in other cases, the purchase price may vary in accordance with the company's subsequent earnings. Sometimes the buyer obtains options to purchase additional securities. The size of the discount may reflect the buyer's and seller's satisfaction with respect to some of these additional terms.

[113] Apart from its possible effect on bargaining position, the prestige of the institution is, in effect, one of the "terms" of the deal. The issuing company stands to gain from its association with a prestigious institution, whose implied approval of the company could facilitate the company's obtaining lines of credit, investment banking support, and credibility within its industry. Small companies often encounter difficulty making sales to large companies due to the latter's concern over the smaller company's ability to deliver the goods or services promised. The backing of a prominent institution is often a useful trade reference. The purchase price of restricted securities may reflect this service that prominent institutions provide smaller companies. Moreover, in providing this service, the institution risks embarrassment in the event the company does not perform in accordance with expectations.

transactions does not imply a pattern of inflated discounts if competition among institutions prevails.

To mitigate the danger of being foreclosed from a desired sale when in fact a public sale was feasible, as well as potentially to shorten the holding period and minimize the transaction cost of such sales, the agreement to purchase restricted securities often contains provisions setting forth conditions for public distributions of the stock sometime after the purchase.[114] The more common provisions for resale are shown in Tables XIV–59 and XIV–60, for common stock, and debt, respectively. In purchases of restricted stock some provision for resale was included in the purchase agreement in 63.0 percent of the transactions. Only venture capital institutions failed to obtain provision for registration on resale in a large number of transactions, 57.7 percent, although life insurance companies failed to include some provisions in 36.6 percent of their transactions.[115] Inmany cases the purchase agreements included several different provisions for resale to allow for various contingencies. The three major types of provisions relating to registration of the restricted securities are: [116] (a) an option to include the restricted securities in a registration statement filed by the issuer [117] (sometimes referred to as "piggy-backing" the registration statement); (b) an option to require registration at the issuer's expense; or (c) an option to require registration at the selling stockholders' expense.[118]

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[114] Provisions made at the time of purchase in connection with the resale of the securities appear to contradict the stated intent (required in a private offering) to invest without a view to public distribution. However, nothing prevents the offeree from contemplating at the time of purchase a subsequent registered offering since in that case the offerer merely defers, rather than obviates, his obligation to register the shares.

[115] Provisions for resale are less germane in purchases of restricted securities from privately held companies. In many cases, institutions may be reluctant to distribute their stock in conjunction with a first offering of the companies' stock out of concern that the offering might thus appear to be a bail out, or the institution may have enough influence to obtain registration of its securities whenever it so desires.

[116] Other provisions require an opinion of counsel of the issuer and the institution or a "no-action" letter from the Commission or both as a condition of sale without registration.

[117] Under the Securities Act, only the issuer can file a registration statement.

[118] Provisions are also made for sharing of expenses, including expenses of blue skying the issue.

Table XIV-59

PURCHASES OF RESTRICTED SECURITIES CLASSIFIED BY TYPE OF SECURITY, CLASS OF INSTITUTION AND PROVISIONS FOR RESALE

COMMON STOCK

Provision for Resale	Type of Institution: Banks No. of Transactions	Banks Value of Transaction (Dollars)	Investment Advisers No. of Transactions	Investment Advisers Value of Transaction (Dollars)	Prop. and Liab. Insurance Companies No. of Transactions	Prop. and Liab. Insurance Companies Value of Transaction (Dollars)	Life Insurance Companies No. of Transactions	Life Insurance Companies Value of Transaction (Dollars)
Respondent had option to include its securities in a registration statement filed by the issuer	20	14,557,479	28	17,399,200	8	10,321,296	6	1,386,442
Respondent had option (by itself or with others) to require registration, with the issuer paying substantially the entire expense	10	4,472,416	10	19,723,970	1	170,000	13	3,806,688
Respondent had option (by itself or with others) to require registration, without the issuer paying substantially the entire expense	10	5,148,000	3	4,600,000	0	0	0	0
Other agreement concerning resale to the public	24	9,698,320	13	6,241,370	1	468,272	7	11,079,600
No agreement concerning resale to the public	46	32,191,162	20	10,030,911	9	8,641,127	41	44,057,515
Multiple provisions for resale for multiple security package	58	79,581,453	93	98,671,087	5	2,186,004	45	34,793,062
TOTALS	168	145,648,830	167	156,666,538	24	21,786,699	112	95,123,307

Provision for Resale	Type of Institution: Self-Administered Employee Benefit No. of Transactions	Self-Administered Employee Benefit Value of Transaction (Dollars)	Foundations No. of Transactions	Foundations Value of Transaction (Dollars)	University Endowment No. of Transactions	University Endowment Value of Transaction (Dollars)	Venture Capital No. of Transactions	Venture Capital Value of Transaction (Dollars)	Totals No. of Transactions	Totals Value of Transaction (Dollars)
Respondent had option to include its securities in a registration statement filed by the issuer	0	0	2	625,010	3	692,000	7	1,936,185	74	46,917,612
Respondent had option (by itself or with others) to require registration, with the issuer paying substantially the entire expense	2	2,800,000	0	0	2	650,000	8	2,227,775	46	33,850,849
Respondent had option (by itself or with others) to require registration, without the issuer paying substantially the entire expense	2	1,955,957	0	0	0	0	0	0	15	11,703,957
Other agreement concerning resale to the public	1	299,000	0	0	2	2,587,500	15	2,583,932	63	32,957,994
No agreement concerning resale to the public	28	1,909,901	2	3,140,000	3	130,250	139	131,800,548	288	231,901,414
Multiple provisions for resale for multiple security package	12	6,033,829	0	0	7	3,248,250	72	30,809,738	292	255,323,423
TOTALS	45	12,998,687	4	3,765,010	17	7,308,000	241	169,358,178	778	612,655,249

Table XIV-60

PURCHASES OF RESTRICTED SECURITIES CLASSIFIED BY TYPE OF SECURITY, CLASS OF INSTITUTION AND PROVISIONS FOR RESALE

DEBT

Provision for Resale	Type of Institution: Banks		Investment Advisers		Prop. and Liab. Insurance Companies		Life Insurance Companies	
	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)
Respondent had option to include its securities in a registration statement filed by the issuer	10	9,457,937	8	3,878,135	32	53,005,590	3	450,454
Respondent had option (by itself or with other) to require registration, with the issuer paying substantially the entire expense	17	60,658,935	17	54,918,328	8	18,475,000	100	418,829,626
Respondent had option (by itself or with others) to require registration, without the issuer paying substantially the entire expense	1	100,000	1	600,000	1	350,000	0	0
Other agreement concerning resale to the public	8	7,429,500	0	0	1	750,000	4	4,680,478
No agreement concerning resale to the public	12	15,230,000	5	1,385,000	6	1,320,000	6	4,605,401
Multiple provisions for resale for multiple security package	137	477,669,532	77	307,691,285	22	36,040,080	284	798,157,608
TOTALS	185	570,545,904	108	368,472,738	70	109,940,670	397	1,226,723,567

Provision for Resale	Type of Institution: Self-Administered Employee Benefit		Foundations		University Endowment		Venture Capital		Totals	
	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)
Respondent had option to include its securities in a registration statement filed by the issuer	0	0	0	0	6	4,672,500	2	500,000	61	71,964,606
Respondent had option (by itself or with others) to require registration, with the issuer paying substantially the entire expense	7	10,250,370	8	5,500,000	8	3,503,000	9	11,889,102	174	584,024,361
Respondent had option (by itself or with others) to require registration, without the issuer paying substantially the entire expense	0	0	0	0	0	0	0	0	3	1,050,000
Other agreement concerning resale to the public	1	899,856	0	0	4	1,109,000	1	377,150	19	15,245,984
No agreement concerning resale to the public	0	0	0	0	5	2,955,734	6	1,565,778	40	27,061,913
Multiple provisions for resale for multiple security package	13	8,366,990	7	22,900,000	16	11,500,000	33	12,188,141	589	1,674,513,636
TOTALS	21	19,517,216	15	28,400,000	39	23,740,234	51	26,520,171	886	2,373,860,500

Apart from what may be included in agreements having multiple provisions, the percentages of all transactions having one of these provisions (a), (b) or (c), above, was 9.5 percent, 5.9 percent and 1.9 percent, respectively. Provisions for resale were more prevalent in transactions involving debt securities, having appeared in 95.5 percent of the transactions.

