
A Consumer Perspective of the Investment Services Market

Some thirty million American consumers pursue their financial objectives through individual participation in the stock market. They clearly view the stock market as a savings alternative which offers at least normal returns to persons outside the circle of professional investors. In the absence of data reflecting the performance of personal portfolios it is difficult to assess the validity of this view. However, as an initial step this paper evaluates the performance of the market servicing individual investors. The evidence indicates that noninstitutional investors have reason to question stock brokerage pricing, service and sales practices. Moreover on the basis of more than 1,000 sampled investment recommendations, it appears that investment publications directed at individual investors have failed to identify superior investment alternatives.

The literature of economics and finance is replete with research that addresses the performance of professional investors. For example in a well-known study Irwin Friend and Douglas Vickers found that as a whole mutual funds were not superior to random portfolios in their common stock selection [6, p. 411]. Elsewhere it has been established that stocks recommended by the analysts who advise trust institutions, insurance companies and mutual funds do not appreciate significantly faster than the stock market averages [2, 4].

Because the savings and bequeathal plans of consumers frequently involve financial institutions, these studies of professional investing have obvious relevance to students of personal finance and consumer economics. However an equally relevant topic, the prospects facing consumers who invest their own funds, has received less attention. In order to shed some light on this subject, the following analyzes the investment services market from the perspective of the consumer *qua* investor.

In the first section the operation of the securities brokerage

industry is evaluated with particular reference to the price of stock brokerage, auxiliary services and the manner in which brokerage is sold. The second section presents an econometric evaluation of investment recommendations made in three types of stock market publications available to small investors. The market performance standard employed throughout the paper is reflective of the basic trade-off in investing: it is postulated that investment services should augment returns or reduce risks borne by consumers who buy stocks.

THE BROKERAGE INDUSTRY

The securities brokerage industry represents the primary link between investors and American capital markets. Acting as agents of the public, brokerage houses execute and process stock transactions. Accordingly they are engaged in selling securities brokerage as well as securities. During the past 200 years the sale of brokerage services has been dominated by the 500 firms which belong to the New York Stock Exchange (NYSE).¹ In many respects the Exchange has been operated like a private club for the benefit of its member firms [11, p. 94]. This orientation has been perpetuated by the Securities and Exchange Commission (SEC) policy of industry self-regulation through which NYSE firms have jointly established many of the parameters within which investors operate.

The Price of Brokerage

Prior to May 1, 1975, brokerage fees were collusively fixed by members of the NYSE in a process which was widely regarded as being oligopolistic [for example, 9, p. 109; 25, p. 149]. Because the cartel acted in the shadow of the Sherman Act until the founding of the SEC, these commission rates were raised infrequently during the first part of this century (Figure 1).² SEC supervision since 1935 has been interpreted by the courts as cloaking the industry with anti-trust immunity [19, pp. 274-280]. In the last 40 years NYSE firms have increased their prices on eight occasions. As a result brokerage fees have risen half again as fast as other prices despite substantial

¹Robert Doede argues that this dominant position has been the product of monopolistic NYSE policies [5, pp. 47-85].

²Fee data represent the cost of trading 100 shares of a \$50 stock which approximates the average value of NYSE round lot transactions [23, pp. 87-88].

