SECURITIES IN AN INSECURE WORLD

A LECTURE by

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delivered at
TOWN HALL
St. Francis Hotel

November 15-1963

50¢ per copy

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Doctor Rappaport has chosen a very intriguing title for my talk, "SECURITY IN AN INSECURE WORLD." I hope that not many of you came under the mistaken impression that I am going to talk about security in general. I am going to talk only about financial security, not about physical security, mental security, matrimonial security, or other types. Even as far as financial security is concerned, I am going to address myself only to investment policy in stocks and bonds. The title of this talk might better have been SECURITIES IN AN INSECURE WORLD, because securities are my field. I am not going to talk about savings and budget policy, life insurance, home ownership, pension plans and other matters of that kind. The reason is that I don't consider myself an expert in those areas, and I would rather talk to you about things I hope I know more about than you do.

This reminds me of the fact that when the New York Society of Security Analysts established a journal in 1946 we gave it the simple title "The Analysts Journal." But then we got so many inquiries and even subscriptions from psychoanalysts that we were forced in self-defense to change the name to the present title "The Financial Analysts Journal."

In the field of financial security, as limited to the problems of investment policy, I would say there are three kinds of threats or dangers that investors should recognize as possibly existing at the present time. One of them would be the threat from atomic war; the second would be the threat from inflation; and the third would be the threat from severe market fluctuations up and down, and of course primarily down. Now, I have no prescription for financial security or for portfolio policy that could deal with the possibility of atomic war. I don't think anyone else has; we prefer to sweep that problem under the rug and go forward to things that we can deal with more effectively. The second danger I mentioned was inflation. Inflation has been a big factor in investors financial experience going back as far as 1900. Not many people realize that we had more inflation in the first thirty years of this century then in the second thirty years, as measured by the usual indices.

The continuation of some degree of inflation is certainly probable in the future, and that is the chief reason why most intelligent investors now recognize that some common stocks must be included in their portfolio. However, that is only part of the question of the effect of inflation on investment policy. The fact is that both the extent of inflation and the investor's reaction to it have varied greatly over the years. It is by no means a straight-line matter. A good example is the most recent one. We have had a small inflation in recent years accompanied by a very large increase in stock-market prices, which seem to be geared not to the inflation experienced but rather to the expectation of greater inflation in the future. You probably know there has been no increase in the wholesale-price average since 1958. There has indeed been a rise of 6½ per cent in the cost of living in the last five years, which of course is not negligible, but it could scarcely in itself be a sound basis for a 100 per cent rise in stock prices. Conversely, during the years 1945-1949 we did have a rather explosive kind of inflation--the consumer price index, (that is, the "cost of living") advanced over 33 per cent--but during that period stock prices actually had a small decline.

My conclusion here is that investors' feelings and reactions regarding inflation are probably more the result of the stock-market action that they have recently experienced than the cause of it. Consequently there is great danger of investors giving inflation too much weight when the market advances and ignoring it entirely, as they did in 1945-9, when the market declines. This has actually been the history of inflation and stock market behavior ever since 1900.

The problem of price fluctuations, or market fluctuations, is a very real one for investors as well as speculators, although there has been a tendency in Wall Street to deny that for a number of years in the past and even currently. Actually, the real problem is not whether price fluctuations are important to the investor; it is rather the opposite, that is to find some good workable distinction between the investor and the speculator in common stocks. As will be pointed out later that distinction has almost vanished from Wall Street, a fact which has caused a great deal of trouble in the past and will cause a great deal of trouble in the future.

Yet only last year, although it seems a long time ago--market fluctuations, as evidenced by a decline in the Dow Jones Average from 735 to 535, did loom as extremely important to investors and speculators alike. This fall of about 27% in the Dow Jones Average was accompanied by declines of between 50 and 90 per cent or more in most of the new securieties that had been issued in the preceding two years and had played such a spectacular part in the stock market activity of that period. At that time then, in May 1962, the concept of a one-way market, which could go only upwards with very small reactions, seemed to be abandoned for good. However, Wall Street has a very short memory, and now the majority of financial authorities seem to be slipping back to the concepts of 1960 and 1961.

They are returning to the idea that for the smart investor the question of stock market fluctuations does not have to be considered to any great extent. There is a two-fold emphasis here, which slurs over the reality of stock market fluctuations. The first is the general conviction that the market can be counted on to advance so emphatically through the years that whatever declines take place are comparatively unimportant; hence if you have the true investor's attitude you don't have to concern yourself with them. The second claim is a denial that the "stock market" exists at all, meaning thereby that what the market averages do is of no real importance to the intelligent, well-advised investor or speculator. It seems to be a ruling tenet of Wall Street that if you practice the proper kind of selectivity in investments you don't have to worry about what the stock market does as a whole, as shown by the averages,for at all times the good stocks will be going up and the bad ones will be going down and all you need to do is pick the good stocks and forget about the stock-market averages.

How valid are these two arguments? The first one-- the argument that common stocks are and always will be attractive, including the present time, because of their excellent record since 1949-- involves in those terms a very fundumental and important fallacy. This is the idea that the better the past record of the stock market as such the more certain it is that common stocks are sound investments for the future. Now we all know that if a corporation has had a very good record over the past years that is a fair indication (but no guarantee) that its record is likely to be good in the future, because it has certain business advantages which in most cases ought to continue. But you cannot say that the fact that the stock market has risen continuously (or slightly irregularly) over a long period in the past is a guarantee that it will continue to act in the same way in the future. As I see it, the real truth is exactly the opposite, for the higher the stock market advances the more reason there is to mistrust its future action if you are going to consider only the market's internal behavior. We all know that

for many decades the typical history of the stock market has been a succession of large rises, in good part speculative, followed inevitably by substantial falls. Consequently, the substantial upsweeps of the past have always carried with them warning signals of unhappy consequences to come. It does not necessarily follow that a large rise in the price of a individual stock or in the market averages must be followed by a decline; but the only reason to view with confidence the future price of a security that has already advanced substantially in the presence of external reasons, other than the actual price movement itself, which would justify such confidence. Hence a large advance in the stock market is basically a sign for caution and not a reason for confidence.

Let us discuss the market's possibilities from present levels in terms first of theoretical reasoning and then in terms of some practical considerations. I would like to present three possibilities; undoubtably there are a great many more. One possibility, which is a very popular one in present thought, is that the rise that has taken place since 1949-- from about 163 in the Dow Jones Average, to 750 at the present time-- reflects a new and a marvelously improved character of common stocks, and therefore can be expected to continue more or less at the same rate in the future. Only such a point of view can make sense out of the prevalent practice of calculating the gains that investors could have made in mutual-fund shares or in similar purchases over the last 14 years as a basis for trying to persuade them to buy such securities at their present advanced prices. As you know, this kind of calculation is done all the time by mutual-fund salesmen to impress investors. The SEC requires it to be accompanied by a perfunctory statement that the calculation carries no warrantly for the future, but I don't think very much emphasis is placed upon that qualification.

The second possibility is that a good part of the rise I spoke of was an adjustment from an undervalued level in 1949 to a proper level on some new basis of valuation. If that is so, a good part of the 1949-1963 rise could not be expected to be repeated from a level which is now a corrected one. However, we could have a satisfactory advance on the average, say 4½% per annum, from whatever level turns out to be about right for today. If 750 is about the right present level then the investor might possibly expect a more or less standard 4½% advance from this level, year by year, subject to moderate downward fluctuations.

But the third possibility is that the nature of the market has not changed from its earliest times, as shown in our records that go back at least to the South Seas Bubble in 1720, pratically 200 years. WE have also very detailed data on stock prices in the United States since 1871, which were incorporated in the Cowles and the Standard and Poor's records. It may well be that we shall still have the all-too-familiar alter nations of excessive optimism and excessive pessimism. The most recent example of excessive pessimism is the very period which was a starting one for this market. During 1949-50 the market had the lowest peace-time price-earnings ratio in its history. Stocks sold at only about 7 times their earnings, in the market averages I am talking about, as compared with about 20 times at the present time. The implication here is that just as stocks were evidently undervalued at seven times their earnings they might very well be overvalued at twenty times earnings or at some higher multiplier that will be established later in this market and will represent a level of excessive optimism.

My own opinion about these three choices is that the first possibility is really out of the question. It is not in the nature of economic reality to permit net gains at the shown rates from 1949 to 63-- something like 14% per annum including the dividend returns-- to continue indefinitely in the future. We just don't have a financial and economic system that can operate on that basis. If that were true nobody would have to work for a living. I remember very well the

number of people in the late 1920's who got a corresponding view of the stock market, gave up their jobs and plunged into Wall Street to take advantage of its wonderful future. The second possibility--which is that the market will advance pretty steadily from approximately the present level, but will not have the advantage of starting from a very low level-- is admissible in theory. But the great problem, one that I will talk about later, is how can you determine the proper new basis for common stocks valuations and therefore how can you determine the more or less proper level for now? I discussed this question in a paper read to the American Finance Ass'n. in December 1961, and said then that the market was really adrift on a sea of unsettled standards. The old standards of value, which had been well established for decades and perhaps generations, no longer seem to be tenable, as much too conservative; but the proper new standards of value could certainly not be worked out either by somebody's inner-consciousness or by mathematical calculations. We shall have to wait, probably for a considerable length of time before we can determine dependable new standards. In the mean time it seemed to me that the stock market will have to carry on its calculations by a process of trial and error, which could lead to large fluctuations around what in the end will turn out to be the new central value. I think what happened since December 1961 bears out this interpretation to some degree. Certainly the big decline in 1962 represented a sharp fluctuation of one kind, and the impressive recovery since June 1962 may represent a fluctuation of the other kind.