The ability to force an issuer to register the restricted securities assuages but by no means eliminates the illiquid character of restricted securities. Some of the factors that motivated the issuers to avoid a public distribution may influence the restricted security holder's ability to undertake a public distribution. Forcing the issuer to register the securities under adverse conditions in the market or in the company's financial situation is not necessarily in the security holder's interest. Moreover, the agreement does not provide the investor with effective relief in the event the issuer reneges. A law suit against the issuer would be an inefficacious precursor to a public distribution. Hence, the provisions are most effective when the issuer's circumstances are favorable for a public distribution. In these circumstances, however, the investor's need to sell may be less compelling.

11. Valuation of Restricted Securities

The question of the valuation of restricted securities in institutional portfolios arises in the following connections:

a. Sales and redemptions at net asset values of commingled fund

The two most important examples of this phenomenon are open-end investment companies and common trust funds. An investor who purchases shares in a commingled fund immediately after the upward revaluation of a restricted security may pay too much for the shares in the commingled fund. An investor who sells shares prior to the upward revaluation of restricted securities may receive too little. Undervalued shares lead to corresponding problems.

b. Performance fees

Where portfolio managers receive a fee that is based in all or in part on the changes in the value of the restricted portfolio, changes in the valuation of the portfolio affect the determination of the fees.

c. Stated performance

Where the performance of a portfolio is advertised to display the expertise of the portfolio manager, valuations of restricted securities necessarily affect stated performance.

The proper valuation of restricted securities is one point on a spectrum of problems associated with the valuation of securities of various degrees of liquidity. A large holding of a thinly traded stock is usually valued at the current market price regardless of whether the securities can in fact be sold at that price. The discounts available on purchases of restricted securities, however, aggravate the valuation problem by making possible, in some circumstances, the appearance of portfolio appreciation when, in fact, none has occurred.

On October 21, 1969, the Commission issued Accounting Series Release No. 113. That release, among other things, discussed matters relating to the valuation of restricted securities in the portfolios of registered investment companies. In that release the Commission stated:

> As a general principle, the current fair value of restricted securities would appear to be the amount which the owner might reasonably expect to receive for them upon their current sale. This depends upon their inherent worth, without regard to the restrictive feature, adjusted for any diminution in value resulting from the restrictive feature.

The Commission further indicated that the various methods used for valuing such restricted securities should not be applied automatically, and emphasized the responsibility of the board of directors of each investment company to make a good faith determination of such value.

The valuation placed on restricted securities must take account of the adverse effect of the restriction on resale on the value of the securities. The extent of this adverse effect may be measured, perhaps, by the price the securityholder would pay to have it removed. The two factors that most bear on this price are the riskiness of the investment and the additional time that needs to elapse before the securities may be freely tradable. While the former factor may vary from time to time, the latter factor in most cases would tend to reduce the opportunity cost of the restriction on resale as the length of holding increased.

The five methods of valuation in most frequent use are listed in table XIV–61 together, with the frequency of their use by the various classes of institutions. The first two methods, involving the valuation of the restricted security at some constant percentage discount from the current market price, give expression to the first of the two factors described above but ignore the second. The third method takes account of both factors by progressively lowering the implied cost of the restriction from the original discount to zero over a (usually) three-year period. This method, however, fails (as does the previous method) to account for any changes in the riskiness of the security over the holding period. Moreover, it does not adequately account for the risk of illiquidity that exists independently of the remaining period of its existence. So, for example, the risk of an imminent decline in the value of the stock one week before the termination of the three-year period may not be adequately reflected in the value of the amortized discount on that date.[119] The fourth method ignores the effect of the restriction on resale and results in the immediate mark-up of the value of the portfolio. This method is the least defensible of the ones here considered. Finally the fifth method carries the securities at cost. This method may result in relatively large, but sporadic, changes in the value of the portfolio as the restricted securities were either sold or written off as losses. Its most defensible use may be in connection with securities for which no market valuation exists.

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[119] This point would be alleviated (but not fully resolved) if the amortization continued up to some minimum number, at which it remained until the securities were deemed free. For example, if the securities were purchased at a discount of 30 percent, they might be valued in a way that progressively reduced that discount up to some point, say, 15 percent. After that, the securities would be carried at that discount from the coeval market price until they were deemed freely tradable.

Table XIV-61

PURCHASES OF RESTRICTED SECURITIES BY TYPE OF SECURITY, CLASS OF INSTITUTION AND METHOD OF VALUATION

COMMON STOCK

Method of Valuation	Type of Institution: Banks		Investment Advisers		Prop. and Liab. Insurance Companies		Life Insurance Companies	
	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)
Current market price less a constant percentage discount based on the purchase discount	26	37,218,124	9	9,427,750	0	0	9	6,390,843
Current market price less a constant percentage discount different from the purchase discount	2	826,000	30	43,444,686	0	0	1	168,000
Current market price less a discount amortized over a fixed time period	12	7,799,311	6	9,481,250	0	0	0	0
Current market price	69	66,609,496	48	77,687,661	9	9,009,403	29	32,098,904
Cost until registration	40	15,533,630	57	8,831,402	4	676,400	23	7,909,673
Other	34	28,103,888	28	39,108,793	12	13,650,896	168	349,073,791
TOTALS	183	156,090,449	178	187,981,542	25	23,336,699	230	395,641,211

Method of Valuation	Type of Institution: Self-Administered Employee Benefit		Foundations		University Endowment		Venture Capital		Totals	
	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)
Current market price less a constant percentage discount based on the purchase discount	1	309,000	0	0	3	2,300,000	0	0	48	55,645,717
Current market price less a constant percentage discount different from the purchase discount	0	0	0	0	0	0	9	10,222,000	42	54,660,686
Current market price less a discount amortized over a fixed time period	0	0	0	0	0	0	2	122,660	20	17,403,221
Current market price	4	6,528,133	3	3,569,000	1	284,250	12	4,150,217	175	199,937,064
Cost until registration	4	957,499	2	625,010	9	2,134,500	83	24,529,522	222	61,197,636
Other	36	6,857,188	0	0	4	2,589,250	155	153,676,110	437	593,059,916
TOTALS	45	14,651,820	5	4,194,010	17	7,308,000	261	192,700,509	944	981,904,240

Apart from the method of valuation marked "other", valuation at current market price accounted for a larger percentage (20.4 percent)[120] of the transaction in restricted stock of any of the designated methods of valuation. Banks used this method in 42.7 percent and investment advisers in 41.3 percent of their transactions. More than 50 percent of these transactions by investment advisers involved investment companies.

Table XIV–62 classifies the methods of valuation by the discounts obtained at the time of purchase. Unlike the previous table this one is confined to securities of publicly traded companies. The valuation at current market price was by far the most frequently used method, accounting for 48 percent of the value of all transactions.

[120] All percentages in this section refer to the dollar value of transactions.

