

## $\therefore$ SECURITIES AND EXCHANGE COMMISSION

$\gamma$, DISCUSSION PAPER ON

## SOME ASPECTS <br> OF THE CAPITAL MARKETS AND THE SECURITIES INDUSTRY

Prepared for review by<br>The Advisory Committee on the<br>Implementation of a Central Market System

Octoker 1974
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# Office Memorandum 

to : Alan F. Blanchard
Executive Director
Ra. 846
FROM : The -

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## FOREWORD

The following text and exhibits are an expanded and revised version of a talk by Alan $F$. Blanchard, Executive Director of the Securities and Exchange Commission, to a meeting of the Financial Executives Institute. The talk was based on staff studies being carried out for the Central Market System Advisory Comittee, the purpose of which was to pull together some of the voluminous statistics on the economics of the securities industry in a form that would facilitate understanding and encourage discussion. Following an overview of the capital markets and the securities industry, this work focuses on the shifts in securities commission revenues over the past five years. Similar analyses of commission costs and of the other major income and expense elements of the securities industry are planned.

The Securities and Exchange Comission itself has taken no view as to the accuracy or implications of this study. The Commission, as a matter of policy, disclaims responsibility for speeches by any of its staff, The views expressed herein are those of the authors and do not necessarily reflect the views of the Commission.
$I$ want to begin my remarks by apologizing for my subject. My pian is to spend the next hour presenting some data and opinions on "the capital markets, the securities industry, and corporate America." And this is really far too broad, far too complex, and some would say far too depressing a topic to consider on a beautiful morning.

But it seemed to me that all the reasons for not discussing so heavy a subject were more than outweighed by the subject's urgency. A raging debate is gaing on over "the health of the capital markets," and to an increasing extent, corporate America is being asked to participate in it. As we hear it, two messages are being delivered to you. The first is chat the capital markets are in trouble, that you have a serious stake in the future of the capital markets, and that therefore, you have an obiigation to get involved in the debate. The second, and corollary, argument is that the securities industry is in serious trouble and that, because healthy capital markets require a healthy securities industry, you have an obligation to get involved in the battle to save the securities industry. This line of reasoning

## Exhibit 1

HARKET INDICES HAVE HAD 2 SUBSTANTIAL
JECLINES SINCE 1968 ....

sometimes goes on to suggest that the government in general and the SEC in particular is responsible for the state of the securities industry and that, therefore, your involvement, should be to help do battle with us.

## THE CONDITION OF THE CAPITAL MARRETS

Let me emphatically state the SEC's agreement with what others are saying to you on the first point. The capital markets are in serious trouble, you do have a serious stake, and you therefore should do everything possible to understand the causes of the problems and do whatever you can to help. With apologies for pain I will cause, let me very quickly review the problems of the capital markets and how corporate Arerice is affected by them.

You are all familiar with the terrible performance of the stock markets. (Exhibit 1) Since 1968, when this chart begins, two significant declines in the stock market have occurred. The most recent decline in the Dow-Jones industrial index, the top line of this chart -- was worse than the 1968-1969 decline, even by last Juiy, when this chart stops, And the Dow way understates the decline. The bottom line shows the value Line composite index, an unweighted average of 1,526 stocks. These stocks started down in 1969 when the Dow did; they dropped by a far higher

PRICE EARNINGS RATES HAVE DROPPEO DRAHATICALLY . . . .


Enhiblt 3

BOTH OYERALL \& EXTERNAL CORPORATE DEMAND FOR FUNDS IS INCREASIRG

percentage than the Dow and have never recovered. They are now at only 27 percent of the 1968 high .

And these stock market declines are not because of poor corporate earnings; they are because of a dramatic change in the relationship between a company's earnings and the price of its stock - the price-earnings ratio. Exhibit 2 shows the change between July of 1972 , when the Dow was a round 925, and July of 1974, when it was at 757. Each bar shows the percentage of the stocks in a given market which had price esraings ratios in three different ranges. In Juiy 1972 , only 18 percent of the stocks $1 i s t e d$ on the New York Stock Exchange had price earnings ratios of less than 10. The bulk of the companies had price earnings ratios of 10 to 25 and almost a quarter had price earning's of 25 or more. Now, four times as many companies, almost 82 percent, have a price earnings ratio below 10 . Pattems on the AMEX and the OTC markets are the same.

It is this market and price earnings performance which has caused the equity markets for most companies to dry up, and simultaneousiy, high interest rates have made debt prohibitively expensive for most. This all has occurred at a time when American industry's need for capital is incredibly large, You have all heard the dramatic estimate of future capital needs. The recent past provides the same picture. Exhibit 3 shows the financial needs of corporate America for 1968, 1970,

SOURCES OF FIJNDS HAVE CHANGED SldeSTAMTIALLY FROH '71 TD'73 . . . .