No doubt you would be interested to know what I mean by the terms "old and new standards of value" as applied to the stock market level. The old standards of value--which were pretty well accepted up to say 1955 were reached by a number of different approaches based on reasoning or experience. The one I like best of course was my own, which has been known as the "Graham." It was derived from the Central Value average earnings of the 30 stocks in the Dow Jones Industrial Average for ten years past, capitalized at twice the interest rate on high grade bonds. For example at the present time the average earnings for the last ten years are about $33 on the Dow Jones unit and the present rate on high grade bonds is 4.3 per cent. If you capitalize $33 at8.6%-- which is a multiplier of about 12 you would get a Central Value on the old basis of about 380, as compared with the present price of about 750.

In early 1955 when I testified before the Fulbright Committee the stock market was then about 400, my central value was also around 400 and the valuations of other "experts" using other methods all seemed to come to about that level. The action of the stock market since then would appear to demonstrate that these methods of valuations are ultra-conservative and much too low, although they did work out extremely well through the stock market fluctuations from 1871 to about 1954, which is an exceptionally long period of time for a test. Unfortunately in this kind of work, where you are trying to determine relationships based upon past behavior, the almost invariable experience is that by the time you have had a long enough period to give you sufficient confidence in your form of measurement just then new conditions supersede and the measurement is no longer dependable for the future.

We had to deal with this problem in the fourth edition of "Security Analysis" published last year, and to recognize the probability that stocks should be valued more liberally now than in the past, our chief reason for that, incidentally is not because the government's commitment to prevent large scale depressions has changed the climate of corporate earnings from what it was prior to the Employment Act of 1946. We think this new insurance against a very severe falling off in the earnings of corporations generally would justify a higher valuation of these earnings than in former years. Hence we have added an arbitrary 50 per cent to the valuation based upon our old method. That would give us now a value of about

570 for the Dow Jones Average, and a corresponding value of about 56 for the Standard Poors 500-stock average. Let me point out that the two averages stand so close together on a ten-to-one basis in their price level, dividends and earnings, that you can use the two figures almost interchangeably for purposes of description or analysis.

You must recognize that this level of 570, which is derived from an arbitrary mark up of 50% from the old level, has no special authority behind it. It was merely the best judgment that we could give on a situation which does not admit of any really dependable calculations. As a matter of fact if one is sufficiently optimistic and adroit it is quite possible to develop a method of valuation which sounds plausible enough and would justify the present level of 750 for the Dow Jones Average. Let me show you how that could be done. You say first that investors would like to get an over-all return of 7½% on their money in future years. That's what common stocks have returned on the average- in dividends and price appreciation-ever since 1871, as shown by the Cowles and Molodorsky studies. Now if we can expect a rate of growth of earnings and dividends of 4½% a year then all we need is a dividend return of 3% to make up the desired 7½% total. Since the Dow Jones and Standard Poor's dividend return is just a little more than 3% right now on the market price, we could buy these at the present level with confidence, as we would then get a 3% return in dividends and a 4½% annual return in growth. Many people might think that even less than an overall 7½% should suffice. All that sounds fine but if you reflect that by some chance the future growth rate would be 3½% instead of 4½%- and 3½% was about the actual annual growth in dividends in the last ten years-- then you get quite a difference. For if now you are expecting a 3½% growth rate, you will need a 4% dividend return to make up the required 7½%. On that basis the Dow Jones Average is worth just about the 570 which we arbitrarily gave to it.

There is a lot of juggling with figures that can be done now as always; but none of these methods in itself gives a dependable result. To a great extent the figures selected are determined by the general attitude of the man who is selecting them, and that general attitude is very often determined in turn by what the stock market has been doing. When the stock market is at 750 you take an optimistic attitude and use some favorable figures; but if it should have a severe decline most people would jump back to the older and more conservative evaluation methods.

Let me now point out a striking area in which the uncertainty of the proper valuation of common stocks is brought to the fore. That is this very question of the relationship between dividend return on stocks and the interest rate on bonds. For fifty years or more it was a tenet in Wall Street that stocks should yield considerably more than bonds. In speculative markets stocks might rise until their yield became less than that of bonds. But this very development was a sure sign that you were in a dangerous market-- one heading for a bad fall. A friend of mine, head of an important brokerage house, was so enamored of that idea he used it constantly in his market letters. More than that he actually had the relationship between stock yields and bond yields printed in a nice chart-design on neck ties imported from Paris, which he distributed to his friends including me. For awhile I wore this tie at some of my lectures, and said that this was the first time that anybody had analyized the technical position of the stock market from his necktime. Well, since 1958 stocks have been yielding considerably less than bonds with no sign of a return to old relationships. Hence my broker friends found that this concept increasing hard to stick to. About two years ago, actually not very long before the big market break, in a huge newspaper advertisement he abandoned this concept completely, said it was all bosh to talk about stock yields as the basis of evaluation, claimed the main thing was the psychology and attitude of the public; and asserted this factor was strongly bullish and justified

confident buying of stocks. My chief reason for mentioning this incident is that I had just spent a lot of time studying the weekly analyses of the stock market by one of our oldest financial services which started in 1909 and I found the identical experience took place just 30 years before in this service (whose name I also won't mention.) For many years they talked about the standard relationship between stock yields and bond yields, and they used it to determine the probable top levels for the stock market advances. In the great bull market of the late 1920's this relationship proved to be very unreliable as a short-term market forecaster. So they too, in a spectacular statement using almost the same language, turned their back completely on the comparison of stock yields and bond yields and said that the market's psychology was the best basis for forecasting. That happened sometime in 1928, and they stick to this viewpoint to the great crash of 1929.

The present relationship gives considerably lower yields on stocks than on bonds. High grade bonds yield about 430 per cent while the stocks averages yield a little bit more than 3%. Because that relationship has existed for the past five years does it represent a permanent relationship for the future, or is it only an indication that the stock market has been clearly overvalued for five years, in the same way that it was clearly undervalued during the period 1949-1954? This is the many-billion-dollar question. You won't be able to get the answer to that by mathematics; you won't be able to get it from an expert such as me or anybody else; so you'll have to answer that question for yourself.

But the thought that the stock market may have been over-valued in the last five years, just as it was undervalued fifteen years ago, brings us to the third possibility which I enumerated, namely that we are still going to have wide fluctuations in the future. This I consider the most probable one, though it is far from certain. My reason for thinking that we shall have these wide fluctuations- of which we had a taste in 1962, in May particularly- is that I don't see any change in human natures vis-a-vis the stock market which is sufficient to establish more restraints in the public behavior than it showed over so many decades in the past. The actions of the public with respect to low-grade new issues during the 1960-61 extravaganza in that field are an indication of its inherent lack of restraint. You ought to remember also, that many of the highest grade common stock issues were forced up to excessive levels by a market enthusiasm which produced large subsequent declines. Let me give you some examples: The most impressive to my mind was that of International Business Machines which is undoubtably the leading common stock in the entire market. Speculative enthusiasm pushed it up to 607 in December 1961, from which it declined to 300 in June 1962-- a fall of more than 50% in the short period of 6 months. General Electric, which is the oldest high grade investment common stock, declined from a high of 100 in 1960 to 54 in 1962. Dow Chemical, one of our best chemical companies, fell from a high of 101 to a low of 40, and U.S. Steel which is an old leader, shrank from 109 in 1959 to a low of 38 in 1962. These very wide swings underline the fact that the stock market is basically the same now as it always was, in the sense it is still subject to very substantial over-evaluation at sometimes and undoubtably substantial under evaluations at others.

My basic conclusion is that investors as well as speculators must be prepared in their thinking and in their policy for wide price movements in either direction. They should not be taken in by soothing statements that a real investor doesn't have to worry about the fluctuations of the stock market.

It is time now to say what little I can say about the probable course of the stock market from the present level. No doubt that is the point which would interest the audience most and on which I can be the least enlightening. In my view there is an important difference between the present stock market and the market at more or less the same level in December 1961. At that time I had no hesitation about predicting that then there would have to be a fairly near-term collapse of the new-issue market, which had passed all bounds in speculative excesses. And if that

collapsed it would surely effect in some serious way the general level of stock prices, it might possibly usher in the bear market which inwardly I have been expecting for some time past. The new issue collapse came per schedule and it did have a major adverse effect on the rest of the market. But a recovery began in a comparatively short time, and it has carried the market averages to new heights, which were contrary to my inward expectations but not to any specific predictions which I made. I would like to point out that the last time I made any stock market predictions was in the year 1914, when my firm judged me qualified to write their daily market letter, based on the fact that I had one month's experience in Wall Street. Since then I have given up making predictions.