Table XIV-62

DISCOUNT ON PURCHASE PRICE OF RESTRICTED COMMON STOCK CLASSIFIED BY METHOD OF VALUATION

JANUARY 1, 1966 - JUNE 30, 1969

(PUBLICLY HELD COMPANIES ONLY)

	DISCOUNT													
	50.1% or More		40.1% to 50.0%		30.1% to 40.0%		20.1% to 30.0%		10.1% to 20.0%		0.1% to 10.0%			
Method of Valuation	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)	No. of Transactions	Value of Transaction (Dollars)
Current market price less a constant percentage discount based on the purchase discount	1	250,000	6	3,036,743	11	17,881,276	17	16,619,198	10	11,451,500	2	5,550,000	47	54,788,717
Current market price less a constant percentage discount different from the purchase discount	5	1,380,540	7	7,325,676	11	22,213,500	10	11,087,970	4	7,188,000	1	2,205,000	38	51,400,686
Current market price less a discount amortized over a fixed time period	2	2,062,000	3	1,981,250	2	2,130,000	3	8,341,410	3	1,545,075	0	-	13	16,059,735
Current market price	12	3,640,803	5	1,155,305	18	22,625,603	22	18,614,327	44	66,459,620	39	49,898,312	140	162,393,970
Cost until registration	3	222,499	3	399,000	4	2,285,883	3	650,279	4	2,392,500	2	780,000	19	6,730,161
Other	13	4,444,406	5	3,567,754	3	2,074,508	13	14,209,911	4	2,233,402	41	20,370,748	79	46,900,729
TOTAL	36	12,000,248	29	17,465,728	49	69,210,770	68	69,523,095	69	91,270,097	85	78,804,060	336	338,273,998

G. SUPPLY OF VENTURE CAPITAL

1. Introduction

The rising institutionalization of the equity markets has aroused concern, on occasion, that a preference on the part of institutions for securities of larger companies obtainable in larger and more liquid positions, would severely restrict the ability of smaller companies to obtain equity capital. Sections C and E of this chapter described institutional purchases of first offerings and restricted securities, respectively. In both cases the issuers were shown to be much smaller than the companies usually held in institutional portfolios.[121] The willingness of institutions to depart from their usual investment practices to purchase the securities of small companies may be attributed to the potential rates of return available from these investments relative to the risks the purchasing institutions must bear.

The potential return-relative-to-risk available in the primary market is determined by the conditions of supply and demand for these securities. Given investors' perceived risk, the supply of securities adjusts to a level that is consistent with a perceived potential return.[122] Not all investors, however, need perceive the same level of risk. Those who, for a given potential return, perceive less risk are motivated to participate in the primary market since the market-determined return-relative-to-risk exceeds the amount of return they desire.[123] Institutions' perception of risk may differ from that of many individual investors for several reasons, including (among others):

(a) *Diversification of risk.*—A significant component of the risk of investment in small companies is unrelated to the variation of the general market. This component of risk reflects the unpredictable forces operating on the various small companies whose stock is carried in an investment portfolio. Perhaps the most important defence against this risk lies in diversification. The larger the portfolio of risky securities, the greater the opportunity to average out favorable and unfavorable events. The concentration among institutions in their purchases of restricted securities[124]

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[121] Chapter IX describes the sizes of the companies held in institutional portfolios. Section 2 of app. A to ch. XIV describes the sizes of companies whose securities are involved in first offerings.

[122] This potential return is consistent with different amounts supplied since the prices at which the securities are offered are free to vary. Given investors' required potential return-relative-to-risk, issuers of securities are free to choose some combination of the number of offerings and the price (say, relative to prospective earnings) of the offerings. The same potential return-relative-to-risk is obtainable with more offerings at lower prices as with fewer offerings at higher prices. The quantity of offerings, as well as the offering prices during any given period is thus determined by the simultaneous resolution of several factors. A model of this market would therefore involve the complex interaction of these factors and is beyond the scope of this Study.

[123] This reasoning was described in sec. E.9 of this chapter in connection with relationships between an institution's tax status and its relative preference for the interest and equity components of convertible debt.

[124] See sec. E.

results partly from the advantages of portfolio diversification. Some institutions are reluctant to purchase any restricted securities unless they purchase a large enough quantity to permit diversification of risks.

(b) *Internal analysis.*—Institutions who supply funds to small companies have or can obtain the expertise to evaluate the prospects and risks of a given proposal. Since the maintenance of an expert staff requires the willingness and ability to undertake a number of investments, this factor is another force leading to concentration.

(c) *Access to investment bankers.*—Institutions may enjoy exposure to a favored selection of venture capital proposals by dint of their access to the more prominent investment bankers. Since most of the investment bankers involved as agents in placements of equity of small companies are also engaged, and usually to a much greater extent, in the distribution of public offerings and the transaction of ordinary brokerage business, institutions, who are also involved in these activities, have occasion to establish relationships with the prominent investment banking firms. To avoid antagonizing their institutional customers, these firms may offer their institutional customers a favorable selection of investment proposals and, equally importantly, maintain contacts with the issuers after the investment is made.

(d) *Offsetting less risky portfolios.*—Most institutions that invest in small companies allocate only a small part of their portfolio to this spectrum of risk, the remainder being devoted to marketable securities of large corporations and to government securities. They are therefore in a better position to absorb the potential losses from more risky investments, and, more importantly, to avoid premature withdrawal when the issuers encounter difficulties. Their ability to hold on to an investment obviates their selection of more speculative issues that permit more rapid turnover but at the expense of total reliance on the vagaries of the public market for speculative offerings. Moreover, their access to additional funds permits some institutions to respond favorably to "second calls" on money to protect their initial investment. Individual investors are seldom able to allocate a small part of their total portfolio to investments in small companies and at the same time enjoy the advantages of diversification in these investments.[125]

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[125] These advantages of size and expertise often motivate individual investors of substantial means to pool their investment funds for purposes of investment in small companies. These pools may take various forms from commingled funds to informal arrangements in which the investors retain their discretion over their respective contributions. In addition, there are several closed-end investment companies that pool individual funds to make venture capital investments.

There is no generally acknowledged cut-off point for the size of companies whose securities may be deemed venture capital investments.[126] In the questionnaire described below the Study defined a venture capital investment as a private placement in a company whose average net earnings over the two years preceding the year in which the investments in restricted securities described in section E fall in this category. However, since the Study has no data on the issuers whose stock was privately held at the time of their issuance of restricted securities, the Study cannot estimate the total value of the investments described in section E that may be deemed venture capital as here defined.[127]

2. Method of Study

The Study questionnaire I–71 was given to 319 broker-dealers, comprising a random sample of 245 and a selected sample. The selected sample comprised those broker-dealers whom the Study considered

[126] Sometimes the term "venture capital" is applied to investments in larger corporations in financial difficulty. The Study has not specifically considered this type of investment.

[127] Section E indicates a significant amount of private placements by publicly held companies that fall within the definition of venture capital. Table XIV–34 shows that between January 1966 and June 1969, institutions purchased restricted securities with a value of $596.3 million from publicly held issuers whose net earnings (as of the year prior to the year of the investment) were less than $100,000 (the table shows an additional $15 million invested by venture capital companies, largely in privately held companies); in addition, the table shows purchases of restricted securities valued at $312.2 million (plus an additional $11.7 million purchased by venture capital companies, again largely from privately-held companies) issued by companies whose net earnings (as of the prior year) were between $100,000 and $1 million dollars. (The Study has no breakdown using a cut-off of $250,000; in addition, the earnings data only refer to one year prior to the investment year). In addition to private placements, some of the institutional purchases of first offerings fall within the Study's earnings limit for venture capital. While the Study has no estimate of institutional purchases of such offerings, it has estimated the percentage of first offerings involving issuers whose earnings were less than $250,000 in the fiscal year preceding the year of the offering:

Year	Total number of offerings	Number of first offerings involving issuers with annual net earnings of less than $250,000	Percentage of col. (3) to col. (2)
(1)	(2)	(3)	(4)
1967	147	58	39.5
1968	485	277	57.1
1969	908	590	65.0
1970 (1st quarter)	139	95	68.3
Total	1,679	1,020	60.7

likely participants in venture capital.[128] The Study requested information on all private placements negotiated between January, 1965 and September, 1969, by the respective broker-dealer on behalf of issuers whose average net earnings in the two years preceding the year of the investment did not exceed $250,000 per year. In addition, the broker-dealers were requested to report for each transaction the total value, the amount purchased by the broker-dealer, the amount sold to unaffiliated institutions, and the amount sold to individual investors; the size of the issuer and its principle product; and other information. The questionnaire excluded purchases of securities by broker-dealers made in connection with compensation for underwriting public offerings. The remainder of this section deals with the results of this questionnaire.