Extibla 5

PAIV基E PENSIOH STOCK IWVESTUENTS HRYE GRDWN DRAVATICALEY . . .


1972, and 1974 annualized, as sumarized by Professor William White of the Harvard Business-Schoo1. It shows that the overall need for funds has increased substantially, from $\$ 96.1$ billion in 1968 to an annualized $\$ 165.2$ billion in 1974. More importantly, the ability of the companies to generate Funds internally has decreased significantly. The funds available from retained earnings and depreciation have dropped from $65 \%$ to $51 \%$ of the total funds needed.

Largely because of the poor perfomance of the capital markets, the sources of external funds for corporations have also shifted dramatically. Exhibit 4 shows that from 1971 to 1973 , capital raised through equity decreased by a net amount of 6 billion dollars - or about $50 \%$, capital raised by debt decreased by 12 billion - or about $40 \%$, while bank loans increased by 33 billion dollars,

Finally, as if the capital markets treatment of your own earnings and your resulting inability to raise capital weren't bad enough, your stake in the performance of the equity market is larger than ever before for yet another reason -- the increased exposure of your pension funds. As shown in Exhibit 5, the book value of the common stock investments of uninsured pension funds has gone up eight fold since 1960 , -- from 10 to 79 billion dollars. This is both because of a substantial increase in the size of pension funds and of a substantially increased "equitization" of pension funds.

Common stock assets have risen from 43 to 68 percent of the total pension assets.

One of the best statements I've seen on the importance of solving the problems of the capital markets was that prepared by Otto Eckstein, Professor of Economics at Harverd and fomer member of the Council on Economic Advisors, for the "Banking and Finance" presummit conference last month. Dr. Eckstein stated that:
"A healthy equity market has been a critical element in the performance of the American econony. The equity market makes possible the financing of new companies and promotes the continued growth of rapidly expanding companies. It also provides a necessary supplemental source of capital to utilities and other capltal intensive industries where a sound balance sheet requires a growth of equity beyond intermally generated funds.
"More fundamentaliy, a healthy equity market promotes the competitiveness of the Aroerican economy. If the current stock market situation were to persist, there would be an increased concentration of the conouny. The larger companies tend to be the most credit worthy and have the ability to stand at the head of the line at the lending windows of the large comnercial banks. The banks would become as powerful as they are in Europe and Japan."

We at the SEC remain hopeful that many of these problems of the capital markets, serious as they ace, are cyclical problems and will disappear as the country learns to cope with the phenomenon of concurrent inflation and recession, as we are confident it will, For example, there is a little doubt that much of the explanation of the poor performance of the securities

The Dow Jones Ayerage and Ticasury 8ill Pata shur a slrong lecrienty to riove in opgosite directions . . .


This has been true in most recent periods orl malo dil change . . .

$$
\begin{aligned}
& \text { TIME DER10日 } \\
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& \text { Nor T1 = Apr } 72 \\
& \text { Jul } 72 \text { - Jan } 73 \\
& \text { Jan } 73 \text { - Aug } 73 \\
& \text { Oct 73-Doc } 73
\end{aligned}
$$

| Percentage | Chafge |
| :---: | :---: |
| Dנ | Treasury hitl matc |
| - 13.5\% | + 20.3* |
| - 10.0\% | + 11. $5 \%$ |
| +35.0\% | - 50, 0\% |
| - E.9\% | + 54.3\% |
| +15.0\% | - 2t. $2 \%$ |
| + 11.0\% | + 22.54\% |
| - 14.2\% | + 74.0\% |
| $=14.0 \%$ | + 5.7\% |

market is related to the current combination of inflation and high interest tates. This relationship was dramatized for me by a chart I saw on the wall of Bob Salomon, Jr., who oversees mach of investing of the U. S. Trust Company in New York (Exhibit 6). This chart, which we stole and presented to the economic sumit conference, compares the movement in the Dow Jones Industrial Average with that of the 90-day Treasury Bill rate since 1968. In almost all cases, upward movement in the Bill Rate is accompanied by downard moverent in the Dow and vice versa. I think we should all remember this when we weave our esoteric theories of how to "solve" the problems of the stock market. I suspect 99\% of the solution lies in moving the dotted line on this chart:

## THE CONDITION OF THE SECURITIES INDUSTRY

Now, what of the second argument we hear being made to you: the argunent that the securities industry is in serious trouble and that you should involve yourselves in its problems. Ove: the past months many speakers on many platforms have urged corporate executives to recognize their stake in this problem and I suspect other speakers will do the same here.