Figure 1. New York Stock Exchange Commission Rates 1900-1976

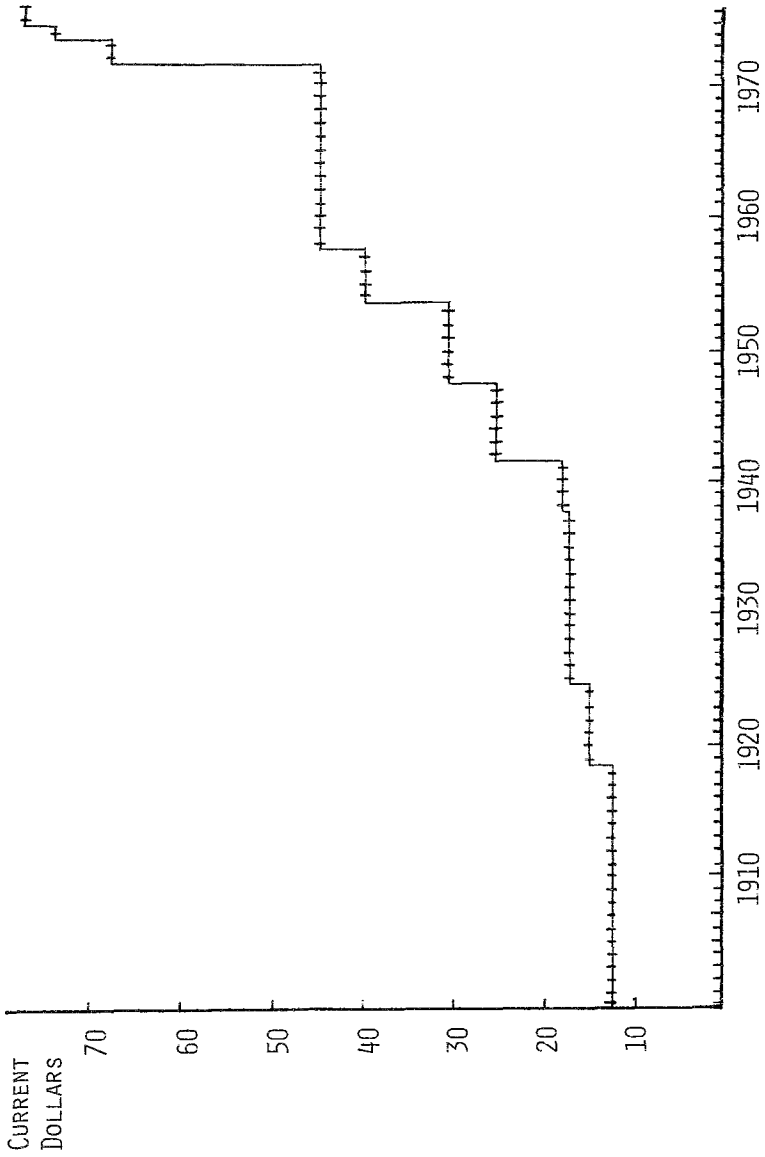


FIGURE 1. NEW YORK STOCK EXCHANGE COMMISSION RATES 1900-1976

SOURCE: LAWRENCE SHEPARD, SECURITIES BROKERAGE INDUSTRY, D. C. HEATH, 1975,

technological innovations in data processing and transmission, the core of the brokerage business.

Under pressure from the Congress and Justice Department the SEC prohibited the fixing of brokerage fees in 1975. Since that time the commission rates charged institutional customers on large orders have fallen by as much as 50 percent [20, p. 4].³ However prices paid by individual investors have not been reduced by NYSE firms. Indeed, two days prior to the abolition of explicit price fixing the largest NYSE firm, accounting for one-eighth of all transactions, ended speculation about how far individual fees would be reduced by announcing a slight increase in those rates. This measure was followed by other NYSE companies, giving it the appearance of a price leader's signal that the fees should not be lowered. The subsequent ability of a growing number of small, unaffiliated firms to provide individual as well as institutional customers fee savings of up to 70 percent has confirmed that the price policies of NYSE members continue to be reflective of something less than competition.

Fees charged by NYSE firms depend upon the size of an order and its value (Table 1). For noninstitutional customers, trading securities worth between \$100 and \$5,000 costs from 1.5 to 7.6 percent of market value. Because these charges apply to both purchases and sales, the total transactions costs of a modest-sized investment can be as high as 15 percent.

TABLE 1
NYSE Brokerage Fees, By Size of Order, 1975.

Price Per Share (Dollars)	Percentage Brokerage Fee By Number of Shares					
	5 shares	10 shares	20 shares	50 shares	100 shares	200 shares
\$ 5	¹	¹	7.6%	4.5	3.9	3.9
10	¹	7.6	5.0	3.4	3.0	3.0
20	7.6	5.0	3.7	2.7	2.3	2.1
50	4.5	3.4	2.7	2.0	1.5	1.5
100	3.4	2.7	2.1	1.5	0.8	0.8

¹ Fees on orders worth less than \$100 have not been fixed by NYSE firms.

Source: Standard and Poor's, *Stock Guide*, April 1975, p. 240.