The important point now is that the current high levels of the market are not accompanied by those excesses in the new-issue market and in some other directions which made it appear so vulnerable in 1961. It is the general view in Wall Street that such characteristic abuses must develop again before the stock market can have another collapse,--or before a true bear market can begin (if it isn't against the law to use the dirty words "bear market"). These abuses would include large public participation by small people who don't know what they are doing, high borrowings on margin, the renewal of the new-issues spree and so on. Now this contention sounds plausible enough based on experience, and so one might guess that the market could well continue generally upward for quite a while. But let me point out "for the record" that it is not impossible in theory that the market's high level alone could sooner or later precipitate a collapse without the necessity for these technical weaknesses to show themselves. The collapse might be triggered by some untoward economic or political development. But if things do happen that way it will be the first time in market history, I believe, that we would have the end of a bull market without the excesses and abuses of the sort I have mentioned. But there is always a first time for everything.

My opinion then regarding the present market level must be rather inconclusive, and I shall base my later prescription of policy on the assumption that investors cannot have a dependable view on the market's future action in the next year or so, but that a large and disturbing decline is likely to take place again sometime in the future, and that we should be prepared in thought and action for it, is a necessary assumption for investors to make, and for sensible speculators too if there are any such.

The second claim which is that there is no real "stock market" but only, as the Wall Street people like to say, only "a market of stocks"-- deserves a moment or two of discussion. What they mean by saying this is that investment results depend only on what happens to individual securities, some of which will go up and others down, and that it is illusory to talk about what happens to the market as a whole as having a major bearing on how the investor fares. I disagree with that point of view on three grounds.

The first is that I doubt that the market is really so much different in this respect from what it always was in the past. I have some recollection of the market in 1928 and 1929, and I am sure that the disparity and diversity of stocks between those that acted well and those that acted poorly was almost as great then as we see now. But despite that fact it was essential for investors to be guided by a view as to the general level of the stock market. It is suprising to me that Wall Street people haven't taken the time to make a study of the spread in price movements between individual stocks in recent years as compared with what happened in former years. (I have a student at UCLA who is going to make this study and it may prove quite illuminatory).

The second reason is that there is actually a considerable underlying consistency in the stock market if you measure its movements by comparing two averages which seem to be quite different. One of them is the Dow Jones Industrial Average, which consists of only 30 stocks, and the other is the Standard & Poor's Composite Average which consists of 500 stocks. You might well assume that if there

is an underlying diversity of price movements then an average including only 30 stocks would certainly behave different from one embracing 500. But if you observe the fluctuations in both averages, now given by most newspapers you get virtually a ten-to-one change, which means a parity change, almost day by day and certainly month by month and year by year. In the past ten years the Dow Jones Average rose from a 275 mid-point in 1953 to 750, while the Standard Poor's index rose from 24.7 to 73.5. An interesting point is that the apparently miscellaneous group of 500 issues actually had a slightly better advance than the gilt-edge or blue-chip stocks in the Dow Jones Average. This indicates that you cannot tell a priority which any group of stocks is going to do over the future years in comparison with any other.

I think the third and most important reason why the investor should not be led to emphasize his selection of individual stocks, and to neglect the general level of the stock market is the fact that there is no indication that the investor can do better than the market averages by making his own selections or by taking expert advice. The outstanding support for that pessimistic statement is found in the record of the investment funds, which represent a combination of about the best financial brains in the country, and a tremendous expenditure, of money, time, and carefully directed effort. The record shows that the funds have had great difficulty as a whole in equaling the performance of the 30 stocks in the Dow Jones Averages or the 500 Standard & Poor's Index. If an investor had been able, by some rough across-the-board diversification to make up a portfolio approximating these averages he would have had every reason to expect about as good results as were shown by the very intelligent and careful stock selections by the investment-fund managers. But the great justification for the mutual funds is that very few investors actually do follow such a sound and simple policy.

I must reluctantly express some skepticism about the general efficacy of economic forecasting, of stock market forecasting, and of expert selection of common stocks, in their relation to the investment and speculative profits which can be made therefrom. Let me give you my reasons: I say first that to the extent that an economic forecast appears dependable--and it is generally so only for the short term--its effect is likely to be already reflected in the market level, and there is no way to make money from it. For example, we cannot say because the forecast for 1964 is favorable that common stocks should be bought today. The price of common stocks today, as everybody should know reflects the general expectation of a good 1964. On the other hand, longer term business forecasts have proven unreliable on the whole.

Similarly, take the case where an individual stock is favored by one of my own fraternity of security analysis is because he is optimistic about its future earnings and general prospects. To the extent that investors generally agree that this company has good future prospects to that extent its prospects are also likely to be fully reflected and perhaps over-reflected in the market price. Sometimes you find the contrary case where a Wall Street man may say "Nobody likes this stock, nobody has confidence in it, but I have confidence in it and I know its results are going to be better in the future." That's an interesting and valuable conclusion if true. The trouble is that in most cases you can't rely on its dependability. The man may be right or he may be wrong in saying that some unpopular stock is going to have a very good future. That is the dilemma all investors face in trying to make money out of forecasts as to the future prospects of any individual security.

Now, with respect to stock market forecasting as such, as a separate occupation or amusement, I don't think there is any good evidence that a recognized and publicly used method of stock market forecasting can be relied upon to be pro-

fitable. Let me illustrate what I mean by reference to the famous "Dow Theory" which is the best known of the methods used for forecasting the stock market. I made some elaborate studies of the results of applying the mechanical concepts of the Dow Theory, in which you have well-defined signals to buy and sell stocks by the movement of the average through resistance points upward or downward. I found that when I studied the record from 1898 to 1933, a period of about 35 years--the results from following this mechanical method were remarkably good. About 1933, the time when the Dow Theory had shown itself a very useful method for dealing with the market action in the 1920's and early 1930's, the public's interest in the Theory increased enormously. Previously it had been a kind of esoteric prescription followed only by a few devoted adherents, and about which everybody else had been pretty skeptical. The Dow Theory became extremely popular after 1933. I studied the consequences of using exactly the same method in the market after 1933, and I found peculiarly enough that in no case in the next 25 years did one benefit through following the Dow signals mechanically. By this I mean that one was never able to buy his stocks back at a lower price than he sold them for.

As you know, the Dow Theory is still persued by a number of practitioners and services. I think all of them will tell you that it is not a mechanical theory now, and that a large element of judgment has to enter in the interpretation of the signals. But once you introduce that element you don't have a true theory anymore, you just have a certain expertise which may or may not be dependable and useful.

Let me now make a general observation. For obvious reasons it is impossible for investors as a whole, and therefore for the average investor or speculator, to do better than the general market. The reason is that you are the general market and you can't do better than yourselves. I do believe it is possible for a minority of investors to get significantly better results than the average. Two conditions are necessary for that. One is that they must follow some sound principles of selection which are related to the value of the securities and not to their market price action. The other is that their method of operation must be basically different than that of the majority of security buyers. They have to cut themselves off from the general public and put themselves into a special catagory. I will touch more briefly on that point later.

Now, let me summarize up this stage. The investor needs common stocks in his portfolio; but these introduce hazards of wide fluctuations which he cannot expect to avoid more successfully than others unless perhaps he thinks independently from the crowd, that is unless he is constitutionally different from the average.

Now let me come to part two: what investment policy to follow under the conditions discussed? My views thereon are and definite and strong. In my nearly fifty years of experience in Wall Street I've found that I know less and less about what the stock market is going to do but I know more and more about what investors ought to do; and that's a pretty vital change in attitude. The first point is that the investor is required by the very insecurity ruling in the world of today to maintain at all times some division of his funds between bonds and stocks (cash and various types of interest-bearing deposits may be viewed as bond-equivalents.) My suggestion is that the minimum position of this portfolio held in common stocks should be 25% and the maximum should be 75%. Consequently the maximum holding of bonds would be 75% and the minimum 25%- the figures being reversed. Any variations made in his portfolio mix should be held within these 25% and 75% figures. Any such variations should be clearly based on value considerations, which would lead him to own more common stocks when the market seems low in relation to value and less common stocks when the market seems high

in relation to value.

Now while this is the classic language of investment authorities, it is amazing how many people think in exactly opposite terms. That was brought home to me shortly after the May 1962 break when a savings-and-loan company representative came to me with questions. The first question he asked me was "Don't you think that common stocks now are less safe than before because of the decline in the market?" That hit me between the eyes. Here were financial people who could seriously consider that stocks less safe because they have declined in price than they were after they had advanced in price. The policy I propose to have more common stocks when the market seems to be low and less when it seems to be high by value standards is obviously opposed to the psychology of investors generally and to that of speculators always. It is particularly true now because of the great confusion between investment and speculation which I shall refer to later. I suppose the idea of having more common stocks at low levels than at high levels is a "counsel of perfection" for most investors. But it could be followed by many investors to the extent of an inflexible rule that they should not <u>increase</u> the percentage of common stocks in their portfolio as the market advances, except of course through the rise in the market itself. However, a more sophisticated application, which would take advantage of a rise in the market level for sales, could be something like this. Use a fixed 50-50 division between bonds and stocks. When the market level of the stocks rises to a point where they constitute 55% of the total or maybe 60%, you would then sell out enough to bring your proportion back to 50%, putting the proceeds back into bonds or into savings banks. And conversely when the market went down so that your common stock proportion had fallen 45% or 40%, you would use some of your bond money to buy common stocks and bring it back to the 50%. That was the famous Yale University system, which was one of the earliest formula methods known. They used a 35% basis for common stocks, a percentage which at that time was regarded as pretty rash for an institution of learning. When a market rise brought it up to 40% they sold out one eighth of their holdings, to get back to 35%; when it went down to 30% they bought one sixth to bring the ratio up again to 35%. It was a good system until the market ran away on the upside, and then they decided they had too little in common stocks. Now they are up to a 50 to 55% ratio, like the other universities, I think, and they don't follow the formula anymore.