Needless to say, we at the SEC are almost constantly bombarded with reports on the disastrous state of the securities industry and reminders of our responsibility to do something about it. To improve our own understanding of how serious the problems of the securities industry are, what the relative importance of the many factors causing them are, and what is needed to insure the long term health of the industry $=$ we are just now unde ctaking a fairly systematic analysis of the profit dynamics of the industry, which we hope to discuss and constructively debate with members of the industry.

Understanding the economics of a complex industry is not a simple task, and we are a long way from being either finished or satisfied with our results, However, since you are being asked to participate in the debate over the security industry's condition and role, I think it's appropriate to share with you this morning some of the things we believe we have learned to date.

Exhiblt 7

SECURITIES INDUSTRY INCLUDES FIRHS REGULATEG BY HUHEROUS GROUPS . . . .

|  | GATEGGRY OF PIRMS* | (19)2 \} <br> rlamben* | 1972 6RQSs REYENJES f millions | PERCENT GF INDUSTRY REYEHLRES | 1772 <br> REYENUES <br> PER PIGM f 5 milfions |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | New York Stock Exchange Membara | 469 | 5,757 | 82 | 12 |
|  | A. Carrying Public Cuetomer Accounts | (319) | (5,647) | (80) | (18) |
|  | B, Not Catrying Eubile Cugtomer Accounts | (150) | (110) | (2) | (.7) |
| 2. | Arerican Stock Exchange Memberis | 16 | 91 | 17. | 5.7 |
| 3. | Regional Stock Exchange Membert | 461 | 470 | 77 | 1.0 |
| 4. | KASD Henbera | 1,382 | 697 | 10\% | . 5 |
| 5. | SECO only Fizms | 96 | 45 | .6 | . 5 |
|  | TOTAL | 2,424 | 57,061 | 100\% | 2.9 |

[^0]
## AN OVERVIEW OF THE SECURITIES INDUSTRY

One of the biggest problems in analyzing the securities industry is choosing the perspective from which to examine it. It is a complex industry which changes rapidly. It looks quite different depending on whether you are considering the tong-or short-tem, and depending on which of its businesses you are studying.

Categorizing the finms which do business with the public and have at least $\$ 20,000$ of annual gross security revenues provides a good general picture of the industry (Exhibit 7). The bottom 1ine of Exhibit 7 shows that in 1972 there were 2424 such fims, with overal1 revenues of $\$ 7.1$ billion and average annual revenues of $\$ 2.9$ million.

New York Stock Exchange member firms are the best known brokerage firms, and these 469 firms did contribute 82 percent of industry revenues in 1972. However, the New York members doing a public business include two quite different subcategroeis: 319 firms who carry public customer accounts and average $\$ 28$ miliion a year, and an additional. 150 firms who do not carry public customer accounts and average only $\$ 700,000$ revenues per year.

Two other quite different groups of fims are as numerous as the New York member group and are probably as important in understanding the overall industry composition. The 461 regional stock exchange members, those firms which belong to one of the eleven stock exchanges other than the

Exhibd B


Exhiblis

The percentagy of firms showlat losses
has been yery high in mast monlhs. . . .


New York or American Stock Exchange, contribute 7 percent of industry revenues, and are larger on the average than the New York firms not carrying public customer accounts. Finally, the 1300 fims which are not members of any exchange, portrayed as NASD (National Association of Securithes Dealers) members -- contribute 10 percent of industry revenues.

## The Current Economic Picture

There is no doubt that the securities industry's profits have contracted severely in the recent past. Exhibit 8 shows the monthly revenues and expenses since 1972 of New York Stock Exchange members who deal with the public. For these finms, months with losses heve exceeded months with gains in both 1973 and 1974 to date. Because of the market and volume upturn in the fall of 1973, the year showed not too bad a loss -- $\$ 65.8$ million on revenues of $\$ 4.8$ billion, The loss for the first haif of 1973 was that great; unless there is an upturn this fall, 1974 will probably be a serious loss year.

Further these zoss figures reflect more than just a few firms doing very badly; the percentage of firms showing losses is very high. In 18 of the 24 months through June 1974, 30 percent or more NYSE member finms reported Losses; in 11 of the last 24 months, 50 percent or more of NYSE fims reported losses. In April through July of this year, the most recent period with statistics available, an average of 51 percent of NYSE member finm lost money each month. (Exhibit 9)

Not. Surprisingly with a loss profile such as this, the number of firms in the securities business has been steadily declining. The number of New York Stock Exchange Firms carrying public customer accounts has declined from 379 in 1969 to 278 in 1973 , a drop of 27 percent. The number of smaller finms -- represented by those members of the National Association of Securities Dealers only who must file reports with the SEC -- has declined 25 percent over the same five years, and 13 percent in the last year alone.