³ It is well recognized in the industrial organization literature that oligopolists will tend to act competitively where, as in institutional brokerage, transactions are large and relatively infrequent [21, p. 206].

Most studies of the stock market suggest that its long term annual rate of return is nine percent versus normal returns of about five percent available in savings institutions and government securities [13, p. 13]. Thus, individual investors seeking more than normal net returns must expect to hold stocks one year or longer in order to recover brokerage fees. The fact that individuals own 70 percent of all stocks but account for less than 30 percent of each year's brokerage volume bears evidence of this buy and hold strategy among nonprofessionals [18, pp. 53, 70]. The legacy of oligopolistic pricing by NYSE firms appears to influence the behavior of individual investors in addition to reducing their net returns.

Auxiliary Brokerage Services

While collectively discouraging price competition, brokerage firms have individually engaged in extensive nonprice competition through the extra services they offer customers. For example, investment houses provide financial newsletters as well as weekly, daily and hourly investment bulletins on featured stocks. Large sales staffs are usually available to make investment suggestions and to place orders. Most NYSE firms occupy extremely well-appointed offices in choice locations. Frequently customer seating galleries enable investors to follow the ticker tape and wire services. Traveling customers and those living outside urban centers can take advantage of the industry-wide practice of paying for long distance telephone calls originated by clients as well as salesmen. Individual firms have innovated such services as computer portfolio analysis and investment seminars. The practice of widely publicizing new services underscores the fact that brokerage firms view them as inducements to attract business. The promotional efforts of NYSE firms seldom focus on the industry's primary product, stock brokerage, or its prices.

As the variety of auxiliary services suggests, service rivalry is the dominant competitive feature of the brokerage business. In most industries some firms offer a cash-and-carry product while others, pricing accordingly, specialize in accommodating the carriage trade. However since brokerage fees have been uniform all NYSE companies must provide an abundance of "free" services in order to remain competitive. As has been true among air passenger carriers, fair trade retailers and savings institutions, nonprice competition arises as a

substitute for price competition where the latter is proscribed.⁴ The resulting twisted industrial scenario has produced successively higher brokerage rates and increasing levels of service. Current estimates indicate that as much as 50 percent of the price of individual brokerage transactions goes toward the support of service competition [14, p. 1].

Because prevailing levels of service are tied to the industry's structure rather than investor preferences, it is not clear that consumers demand auxiliary investment services in the abundant quantities provided by NYSE firms. For example a large share of individual investors trade stocks over the telephone, seldom visiting brokerage offices. Others who perform their own investment research or employ private investment counsel use brokers as little more than order takers. While many auxiliary services generate brokerage sales, there exists no evidence that they enhance investment returns. Indeed in the truly competitive institutional sector of the brokerage market customers have exhibited a strong preference for the elimination of services in return for reduced fees.⁵ No such option exists for individual investors despite SEC research showing that auxiliary services exceed the needs of many people [26, p. 226]. The investment returns of these consumers are adversely affected since they must pay for a full range of services whether they use them or not.

The Sale of Brokerage Services

Individual stock brokers or registered representatives are charged with the responsibility of generating sales for brokerage firms. The practice of filling registered representative positions with persons having prior sales experience rather than financial training illustrates this sales orientation. In addition extensive broker training programs costing firms as much as \$15,000 per person are largely sales-related [26, pp. 109-110]. According to the manual of the Investment Bankers Association, which is composed of the most respected firms

⁴ In the brokerage business this is revealed by a discernable eight year cycle in which (1) higher fixed fees initially augment profits; (2) as profitability rises, firms increase nonprice competition to improve market shares; (3) heightened service competition raises costs and reduces earnings; and (4) lower earnings motivate cartel members to make further fee adjustments [23, pp. 65-80].

⁵ During 1975, the industry's most profitable year, a number of service-intensive institutional houses merged or closed their doors attributing their problems to the lack of demand for auxiliary services.

in the industry, representatives are instructed to make sales contacts by developing a "cat and dog" list of former customers, friends and relatives and by making "cold turkey" calls on strangers. Remuneration of registered representatives is composed of a 25 to 35 percent share of gross commissions generated, providing further incentive to sell. Among brokers, individual esteem is pegged to sales ability as measured by monthly gross, and within brokerage organizations these employees are referred to as salesmen.

