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Some Reflections on the Securities Markets

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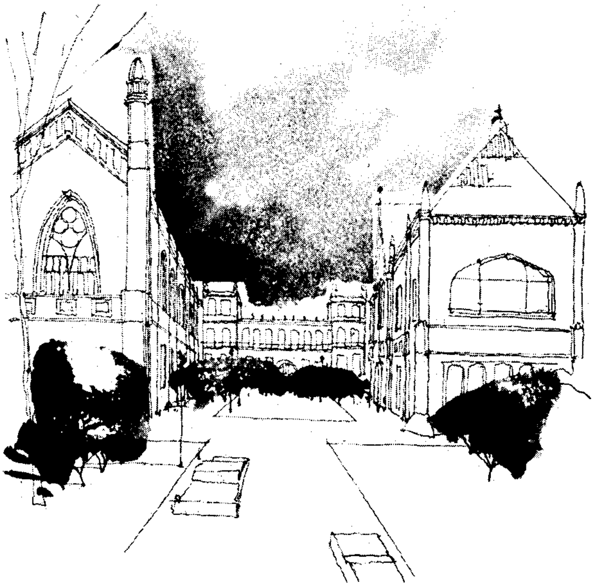

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MARSHALL D. KETCHUM, been on the faculty of the Graduate School of Business since 1946. He is widely known and universally admired for his contributions to the fields of financial management and investment, and was repeatedly honored by his colleagues in the American Finance Association who elected him to be their vice president, president, chairman of the board of directors, chairman of the advisory committee, and chairman of the editorial board; he also was editor of the Association's Journal of Finance from 1946 to 1957. For many years he has directed important annual educational programs for members of the financial community-the Life Officers Investment Seminar and the Financial Analysts Seminar. He also was formerly director of the Conference on Savings and Residential Financing, chairman of the Conference's executive committee, and editor of the proceedings; he is currently a member of the executive committee. Professor Ketchum received the B.S. degree and M.S. degree from Syracuse University, and the Ph.D. from the University of Chicago; he taught at Duke University, Utah State, and the University of Kentucky before joining the Chicago faculty. He has made substantial contributions to the literature of finance and investment, as author and editor; and he is editorial adviser and general editor in finance for the Houghton Mifflin Company. Professor Ketchum delivered the talk upon which this paper is based at the 71st Annual Alumni Dinner of the Graduate School of Business, The University of Chicago, on June 11, 1969.

Some' Reflections on the Securities Markets

CHANGES, in human attitudes and human institutions, appear to be the order of the day. Some of us, and especially those on the shady side of 30, may feel that change often is initiated for its own sake. But we must also admit that it frequently is forced by events, and that too often it comes along as too little, and too late, to be fully effective.

I should like to discuss with you some recent changes in the securities markets; I leave it to you as to whether they reflect foresighted planning, or painful necessity.

In early 1965, Keith Funston, then president of the New York Stock Exchange, appointed a Research Advisory Committee to study recent changes in the securities markets, particularly in the area of the organized securities exchanges. The Advisory Committee consisted of five people from universities, four from investment houses, and the economist of the Exchange, who served as Project Director. I had the honor of being one of the academic members of the Committee. The Committee met a number of times during 1965, and as a result of its labors there appeared, in December of that year, a report entitled "The Exchange Community in 1975-A Report on Its Potential, Problems and Prospects." The principal thrust of the Committee's work, and of the Report, was to acquaint member firms and their managing personnel with the Committee's evaluation of the factors that would affect the activities of member firms in 1975. The Exchange was concerned that member firms engage in planning-planning of staffs and of physical facilities-that would make it possible for these firms to serve adequately the investing public over the years following 1965.

Forecasting Tendency

The Committee's report gives us one more example of a forecasting tendency which has been noted and reported on by our own Victor Zarnowitz, * a tendency to forecast in the right direction, but to underestimate the magnitude of change. I do not want to burden you with statistics, but let us note one or two projections made in the Exchange Report, particularly with respect to market activity.