So we share the view that the industry is currentiy in trouble. The problem with evaluating the securities business on the basis of two or three years, however, is its extreme volatility. A quite different perspective is provided by looking at performance over a longet period. LONGER TEEM ECONOMIC TRENDS

Over the past 10 years, the revenues of New York Stock Exchange member firms carrying public customer accounts have varied from 1.8 to 5.7 billion dollars, as shown on Exhibit 10. And the variation in revenues between years is astounding. In eight of the ten years, revenues differed by 15 percent or more from the previous year; in three of the ten years, by 35 percent or more.


This variation is particularly striking when the securities industry is compared with other industries. We compared the securities industry revenue changes with those of some other regulated and service industries and the difference was striking (Exhibit 10). The next industry's average annual variance was 50 percent lower than the securities industry.

Interestingly, the average growth rate in revenues is not bad. From 1965 to 1973 , the New York Stock Exchange firms carrying public customer accounts showed a compound growth rate of 7.6 percent a year. This is only slightly below the growth in total revenues of companies comprising the Fortune 500 companies in both years, which computes to an average compound annual growth of 9 percent a year. On the basis of past revenue growth, then, the ten year history does not suggest a sick industry, although the extreme variations in revenue suggest the need for clever management and sensitive regulation.

This picture does raise same danger signs: 10 years may be too short to predict trends in business cycle leagth; however, the apparent shortening of this business cycle shown here is cause for concern. The first cycle, which began in 2965, showed four years of steadily increasing revenues, followed by two years of declining revenue. But

Exhlibn 11

RETURN ON EQUITY HAS BEEN MIGHLY VOLATILE


ALTHOUGH ITS 䩻DIAN RETURN
COMPARES YELL WHTH OTHER INDUSTRIES...

| Incustry | Median | Reitutn on Equity Capitüd |  |  |  |  |  |  |  | Nuthiter Of Years Over 25\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 |  |
| Securities | 27, 1 | 28.5 | 49.5 | 42.3 | 11.1 | 16.2 | 42, 2 | 27.1 | 2.7 | 5 |
| Aic Transporc | 12.2 | 28.9 | 23.4 | 14.8 | 32,2 | 0.0 | 3.0 | 9.0 | na | 1 |
| Interstate Truckers | 32.9 | 37.8 | 29.5 | 32.9 | 30.2 | 21.2 | $38+0$ | 36.1 | 9 | 6 |
| Comaercial Bunkg | 16.1 | 16.2 | 16, 1 | 16.0 | 17.6 | 17.3 | 15.0 | 14.7 | 15.7 | 0 |
| Food Retaller: | 18.2 | 18.2 | 18. 2 | 19.4 | 18.6 | 17.7 | 13.8 | 11.2 | na | 0 |
| All Manulacturers | 20.0 | 22,5 | 19.8 | 20.8 | 20.0 | 15.7 | 16.5 | 18.4 | 21.7 | 0 |

the good times begun in 1971 trailed off quickly with only a small increase in 1972 and a substañtial decline in 1973. Fevenues are the best indication of the securities industry size, but may not be the most appropriate measure of its health -- and the industry's health is the primary topic of the current debate. To get a mone valid measure of that health, we have looked at what we think is the best measure: pretax return on equity capital. I have marked Exhibit 11 as a preliminary estimate, since there are a number of definitional problems associated with return on equity capital in the security industry. There are a number of balance sheet items known as subordinated loans, secured capital demand notes, and other items, and people argue whether they are debt of equity. Also, since many partnerships pay out almost all of their revenues, estimates must be made of what is really partners compensation and what is really profit. But, since an equivalent figure is avajlable for other industries, this estimate of retum on equity allows tentative comparison of the securities business with others.

Not surprisingly, the industry again shows extreme volatility. Volatility is dramatically apparent. when the securities industry is compared, for exarmite, with all manufacturers. While manufacturing returns hesve remained in the range of 16 to 22 percent from 1965 through 1973,
securities industry return has ranged from 2.7 percent to alnost 50 percent.

Overall, if these figures are valid, the industry has done we11: the average return on captal over the ten year period at 27.3 is compared to the manufacturing average return of 19.7 percent. Of course, many feet that the securities industry must maintain a higher return on equity because of its extreme volatility and the accompanying risks. We expect considerable debate over whether the retum we have shown (1) is accurate and (2) is enough higher than all manufacturing to attract and hold equity.