In striking contrast, consumers tend to view their registered representatives as investment advisers. Many if not most individual investors place great reliance upon their broker's opinions in making financial decisions. Through discretionary accounts, some consumers give brokers absolute authority to buy and sell securities for their portfolios. In the minds of stock buyers, who often regard themselves as clients rather than customers, registered representatives act in a quasi-fiduciary capacity much like a banker or lawyer. Nonprice competition in the brokerage industry contributes to this image by increasing the broker-customer ratio and by surrounding registered representatives with plush offices in financial centers. In most cases the customer's loyalty to his broker is quite strong.⁶ Perceiving registered representatives as personal counselors, consumers are apt to be less critical of sales claims when buying stocks than in making other large purchases.

An obvious conflict of interest arises between the sales and advisory functions of stock brokers. Tying broker salaries to generated commissions provides salesmen with strong incentives to encourage people to purchase securities irrespective of their financial situation or investment goals. Remuneration through commissions also motivates brokers to advise unwarranted trading of stocks by customers, a practice known as account churning. Similarly, registered representatives may urge the purchase of larger quantities of stock through the use of margin, compounding investor risks. Brokerage houses usually offer their sales staff a greater proportion of commissions when customers purchase securities held in the firms' inventories [8, pp. 57-58]. This practice acquires its most alarming aspect in the case of highly speculative new issues of stock on which brokers earn several times the normal level of recompense. While increasing

⁶As a rule investors have only one broker. Often the relationship lasts for years, sometimes spanning generations within a family. When registered representatives change firms their customers typically follow.

the returns on other brokerage house activities, the remuneration scheme has the potential of influencing the salesman's choice of which securities best suit customer investment objectives. Yet because most consumers lack expertise in securities analysis and finance, they are in a poor position to evaluate their broker's performance.

An abundance of evidence suggests that the manner in which brokerage is sold poorly serves the interests of individual investors. According to the voluminous SEC *Special Study of the Securities Markets*, many registered representatives are unable to read basic financial statements and are ignorant of investment principles [pp. 110-112]. The same study indicates that as many as 30 percent of all brokers have had less than one year's background in the investment business. Lacking training and experience, brokers often base their opinions on published sources of investment advice, the validity of which has not been established. Moreover in order to earn a living registered representatives have to promote the sale of stocks in bear markets as well as in bull markets despite conclusive evidence that investment returns depend crucially on the overall trend of stock prices [22, pp. 165-167]. Finally it is recognized that the incentive system within the brokerage industry has led to the proliferation of such popular vehicles as puts, calls and commodities which are highly speculative but pay brokers handsomely [12, p. 3]. In the words of two industry observers,

[T]he merchandising emphasis of the securities business in general, and its system of compensation in particular, frequently impose a severe strain on legal and ethical restraints. The most common evidences of this strain are the representations, omissions, and failure to learn about securities recommended; over-trading discretionary accounts and the accounts of trusting customers; and the recommendations of securities unsuitable for the purchaser. [8, p. 51]

Sales practices within the brokerage business have the potential to adversely influence investor risks and rewards.

THE QUALITY OF INVESTMENT ADVICE

In making investment decisions consumers have available a variety of advisory publications. While some of these merely describe the attributes of particular stocks, a majority make specific purchase recommendations on the basis of their investment research or securities analysis. The willingness of individual investors to pay as much

as several hundred dollars annually for this advice indicates that they place some faith in the underlying research.

Alternative Market Views

Economic opinion regarding the efficacy of investment advice and its analytical basis is divided into two schools. The more recent efficient market or random walk view holds that at any moment the price of a stock accurately reflects its value because the securities markets immediately discount all pertinent information. With existing data fully discounted, future stock price changes depend solely upon new information which cannot be anticipated. Therefore under the efficient market hypothesis securities analysis, necessarily based on existing information, cannot improve future capital gains of an analyst or investors who follow his advice [27, p. 75].

Those who espouse a more conventional view of securities analysis in contrast argue that market imperfections exist [e.g. 7, pp. ix-xvi]. That is, prevailing prices do not in all cases accurately reflect the value of securities. Accordingly investors who have superior insight resulting from their own research or that of others can out-perform the market.