1. In 1964, the year before the Report appeared, average daily volume on the New York Exchange was 5 million shares. The Report indicated a 1975 potential of 10 million shares. Actually, share volume per day in 1968 was 13 million shares.

2. In 1964, the turnover rate (share volume divided by number of shares listed) was 14 per cent. The 1975 potential stated in the Report was 12.5 per cent, an anticipated decline from the 14 per cent rate in 1964. The actual turnover in 1968 was 24 per cent.

3. In 1964, share volume was 2 shares per $1,000 of Gross National Product. The Report projected that in 1975 it might be 2.2 shares per $1,000 of GNP. Actually, in 1968 it was 3.4 shares per $1,000 of GNP.

Who was responsible for the underestimations? Somewhat surprisingly, the academic members of the Committee were generally of the belief, at the time the Report was being prepared, that share volume would increase more than Exchange officials believed it would. These academic members pointed out that, as long as the grand bull market that originated in 1949 lasted, share volume would probably increase significantly. One of the academic members, who has a notorious reputation among his students at The University of Chicago for believing that bear markets are still

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possible, pointed out that, even if we were to have a bear market, volume would probably be high on the decline, since this has usually been the pattern in bear markets.

After writing the foregoing paragraph, I found the conclusions I have stated supported by an article in the *New York Times,* which, commenting on the 1965 Study, said:

> The study predicted average volume of 10 million shares a day by 1975. Events have shown the estimates to be ridiculously low. The eminent group of economists and statisticians who made the study had arrived at higher volume estimates, but the "old guard" forced the acceptance of the lowest rate within the possible estimated statistical range of growth.

Share volume is the most important determinant of the resources required by member firms. The Exchange was correct in its attempt to make member firms conscious of the need for planning, but the Exchange, and our 1965 Report, did not tell member firms to get ready for the increases in share volume that developed immediately after the Report was published and that have continued ever since.

Reasons* for *Growth

The reasons for the growth in share volume are myriad. Growth in volume has resulted from a combination of number of shares listed and the turnover of listed shares. The number of shares listed increased from 1.6 billion in 1945 to 10 billion in 1965, the date of the Exchange Report, and to over 12 billion in 1968. Increases in shares listed have been a product of new listings, and of growth in numbers of outstanding shares of already listed issues resulting from stock dividends and splits. Of these two factors, the second, increases in number of outstanding shares of old issues, has been the more important. Corporations have plowed back about 55 per cent of earnings for many years. The resulting growth in book value of shares, plus higher price/earnings multiples, have increased market prices to levels that made it seem feasible to corporations to split their shares in order to bring them into a more reasonable trading range.

The second factor in increasing share volume has been the expanded rate of turnover, which we have already noted increased from 14 per cent in 1964 to 24 per cent in 1968. A factor here has been the growth in institutional ownership of shares. In the old days, we thought of institutions as long-term investors. We thought they would buy stocks when they considered them to be undervalued, and would hold them for relatively long periods of time, selling only when they became excessively overvalued. No longer is this true. In recent years, institutional investors have had turnover rates higher than the rate for the Exchange as a whole.

Turnover rates for all important institutional investors have risen. Mutual funds had turnover rates in 1968 of 47 per cent. Even the staid, conservative life insurance companies increased their turnover rates to 28 per cent in 1968.

Whatever may be the causes of increasing share volume, member firms were not ready for it. It is the back offices of member firms, rather than the front offices, that have been most affected. Registered representatives can take orders about as fast as their customers can bark them over the phone, and it doesn't take any more time to take an order for 10,000 shares than for 100 shares. The larger volume has led to heightened activity on the floor of the Exchange, but the floor representatives, too, have been able to carry the load. In the relaxed days of the 1930's and 1940's, a Board floor broker might try to dropkick a football the 140-foot length of the floor, or hurl a tennis ball against the gilded ceiling 79 feet overhead. But those days have gone. The reporting of floor transactions has caused problems, but tickers have been developed capable of printing more characters per minute and, with the deletion on the tape of the first digits in prices, reporting has generally fallen behind by no more than a few minutes. So far there has been no return to that day in October, 1929, when the tickers stopped ticking at 8: 30 in the evening.