Once again, I would suggest, we have a picture of a very volatile industry - but one which in the long run appears healthy. But the short-term addis a serious concerm. Look how much worse the return on equity in 1973, calculated as 2.7 percent -- is than the return in the bad years of 1969 and $1970,11.1$ percent and 16.2 percent respectively. These bad years showed returns on equity five and six tiones higher than 1973. Further, it is troublesome that 1973's terxible performance occurred in a year which had revenues greater than any of the years 1965, 1966 and 1967, the industry's most profitable years. This might well raise serious questions for the future.

When security industry representatives desiring sone form of relief come to us, they don't often mention this long term performance. If pressed, even the industry would probably admit that the overall revenue and profit picture

Exhlbli 12

of the past ten years does not ohow an industry badly in need of help. They would angue, however, that the poor financial conditions of the industry in 1973, which is continuing into 1974, creates the danger that irreparable harm will be done to the securdties industry. Further, they would and do argue that a great deal of the damage of the last wo years has been caused by the goverment in general and the SEC In particular, due to its imposition of negotiated comission rates for the trading of securities. Some industry leaders argue that continuation of the partially negotiated rates experiment or worse, implementing the current plan for completely negotiated rates in May of 1975, will cause the collapse of the securities industry.

Since it is this argument that bears most directly on a specific SEC decision with a specific timetable, it is this argument which we have the strongest obligation to understand. This requires knowing somewhat more about what makes up the revenues and costs of the securities industry and what the actual effect of negotiated rates has been. THE SOURCES GF SECURLTLES INDUSTRY RROFIT

Four distinct revenue straams have consistently provided 85 to 91 percent of securities industry income over the past nine years. As shown by Exhibit 12 , securities commission income .- the income obtained fron acting as the agent of others in trading securities $=$ has always comprised

Exinbll 13

1973 COMPARED TO 16才: REIGHT OF LAST CYCLE ....

1973 COMPkRED TO 1971: HEIGHT OF CURRENT CYCLE . . . .

more than half the revenue, ranging from 52 to 63 percent; trading and investment income -- the money made on firms ${ }^{\dagger}$ own purchases and sales of securities .- has ranged from 8 to 16 percent; investment banking -- the fees from underwiting and other activities for corporate finance $m$ - has ranged from 9 to 14 percent; and margin interest incone -- the fees for loaning monies to customers for purchase of securities .- has ranged from 6 to 14 percent.

A sense of current profit problems can be obtained from comparing each of the major income items, as well as cost and equity, for 1973 with the data for both 1967, the height of the last cycle, and 1971, the height of the current cycle. (Exhibit 13) 1973 revenues were $\$ 477$ million greater than 1967 revenues; security commission and trading investment income were down, but were more than offset by incteases in the other three income items; however, expenses were up $\$ 1.1$ billion. Since the previous cycle, then, either costs have risen too much or revenues have not risen enough to cover unavoidable cost increases.

For the curvent cycle, the picture is quite different; 1973 differed From 1971 primarily because of a revenue drop of $\$ 1$ billion. Costs and equity fell slightly, but not nearly enough to offset the revenue declines in comission incone, trading and investant incomes, and investment banking.

To the best of my knowledge, while the SEC has been blamed for declines in securities commission income, no one has seriously accused us of causing the decifnes in invest. ment banking or trading and investment income. These declines are almost certainly related directly to the ovexall market decline. In the 1971-1973 comparison elimination of the drop in securities commission revenues would have decreased the drop in total revenues by $42 \%$. Thus, even if it were to prove true that the SEC has caused the problems in the securities commission line of business, correction of this situation would not come anywhere near improving the overall situation of the securities industry. I want to deal with the accusation that the SEC is a problem later on, but we should all keep in mind that solving problews in one business line does not solve the overall problem.

As we at the SEC continue our analysis of the overall profit dynamics of the securities industry and the long tem mie the industry must play in our capital markets, we will investigate in-depth the revenue and cost structure of the investment banking and trading and investment lines of business. In the short term, however, our principal concem is with the securities comission business for it is this revenue stream that we have affected the most and where we have been accused of doing the greatest damage. For that reason, we initially concentrated our analysis on this business and

COMMISSION REVENUE-COST GAP HAS NARROWED . . . .


Based on a very rimplistic
arlocotion of costs
the rest of my remarks will focus on it.

## THE SECURITY COMMISSION BUSINESS

The profit problems of the securities comission business are easy to graph, even if they are hard to understand. Exhibit 14 shows that there have been great variations in commission revenues from year to year; over the past ten years, the average annual change in comission revenues has been 25.9 percent per year. The exact pattern of commission related costs is extremely hard to determine, because of the debate over just what costs should be allocated to the commission business, but I think most allocations will give the general cost pattem shown on my chart.