This second "inefficient market" approach has particular relevance for the individual investor. Due to their size, institutional stock market participants must concentrate on a relatively small, heavily capitalized subset of the 3,200 stocks listed on organized exchanges. It goes without saying that these institutional favorites, the so-called nifty-fifty, receive much attention. However the nonprofessional investor with a modest portfolio is able to shop among the less prominent listed stocks as well as 50,000 over-the-counter securities. It would appear likely that information pertaining to these stocks is less perfectly distributed so that investment research could have positive returns for the individual investor.

Methodology

In order to test the efficacy of the printed investment advice available to consumers, three groups of publications were studied. The guidance of retail brokerage houses was sampled from reports distributed without charge by nationwide brokerage firms to their noninstitutional customers. The sample also included stocks featured in three of the most widely read periodicals in the financial

press: *Barron's*, *Forbes* and *The Wall Street Journal*. Finally, the records of three independent investment advisory services were examined: *Dow Theory Forecasts*, *Moody's Stock Survey* and *Value Line Investment Survey*. These market letters are highly advertised with annual subscription fees of \$35, \$144, and \$250, respectively.

The sample consisted of two stock purchase recommendations taken from each of the seven sources monthly for a period of six years.⁷ Consequently 144 recommendations were gathered from brokerage house literature while each of the other types of publications, financial periodicals and independent advisory services, accounted for 432 investment suggestions. The 1966 to 1971 sample period was characterized by two interim market advances and two retreats of similar proportions. Overall, stock prices rose by less than ten percent.

No attempt was made to determine whether the 1,008 recommendations were subsequently reversed. The publications in many cases do not update their purchase recommendations by issuing sell advisories due to the potential impact on the market and on advisor-management relations.⁸ Furthermore it is difficult to identify changes in position since they are often camouflaged by shifting purchase recommendations to hold recommendations or by omitting further discussion of a once-favored security. Focusing exclusively on initial purchase recommendations is consistent with the "buy and hold" philosophy of many individual investors noted above.

Investment performance was evaluated through an adaptation of beta analysis, an indexing technique introduced by William F. Sharpe [22, pp. 117-140]. In analyzing the returns on portfolios, Sharpe found that variance in returns could partially be ascribed to the co-movement of the overall market. In order to isolate the effects of that co-movement over time (t), Sharpe used β in the regression

$$R_t = \alpha + \beta M_t \quad t = 1, n$$

where R_t is the rate of appreciation on a security or portfolio and M_t

⁷The sample included stocks recommended specifically for conservative investors seeking income and those identified as holding special appeal for capital gains oriented investors. The performance characteristics were not significantly different between these classes of recommendations.

⁸In his study of institutional investment advice, Diefenbach found only one sell recommendation for every 25 purchase recommendations despite the fact that his sample period preceded the worst market decline in 40 years [4].

is the concurrent percentage change in a stock market index. Because the sign of M_t varies depending on whether the index rises or falls, the coefficient β captures the responsiveness of investment returns to changes in the level of the market. It has also been demonstrated that the volatility coefficient β is an index of risk [1, pp. 609-702]. The intercept α measures an investment's specific rate of return which cannot be attributed to market conditions. Similar indexing models have been widely adopted in the theory and application of portfolio analysis [for example, 10, 16].

In the current study the parameters α'_i and β'_i were estimated for each of the seven groups of investment recommendations according to the relationship

$$R_{ij} = \alpha'_i + \beta'_i M_{ij} \quad j = 1, n$$

where R_{ij} is the rate of appreciation of the j^{th} stock suggested by the i^{th} publication and M_{ij} is the concurrent percentage change in a market index.⁹ From each publication two recommendations were selected monthly for the six year period so that each regression was based on 144 observations. The characteristics of stocks recommended by the seven sources of investment advice were calculated for three periods: the first six months, one year, and three years after publication of the recommendation. Consequently a total of 21 regressions were run.