3. Volume of Venture Capital Investments

Table XIV–63 shows quarterly time series of the 26 venture capital placements negotiated by broker-dealers in the period January 1965 through September, 1969. During this period the broker-dealers in the Study's sample negotiated 784 private placements [129] of venture capital valued at $765 million. Of this amount, they participated in 620 transactions for a total value of $138 million; they arranged for institutional participation in 397 transactions for a total value of $350 million; and they placed parts of 498 transactions, valued at $277 million with individual investors. As in the case of first offerings and restricted securities, the volume of venture capital investments increased markedly during this period. The 6 columns at the right side of the table show the purchases of entire offerings made by the three classes of investors. (The data shown in these columns are included in the columns to the left). Only 38 percent of the $350 million spent by institutions involved purchases by one or more institutions of an entire offering; the remainder involved joint participation with at least one of the other two classes of investors. The 38 percent of the value of transactions involved 16 percent of the number of separate transactions.

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[128] Since the participations by broker-dealers in the random sample (excluding the overlap with the selected sample) were very small, the Study concludes that its coverage of venture capital supplied through broker-dealers is within 10 percent of being exhaustive (assuming accurate reporting by the broker-dealers).

[129] The number of transactions at the bottom of columns 3, 5, and 7 add to more than the grand total because of the joint participation of more than one type of investor in a particular transaction. The value figures, however, do add to the total.

Table XIV-63

SUPPLY OF VENTURE CAPITAL BY SOURCE OF FUNDS AND PERIOD

YEAR AND QUARTER	TOTAL		PARTICIPATION IN ALL OR PART OF ISSUE BY: BROKER-DEALERS		INSTITUTIONS		INDIVIDUAL INVSTRS.		PURCHASES OF ENTIRE ISSUE BY. BROKER-DEALERS		INSTITUTIONS		INDIVIDUAL INVSTRS.	
	No. of Trans. (1)	Value of Trans. ($) (2)	No. of Trans. (3)	Value of Trans. ($) (4)	No. of Trans. (5)	Value of Trans. ($) (6)	No. of Trans. (7)	Value of Trans. ($) (8)	No. of Issues (9)	Value of Issues ($) (10)	No. of Issues (11)	Value of Issues ($) (12)	No. of Issues (13)	Value of Issues ($) (14)
1965 1st quarter	9	14,931,650	8	1,468,723	8	5,468,315	7	7,994,612	0	0	1	1,000,000	0	0
2d quarter	2	1,596,250	2	96,250	1	300,000	1	1,200,000	1	92,500	0	0	0	0
3d quarter	5	5,043,250	4	1,262,612	3	1,890,000	3	1,890,638	1	23,250	1	225,000	0	0
4th quarter	7	20,746,350	7	1,555,626	3	9,862,887	5	9,327,837	1	43,750	0	0	0	0
Year, Total	23	42,317,500	21	4,383,211	15	17,521,202	16	20,413,087	3	159,500	2	1,225,000	0	0
1966 1st quarter	15	15,591,420	10	1,897,702	10	5,547,590	9	8,146,128	3	450,000	2	1,550,000	1	75,000
2d quarter	14	5,724,520	13	1,959,892	6	2,553,061	7	1,211,567	4	490,145	1	1,180,500	0	0
3d quarter	19	10,092,124	17	2,775,720	7	4,176,882	11	3,139,522	6	676,270	1	2,000,000	1	1,925
4th quarter	15	14,776,852	12	4,460,150	7	5,207,112	7	5,109,590	4	3,685,102	0	0	3	1,627,750
Year, Total	63	46,184,916	52	11,093,464	30	17,484,645	34	17,606,807	17	5,301,517	4	4,730,500	5	1,704,675
1967 1st quarter	19	11,891,280	17	2,937,700	7	4,439,487	11	3,414,093	5	847,500	1	50,000	0	0
2d quarter	31	50,382,457	26	8,578,258	14	36,972,153	17	4,832,046	7	4,153,980	2	29,100,000	2	45,200
3d quarter	43	53,617,458	35	12,833,753	21	16,116,129	33	24,667,576	8	8,789,990	0	0	4	812,573
4th quarter	38	23,200,634	33	5,076,982	15	6,017,575	28	12,106,077	6	1,095,294	2	1,300,000	1	726
Year, Total	131	139,091,829	111	29,426,693	57	64,645,344	89	45,019,792	26	14,886,764	5	30,450,000	7	858,499
1968 1st quarter	60	47,570,680	50	17,211,245	28	14,059,836	36	16,299,599	15	10,537,052	3	4,490,000	4	3,714,500
2d quarter	57	35,942,089	46	8,080,285	29	18,502,452	38	9,359,352	13	1,478,514	1	3,750,000	4	873,495
3d quarter	77	84,514,125	57	11,743,682	41	49,124,270	49	23,646,173	14	2,740,150	8	28,348,493	6	6,043,550
4th quarter	93	102,584,076	76	17,656,588	50	54,438,866	59	30,488,622	16	2,689,532	8	14,752,000	5	653,930
Year, Total	287	270,610,970	229	54,691,800	148	136,125,424	182	79,793,746	58	17,445,248	20	51,340,493	19	11,285,475
1969 (3 quarter)														
1st quarter	92	72,587,003	66	14,073,208	40	32,212,371	67	26,301,424	10	6,080,480	9	10,645,000	10	6,667,750
2d quarter	112	127,787,309	87	14,618,016	62	51,492,083	64	61,677,210	26	4,314,137	14	22,930,000	3	1,825,000
3d quarter	76	66,973,531	54	10,190,472	45	30,597,848	46	26,185,211	13	2,957,724	10	12,275,000	7	13,848,375
3/4 Yr. Total	280	267,347,843	207	38,881,696	147	114,302,302	177	114,163,845	49	13,352,341	33	45,850,000	20	22,341,125
GRAND TOTAL	784	765,553,058	620	138,476,864	397	350,078,917	498	276,997,277						

Notes to Table VC-1

Columns 3,5, and 7 list the numbers of issues which broker-dealers and affiliates, unaffiliated institutions, and individual investors purchased. in whole or part.

Columns 4,6, and 8 list the values of these participations.

Columns 9,11, and 13 list the numbers of issues that the three respective groups purchased in their entirety.

Columns 10,12,and 14 list the corresponding values.

The figures in columns 9 through 14 (inclusive) are included in the corresponding columns 3 through 8 (inclusive)

Column 1 lists the totals for columns 3,5, and 7.

Column 2 lists the totals for columns 4,6, and 8.

4. Size of Transactions, Size of Issuers, and Cost of Equity Interest

Table XIV–64 classifies the participation of the three types of investors by the size of transaction.[130] The participation by institutions is heavily slighted toward transactions in the $1 million to $5 million range. All three types of investors spent more on transactions of this size than on any other. Table XIV–65 classifies the purchases by sales of issuer. All three types of investors spent by far the largest amount on issuers with sales of less than $100 thousand, although institutions spent less on securities of this size issuer than did the other two types. Where broker-dealers and individual investors both allocated 69 percent of the value of their purchases to this size class, institutions allocated only 50 percent. Table XIV–66 gives the equivalent breakdown by earnings of issuer.[131] Although the model range of earnings, zero to $99,000, absorbed 58 percent of all expenditures, the deficit class was second with 25 percent. Curiously, institutions were proportionately the largest investors in this earnings class, devoting 29 percent of their expenditures to it. Broker-dealers and private investors allocated 25 percent and 16 percent, respectively, of their total expenditures to this class of issue.

[130] Unlike the data reported in sec. E, a "transaction" in this section refers to an entire transaction between an issuer and one or more institutions. However, when an issuer sold securities on different occasions, these sales were treated as separate transactions. The data cover only primary transactions.

[131] The row for earnings of $250,000 or more is consistent with the definition of venture capital used in this section since the definition refers to average earning for the two years prior to the investment while the ranges in the table refer to one year's data.