Almost No Changes

It is the back offices of member firms that have felt the crunch. This is partly because there have been almost no changes in the ways things are done in the back rooms in the last 20 years. In the 1965 Exchange Report to which I have referred, 15 questions were posed to member firm managers. These dealt with offices, personnel, customer services and profitability. Only one of the questions dealt with automation of operations, and this question referred to operations other than those that have caused the recent difficulties, operations in the back offices.

Why was no attention paid to the back office problem? Partly, it is that member firms, and the Exchange, are sales-oriented. Profitability of member firms-understandably of great concern to the Exchange, as well as to the firms-was thought to depend largely on total gross revenue, that is, total gross commission revenue. The control of expenses was given little consideration. If growth in share volume had been of the dimensions anticipated by the Exchange, probably the old methods in the back offices would have sufficed. Thus, the Exchange thought, emphasis should be placed on making each member firm aware of what it needed to do to get as large a proportion as possible of share volume. Should the member firm open more branches, and where? Should it employ more registered representatives, and what should it do about enlarging its training programs for registered reps? It is in these considerations that one observes the preoccupation of the Exchange with sales and with getting member firms ready to make the sales, without considering how to handle the paper work after the sales have been made.

In any event, it is the back office problem that is crying for solution today. Member firms are groaning along, struggling to reduce the backlog, but with little success. The principal problem is that of "fails''-failure to deliver security issues, and failure to receive them. A purchaser of an issue may have to wait months to receive his stock certificate. If he wishes to sell, he can do so, but this adds to the chain of non-deliveries and to the total number of "fails." At the end of May, 1968, dollar volume of "fails" was about $2.3 billion. The pressure under which the back office people have to work leads to errors. I do not wish to be melodramatic, but it is an open secret on "the Street" that some member firms are, or have been recently on the verge of collapse. Their accounts have not been balanced for months. The Exchange has in a number of cases required increases in capital contributions from firm partners and stockholders to cover "fails" for which their firm is responsible. The Exchange first attempted to deal with the problem by closing on Wednesdays, and then by shutting down trading at 2:00 P.M. rather than 3:30 P.M., New York time. This has led to pungent comments by economists like Milton Friedman and Paul Samuelson (one of the few instances, along with the negative income tax, in which these economists agree) that the New York Stock Exchange is a monopoly and that it is acting like a monopoly when it reduces the services that it offers,

Volume Stays High

In the last few months, per hour and per week volume have remained high. And the specter continues to haunt the market: what if share turnover should increase well above the present 24 per cent? What if it goes to the 100 per cent turnover rate prevailing in 19291 This would quadruple share volume and provide back offices with 48 million share days as compared with the 12 million share days now prevailing.

Apparently the Exchange does not think that turnover will increase much above present levels. The Economist's Office of the Exchange has recently issued some bulletins entitled "Perspectives in Planning," which deal with the same sorts of problems covered in the 1965 Report. In Bulletin No. 2, issued in October, 1968, under a paragraph heading "Be Your Own Forecaster," the Exchange makes the following statement:

> Perhaps experience has made us too timid, but we recommend that every member firm take pencil in hand and prepare its own estimate on future volume. In this way, each firm will base its individual plans on its best assumptions. What follows, therefore, is intended only as an illustration of how such trend estimates might be prepared. We hope that projections of volume will lead to more effective operational planning, including marketing, personnel, automation, space, and capital needs.

The Bulletin goes on as follows: "First, it is necessary to project the number of all listed shares to 1980. This can be done with considerable competence, since the list of Big Board stocks has grown at a fairly regular 9.5 per cent per year since 1945. If this rate holds in the future, there should be some 24 billion shares by 1975, and 38 billion by 1980." This Bulletin's projection of 24 billion listed shares by 1975 may be compared with the 20 billion shares projected in the 1965 Report.