Since M_{ij} represents the expected rate of return on common stocks¹⁰, the estimation procedures permit an assessment of the specific returns (α'_i) and market volatilities (β'_i) associated with stocks cited by the publications [2, p. 85]. For a publication whose recommendations exactly duplicated the market's performance $\alpha'_i = 0$ and $\beta'_i = 1$. Truly superior investment advice would be characterized by above average specific returns ($\alpha'_i > 0$) and below average risk ($\beta'_i < 1$). However, given that consumers' preferences toward the risk/reward trade-off vary, a publication could usefully identify in-

⁹Note that the readers of any particular source of investment advice represent a small portion of the 30 million Americans who own stocks, and that at any time a publication will recommend fewer than 100 of the 50,000 stocks available. Therefore individual sources of investment guidance have minor influence on the market averages, justifying the common assumption in portfolio indexing models that negligible simultaneity exists between R_{ij} and M_{ij} .

¹⁰There is no assurance that individual investors, using their own judgement, can match the market's performance. However random stock selection has an expected return equal to the market's and, as a low cost approach to the portfolio choice problem, is available to all.

vestments having either above average returns ($\alpha'_i > 0$) commensurate with increased risk ($\beta'_i > 1$) or diminished risk ($\beta'_i < 1$) associated with less than average returns ($\alpha'_i < 0$).

Since the primary focus is on capital appreciation, adjustments were made to account for stock dividends and splits but not for cash dividends. Market performance was measured by the NYSE Composite Index. This capitalization-weighted index is the most comprehensive indicator available when judged by number of components and industries represented. Group performance estimates were also made for the three financial periodicals and the three independent advisory services to permit generic comparisons.

Results

The α'_i coefficients associated with the performance of recommended stocks after six months reveal that only one source, a financial periodical, out-performed the market (Table 2). Investments favored by *Barron's* generally appreciated by 4.15 percentage points more than the concurrent change in the NYSE Composite Index, a statistically significant difference. Stocks suggested for purchase by the

TABLE 2
Short Run Performance of Recommended Stocks.

Source of Investment Advice	After Six Months		After One Year	
	α'_i	β'_i	α'_i	β'_i
Brokerage House Reports	-0.60 (1.71) ¹	0.95* (0.25)	-5.21 (2.09)	1.35*** (0.16)
Financial Press	0.99 (1.13)	0.99* (0.09)	-1.30 (1.75)	1.29*** (0.13)
Barrons	4.15** (2.15)	0.90* (0.16)	4.00 (3.60)	1.98*** (0.27)
Forbes	0.55 (1.90)	1.18* (0.16)	-3.08 (2.70)	1.22* (0.19)
Wall Street Journal	-1.95 (1.81)	0.94* (0.14)	-2.87 (2.61)	0.87* (0.18)
Independent Advisory Services	-4.93* (1.14)	1.09* (0.14)	-7.10* (1.78)	1.42*** (0.15)
Dow Theory Forecasts	-3.99* (2.01)	1.03* (0.51)	-4.73 (8.45)	1.15* (0.51)
Moody's Stock Survey	1.76 (1.68)	1.40*** (0.20)	1.94 (2.94)	1.60*** (0.23)
Value Line Survey	-12.86* (2.02)	0.94* (0.14)	-23.08* (2.66)	1.38*** (0.09)

¹ Parenthetical figures represent standard errors.

*Significantly different from 0 at the .025 level.

**Significantly different from 0 at the .10 level.

***Significantly different from 1 at the .025 level and from 0 at the .025 level.

Dow Theory Forecasts typically lost 3.99 percentage points relative to the market in the first six months after being recommended, while the specific return associated with *Value Line* recommendations was -12.86 percent. The performance of securities favored for purchase by the other four publications did not significantly depart from the record of the NYSE Composite Index. Judged as a group, investment advisory service recommendations had a negative relative return while stocks in the financial press mirrored the trend of the market.

For the six month sample period all the β'_i coefficients were significant at the .025 percent level of confidence. Lying in the neighborhood of 1.0, six of them indicate that the favored stocks responded proportionately to changes in the level of the market. Only the β'_i value estimated for the *Moody's Stock Survey* sample was significantly greater than 1.0, revealing a higher degree of market volatility among those recommendations.