Another approach that is practicable, but from a different point of view, is the "Dollar Averaging" method, in which you put the same amount of money in common stocks year after year, or quarter after quarter. In that way you buy more shares of stocks when the market level is low and fewer shares when its high. That method has worked out extremely well for those who have had (a) the money, (b) the time, and (c) the character necessary to persue a consistent policy over the years regardless of whether the market has been going up or down. If you can do that you are guaranteed satisfactory success in your investments.

Let me add that there are countless variants of this type, which are called "formula plans." The main need here is for the investor to select some rule which seems to be suitable for his point of view, one which will keep him out of mischief, and one, I insist, which will always maintain <u>some</u> interest in common stocks regardless of how high the market level goes. For if you had followed one of these older formulas which took you out of common stocks entirely at some level of the market, your disappointment would have been so great because of the ensuing advance as probably to ruin you from the standpoint of intelligent investing for the rest of your life.

Now let me come to the problems of security selection. We have talked about a bond component (and/or a cash-equivalent component) and a common stock component. There's a wide choice in the bond component, but the decision is not of

too much importance in most cases. In the taxable list, you can put your money in U.S. Savings Bonds at 3½%; which you can redeem at will; you can buy long term U.S. Government Bonds at about 4.10% taxable; you can buy high grade, long-term corporate bonds at 4.30%, or 4½% if you do a little selecting; you can have savings deposits in commercial banks which give you up to 4¼% if held for one year; you can buy savings-and loan shares (bear in mind that they are not deposits but shares) which now yield up to 5% in California. Another choice of great importance are tax-free state and municipal bonds, which yield up to about 3½% for good quality and long maturity. For most investors who are in a tax bracket of more than 30%, tax-free bonds have been the most attractable for many years. They actually were in part a gift to the investor of which he didn't take advantage up to the extent he should have as against taxable bonds. That advantage has diminished, because tax free bonds have advanced relative to others, but it is still persuasive for people of substantial means. I would like to point out that in 1953 municipal bonds yielded 2.93% and U.S. Government taxable bonds 3.08%, nearly the same return despite the full tax on the governments. In October 63 the municipal average was 3.28% and that of U.S. Government bonds 4.06%, so you see the advantage that has accrued to the past holder of tax-free bonds as compared with U.S. government.

One question for the investor which I won't go into, and I am glad I havn't got the time to do it, is whether he should take advantage of the 5% rate offered by some of the savings and loan associations in California. Let me say that I am not an expert on savings- and loan associations, and I don't want to get drawn into the controversy that has now begun as to whether their methods are completely sound and their prospects are completely dependable. I just want to say in general terms that nobody can assume that he can get exactly the same degree of safety and dependability in a standard type of investment yielding 5% as in one yielding 4%.

With respect to prefered stocks the import point is that they do not belong in the individual investor's portfolio. The reason is they have a great tax advantage for corporate owners which they don't have for individual owners. Corporate owners save 85% of the tax on these dividends, individual owners save a very small amount, which may disappear pretty soon in the new law. It should be obvious that preferred stocks should be bought only by corporate investors just as tax-free bonds should be bought only by people who pay income tax. You may have noticed last week that one of the public utility companies offered a bond issue and a preferred-stock issue at practically the same yield, although hitherto preferred stocks have always yielded quite a bit more than the bonds to which they were junior. The great tax advantage of preferred stocks to corporate buyers is now belatedly showing its effect on relative yields.

We come finally to common-stock investment. My recommendation is that the investor choose either his own list of, say, 20 or 30 representative and leading companies, or else put his money in several of the well-established mutual funds. (There is usually an advantage for the shrewd investor in buying shares of the closed-end investment companies on the New York Stock Exchange, when obtainable at discounts from net asset value, rather than paying the premium added on to the price of most open-end shares.)

Many investors would think my prescription too simple. If they can get results equal to the averages in this easy way why shouldn't they try to get a substantially higher return by careful and competently-advised selection? My short answer has already been given: If the investment funds as a whole can't beat the averages, even pretty clever investors as a whole can't do it either. The underlying problem of selection is that the "good stocks--chiefly the growth stocks with better than average prospects--tend to be fully priced and

often overpriced." At the other extreme new stock offerings, when the craze is one, are likely to combine fourth-rate quality with absurdly high price-earnings ratios. There are better opportunities in between these extremes, but most investors don't look for them there.

As I see it, the fundamental problem in common stocks is the market's injection of a large speculative element into the strongest and best companies by establishing an untenably high price for them. (The rise of IBM or 607, soon followed by a fall to 300, is the best illustration of my point.) This has addedgreatly to the confusion between investment and speculation, because it is easy to tell oneself that the shares of a good company are always a sound investment, regardless of price. From this it was an easy step to calling everyone an investor who bought his shares outright, and finally to calling every Wall Street customer an investor--period.

My recent crusade has been to persuade Wall Street that it has made a mistake, and harmed itself, in suppressing the word "speculation" from its vocabulary. Speculation is not bad in itself; overspeculation is. It is important that the public should have a fairly good idea of the extent to which it is speculating, not only when it busy a "hot issue" at a completely silly price, but even when it buys into a wonderful concern such as IBM at 70 times its highest recorded earnings. To my mind the most valuable contribution that security analysts could make to the art of investing would be the determination of the investment and speculative components in the current price of any given common stock, so that the intending buyer might have some notion of the risks he is taking as well as what profit he might make. I have pointed out that my own conservative appraisal put the investment component in IBM's 1961 price at not more than $200 per share --about $6 billion for the entire enterprise--the remainder of the quotation representing a speculative valuation of the company's undoubtedly brilliant future. Conversely, I stated that at least 80% of the highest prices(55) of International Harvester in 1961 could be ascribed to its investment value. This did not prove that Harvester was a better buy than IBM--it was, as it turned out--but it did demonstrate that the risk factor involved was much smaller.

Let me raise a final question: Despite rather discouraging results from endeavors to predict market moves or to select the most attractive companies, can the intelligent investor follow any policies of common-stock selection that promise better than average results? I think it is possible for some strong-minded investors to do this, by buying value rather than prospects or popularity. Some examples of this approach: (1) Select stocks of important companies which sell on a no-glamour basis--e.g., International Harvester. Some extraordinary results could have been obtained since 1933 by buying each year the shares of the six companies in the Dow Jones Ind. Average which sold at the lowest multiplier of their recent earnings. (2) Buy definitely "bargain issues." Typically these would be shares that sold for less their value in working-capital alone, with nothing paid for fixed assets and goodwill. These were quite numerous up to as late as 1957, and were consistently profitable when diversification was observed. Few such opportunities remain; perhaps they have been supplanted by shares of smaller companies selling on a relatively depressed basis and likely to be taken over by a larger concern at a good advance in price. (3) Finally there is the wide field of "special situations"--reorganizations, mergers, take-overs, liquidations, etc. This is a professional area, but it is not impossible for intelligent investors to profit handsomely from it if they approach security operations as they would a commercial business.

CONCLUSION.

The investor must recognize that there are uncertain and hence speculative

elements inherent in any policy he follows--even an all-Government-bond program. He must deal with these uncertainties by a policy of continuous compromise between bonds and common stocks, and by adequate diversification. (Exception: He may put and keep most of his funds in shares of a promising business with which he is closely connected.) He must make a strong effort to have more money invested in common stocks at lower market levels (at least on the basis of cost) than at what he recognizes to be potentially high levels. Most important, he must maintain a philosophical attitude towards the inescapable variations in his financial position and the inevitable "mistakes" associated with these variations.

According to an old Wall Street story, when a certain broker was asked by a client to recommend issues to buy, he always asked in return, "What is your preference? Do you want to eat well or to sleep well?" I am optimist enough to believe that by following sound policies almost any investor--even in this insecure world--should be able to eat well enough without having to lose any sleep.

Benjamin Graham on

The Flexible Work-Year:

An Answer to Unemployment

OCCASIONAL PAPER ON THE ROLE OF THE ECONOMIC ORDER IN THE FREE SOCIETY PUBLISHED BY THE CENTER FOR THE STUDY OF DEMOCRATIC INSTITUTIONS

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1941 marked the appearance of a new phenomenon in American history: the presence of large unemployment at a time when business was good. Business activity was 108 per cent of normal, but unemployment averaged 5,560,000, or nearly 10 per cent of the work-force. Before 1941 large-scale unemployment had always been a product of "hard times" and had disappeared with the return of prosperity. In 1925, for example, when business activity averaged 107 per cent, the unemployment rate had been only 4 per cent. At the end of 1941, of course, Pearl Harbor solved the problem of the jobless all too effectively.