One more quotation from the Bulletin: "To help readers with their own volume projections, we offer below an illustrative projection of a possible range. We assume a 'high' turnover rate of 24 per cent, a 'middle' (or normal) rate of 18 per cent, and a 'low' rate of 12 per cent." A table is then presented showing projected average daily volumes by 1975 and by 1980, depending on the turnover rate employed. The Exchange specifies that its turnover rates are projections, not forecasts. But at the same time, it speaks of a "high" turnover rate of 24 per cent, the present level.

Another Study

What has been done to deal with the back office problem? So far, about all that has been accomplished is the decision to make "another study." In February, the New York Stock Exchange and the American Stock Exchange jointly hired the RAND Corporation to study the whole problem. The RAND Corporation has the reputation for being the nation's best "think factory." When the announcement was made, the head of RAND's Cost Analysis Department-the man who will direct the study of the securities industry's problems-stated: "For the next eight weeks we are going to look at all the ramifications of the stock exchange problems-the buying and selling, the placing of orders and all the paperwork that ensues." It was reported that "the initial portion of the study that will take up the next two months will be concerned mainly with identifying the problem." At the end of that period, it was further reported, RAND might decide that its problem-solving techniques would not be suited to tackling the back office situation on Wall Street. If RAND goes ahead with the problem, its study is expected to take a year. In the meantime, we suppose, not much will be done to reduce the backlog in the back offices.

The North American Rockwell Corporation has also been retained by the American Stock Exchange to analyze the present system of handling securities transactions and to come up with short-range solutions. As the Executive Vice President of the Amex has explained, "They're going to see what quick-fix solutions there might be. They're going to take a look at the plumbing."

I would not like to have you infer that I am speaking in a derisive tone of the decisions of the exchanges to have studies made by RAND and North American Rockwell. What is evident is that those who manage the securities industry are human like the rest of us. They did not foresee the increases in volume that have taken place, and they did not pay proper attention to those increases when they occurred.

Still, one wonders what the New York Exchange will do with the RAND Report when it is completed. In the past, systems and automation studies have been performed for the Big Board by accounting firms, by computer manufacturers, and by management consultants. As .a former New York Stock Exchange employee comments: "The studies were smilingly accepted by the Board of Governors and filed."

Side Effects

What have been some of the side effects on the industry of the increase in volume and the inability of the back offices to cope with it? Individual and institutional investors have been unable to receive deliveries of securities and to deliver securities sold. Errors in monthly statements submitted to customers have been numerous. Some customers have been unable for months to get credited to their accounts securities they have received. Other customers have had credited to their accounts securities they have not purchased, and then have sold them. This is, of course, illegal, and the culprits have been caught, but the only members of society to benefit are the lawyers. The income of registered representatives has expanded so that, if their income was once a fair representation of the marginal productivity of the services rendered, it no longer is. In some cases registered reps have been placed under quotas. These quotas are generally in terms of total transactions: they can accept only so many orders per day. Naturally, they try to accept only large orders, so that their share of volume and of commissions will be as large as possible. This in turn has led to an attempt by the brokers to get institutional business, and to turn away the "little guy." Some firms will not accept orders for low-priced stocks or orders for small numbers of shares, thus denying to the small investor access to the market. It is anachronistic that the principal contribution that Keith Funston made as president of the Stock Exchange was to encourage small investors to "Buy a Share of American Capitalism," and when he left, the small investor was turned away.

We noted that Milton Friedman and Paul Samuelson have termed the New York Stock Exchange a monopoly, but it is a far from perfect one. It competes, for example, with the American Stock Exchange and with the regional exchanges. There is evidence that small investors, to an increasing extent, have been purchasing issues listed on the Amex. At the high point of the market in early January, price/earnings ratios were 26 times on the Amex as against about 18 on the Big Board. For months the odd lotters have been net sellers on the New York Stock Exchange, and net buyers on the Amex.

In similar fashion investors have been buying in the over-the-counter market. In 1968 the increase in prices on the Amex and in the over-the-counter market far outpaced those on the New York Exchange. We cannot, of course, be sure that the difficulty of access to the New York Stock Exchange is an important cause of the greater participation of individual investors in the Amex and in the over-the-counter market. Freedom of access is by no means complete in these markets either. And, moreover, the "paper mess" is greater in the Amex and in the over-the-counter markets than on the Big Board.