Table XIV-64

VENTURE CAPITAL INVESTMENTS CLASSIFIED BY SOURCE OF FUNDS AND SIZE OF TRANSACTION, JAN. 1, 1965-SEPT. 30, 1969

SIZE OF TRANSACTION (Thousands of Dollars)	TOTAL		PARTICIPATION IN ALL OR PART OF ISSUE BY:						PURCHASES OF ENTIRE ISSUE BY:					
			BROKER-DEALERS		INSTITUTIONS		INDIVIDUAL INVSTRS		BROKER-DEALERS		INSTITUTIONS		INDIVIDUAL INVSTRS	
	No. of Trans. (1)	Value of Trans.($) (2)	No. of Trans. (3)	Value of Trans.($) (4)	No. of Trans. (5)	Value of Trans.($) (6)	No. of Trans. (7)	Value of Trans.($) (8)	No. of Issues (9)	Value of Issues($) (10)	No. of Issues (11)	Value of Issues($) (12)	No. of Issues (13)	Value of Issues($) (14)
Less than 100	126	5,364,773	105	3,648,326	21	367,583	50	1,348,864	66	2,712,115	2	135,000	18	672,571
100 - 299	188	33,710,748	154	14,428,311	65	6,261,082	115	13,021,355	48	7,573,027	11	1,945,000	14	2,405,623
300 - 499	127	47,551,442	107	18,104,408	64	12,148,623	89	17,298,411	20	7,191,500	7	2,375,000	6	2,180,180
500 - 999	128	84,137,366	103	24,097,870	81	30,147,768	93	29,891,728	13	7,851,388	8	5,450,000	5	3,049,850
1,000 - 4999	194	382,128,079	138	55,969,112	149	202,565,691	138	123,593,276	4	11,517,340	30	59,447,500	7	15,881,550
5000 or More	21	212,660,650	13	22,228,837	17	98,588,170	13	91,843,643	2	14,300,000	6	64,243,493	1	12,000,000
GRAND TOTAL	784	765,553,058	620	138,476,864	397	350,078,917	498	276,997,277	153	51,145,370	64	133,595,993	51	36,189,774

Table XIV-65

VENTURE CAPITAL INVESTMENTS CLASSIFIED BY SOURCE OF FUNDS AND SALES OF ISSUER

Sales of Issuer ($000)	TOTAL		PARTICIPATION IN ALL OR PART OF ISSUE BY:						PURCHASES OF ENTIRE ISSUE BY:					
			BROKER-DEALERS		INSTITUTIONS		INDIVIDUAL INVSTRS.		BROKER-DEALERS		INSTITUTIONS		INDIVIDUAL INVSTRS.	
	No. of Trans. (1)	Value of Trans. ($) (2)	No. of Trans. (3)	Value of Trans. ($) (4)	No. of Trans. (5)	Value of Trans. ($) (6)	No. of Trans. (7)	Value of Trans. ($) (8)	No. of Issues (9)	Value of Issues ($) (10)	No. of Issues (11)	Value of Issues ($) (12)	No. of Issues (13)	Value of Issues ($) (14)
Less than $100	498	462,175,805	413	95,926,259	221	176,488,328	323	189,761,218	104	38,981,798	27	59,635,000	36	13,672,394
100 - 499	70	33,183,383	55	6,426,122	41	16,278,951	44	10,478,310	13	2,145,902	3	4,450,000	5	3,138,500
500 - 999	47	31,236,023	35	9,706,342	29	13,807,064	33	7,722,617	7	4,522,660	5	3,632,000	3	799,630
1000 - 2999	81	79,854,227	58	11,610,756	48	45,085,734	50	23,157,737	14	2,433,625	11	15,225,500	5	6,329,250
3000 or More	88	159,103,620	59	14,807,385	58	98,418,840	48	45,877,395	15	3,061,385	18	50,653,493	2	12,250,000
TOTAL	784	765,553,058	620	138,476,864	397	350,078,917	498	276,997,277	153	51,145,370	64	133,595,993	51	36,189,774

Table XIV-66

VENTURE CAPITAL INVESTMENTS CLASSIFIED BY SOURCE OF FUNDS AND EARNINGS OF ISSUERS

Earnings of Issuer ($000)	TOTAL		PARTICIPATION IN ALL OR PART OF ISSUE BY:						PURCHASES OF ENTIRE ISSUE BY:					
			BROKER-DEALERS		INSTITUTIONS		INDIVIDUAL INVSTRS.		BROKER-DEALERS		INSTITUTIONS		INDIVIDUAL INVSTRS.	
	No. of Trans.	Value of Trans. ($)	No. of Trans.	Value of Trans. ($)	No. of Trans.	Value of Trans. ($)	No. of Trans.	Value of Trans. ($)	No. of Issues	Value of Issues ($)	No. of Issues	Value of Issues ($)	No. of Issues	Value of Issues ($)
Deficit	190	191,356,159	147	21,627,933	109	101,770,737	121	67,957,489	30	5,216,896	16	36,892,500	14	20,819,995
0 - 99	494	447,316,570	403	97,457,359	227	177,626,882	327	172,232,329	102	40,355,340	29	64,205,000	35	14,069,779
100 - 249	51	47,538,374	30	7,953,795	29	27,460,566	27	12,124,013	9	3,470,592	12	20,028,493	2	1,300,000
250 or More	49	79,341,955	40	11,437,777	32	43,220,732	23	24,683,446	12	2,102,542	7	12,470,000	0	0
TOTAL	784	765,553,058	620	138,476,864	397	350,078,917	498	276,997,277	153	51,145,370	64	133,595,993	51	36,189,774

Table XIV–67 shows the average cost per percentage of equity interest acquired classified by size of transaction and sales of issuer.[132] For given sizes of transactions the costs per percentage of equity interest acquired do not systematically rise with the size of the issuing companies. The cost of an equity interest is greater for issuers with sales of less than $100,000 than for those with sales between $100,000 and $500,000.

[132] The number of transactions covered in this table is smaller than in the earlier tables because the Study did not obtain data on the equity interest required for every transaction.

Table XIV-67

COST OF EQUITY INTEREST, BY SALES OF ISSUER AND SIZE OF TRANSACTION
January 1, 1965 - September 30, 1969

Size of Transaction ($000)	SALES OF ISSUER (Thousands of dollars)									
	Less than 100		100 - 499		500 - 999		1,000 - 2,999		3,000 or More	
	Number of Transactions	Average Cost Per Percentage of Equity Interest Acquired (Dollars)	Number of Transactions	Average Cost Per Percentage of Equity Interest Acquired (Dollars)	Number of Transactions	Average Cost Per Percentage of Equity Interest Acquired (Dollars)	Number of Transactions	Average Cost Per Percentage of Equity Interest Acquired (Dollars)	Number of Transactions	Average Cost Per Percentage of Equity Interest Acquired (Dollars)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Less than 100	47	24,541	12	10,977	4	9,680	7	10,730	8	33,540
100 - 299	60	17,456	29	12,797	11	12,425	12	53,074	6	40,073
300 - 499	32	27,422	12	30,155	13	38,696	18	31,347	9	27,786
500 - 999	31	30,181	8	51,130	7	106,183	12	101,151	12	53,462
1000 - 4999	40	124,743	9	114,578	8	70,522	29	145,860	40	129,635
5000 or More	5	200,913	0	0	1	700,666	0	0	5	1,136,952
Total Transactions and Average Cost	215	46,550	70	32,928	44	61,058	78	86,154	80	153,382

Table XIV–68 classifies the cost per percentage of equity ownership by size of transaction and percentage equity ownership acquired. The average percentage equity ownership acquired increases with the size of the transaction, from 15.3 percent for transactions of less than $100,000 to 35.0 percent for transactions of $5 million or more. The average cost per percentage equity interest acquired declines with increasing equity participation, from an average of $138,000 for transactions involving less than 10 percent of the equity of the issuing companies to $16,000 for transactions involving 70 percent or more of the equity of the issuing companies.