It was when the war neared its close that economists began to worry about the prospects for full employment when peace returned. Two authorities, E. E. Hagen and H. Kirkpatrick, projecting ahead into 1950, concluded that America would enjoy continued full production and full employment only by "fortuitous good fortune" or by "extremely wise social engineering." It seemed that neither of those aids could be counted upon, the second probably less than the first. But the apprehensions proved ill-founded. First, there was the "catching-up" demand for consumer goods after the war and, especially, an enormous expansion of our productive capacity. Then in 1950 there came the Korean War followed by an apparently endless cold war. Business has remained at or above normal continuously since 1950, with the exception of seven months in 1958. Nevertheless, the 1941 syndrome of active business combined with high unemployment has again made its appearance.

In 1961, with the business activity index at 105 per cent, the unemployment rate averaged 6.8 per cent. In 1962 business conditions were distinctly good—109.3 per cent of normal—but unemployment remained at an unacceptable 5.6 per cent and would have been appreciably higher had it not been for an unexpected *fall* in the ratio of the labor force to population over 13. Beginning in 1964 the proportion will undoubtedly increase as a larger number of young people than heretofore enter the labor market. Thus, the unemployment situation threatens to pass from the unsatisfactory to the critical stage.

How should this problem be dealt with? Some labor unions insist that the remedy lies in shorter hours of work, and they have initiated a formal campaign to obtain a standard work-week of 35 instead of 40 hours, with the same weekly pay. The Administration has set itself determinedly against any reduction in the work-week. Its goal is full production with full employment at 40 hours. It proposes to reach this goal by a program of tax reductions

accompanied by large-scale budget deficits (hopefully temporary). It asserts that a 35-hour week at 40 hours' pay would entail a crippling rise in our production costs, would greatly worsen our competitive position in world markets, and would bring about smaller rather than greater production.

This paper proposes to demonstrate that both the union and the Administration attitudes toward shorter hours are extreme and untenable. The labor union proposal does indeed imply a sudden jump of 14.3 per cent in hourly wages[1], with adverse effects on profits, on the cost of living, or on both. Conversely, Washington's insistence on maintaining a 40-hour week does nothing in itself to solve the unemployment problem; it runs counter to all our economic experience since 1900; and it disposes in summary and superficial fashion of a mechanism, which, if it is properly understood and used, may contribute significantly in the future to the amelioration of unemployment.

The concept of *flexible hours of work*—which it is important to envisage in terms of the work-year rather than the work-week—occupies a middle ground between the slogans of "no cut in the 40-hour week" and "35 hours' work at 40 hours' pay." This paper will examine both the possibilities and the limitations of this concept as a means of keeping unemployment within tolerable limits. Our conclusions will be based in good part on relationships between changes in productivity and changes in per capita consumption that have obtained in nearly all periods during the past seventy years. The historical data are analyzed in the appendix which forms the second part of this study.

WORK-YEAR VS. WORK-WEEK

If it is to have a practical chance of adoption, a mechanism for a flexible work-year must subject itself to three limiting or negative conditions:

1) It must not interfere with the attainment of full employment at a 40-hour-week equivalent, if this can be achieved by any method the country is willing to try. *2)* It must not ask workers already employed to accept a cut in their annual earnings. *3)* It must be tied in with increasing productivity in such a way as not to raise the nation's average unit costs of production.

Within these three limitations the mechanism may contain two positive features:

1) To the extent required by the current rate of unemployment, it may make workers take all or part of the fruits of increased productivity in the form of increased leisure. This means that while the pay for each hour of work should rise to reflect the gains in productivity, the number of hours worked per year may be simultaneously reduced *to the same or a lesser degree.* *2)* The currently unemployed, including those newly entering the work-force, may be required to share fully among themselves the available new employment. (The prohibition against reduction in present earnings would, of course, have no applicability in these cases.) Employers and the government together should be responsible for establishing the machinery needed for this full-scale sharing of work opportunities.

I summed up the underlying principle of this mechanism for a flexible work-year as far back as 1945 in an article in *The American Economic Review:* "To the greatest extent permitted by patterns of consumption, let us take our gain from increased productivity in larger output and better living standards. To the extent this is not feasible, let us take the balance of our gain in shorter hours. (Failing that, we shall take it in unemployment, and the 'gain' becomes a tragic loss.)"

It is an anomaly that some authorities have a viewpoint toward the work-year different from their attitude toward the work-week, as exemplified in this quotation from the *Wall Street Journal* of May 3, 1963: "Kennedy lieutenants applaud union moves to cut working time with longer vacations and more holidays. But they still oppose shorter work-weeks. Similar favorable views have been expressed by business publications on existing and proposed "sabbatical leaves" for long-employed workers, which—as the *Wall Street Journal* had put it earlier—"have the effect of cutting the work-week for those concerned."

The distinction these people make between a shorter work-year and a shorter work-week is illogical. Both

1. If $100 is paid for 35 hours instead of for 40 hours the hourly wage would rise from $2.50 to $2.86, or one-seventh.

have the same bad effect of reducing annual output per worker and the same good effect of making room for more workers. Whether a shorter work-year should be achieved by a reduction in the hours worked each week or by longer vacations, etc. is in no sense a question of principle but should be governed by operating requirements and workers' preferences.

Actually, it is the number of hours worked per year and not per week that forms the basis of calculations of output per man-hour and hence of all economic data that turn on the key figure of average productivity. In view of the growing impact of paid vacations[2] and holidays it has become essential to deal with hours of work in terms of the work-year, and to use the traditional work-week statistics, if at all, only as rough guides to changes in the work-year. Between 1957 and 1962 the average work-year for the nation appears to have declined appreciably, despite an *increase* in the *work-week* figures for manufacturing and certain other categories of employment.

THE DANGERS TO COME

Philip M. Hauser has warned about the dangerous impact of the expected influx of young people into the labor force—the immediate post-war "baby crop."[3] "This bulge in workers," Professor Hauser stated, "coming at a time when we are experiencing a high level of chronic unemployment and increasing automation, may constitute the gravest challenge our economy has ever faced in peacetime." If, furthermore, productivity should continue to increase—through automation or otherwise—at a faster rate than our Gross National Product (GNP), as it has done not only recently but for most periods in the past, then the unemployment rate would rise by an additional substantial percentage—unless it is offset by a shorter work-year.

Can this inadmissible result be prevented without reducing the hours of work? It is the official stand of the Administration that it can be prevented by stimulating the economy through tax reductions, at the cost of a *temporary* unbalancing of the budget. Some economists argue that moderate increases in the federal debt may be incurred continuously without adverse effects, especially if GNP grows at least as fast as the debt. This view implies acceptance of budgetary deficits as a "way of life" in the modern economy, presumably because their addition to purchasing power is needed to create the required rates of expansion in consumer and investment demand.

The controversy over whether budgetary deficits are good or bad will not be settled by logical arguments. The indications are clear that we shall have such deficits, perhaps for an indefinite time in the future. To what extent they will remedy actual and threatening unemployment remains to be seen. Regardless of whether one is optimistic or pessimistic on that score, ordinary common sense should tell us that a sufficiently good result cannot be counted upon as *assured*. Prudence demands that we consider the possibility of non-success, or only partial success, from tax reductions with or without continuing deficits, and that we open our minds to such other ways as may be feasible for dealing with the problem. The flexible work-year may well be essential as the second string to our economic bow—to be called into use if the tax cut-deficit-spending string proves inadequate for its task.

In essence, the flexible work-year merely applies in a systematic and rational way the mechanism that has enabled us—more by accident than by design—to meet our unemployment problem reasonably well over most of the past half-century. It would change adjustments of hours from an accidental offset to unemployment to a planned and purposeful corrective. The scheme for flexible hours would not in itself require that the work-year be shortened continuously. Nor would it interfere with any measures taken to expand demand and GNP at a rate sufficient to render a cut in hours unnecessary. It requires cooperation from employers in the form of a genuine willingness to fit additional employees into their operation by suitable adjustments of vacation time or otherwise. Most of all, it requires a genuine will-

2. In 1925 only 18 per cent of employers gave vacations with pay to production workers; in 1961-2 99 per cent gave vacations of one week or more, and 30 per cent gave four weeks or more, generally after twenty years' service. *Monthly Labor Review*, March, 1963.

3. Estimates in the Manpower Report indicate an expected rise of about 4 per cent in the labor-force proportion from 1962 to 1965. If other ratios remain the same, this would mean an increase in the unemployment ratio from 5.6 per cent of the labor force in 1962 to about 9.5 per cent in 1965.

ingness on the part of labor union leaders and members to take at least *part* of their gains from increased productivity in more leisure time, in order that their fellow-workers may be employed.

If hours could be adjusted equally through the entire structure of paid employment, a very slight change could produce a significant drop in the jobless rate. For example, a cut of fifty hours in the work-year—equivalent to one hour a week—could have reduced the unemployment of 1962 by about one-half, and neatly disposed of the entire problem.