Other Competition

The New York Stock Exchange competes not only with the Amex and the over-the-counter market. It has the regional exchanges to worry about. Many investors have been able to purchase on a regional exchange stocks which are listed there as well as on the Big Board. Moreover, the Stock Exchange has to be concerned about the third market and the fourth market. The third market, the trading in listed stocks by non-members of the Exchange, has been expanding partly because of the growth of institutional investment, and partly because minimum commissions on the Big Board have not, until recently, provided lower per-share commissions on large orders. Expansion is also taking place on the fourth market, the trading in large blocks by institutions directly, without the intermediation of a member firm broker, or with the use merely of a "finder" who brings the institutional demand and supply together.

I may have given the impression that automation and computerization have made no headway at all in brokerage house work. Let me make it clear that this is not the case. The member firms and the exchanges have introduced automation for many operations. But most of the fancy electronic gear has been installed in brokers' front offices where the customers can see it. It is the back office that has been neglected. Accounting in many back offices is still done by keeping hand ledgers; Scrooge and Bob Cratchit would still feel right at home. Computerization of accounting services has made some progress, but computerization has not done much to help the most chaotic part of brokerage operations, the so-called "cage." The cage is the cashier's window and the shipping and receiving department rolled into one paper-shuffling frenzy. It is the cage that is the bottleneck. Eventually, and hopefully by the end of this year, clearing house automation will be introduced that will cut down on the handling of physical documents and aid in catching errors.

Space constraints permit me to mention briefly only two other recent changes in the securities markets. These are the reductions in commission rates and the abolition of the customer-directed give-up.

Minimum Rates

The exchanges have long adhered to the principle of minimum commission rates-the establishment of rate schedules by the Exchange, and the requirement that all member firms charge customers commissions at rates no lower than those established. Competition among member firms means that these minimum rates also become maximum rates. Minimum rates-that is, prescribed rates-represent "price fixing," a well-known feature of a monopoly. The Exchange defends the prescription of rates in the usual monopolistic terms: it increases the number of member firms and thereby insures competition. Minimum rates, and minimum rates that are higher than would prevail if rates were competitively determined, keep in business member firms that would fail if rates were lower.

There is a wide variation among member firms in their ability to make a profit. An analysis of the profitability of member firms, based on the 1967 income and expense reports of those firms, showed a median profit margin on security commission business of 7 per cent. The highest had a profit margin of 50 per cent while the lowest showed a loss of 24 per cent. In the recent rate schedule hearings before the SEC it was suggested that, if minimum rates were not in use, all but 44 member firms would be driven out of business. But Harold Demsetz* testified in reply that, "They *should* be

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driven out of business. Forty-four companies is more than we have in most industries."

Institutional Business

Minimum rate schedules provide high rates of return to large member firms, particularly to those firms most active in institutional business. Total commission revenue is high on orders transacted for institutions, and expenses do not increase proportionately. The SEC study of member firm profitability showed that the median profit margin on security commission business was 7 per cent for all firms, but was 14 per cent for those firms doing business primarily with institutions. Thus, member firms compete with each other for institutional business, where profit margins are higher. Since firms cannot compete on the basis of price they must compete on the basis of service, primarily in the form of investment advice rendered to their institutional customers. Typically, a member firm enlarges its institutional business by selling the results of its research work to an institutional investor. The returns to the broker take the form of the allocation to the broker by the investor of so many dollars in commissions. The effect of this is to discriminate between those investors who wish to make use of the investment advice furnished by the member firm and those who do not. Individual investors, most of whom are small investors, do not have access to the investment advisory reports of the broker, and could not understand the reports if they had them. Yet individual investors pay commissions, or did until recently, at the same per share rate as large institutional investors.