If this cost allocation is acceptable, my analysis
suggests that from 1964 to 1968 commission revenues and costs moved largely in paraliel as both moved up. However, subsequent decilnes in costs were smaller than revenue declines so that in $10 w$ revenue years such as 1970 and 1973 , revenues barely covered costs.

Of course, each successive reduction in costs is increasingly difficult to effect in any business and costs often carnot be cut below sone level without major reorientations of business directions. A case can be made in the securities industry that the trick is to control costs

FOUR FACTORS AFFECT COMMISSION REVENUES . . . .


## Exhlbit 16

NUMEERS OF SHARES TRADED HAS
ACCELERATED....

as much as possible but to do something -- anything -- to eliminate revenue declines. Is the SEC the villain in preventing that?

To understand commission revenues, we must investigete the four variables shown on Exhibit 15. As in any business, revenues are a function of volme and price. In the securities commission business, volume - which is the number of shares traded each year - is relatively easy to analyze. However, the "price" received by the industry on each trade, more commonly called comission per share, is difficult to analyze. It is a function of the effective commission rate (which is certainly influenced by the SEC), the negotiation of rates (which the SEC has required), and the average share price - the dollar value of the individual shares traded. Understanding the changes in comission revenues unfortunately requires looking at some detail at the impact of changes in each of these factors. THE EFFECT OF VOLUME CHANGES

Over the long term, trading volume, the number of shares traded on registered stock exchanges has accelerated (Exinibit 16). For the twenty years from 1934 to 1955 , volume increased by roughly 9 percent a yesr; the decade 1955 to

SHKRE YOLIUE IM THE TO゙S HAS BEEN YOLATILE ....


Exinbli 17
VOLUME CHARGES HAYE HAD A POSTIVE
EFFECT IM 3 OF 4 YEARS SINCE 1\%9...


1965 saw that figure more than double to 21 . percent annually, and the recent increase rate is 27 percent.

As in most areas of the securities business, there is extreme volatility over the short term. However, Exhibit 16a shows that the 1973 problems of securities industry conmission revenues can't be based on number of shares traded. The straight dotted line is the 1969 average number of shares traded and the solid line is the volume in each successive quarter. Through the last quarter of 1973, number of shates traded was highet than the 1969 average, While a serious question exists as to whether this growth rate will continue, share volume has not been the problem up to now.

Since out objective is to explain the frequent declines in comission revenues, we need to translate into revenue dollars the changes in numbers of shares traded and'in each of the other factors we will subsequently address. This should allow us to isolate the impact of each type of change affecting conmission revenues. We have done this using analysis of variance technique, the details of which I will spare you.

Using 1969 as the base year and comparing all revenue changes with that year, we find Exhibit 17 shows that volume has had a positive impact on revenues in every year but one. The straight dotted line on the Exhibit shows the adjusted 1969

## Exhlolt 18

actual revenues changes have BOTH LEO AND LAGGED VOLUME CRANGES....

commission revenues of New York Stock Exchange carrying firms of 2.4 billion dollars. The solid line shows what the revenues would have been in each year since 1969 , if only the number of shares traded had changed. In other words in 1970 , if nothing had happened other than the decl ine in number of shares traded which occurred, commission revenues would have fallen by 198 million dollars. However, in each of the years, 71, 72, and 73, commission revenues as a result of volume would have been higher than 1969.

The difference between this picture of what would have happened if only number of shares traded had changed and actual commission revenues, must of course be caused by changes in "revenues per share."

## THE EFFECT OF "EEVENUE PER-SHAFE" CHANGES

As we indicated earliet, understanding the reason for changes in revenues per share requires looking at three complex factors. Prior to doing this, however, it might be helpful to look at the overall fmpact of changes in revenues per share.

The solid line on Exhibit 18 shows actual commission revenues for each year since 1969. The dotted line and shaded area repeats the revenue contribution due to changes In number of shares traded, the same information shown in Exhibit 17. The difference between the two, then, is the impact

Exhubry 19

QLD NYSE COMMISSION SCHEDULE
had Ohe volume discount . . . .

of change in revenues per share. For 1970 we see that revenue per share changes had a substantial negative impact; in 1971, a substantial positive impact, in 1972, no impact; and in 1973, a substantial negative impact. To understand the reasons for this and the extent to which the SEC decisions were a prominent factor, we must look at each of the three elements affecting revenues per share: the effective comission rate, negotiated rates, and the changes in value of an average share.