But the actual structure of employment and unemployment does not permit this simple across-the-board solution. The unemployment rate varies greatly between different categories of jobs and people; in substantial areas—such as the self-employed, executives, and supervisory personnel—the "share the work" concept is virtually inapplicable. Any flexible work-year mechanism would have to be operated on a selective and partial basis. Nonetheless, it could be applied to a substantial segment of the work-force and produce results of substantial value.

THE UAW PROPOSAL

At a Special Collective Bargaining Convention in April, 1961, the United Auto Workers, under the leadership of Walter Reuther, proposed that the "Fair Labor Standards Act be amended to provide for systematic adjustment of the standard work-week based on the level of unemployment." The details of the proposal included the following:

1) The standard work-week to remain at 40 hours when unemployment is less than a specified percentage of the labor force. *2)* The work-week to be reduced by specified amounts as the rate of unemployment rises above the "40-hour level." The reverse process would be applied as unemployment declines. *3)* Reductions in the work-week must be coupled with compensation for the hours cut out of the regular weekly schedule, in order to maintain the same weekly pay. *4)* However, the compensating pay required to maintain take-home pay in the face of a reduced work-week is to be provided not by the individual employer but out of a National Work-Week Adjustment Fund to be accumulated through a "small payroll tax on all employers." The UAW estimates that the payroll tax required would average less than 1 per cent when spread over the entire business cycle, and would be largely offset by reductions in the present contributions made by employers to unemployment funds.

The UAW proposal has good and bad points. It is much more reasonable than the bald demand for a 35-hour week at 40 hours' pay voiced at the meeting of the AFL-CIO Council in 1962 and 1963; in fact, it is better than it reads. The chief defect of the presentation is the lack of adequate discussion of the relationship between the adjustment of hours and the normal annual "productivity increases" in wages.[4] This is alluded to in the sentence: "Traditionally we have always taken part of the fruits of advancing technology in our material standard of living and part in the form of increasing leisure." But the point is not pursued. The picture it presents is of an unchanged weekly wage, with the cost of the shorter work-week being borne by the employers. The latter would suspect that what is really envisaged is something very different—namely, that wages would continue to increase as before (up to or exceeding the rise in productivity), and then the hourly wage would increase still further to offset the automatic reduction in hours.

Such a one-sided arrangement would indeed be unsatisfactory. It is unfortunate that the UAW statement did not make clear that the proposers were prepared to have future *weekly* wage increases held down to the extent that part of "the fruits of advancing technology" were to continue to be taken in the form of increasing leisure; also—and this is most important—that any downward adjustment of hours would be made *at the same time* as advances in hourly wages and would form part of a single adjustment. If, in the future, productivity could increase at about 3 per cent a year, then the 1 per cent average annual reduction in hours implied in the UAW estimate of a 1 per cent annual payroll tax could be accompanied by an average annual rise of 2 per cent in take-home pay. Such a pattern would be both feasible and fair.

4. It should be remembered that UAW's contract with General Motors provides for an annual productivity increase of 3 per cent, as well as for cost-of-living adjustments.

and it would bring about a somewhat faster increase in our standard of living than we experienced between 1890 and 1925 or between 1925 and 1960.

The UAW report refers to the necessity of "achieving a balance between purchasing power and productive capacity," and proposes to do this by maintaining the same weekly pay for the reduced hours. As I have pointed out, the latter aim could well be conceded—provided the adjustments in wages and hours were made at the same time—on the basis of an average annual reduction of 1 per cent in the work-year. But the reference to purchasing power introduces a complicating factor into the discussion, which in essence has nothing to do with flexible hours of work. It implies that labor's share of the national product must be higher than it is now in order to permit the country to buy goods up to its full productive capacity. This, in turn, implies that the employers' profit margins and probably their return on capital must be lower, although they claim vociferously that they have long been subjected to a "profit squeeze" that limits their ability and desire to add to facilities and thus to increase employment.

This argument is similar to the one over whether continuous budgetary deficits are needed to create effective purchasing power sufficient to absorb our expanding production. These are two unresolved—and perhaps unresolvable—areas of dispute between "liberal" and "conservative" economists and between labor leaders and business leaders. It is essential for a proper understanding and acceptance of the concept of flexible hours that it be disassociated from any basic economic theory, and viewed solely as a *social mechanism* for dividing available man-hours of employment equitably among those qualified to do the work.

In the UAW proposal a "National Work-Week Adjustment Fund" would operate in the manner of an insurance or stabilization reserve. Under active business conditions a sizable sum would be expected to accumulate, and this would be drawn on later to pay compensation for the shorter hours worked during periods of recession. Presented in this way, the idea may be criticized as assuming that the unemployment problem exists only in times of poor business. Although it is true that the unemployment rate tends to advance as general business declines, the really troublesome factor is the persistence of unduly high unemployment under conditions of prosperity. I doubt, therefore, whether the Adjustment Fund could function successfully as an equalizer between good and bad years.

However, the contributory mechanism proposed by the UAW may have an advantage of considerable value. It would offer an inducement to both employers and workers to accept the shorter work-year with concomitant hiring of additional employees, for the contribution made by each business firm to the general Fund would be returned to it only if it made the prescribed reduction in the work-year and the prescribed increase in its employment rolls. If a business failed to make these adjustments, either the employer would find himself paying larger hourly wages than others or the workers would be working more hours than others for the same annual pay. The payments to the Fund would not be an additional and separate burden on the employers, since the money would be received by the workers and hence would figure as the equivalent of a pay adjustment in the bargaining process.

TOWARD FOUR PER CENT UNEMPLOYMENT

To reduce the 1962 unemployment rate of 5.6 per cent, we might assume that the typical large establishment could, in either one or two steps, arrange a reduction of 3.2 per cent, or 64 hours, in the work-year and simultaneously enlarge its work-force by 3.2 per cent. This adjustment might conveniently be accomplished by adding eight working days to the annual vacations, and rotating them in such a way as to have the same number of people at work as before the change. (In other words, 3.2 per cent of the old force would be on vacation in successive eight-day periods, with their work being done by the added workers.) About 45 per cent of those gainfully employed are on the payrolls of establishments with 100 or more workers. A work-year reduction by smaller businesses should result in some increase in employment as well.

Let us now hazard the estimate that any assumed percentage reduction in the work-year, applied as above, will be 50 per cent effective in increasing employment. (This allows for the large number of self-

employed and the only partial applicability of the mechanism to various categories of establishments and workers.) Then, the work-year reduction of 3.2 per cent would be required to achieve a cut in unemployment from the 1962 rate of 5.6 per cent to the modest objective of 4 per cent.[5] The 3.2 per cent figure approximates the annual rise in hourly wages suggested by the government's "guide-lines" as paralleling the nation's average increase in productivity. Theoretically, then, unemployment could be diminished to an acceptable figure in only one year, if the workers would accept their productivity benefits for that year wholly in the form of increased leisure.

To the extent that the adjustments are made in the form of longer paid vacations the hourly wage would not be changed. To the extent that the work-week itself is reduced the hourly wages would be proportionately advanced. But in any combination of the two arrangements both the weekly pay and the total annual pay would remain unchanged in the transition year, while the annual hours would be reduced 3.2 per cent, or about 64 hours.[6]

Let us repeat that it is essential for downward adjustments of the work-year to be made at the same time as upward adjustments in hourly wages, so that the former does not involve any reduction in take-home pay. An increase in paid vacations would be recognized as constituting an equivalent increase in the hourly wage. This is true, of course, for every type of "fringe benefit" worked out at the bargaining table.

If the 4 per cent unemployment rate can be established by this mechanism, it should be a relatively simple matter to maintain it by continuing the mechanism on a contracted scale. We assume that the required reductions in the work-year should ra between ½ per cent and 1½ per cent annually, t offset productivity increases that are not counte balanced by expanded per capita consumption GNP. (It will be remembered that the long-term historical rate of reduction in hours has been abo ½ per cent per year, as shown by the figures fo 1925-1960.[7]) If this estimate is correct, it will permi workers to receive more than one-half of future pr ductivity benefits in higher wages and the rest i longer free time—for the most part in longer paid vacations.

THE STEEL AGREEMENT

The idea of dealing with the unemployment problem through longer vacations has received a surprising degree of support from sources otherwise in opposition. The *Wall Street Journal*, noted for its conservatism, has said: "There is considerable flexibility in the work span across the nation. More and more companies are setting up 'extended vacation' programs providing long-term employees with several months' vacation every five years or so. . . . Arrangements of this kind have the effect of cutting the work-week for those concerned. There may be various objections to such plans, depending on how they are obtained or how their cost affect the competitive positions of the companies. But where they are mutually agreeable and economically workable, they represent the gradual and selective approach which has characterized the long trend to less work and more leisure."

These sentiments lend encouragement to our claim that the flexible work-year is a practicable device for meeting present and future problems of unemployment. In all probability, longer paid vacations—ranging from a few extra days to a true sabbatical—will be used more conveniently than a small reduction in

5. Resolution #78 adopted at the AFL-CIO annual convention in December, 1961 deplored "the tendency of some agencies of government to set a 4 per cent unemployment rate as a target for the economy," and insisted that a 2½ to 3 per cent rate be taken as the minimum figure acceptable.