Table XIV-68

COST OF EQUITY OWNERSHIP, BY PERCENTAGE ACQUIRED AND SIZE OF TRANSACTION

Size of Transactions ($000)	TOTAL		PERCENTAGE EQUITY OWNERSHIP ACQUIRED							
			Less than 10 Percent		10 Percent to 19.9 Percent		20 Percent to 29.9 Percent		30 Percent to 39.9 Percent	
	Number of Transactions	Average Percentage Equity Interest Acquired (Percentage)	Number of Transactions	Average Cost Per Percentage Equity Interest Acquired (Dollars)	Number of Transactions	Average Cost Per Percentage Equity Interest Acquired (Dollars)	Number of Transactions	Average Cost Per Percentage Equity Interest Acquired (Dollars)	Number of Transactions	Average Cost Per Percentage Equity Interest Acquired (Dollars)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Less than 100	78	15.3	47	33,999	14	3,703	2	2,075	4	1,483
100 - 299	118	23.3	33	51,592	28	14,586	22	8,068	12	4,668
300 - 499	84	24.7	22	72,112	18	25,384	16	15,930	12	11,822
500 - 999	70	29.8	12	202,578	17	45,923	15	24,498	4	20,509
1000 - 4999	126	24.7	19	297,425	41	142,723	31	90,634	17	66,557
5000 or More	11	35.0	4	1,488,227	0	0	1	184,069	1	248,447
Total Transactions and Average Cost	487	23.8	137	138,116	118	63,979	87	43,652	50	33,316

Size of Transactions ($000)	PERCENTAGE EQUITY OWNERSHIP ACQUIRED							
	40 Percent to 49.9 Percent		50 Percent to 59.9 Percent		60 Percent to 69.9 Percent		70 Percent or More	
	Number of Transactions	Average Cost Per Percentage Equity Interest Acquired (Dollars)	Number of Transactions	Average Cost Per Percentage Equity Interest Acquired (Dollars)	Number of Transactions	Average Cost Per Percentage Equity Interest Acquired (Dollars)	Number of Transactions	Average Cost Per Percentage Equity Interest Acquired (Dollars)
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Less than 100	4	656	2	1,059	1	33	4	664
100 - 299	7	5,034	11	3,947	1	1,943	4	1,861
300 - 499	5	10,139	3	7,733	7	5,559	1	3,816
500 - 999	11	14,080	3	17,149	3	11,708	5	8,141
1000 - 4999	5	43,575	3	38,118	6	26,223	4	16,761
5000 or More	2	127,066	1	544,000	0	0	2	103,217
Total Transactions and Average Cost	34	21,042	23	33,849	18	12,963	20	16,405

5. Industry Breakdowns

In classifying venture capital investments by industry the Study limited itself to the Standard Industry Classifications (SIC) established by the Department of Commerce. These classifications, however, are not the most suitable for the current purpose. While computer software and computer terminals may appear to investors to be related industries, they are classified entirely differently in the SIC. In contrast, investors are inclined to sharply distinguish between mechanical adding machines and xerographic equipment, both of which are included in the class of office equipment. In addition, the SIC's are available in five different levels of aggregation (from 1 digit to 5 digit). Because of the limited quantity of data at its disposal, the Study selected 2-digit classifications, although each classification groups products or services that have widely varying investment appeal.

Table XIV–69 lists the industries and the number and value of the first offering and the venture capital investments [133] made in each industry classification. The industries are listed in descending order of the values of first offerings representing the respective industries. There is a high degree of correlation between the popularity of industries with respect to first offerings and to venture capital. The largest value of public offerings occurred in the "real estate" industry, largely in the form of real estate investment trusts. There was little venture capital participation in this industry. The second industry, business services, was represented by the largest number of first offerings and the largest number of venture capital placements of any one industry. It accounted for 10.2 percent of the value of first offerings and 28.0 percent of the value of venture capital placements. The top ten industries accounted for 57.0 percent of all first offerings; these same industries accounted for 60.4 percent of the venture capital placements. Among this group are many of the popular industries in the stock market boom of the late 1960's: Engines and machines, medical services, electrical machinery, and scientific and medical instruments. Among the lesser industries are various types of transportation, heavy construction, rubber products, and leather products.

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[133] The public offerings cover the period January, 1967–March, 1970; the venture capital investments, January, 1965–September, 1969. The Study did not have information on the industries represented by all public offerings and venture capital placements.

Table XIV-69

Industry Classifications of First Public Offerings
(January 1967 - March 1970) and Private Placements of Venture Capital
(January 1965 - September 1969)

Industry Classification	Public Offerings		Venture Capital Investments	
	Number	Value (Millions of $)	Number	Value (Millions of $)
Real Estate	58	931.51	11	6.21
Advertising, Data Processing & Misc. Bus. Set.	269	558.07	107	173.47
Engines, Machinery	112	301.19	49	48.71
Medical Services	68	234.83	8	12.77
Wholesale Trade	102	225.26	11	6.23
Electrical Machinery & Products	128	223.32	78	66.63
Scientific & Medical Instruments	66	206.50	41	18.80
Food Products	38	188.51	13	24.46
Retail-Restaurants	63	180.34	11	16.75
Transportation Equipment	49	167.97	14	11.75
Printing & Publishing	53	167.01	13	14.01
Retail Trade-General Merchandise	26	155.73	5	3.28
Chemicals & Chemical Products	34	146.86	27	39.21
Holding Co., Misc. Investing Instit.	35	145.94	16	11.57
Milling, Weaving, Knitting	33	143.99	3	2.71
Petroleum Extraction	29	139.55	13	14.74
Retail-N.E.C.	35	112.12	6	8.36
Metal Products	34	105.70	6	2.44
Textile Products	45	103.83	3	1.38
Other Manufactures	28	92.25	6	6.25
Agriculture	17	89.32		
Lumber & Wood Products	15	69.08	3	1.68
Metal Refining, Etc.	21	64.49	3	2.99
Air Transportation	13	57.04	8	13.48
Telephone & Telegraph	15	55.61	19	3.97
Paper & Paper Products	18	47.37	3	2.78
Retail-Clothing	14	46.08	3	1.02
Retail-Furniture, Appliances	11	43.99	3	3.44
Furniture	12	42.81	3	.96
Non-Bank Credit Institutions	11	42.44	10	8.77
Insurance Underwriters	6	38.39	5	8.96
Special Trade Contracts	9	37.41		
Non-Profit, Misc. Services	18	36.96	8	3.10
Security & Commodity Brokers	12	34.87	3	1.07
Petroleum Refining	4	33.76		
Motion Picture	16	32.99	6	.95
Educational Services	23	32.59	14	6.14
Non-Metallic Mineral Products	11	30.28	1	.42
Metal Mining	6	29.69	6	.85
General Building Construction	7	28.26	3	1.30
Automotive Repair	15	27.31	2	2.84
Retail-Food	9	25.54		
Insurance Agents, Brokers	6	24.30		
Laundries, Dry Cleaning & Personal Serv.	12	23.88	1	.25
Transportation Services	10	22.05	9	6.44
Trucking and Public Warehousing	6	21.81	2	.45
Amusement, N.E.C.	9	19.39	5	7.84
Water Transportation	4	17.39	1	.45
Leather & Leather Products	7	16.90	2	.77
Rubber & Rubber Products	12	14.43	3	8.64
Retail-Hardware, Bldg. & Farm Equip.	5	11.13	1	1.15
Public Utilities	6	9.75	15	6.60
Heavy Construction	3	8.36	1	.04
Hotels, Motels	3	7.95	8	5.28
Retail-Automotive, Service Stations	2	7.20	6	7.99
Non-Metallic Mineral Mining	1	2.20	13	19.01
Pipe Line Transportation	1	1.33	4	.35
Local & Interurban Transit	1	1.25		
Tobacco Products	-	-	-	-
Railroad Transportation	-	-	-	-

6. Concentration Among Broker-Dealers in the Supply of Venture Capital

The supply of venture capital is concentrated among a relatively small number of well known broker-dealers. One broker-dealer accounted for 8.9 percent of all venture capital placements reported to the Study and two broker-dealers for 16.4 percent. Ten broker-dealers accounted for 47.2 percent, 15 broker-dealers for 57.2 percent, and 25 broker-dealers for 72.7 percent. These broker-dealers, however, varied widely with respect to purchases for their own account, as well as sales to institutions and individual investors. Of the top 25 broker-dealers, only three purchased more than 50 percent of the transactions they managed for their own account. Ten of the top 25 broker-dealers sold more than 50 percent of the transactions they managed to unaffiliated institutions, and six of them sold more than 50 percent to individual investors.