## THE IMPACT OF RATE CHANGES

The first of the three factors influencing revenues per share is the effective commsion rate. This in turn is a function of the commission rate schedule and the distribution of trades among size of trades and price of shares. The published commission rate schedule sets the commission, the security industry incone per trade in tems of the dollar value of the shares traded. Until 1972, the New York Stock Exchange commission rate schedule was relatively straightforwand. As Exhibit 19 shows, the commission received by each broker involved in the trade .- shown on the vertical axis of the graph -- increased as the value of the share being traded $\rightarrow$ the horizontal axis of the graph $-{ }^{-}$ increased. However, as the value of the share traded went up the percentage of that value received by the broker decreased. For example, the commission received for trading a $\$ 25$ share was $\$ .315$ or 1.26 percent of the share value, while the

NEH COMMISSION SCHEDULE IS MORE COMPLEX....

commission received for trading a $\$ 45$ share was $\$ .415$ or 0.92 percent of the shere value.

Until 1968, this schedule applied regardless of the size of the order; however, in 1968, at the insistence of the SEC, a volume discount was introduced which mesnt that trades in lots of 1,000 . shares or more would be made at reduced rates.

In 1970, the negative impact of the volume discount on commission revenues was offset by the institution of a surcharge. This charge, which consisted of a $\$ 15$ charge for each trade under 1,000 shares, was viewed as a tenporary measure to be applied while the rate schedule was studied and revised. In 1972, a new rate schedule was adopted. This schedule, shown in Exhibit 20, was more complex than the previous one; basically it incorporated both the surcharge and the quantity discount by raising the comission charged on smaller transactions and lowering the comassion on larger transactions, Here, for example, the cost of trading one share of $\$ 25$ stock in a 100 -share lot would be $\$ .445$, but the cost of trading the stock in a 300 -share lot would be \$.358. The cost of trading one share of a $\$ 45$ stock in a l00-share lot would be $\$ .625$ while the cost of trading one share of a $\$ 45$ stock in a 300 -share lot would be $\$ .538$.

Finally, an additiona1 10 percent rate increase on orders under $\$ 5,000$ and $15 \%$ on orders over $\$ 5,000$ was granted in September of 1973.

EFFEGTIVE COMuISION RATE HAS VARAED ....


Eyhlbir 22

OYERALL PRICE IMPACT HAS RAKGED FROM

+ \$199 T0 - \$ 260 MILLIDN . . . .


The aggregate impact of all of these changes in the rate schedule, exluding the impact of negotiated rates, was somewhat less than one might expect. (In all of this discussion, the impact of negotiated rate has been eliminated so that this important topic can be discussed separately.)

This aggregate impact can be detemined by calculating
the "effective commission rate," that is, the revenues that the industry actually received, compared to the dollar value of the shares traded. This effective rate will be affected both by changes in the rate schedule and by changes in the types of trades that occurred in terms of size, number of trades in less versus more expensive securities, etc. Comparison of the effective rate from 1964 to 1973 shows surprisingly Iittle variance.

From 2964 to 1969 , during which pertod the volume discount was introduced, the "effective rate" received by the industry ranged from $1,39-1.57 \%$ of the value of the shares traded, and averaged 1.45\% (Exhibit 21). From 1969 to 1973 -- which saw the surcharge, new rate schedule, and tate increase -- the price varied from $1.33-1,52 \%$ but averaged $1.46 \%$,

Because of the great volume of shares traded, these relatively small changes in effective commission rate translate into a significant dollar impact. You will recail our earlier demonstration that the overall impact of changes in revenue per share had been both negative and positive in the years since 1969. Exhibit 22 shows the actual dollar

Exhibit 23

amount for each of the years. Again, this dollar change is a function of the three factors determining revenues per share: effective comission rate, negotiated rates, and changes in the average share value. Exhibit 23 isotates the impact of the commission rates factor by superimposing a dotted line showing its revenue contribution on the solid Ine showing the revenue contribution of commissions per share overell. We see that the effective commission rate has had substantial positive impact in each year until 1973. The distance between the two lines, of course, is the aggregate impact of the other fectors influencing revenues per share. THE EFFECT OF NEGOTLATEP RATES

The negotiated rates "experiment" is the most controversial change regulators have imposed recently on the securities industry, and as such deserves careful study. Fortunately, the New York Stock Exchange has studied the impact intensively, and a detailed description can be developed based on their wo土k。

Negotiation on that portion of orders over $\$ 500,000$ began in the second quarter of 1971. The New York Exchange found that, during the five quarters where rates were
*EGOTIATED DISCOUNTS HAVE FALLEN

- SUBSTANTIALLY. . . .