After one year the volatility coefficients for brokerage house publications, one financial periodical, and two investment advisory services were significantly greater than 1.0. Consumers who selected stocks from these groups had more than average exposure to market vicissitudes without being compensated by positive specific returns. In fact the brokerage house reports and one investment advisory service significantly underperformed the market, providing investors with both higher risk and lower returns than would be expected on random portfolios. The relative returns on stocks cited in the financial press and other advisory services did not depart significantly from 0.

For the three year period, the performance characteristics of each group of stocks were similar (Table 3). The β'_i coefficient estimates in no case were significantly different from 1.0 at the .025 percent level. All seven groups of recommendations exhibited significant negative rates of return. When compared to the returns in the overall market, the investment guidance of brokerage house, financial press and advisory service publications was characterized by losses of between 8.34 and 14.75 percentage points. However these relative losses were not significantly different among the sources. These results for the three year period hold special significance for small investors exhibiting a propensity to hold investments for longer periods of time.

Sampled recommendations appear not to constitute a superior

universe from which to have selected stocks between 1966 and 1971.¹¹ The investments cited by only one publication tended to appreciate faster than the market, an advantage that was lost after six months. For the one year period, market risks were heightened by three publications without augmenting returns. Over the three year period recommendations from each source of investment guidance exhibited normal market volatility but significantly lower returns

TABLE 3
Performance of Recommended Stocks After Three Years.

Source of Investment Advice	Coefficient Level	
	α_i'	β_i'
Brokerage House Reports	-13.82* (4.29) ¹	1.03* (0.52)
Financial Press	-9.61 (2.83)	0.88* (0.18)
Barrons	-9.33* (4.57)	1.06* (0.32)
Forbes	-8.34** (5.15)	0.84* (0.34)
Wall Street Journal	-10.75* (5.09)	0.80* (0.29)
Independent Advisory Services	-11.88* (2.68)	0.94* (.16)
Dow Theory Forecasts	-8.91** (6.32)	1.38** (0.72)
Moody's Stock Survey	-10.65* (3.42)	0.76* (0.23)
Value Line Survey	-14.75* (4.80)	0.87* (0.13)

¹ Parenthetical figures represent standard errors.

*Significantly different from 0 at the .025 level.

**Significantly different from 0 at the .10 level.

than the market averages. In general the combinations of investment risk and reward provided by these publications were not preferable to those embodied in the NYSE Composite Index. The failure of recommended stocks to diminish market risk is especially important to small investors who often lack sufficient assets to reduce risk through portfolio diversification. These results were equally appli-

¹¹ As Sosnoff points out, investment publications may be valuable as sources of financial data as well as investment advice [24, p. 84]. It may also be argued that publications are of educational value to investors in showing them what to look for when selecting stocks. This paper examines only the direct benefit of acting on published investment advice.

cable to stocks recommended specifically for conservative investors and those identified as holding special appeal for growth investors.

The 1,008 investment recommendations represent a small portion of those available during the six year period. Thus, while the sample constitutes one of the two largest surveys of stock market advice to date, its conclusions cannot be generalized to other published investment guidance [4]. Nor can one assume that the patterns observed in stocks recommended between 1966 and 1971 will recur in the future. However it is noteworthy that the study's results are largely consistent with previous research that has evaluated institutional investment advice and with increasing sentiment¹² that small investors cannot realistically expect to match the market averages [2; 4; 6].

SUMMARY

This study considered the market servicing individual investors. It appears that the organization of the securities brokerage industry has the potential to adversely influence risk/reward frontiers facing consumers. Brokerage pricing practices require investors to pay oligopolistically determined commission rates for levels of service which are reflective of the industry's structure rather than consumer preferences. Investment returns and risks are further jeopardized by orienting registered representative training and remuneration toward sales. Furthermore, on the basis of statistical analysis it appears that many stocks recommended by brokerage houses, financial periodicals and investment advisory services between 1966 and 1971 failed to provide either superior returns or reduced risk when compared to the market as a whole. Indeed the evidence indicates that consumers, particularly those with a long-term orientation, might usefully have adopted a random stock selection strategy as an alternative to following this published investment advice.

¹²This opinion has been expressed by many market observers including, notably, Mr. Arnold Bernhart, publisher of *Value Line* [15, p. 26].

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