6. *Example 1:* A worker now receives $2.50 per hour for a 40-hour week. Under our proposal his work-week is reduced 3.2 per cent to 38.7 hours, his hourly pay is increased to $2.58, and his annual vacation remains unchanged at two weeks. *Example 2:* Another worker takes his 3.2 per cent increase in the form of 64 added hours of paid vacation. His hourly wage will continue at $2.50. In both cases the worker will continue to receive $100 per week and $5200 per year, but will work 1936 instead of 2000 hours per year.

7. Walter Heller, as chairman of the President's Council of Economic Advisers, has recognized this figure as not only characteristic of the past but as expectable for the future "through increasing holidays, vacations, and so forth." But he rejects "an arbitrary cut in the work-week to say 35 or 36 hours as a means of sharing the work." (*Commercial and Financial Chronicle*, May, 1963). Our proposal is closely in line with his view, except that more flexibility is allowed than his "approximately half per cent reduction in the average work-week."

the work-week, for the latter requires fitting in extra men at the work-bench while the former would rotate the added workers at the places temporarily left open by those on vacation.

The 1963 agreement between the steel companies and the United Steelworkers follows closely the general pattern we have been discussing. No direct increase in hourly wages is included. Instead, the actual gain for the workers consists of a new arrangement for "extended vacations" of thirteen weeks to be given to half of the hourly workers at five-year intervals. Since this means an increase of ten weeks above the present three, it is equivalent in cost to an added one-week vacation every year for *all* workers. On an over-all basis the settlement thus appears to amount to a 2 per cent decrease in annual hours with no change in annual pay, plus certain smaller "fringe benefits" in the area of insurance. Union officials have estimated that this vacation plan, when extended to the 487,000 hourly workers in the steel-making companies and their captive operations, will create about 20,000 new job opportunities. This calculation would translate an ultimate reduction of 4 per cent in annual hours, when all employees participate in the longer vacations, into an equivalent increase in the number employed.

A WORK-SHARING PROGRAM

The question of hours of work for *newly employed* people is very different from that for those already employed. The latter consider that they have a "vested interest" not only in their job but also in their current rate of earnings. They will accept short-time reductions in work, with consequent lower income, only if it is caused by the necessity for reducing output. This is an "economic reason"—in the words of the labor reports—over which they have no control and which they are powerless to resist. But they are by no means equally prepared to accept lower pay in order to provide additional jobs for others. It is for that reason that our proposal for flexible hours sets each reduction in the work-year at not more than the corresponding productivity-advance in wages.

The unemployed, however—including those just entering the labor force—have no such vested interests and so can have no valid objection to any mechanism that will divide available man-hours of work equitably among all those qualified to do it. The adoption of this principle would require important changes in the methods of hiring new workers. In many occupations a new job would be assigned to "one and a fraction" of unemployed persons—for example, three people would share two jobs, so that each would be employed and paid for two-thirds of the full time.

Employment on a part-year basis is no new idea. It has particular merit, or the least drawback, when the periods not spent at work are devoted to additional general education or to retraining for new or wider skills. Two-persons-sharing-one-job has long been a feature of the educational system at Antioch College, one studying while the other is working, then vice-versa. A similar suggestion appeared in President Kennedy's Civil Rights Message of June 19, 1963, which proposed: "That the vocational education program be further amended to provide a work-study program for youth of high-school age, with federal funds helping their school or other local public agency to employ them part-time in order to enable and encourage them to complete their training." This limited the work-study program to teenagers who would be employed by public agencies. But the idea could and should have wider application.

In connection with the unemployed, it might also be pointed out that under present regulations a person employed part time does not draw unemployment benefits. In some situations this tends to make a lay-off financially preferable to part-time work. If a work-sharing program results in a fairly large amount of employment at comparatively small annual wages, it might be desirable to use a portion of the unemployment payments thus saved to provide supplemental benefits to these part-time workers.

The need for an imaginative and comprehensive program of work-sharing to apply especially to the currently unemployed, for whom some places would open up as a result of reductions in the work-year, is apparent when we analyze the Department of Labor breakdowns of unemployment by age groups, color, occupation, major industry divisions, and state and local marketing areas. (Some of these are also subdivided by sex.)

The highest rates of unemployment in each of these categories in 1962 were: Women 16 and 17 (16.8 per cent), Negroes, both sexes (11 per cent), laborers, except farm and mine (12.4 per cent), construction industry (12 per cent), West Virginia (10.9 per cent), Johnstown, Pa. (14.6 per cent).

In most of these categories the relative percentages have not changed much over the fifteen-year period from 1947 to 1962. The deplorable exception is the Negro, whose unemployment rate rose from 5.2 per cent to 11 per cent while that of whites was advancing only from 3.2 per cent to 4.9 per cent. As for teen-agers, while the proportion of unemployed hardly changed between 1947 and 1962 – about one-fifth in both years – it is now moving upward so rapidly as to become really critical. It is generally agreed that greater efforts are needed to improve the work capacity of teen-agers, especially the high-school drop-outs, and of others ill-qualified for any but the lowest grades of employment (where jobs are decreasing in any case). Training programs will help ameliorate the problem, but they are too slow in the face of increased pressures. A considered work-sharing program is called for.

Work-sharing arrangements are not as convenient for employers, of course, as having one person for each job. But they may be fairly asked to make this significant contribution toward the solution of an increasingly desperate problem. They have other obligations as well, growing out of the replacement of workers by automatic mechanisms. The efforts that industry normally makes to find other employment for the displaced workers within or outside the enterprise should now be supplemented by payment of severance allowances and contributions toward programs of retraining for other occupations.

Despite the high current unemployment a considerable amount of overtime work is done in manufacturing plants, involving payment of premium wages for the extra hours. In March, 1963 the Secretary of Labor estimated that 7 per cent of the work in manufacturing was being done on overtime. The reasons include the lack of particular skills required for particular jobs as well as economies gained by using production facilities over longer periods. But undoubtedly some employers are unwilling to incur the various obligations attached to the hiring of additional employees. A program [illegible] flexible hours of work should include the principle [illegible] – to be recognized by employers and workers alike – that overtime work should be replaced by additional hirings to the fullest extent feasible. (The steel-labor agreement of June 1963 contains a provision aimed at cutting down company recourse to overtime.)

THE POWER TO CHOOSE AND TO CONTROL

The proposals in this paper have been presented solely within the framework of economic history and economic practicality. They involve only one choice of "values": that it is much better for the nation's social and moral health to have nearly everyone employed at shorter hours than to have the same amount of work done by fewer people working longer hours, with large numbers vainly seeking jobs. To repeat once more and finally, the program is not offered as a substitute for full employment at a 40-hour week, or a 2000-hour year. If that is achievable by business expansion, with or without the stimulus of governmental fiscal policies, the flexible work-year will become unnecessary and inoperative *by its own terms* – to be held in reserve for the possible needs of the future. The judgment must be made whether the fiscal policies now being pursued or proposed can be relied on to reduce unemployment to an acceptable level without requiring a cut in the work-year.

To accomplish this, our per capita Gross National Product will have to grow at a more rapid rate than it perhaps ever has in time of peace. It is permissible to raise the question, in terms of values, of how important and desirable would be such a rate of expansion for our economy. In spite of the familiar disparagements of our "tail-fin affluence," many of us are perfectly willing to accept more affluence for our country, provided 1) it continues to raise the living standards of all income groups in a reasonably equitable manner, and 2) it can be achieved through the normal processes of economic growth. But many serious-minded people are concerned about the possibility that, instead of our controlling the rate of growth, it will control us and our national character. Is a 3 per cent or 4 per cent per capita annual rise in GNP so necessary to our welfare that, to achieve it,

we must not only embark on uncharted seas of fiscal policy but also accept a moral imperative to consume and invest at ever accelerating rates?

The pressure to consume in order to aid the economy does not appear now as blatantly (or as excusably) as it did during the dark depression days of the early 1930's, when billboards carried the pathetic injunction: "BUY SOMETHING TODAY!" But it is at least implicit or latent in our present concern about our "lagging rate of growth." Are we heading into what Professor Gomberg of the Wharton School has called "a whirling-dervish economy"? Or shall we liken our economy to a highly hazardous kind of bicycle that must go faster all the time or else fall over? In the early days of this nation every able-bodied person had to work hard so that there might be enough for all to eat; have we progressed to the point that now everyone must eat hard so that there might be enough work for all?

To aim at a growth dictated by such compulsions —including a fanciful compulsion to match the supposed growth rate of the Soviet Union—rather than at a rate consonant with our national character is to give up another part of our much-prized freedom. Our opulence should entitle us to more not fewer economic choices. From this viewpoint the principle of flexible hours has the advantage of adding a "relaxation element" to our economic arsenal. It would enable us to pause in our upward push without having to worry about crisis or disaster. If it is formulated with imagination and practicality, and if it is applied with skill, the flexible work-year should give us the power to control the unemployment rate instead of being controlled by it.