Exhtblt 25

TOTAL DISCOUNT ON NEGOTIATED
TRADES HAS FALLEN BELOW 20\% . . . .

negotiated at the $\$ 500,000$ level, discounts to expected revenue for these trades of $51-53$ percent applied, as shown in Exhibit 24. When negotiated rate coverege broadened to all trades over $\$ 300,000$ in the second quarter of 1972 , the discount decreased. Over the first four quarters with negotiated rate on trades over $\$ 300,000$, the discount rate increased from 39 to 44 percent. For the Iast four quarters In which data is available, the discount rate has shown a steady decline to 34 percent.

Obviously, the percentage impact of negotiated rates on the total transaction is considerably less than its jmpact on the negotiated portion. Extibit 25 illustrates that while the negotiated portion of the discount has varied within the range from $35-50$ percent, the discount on total orders has varied from $15-30$ percent.


Exhlbit 27

AYERAGE SHARE PRICE HAS VARIED MIDELY....


In dollar terms, the impact of negotiated rates has certainly been significant, but it has been less substantial than either of the factors considered so far. As shown on Exhibit 26, negotiation can be considered as having "taken away" some of the revenues which were added by the positive effect of effective rates. In 1971 and 1972 it "took away" 45 and 77 million dollars respectively. In 1973, it took away 69 million. Since the effective rate did not add revenues in this year, negotiation added to an already existing revenue decline.

THE LMPACT OF AVERAGE SHARE PRICE
The last element affecting the revenues received by the industry is the value - or "price" of the shares which are being traded. Since the comission is based directly on share value, we would expect that share value changes would have a strong impact on industry revenues. In fact, average share value has varied widely since 1964 (Exhibit 27). It reached a high of $\$ 38.64$ in 1966, but has decinined substantially since then, with the major dectine in the market fall of 1969-70.

Exklbl1 28

AVERAGE SHARE YALLJE HAD THE HEAVIEST NEGATIVE IMPACT ....


The dollar impact of average share changes has been substantial (Exhibit 28). Its impact in 1970 was the largest single factor in the period we have looked at. In other years, it has ranged fron - 9 to - 127 million. THE RELATIVE IMPACT OF EACH CHANGE

Let me now try to summarize what I know is an extremely complicated and confusing situation. What we have tried to do here is understand the factors that have caused commission revenues -- the largest single revenue item in the securities business -- to vary in each year since 1969. We begin with an understanding that the securities commission Iine of business is only one of those in which the securities industry participates, and that trends in costs may we 11 have as important influence on profitability as trends in revenues.

Revenut Chanss Since 1969 Haro
Rasuftod From Many Changes ....


We focused on the commissions area first, because it is commission revenues that the SEC has affected most directly.

As shown on the bottom line of Exhibit 29 we find that annual comission revenues since 1969 have been as much as $\$ 458$ million lower and as much as $\$ 419$ million higher. In 1973, they were $\$ 137$ million lower than they were in 1969. These variations in revenues have been created by variation in volume - the number of shares traded, and in "price" -- the commission received for each share traded. Finally, the commission per share traded has been affected by changes in the effective commission rate, negotiation of rates, and changes in the average share price.

There is no consistent pattern to the impact of these four factors. A11 of them have been japortant and the different combinations of their impact in differing years are what have caused commission revenues to vary so greatly.

It appears as though negotiated rates have been the least important of the four. Negotiated rates have been in effect since 1971. During each of the past three years, at least one other change has had a larger irpact than negotiated rates; in two of the three years, two or more factors have had a stronger impact.

## THE MEANING TO CORPORATE AMERICA

What does all this mean to corporate America? What is the message we feel you should take away with you?

First, the securities industry is a complicated industry with serious problens. Because its health is important to you, you should be concerned about the problems. But you should recognize that problems are caused by many factors, some of which can be partially controlled by the industry and some of which can't be controlled by them at a11. In the commission business, over the past four years, costs have probably been more of a problem than revenues. Costs should be somewhat controllable, and all of us have the right to question whether the industry is doing everything it should.

As for revenue, no one factor -- Least of all the negotiation of rates -- can be said to be the sole detemminant of a healthy situation.

Frankly we feel that in a situation of this volatility and complexity, fixed prices are probably the last thing that the industry needs. What it probably needs most is the ability to vary its pricing methods and pricing levels rapidly to counteract changes in its operating enviromment. In addition, it might well be served by methads of smoothing out the volatility such as establishing reserves for periods of $10 w$
profits, We would expect to support any reasonable efforts to counteract this extreme volatility. As businessmen working in enviroments many of which are fer more conplex than this one - planning, dealing with uncertainities, knowing how to react to changes in revenues - your suggestions to industry leaders as to improvements they might make should be very helpful. But we hope that you would resist the suggestion that one simple change can make all the difference or that the govermant is either solely or principally the creator of these complex business problems.


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