Minimum commissions and other facets of monopoly have long been under attack by the Department of Justice. The SEC has been in the peculiar position of regulating the exchanges, while at the same time "protecting" the exchanges against the incursions of the

Justice Department. Last winter, the SEC and the New York Stock Exchange worked out a compromise rate schedule. The effect is to lower rates on large blocks. In the new structure, the Exchange abandons its former insistence that rates be the same per share regardless of the size of the order, and this is certainly a step in the right direction. This compromise rate schedule was called an "interim" schedule, and there will probably be established later a new schedule that will lower even further commission rates on large transactions.

Abolition of "Give-up"

The other significant change in the securities markets mentioned above is the abolition of the customer-directed give-up. The give-up has been used primarily by mutual funds to provide an extra reward to specific member firms that have been most successful in selling their shares. The mutual fund deals with a "primary" broker, the firm that it believes most capable in putting through its large block purchases and sales, but it requests the primary broker to "give-up" a portion, perhaps as much as 70 per cent, of its total commissions to a designated list of other brokers. The 70 per cent will be divided among other brokers who have sold the shares of the mutual fund, a large portion going to the firm which has sold the most fund shares, and smaller portions to other firms that have been less successful in the sale of shares. This device served to increase the compensation of member firms selling particular fund shares, and induced member firms to "push" the sales of those mutual funds that would give up to them the largest portion of commissions. Thus the purchaser of mutual fund shares was urged to buy shares in those funds not necessarily suited to his needs. The device further encouraged mutual funds to turn over their portfolios more frequently than necessary, so that commissions would be available to give up to favored member firms. The effect was to increase the expense ratios of the mutual fund, and to decrease the portion of gross interest and dividend receipts available for distribution to shareholders. A further effect was to increase total assets of the fund, but this did not benefit the fund shareholder, since analyses have shown that there is no correlation between the size of a fund and its investment performance.

Give-ups have also been used extensively to compensate smaller member firms which do not have a large commission business but which are strong in research. A large institutional investor may direct its primary broker to give up a portion of the commissions to another member firm that has furnished to the institutional investor what is believed to be valuable advice.

Reduced commission rates on large orders, and the abolition of the give-up are having, and will continue to have, significant effects on the security business. Those member firms that have been specializing in institutional business are likely to be the most affected by the reductions in commission rates. Member firms will have to examine their product mix, and to strive to increase that type of commission business where commission rates have not been decreased. In the case of smaller research-oriented firms, as much as two-thirds of revenues came from give-ups. Such firms will have to expand their abilities to transact commission business. Large member firms with strong research departments will find that they can and will be compensated through the allocation to them of direct commission business rather than through give-ups.

One recent event gives us grounds for hoping that the New York Exchange is becoming more far-sighted. This event is related to the decision of the Exchange to construct a new building at the end of Wall Street, on a landfill that will jut into the East River near the southern tip of Manhattan. The trading floor in the new building will be about three times the size of the floor in the existing building. But this is the important point: the new trading floor will be constructed so that it can be converted into conventional office space. In constructing the floor in this manner, the Exchange shows that it has two possible developments in mind. First, the Exchange is allowing for the possibility that the familiar stock-trading scene, with hundreds of brokers on the floor waving and shouting at each other, will become as outdated as selling fruits and vegetables from door to door by pushcart. In a few years large stock transactions may all take place through a split-second electronic impulse, deep in the air-conditioned heart of some computer. And it may be that not many years after that, small transactions, all transactions, will be similarly effected. This would do away with the need for a trading floor as we at present know it.

In the second place, the design of the new trading floor so that it can disappear is probably intended as a veiled threat to New York City. About two years ago, the city threatened to increase the stock transfer tax on Exchange transactions. The Exchange countered by investigating the feasibility of moving the whole Exchange across the Hudson River to New Jersey. This led to a compromise on the tax with Mayor Lindsay. In the future, if the city threatens to increase the tax, or actually does so, the Exchange, in spite of having invested $155 million in a new building, can still convert the floor to conventional office space, rent out the space, and itself move over to Jersey.

To sum up the foregoing: Perhaps the people who manage our securities markets are beginning to hear the far-off whisper of that immutable dictum of nature, “adapt, or perish.” We can hope that the changes they are yielding to, however reluctantly, prove to be both adequate, and in good time.