7. Subsequent Public Offerings of Firms Involved in Private Placements of Venture Capital

Of the 638 different issuers involved in the 784 private placements of venture capital, 160 subsequently made registered public distributions and 19 made public offerings exempted from registration under regulation A. In 65 of the 160 registered offerings, the broker-dealer who negotiated the venture capital placement also served as principal underwriter; in 67 of the 160 registered offerings, the principal underwriter differed from the broker-dealer who negotiated the private placement; in 28 cases, the Study did not ascertain who, if anyone, served as principal underwriter.[134]

For a sample of 48 of the registered offerings by issuers that previously received venture capital, the Study calculated the average period between the investment and the public offering to have been 11.5 months and the average percentage change in price of the securities acquired in the private placement between the dates of the private placement and the public offering to be 716 percent. However, only six of the 48 offerings included secondary distributions. In two additional offerings the percentage changes were in excess of 10,000 percent. These observations were deleted to avoid their distorting the average. Further, since the average period between the placement and the public offering can be calculated only for those placements that were actually succeeded by a public offering, the figure cannot be used to estimate average holding periods of venture capital investments.

H. SUMMARY AND CONCLUSIONS

This chapter describes the significant role financial institutions of various types play in providing equity financing for corporations, particularly smaller, less established corporations. Thus, unlike the focus of Part Three of the Study on the secondary trading markets, here the focus is on the primary issue market—although attention is also paid to immediate aftermarket effects of institutional participation in this market. Institutional purchases in public offerings and

[134] The comparable figures for the 19 Regulation A offerings were: Three cases involved same broker-dealer; nine cases involved different broker-dealer; in seven cases the Study did not ascertain who the principal underwriter was.

private placements of both common stock and convertible debt securities are examined in the chapter.

Two factors should be recognized in connection with consideration of this chapter. First, the Study's data relate to a period of unusual market activity when all investors, including institutions, tended to make riskier investments. This was also a period of increasingly restricted credit. Second, institutional participation in direct equity financing of corporations, although important to those corporations, is not in the aggregate significant to institutions. For example, only 0.3 to 0.4 percent of gross purchases of securities by institutions are purchases of securities in first public offerings.

1. Venture Capital Investments

The participation of financial institutions in the financing of corporations was significant in the area of venture capital investments. This is particularly important, since by definition these transactions represent investments in smaller and, perhaps more important, newer companies without the history of operations or equity base to attract other forms of capital. The Study defined a venture capital investment as the purchase of a security in a private placement from an issuing company whose average net earnings over the 2 years preceding the year of purchase did not exceed $250,000.

Twenty-five percent of the value of venture capital transactions reported by the broker-dealers involved companies with a deficit and an additional 58 percent involved companies with earnings of between $0 and $100,000. The comparable figures for venture capital investments made by financial institutions were 29 percent and 51 percent, respectively. This tendency to invest in newer companies is limited, however, by the tendency of institutions to concentrate their venture capital investments in relatively few industries.

Broker-dealers in the Study's sample placed a total of $765 million of private venture capital investments in 784 different transactions involving 638 different issuers during the period from January 1965 through September 1969. This represents the majority of venture capital investments placed by broker-dealers during this period. The broker-dealers themselves invested $138 million of this amount; unaffiliated financial institutions, $350 million; and private investors, $277 million.

Obtaining venture capital often laid a foundation for ultimately obtaining public financing, generally within a relatively short time after the investment. Of the 638 issuers, 160 made their first registered public offerings of common stock subsequent to the venture capital investment, and 19 made their first offerings pursuant to an exemption from registration under Regulation A. The Study analyzed 48 of the registered public offerings and estimated the average period between the venture capital investment and the public offering to have been 11.5 months.

Presumably, the equity base provided by venture capital investments would also facilitate the obtaining of other forms of capital, such as bank loans, by such companies. However, this appears to have been an expensive source of financing for these corporations.

Potential gains to financial institutions and others making venture

capital investments were significant. Investments were made at substantial discounts, resulting in significant potential profits to the institutions involved. For the 48 offerings analyzed, the Study estimated that the average (nonannualized) percentage price change of the securities received in the private placement between the dates of the private placement and the public offering was in excess of 716 percent. (In two additional offerings the percentage changes were in excess of 10,000 percent. These observations were deleted to avoid their distorting the average.) This is not intended to represent actual gains realized by institutions in connection with venture capital investments or to suggest that such price changes are peculiarly within the experience of institutional investors.

It is interesting to note that the placement of venture capital investments is concentrated among relatively few broker-dealers. One broker-dealer accounted for 8.9 percent of all venture capital placements; two for 16.4 percent; 10 for 57.2 percent and 25 for 72.7 percent. Ten of these 25 broker-dealers sold more than 50 percent of the value of the transactions they respectively negotiated to institutional investors.

The companies which obtained venture capital and which made their first public offerings, January 1967 through March 1970, are concentrated within relatively few industries including those industries which attracted considerable attention during the period of heavy market activity. Business services, including data processing, for example, accounted for 10.2 percent of the value of all first registered and underwritten offerings and for 28 percent of the value of all venture capital placements. The top 10 industries (out of a population of 100 industries) accounted for 57 percent of all first offerings in the period described above; these same industries accounted for 60.4 percent of the value of the venture capital placements. The industries were: (1) real estate, (2) advertising, data processing, and miscellaneous businesses, (3) engines, machinery, (4) medical services, (5) electrical machinery and products, (6) wholesale trade, (7) scientific and medical instruments, (8) food products, (9) retail restaurants, (10) retail trade—general merchandise.

2. Restricted Securities

Financial institutions also contributed significantly to the equity financing of corporations through purchase of restricted securities (securities which, generally, cannot be resold immediately by the purchaser without registration under the Securities Act of 1933). Institutions in the Study's sample representing approximately 64 percent of the assets managed by all financial institutions, invested $3.5 billion in purchases of restricted securities (including, of course, venture capital investments) comprising common stock and debt with equity features, in the period January 1966 through June 1969. Insurance companies (with 75 percent of all insurance company assets) purchased $1.3 billion of debt securities with equity features in private placements during that period. The Study estimates that investment advisers, with 70 percent of all assets managed by investment advisers, purchased $516 million of equity securities in private placements during the same period. In addition, during that period, bank

trust departments with 69.5 percent of all bank administered assets purchased $581 million of debt securities with equity features and $215 million of equity securities in private placements.

Here, as with respect to venture capital investments, potential gains accruing to purchasers of restricted securities, including financial institutions, were significant. The average discount from market price of securities of the same class applied to purchases of restricted common stock was 24 percent. These discounts were generally higher for over-the-counter stocks than for listed stocks. Investment advisers generally obtained higher discounts than did banks, perhaps because investment advisers tended to purchase proportionally more of the securities of smaller, less established companies. The discounts on average were higher in periods of higher stock prices.

Purchases of restricted securities were concentrated among a relatively small number of institutions. One bank purchased 47.1 percent of all the restricted equity securities purchased by the 47 banks in the sample. Five banks in the sample purchased 77.4 percent. The comparable figures for bank purchases of equity-related debt were 35.8 percent for one bank and 79.8 percent for five banks, respectively. One investment adviser purchased 37.8 percent of all restricted equity securities purchased by the Study's sample of investment advisers and five investment advisers purchased 83.7 percent. The comparable figures for purchases by life insurance companies of equity related debt securities were 22.7 percent and 63.9 percent, respectively.

Institutional holdings of restricted securities involve smaller, less established companies than the companies whose marketable securities are held in institutional portfolios. Of the value of the purchases by banks of restricted securities of publicly-held companies, 42.6 percent involved companies whose sales were less than $20 million in the year prior to the year of the purchase. For investment advisers, the comparable figure was 31.7 percent; for life insurance companies, 21.1 percent. Banks allocated 34.8 percent of the value of their purchases of restricted securities in publicly held companies to companies whose earnings were less than $1 million; for investment advisers, the figure was 63.3 percent; for life insurance companies, 31.7 percent.

Although the Study draws no conclusions with respect to the methods used by financial institutions to value restricted securities, it recognizes that this is an important question, and the data developed by the Study should be helpful in further consideration of this subject from the standpoint of compensation to institutional managers and advisers and public disclosure of portfolio practices. Institutions used a variety of methods to value their holdings of restricted securities. Banks valued their purchases of restricted common stock at the market value of similar securities at the time of purchase of the restricted securities with respect to 42.7 percent of the value of their transactions; investment advisers used this method with respect to 41.3 percent of the value of their transactions.

3. First Offerings

Financial institutions further participated in equity financing of corporations, particularly smaller corporations, through purchases of securities in first public offerings. Issuance of securities by smaller

corporations (as determined by sales and net earnings) has in recent years been an important factor in absolute terms in number of offerings and in aggregate dollars raised. It has also been important in relative terms, compared to new offerings by larger more established companies; and compared to the volume of trading in the secondary markets. Institutions have played a substantial role in financing these corporations. As discussed below, however, the potential gains accruing to institutions from this role have been large.

Institutions purchased at the offering price shares valued at $148 million, or 31 percent of a sample of 84 first offerings of common stock (generally primary offerings and sometimes primary combined with secondary offerings of common stock) valued at $479 million. The Study's sample was taken from a list of all underwritten first offerings registered with the Commission and offered between January 1, 1968 and June 30, 1969. It should be recognized that this period was one of unusual activity in the market for first offerings which may have affected the results of the Study's analysis.

Financial institutions purchased, as with respect to their venture capital investments and purchases of restricted securities, securities in first offerings of many less established companies without significant histories of earnings. For example, they purchased 16.6 percent of the first offerings of companies with no reported sales and 35.1 percent of the offering of companies with reported sales of $25 million to approximately $100 million. They purchased 23.1 percent of the offerings of companies with no reported net earnings and 32.1 percent of the offerings of companies whose reported earnings equaled $1 million or more.

The Study's data also indicate a concentration of sales of first offerings to institutions among a relatively small group of underwriters. Five underwriters account for 14.1 percent of all institutional sales; 10 underwriters for 23.3 percent; and 32 underwriters for 50.3 percent. In most cases, these underwriters are also prominent in the retail institutional brokerage business.

Differences among institutions in regard to the extent of their purchases of first offerings is directly related to the sizes of the respective institutions. Large institutions tend to purchase more securities in first offerings. However, the preferences of individual institutions for particular types of investments also is a factor.

The concentration among institutions in regard to the purchases of first offerings, although substantial, is less than in the concentration of institutional holdings of common stock. Where three institutions accounted for 10 percent of common stockholdings, four institutions accounted for 10 percent of all institutional purchases of first offerings. Where 25 institutions accounted for 40 percent of institutional holdings of common stock, 48 institutions accounted for 40 percent of institutional purchases of first offerings. Banks accounted for 28.1 percent of all institutional purchases; 10 banks for 11.6 percent of all institutional purchases. Investment advisers accounted for 25.8 percent of all institutional purchases; 10 investment advisers for 15.2 percent of all institutional purchases.

Based on the Study's analysis, financial institutions do not appear to have received in the aggregate a favored selection of first offerings.

Taking the price change between the offering and the first market quotation as a measure of the popularity of the issue, 8.1 percent of the value of first offerings in the sample declined. Banks allocated 2.2 percent of their total expenditure on the sample of offerings to those that declined; investment advisers allocated 13.6 percent of their total expenditure to these offerings; all institutions allocated 6.6 percent of their expenditure to offerings that declined in the immediate aftermarket. The Study's analysis of similar data for the first week after the initial offering, the first month after the initial offering and 3 months after the offering also supports this conclusion. In addition, although limited consideration was given to the subject, the Study developed no data which would indicate that the brokerage paid by a particular institution to a particular broker-dealer is significantly related to the value of the offerings the institution purchases from the broker-dealer. Finally, individual institutions appear to have received very limited quantities of first offerings in comparison to the aggregate amount of stock offered in any particular offering.

The aggregate institutional participation in the market for first offerings is significant. Of the 1,684 first public offerings, valued at approximately $5.7 billion, which were registered and underwritten in the period January 1967 through March 1970, the Study estimates institutional purchases of between 24.3 percent and 26.1 percent on the basis of its analysis of institutional purchases of the sample of 84 offerings. However, institutional participation in the market for public offerings is less than proportional with the participation in secondary markets. A sample of large banks, estimated to have accounted for 7.5 percent of all brokerage received by New York Stock Exchange member firms, is estimated to have received 2.5 percent of all first offerings; a sample of investment advisers estimated to have paid 8.4 percent of all brokerage to NYSE member firms, is estimated to have received 2.7 percent of all first offerings. For life insurance companies the corresponding figures are 0.6 percent and 0.2 percent.

Institutional participation in the aftermarket also appears substantial. A sample of larger institutions, which purchased $58.6 million of the $148.3 million purchased by all institutions in the sample of 84 first offerings, purchased additional securities valued at $30.2 million in the aftermarkets. Of the securities purchased at the offering price, these institutions sold 8.2 percent within 1 week of the offering; an additional 10.6 percent within 2 through 4 weeks of the offering; and an additional 12.6 percent within 5 through 12 weeks of offering. The institutions realized a net gain on these sales of 30.4 percent. Institutions tended to retain the offerings that rose less in the aftermarket or that fell. The average unrealized gain on securities purchased in the offering and held at least 1 week was 20.3 percent; the average unrealized gain for securities held at least 4 weeks was 13.1 percent; and for at least 12 weeks, 9.9 percent. Among the classes of institutions, "other institutions," a category that includes hedge funds and holding companies, among others, held the smallest percentage of their purchases in the offering at the end of the 12th week, 21.6 percent; life insurance companies, 37.4 percent; investment advisers, 69.5 percent; banks 84.1 percent; and broker-dealers' managed accounts, 96.0 percent.

Institutional purchases of first offerings, as those of retricted securities, including venture capital investments, were a significant source of financing for smaller companies. During the period January 1967 through March 1970, the public offering market became increasingly saturated by offerings of securities of smaller companies. The value of first offerings accounted for 16.8 percent of all registered and underwritten public offerings of common stock in 1967, they accounted for 52.8 percent of the total by the first quarter of 1970. In addition, smaller companies increasingly dominated the first offerings. In 1967, 11 percent of the companies whose shares were involved in first offerings had net earnings of less than $100,000. By the first quarter of 1970, such companies accounted for 48.7 percent of all registered and underwritten first offerings. Only four offerings, valued at $53 million, during the entire period, involved companies whose net earnings exceeded $10 million. Of the companies making first registered, underwritten public offerings in the period January 1967 through March 1970, the percentages whose earnings did not exceed $250,000 in the year prior to the offering were 39.5 percent, 57.1 percent, 65.0 percent, and 68.3 percent, respectively, for 1967, 1968, 1969 and the first quarter of 1970.

4. Conclusions

Institutions are a significant factor in the primary markets for the equity financing of corporations, particularly smaller, less established companies. Institutions purchase securities of smaller companies in the primary markets to a proportionately greater extent than they do securities of issuers of this size in the secondary markets.

The potential rates of return to institutions for their participation in the primary markets for equity financing are large, although this phenomenon is not peculiar to institutional investors. Participation in the primary markets is concentrated among a relatively small number of broker-dealers and institutions and among issuers in relatively few industries. However institutions, in the aggregate, do not appear to have exerted any significant influence on the allocation of resources in the primary markets for equity capital.