Appendix

A subject as important as the unemployment rate, with its heavy impact on political attitudes and governmental decisions, deserves intensive examination. Those who discuss it should understand how the rate is derived, what the chief factors are that move it up or down, what the effect is of a given change in each of these factors, and particularly what their interrelationships have been over many years in the past. As a result of economic research carried on in fairly recent years — for which J. W. Kendrick deserves major credit — we now have access to reasonably dependable annual figures running back seven decades and more. Our present study selected for period-to-period comparison the eight census years from 1890 through 1960, plus the midpoint year of 1925. We have added comparisons between 1957 and 1962, for it is in these last five years that the unemployment problem has become an economic and political issue of major consequence.

The average number of unemployed in any year can be derived arithmetically from four governing factors in the following relationship: Number of Unemployed (U) equals Labor Force (F) minus Gross National Product (G) divided by: Average Product per Man-Hour (P) times Average Hours Worked in the Year (H). The equation, thus, is:

$$U = F - \frac{G}{PxH}$$

For the year 1962 the calculation would be as follows in 1962 dollars:

$$U = 74{,}680\text{m} - \frac{\$554.9 \text{ bill.}}{\$3.79 \times 2070} = 74{,}680\text{m} - 70{,}670\text{m} = 4{,}010{,}000$$

While this equation is at bottom only an arithmetical identity, it tells us some important things about the factors that determine the unemployment rate. We can see at once that a rise in any one of three out of the four figures will increase the number of unemployed, unless offset by a corresponding advance in GNP. These three factors are Labor Force, Productivity, and Work-Year. The paradox here is that an advance in each of these

1. Basic Data

	1890	1900	1910	1920	1925	1930	1940	1950	1957	1960	1962
CLEVELAND TRUST CO. INDEX OF BUSINESS ACTIVITY (% plus or minus "normal")	+10	+3	+2	+2	+6	−8	−11	+6	+10	+8	+9
POPULATION (Millions)	63.06	76.09	92.41	106.5	115.8	123.2	132.1	151.7	171.3	180.7	186.6
POPULATION 14 AND OVER (Millions)	41.8	51.06	63.65	73.4	81.5	88.5	100.0	110.9	120.5	125.1	130.1
% 14 AND OVER	66.3	67.1	67.8	68.7	69.4	71.8	75.7	73.2	70.3	69.2	69.7
GNP IN 1929 DOLLARS (Billions)	26.20	38.20	56.50	73.31	90.53	95.13	121.0	187.4	235.5	260.0	275.2
GNP PER CAPITA*	627	748	885	999	1120	1075	1210	1689	1955	2079	2115
LABOR FORCE (Millions)	22.90	28.71	37.86	43.17	46.31	49.80	57.73	63.84	70.74	73.13	74.69
EMPLOYED (Millions)	22.33	27.29	35.71	41.50	44.51	45.46	49.61	60.49	67.80	69.20	70.67
UNEMPLOYED (Millions)	.57	1.42	2.15	1.67	1.80	4.34	8.12	3.35	2.94	3.93	4.02
WORK-YEAR (Hours)	2786	2716	2694	2584	2549	2478	2277	2132	2100	2080	2070
TOTAL MAN-HOURS WORKED (Billions)	62.3	75.5	96.3	107.2	113.4	112.6	113.0	128.9	142.4	143.9	146.6
PRODUCTIVITY (cents per hour)	42.1	50.6	58.7	68.4	79.8	84.5	107.1	145.4	165.6	180.7	187.7

*In all cases "per capita" refers to non-institutional population 14 and over

2. Derivation of Employment and Unemployment Percentages

	1490	1479	1508	1461	1404	1274	1130	1162	1181	1150	1126
ANNUAL HOURS NEEDED PER CAPITA											
ANNUAL HOURS WORKED PER WORKER	2786	2766	2694	2584	2549	2478	2277	2132	2100	2080	2070
WORKERS NEEDED PER CAPITA	.534	.534	.561	.566	.550	.514	.496	.545	.562	.553	.543
LABOR FORCE PER CAPITA	.549	.563	.595	.588	.572	.563	.576	.574	.587	.584	.574
UNEMPLOYMENT PER CAPITA	.015	.029	.034	.022	.022	.049	.080	.030	.025	.031	.031
AS % OF LABOR FORCE: EMPLOYMENT	97.3	95.0	94.1	96.2	96.0	91.3	85.9	94.9	95.9	94.6	94.4
UNEMPLOYMENT	2.7	5.0	5.9	3.8	4.0	8.7	14.1	5.1	4.1	5.4	5.6

3. Percentage Changes by Decades

	1890 to 1900	1900 to 1910	1910 to 1920	1920 to 1930	1930 to 1940	1940 to 1950	1950 to 1960
GNP PER CAPITA	+19.3%	+18.2%	+12.9%	+ 7.9%	+12.0%	+39.6%	+23.1%
PRODUCTIVITY	+20.2	+16.0	+16.5	+23.5	+26.7	+34.6	+24.3
HOURS NEEDED PER CAPITA	− 0.8	+ 2.0	− 3.1	−12.6	−11.5	+ 2.9	− 1.0
WORK-YEAR	− 0.8	− 2.6	− 4.1	− 4.7	− 8.1	− 6.4	− 2.4
WORKERS NEEDED PER CAPITA	−	+ 4.3	+ 1.0	− 9.0	− 3.5	+ 9.8	+ 1.4
LABOR FORCE PER CAPITA	+ 2.4	+ 5.4	− 1.2	− 4.1	+ 2.3	− .4	+ 1.9
AS % OF LABOR FORCE: EMPLOYMENT	− 2.4	− 1.0	+ 2.2	− 5.0	− 5.9	+10.5	− .3
UNEMPLOYMENT	(+87)	(+25)	(−36)	(+123)	(+84)	(−64)	(+7)

4. Long-Term and Recent Percentage Changes

	35 Years 1890 to 1925	35 Years 1925 to 1960	Recent 1957 to 1962	Adjusted to 10-Year Basis 1890 to 1925	1925 to 1960	1957 to 1962
GNP PER CAPITA	+77.0%	+ 83.6%	+ 8.2%	+17.8%	+18.9%	+17.2%
PRODUCTIVITY	+89.6	+126.5	+13.4	+20.1	+26.3	+29.7
HOURS NEEDED PER CAPITA	− 6.6	− 18.1	− 4.7	− 2.0	− 5.0	− 9.6
WORK-YEAR	− 8.5	− 18.7	− 1.4	− 2.1	− 5.2	− 2.9
WORKERS NEEDED PER CAPITA	+ 2.1	+ 0.6	− 3.4	+ 0.6	+ 0.2	− 6.9
LABOR FORCE	+ 3.3	+ 2.1	− 2.2	+ 1.0	+ 0.6	− 4.5
AS % OF LABOR FORCE: EMPLOYMENT	− 1.4	− 1.5	− 1.2	− 0.4	− 0.4	− 2.4
UNEMPLOYMENT	(+48)	(+35)	(+37)	(+12)	(+9)	(+88)

SOURCES OF DATA. For the years 1890 through 1950 our figures for GNP, Man-Hours, Persons Engaged (Employed), and others derived therefrom, are taken from J. W. Kendrick's monumental study, *Productivity Trends in the United States* (Princeton University Press, 1961). The "Non-Institutional Population 14 and over" is calculated from census figures, with deduction of 1 per cent for the estimated number in institutions.

For the years 1957-1962 the figures in the Manpower Report of the President (March, 1963) are used. There are some conceptual differences between these data and those calculated by Kendrick, but their effect is not material. We have estimated the Work-Year, and consequent total Man-Hours and Average Productivity, from partial data published.

The per capita figures are based on the "Non-Institutional Population 14 years and over," which we might term the "working-age population." The percentage figures for Labor Force, Employment, and Unemployment are best related to this "population"; for consistent arithmetical results it must then be used throughout. If *total* population figures had been used, the increase in per capita GNP would have been larger than that shown between 1910 and 1940, and smaller thereafter. Such changes, however, would not have affected the main indications from these data.

...is theoretically favorable to the economic position of the nation, since it would contribute to the potential output. But if the *actual* output (or consumption) does not expand as required by the step-up in the three other factors, the result is inevitably an increase in the unemployment rate.

Conversely, decreases in the Labor Force, Productivity or Hours will have a favorable effect on the unemployment level to the extent that they are not offset by decreases in GNP.

The labor-force figures have two contradictory and paradoxical characteristics. The first is the small variation in the percentage of population[1] in the labor force over the 72-year period studied. Strangely enough the largest variations took place at the beginning of the period when the (estimated) participation rose from 54.8 per cent in 1890 to 59.4 per cent in 1910. In the past half-century the shifts in the composition of the labor force have been spectacular; yet the huge influx of women into employment has been offset almost exactly by the lowered percentage of teen-agers and older men at work.

On the other hand, we must emphasize the important effect on the unemployment ratio of minor variations in the participation rate. Between 1920 and 1930 the drop from 55.7 per cent to 56.3 per cent offset by almost one-half the decline in the actual employment percentage. Conversely, in the next ten years the shrinkage in workers needed was less than in the decade before, but there was a perverse *rise* in the labor-force rate, which contributed largely to the final unemployment figure of nearly 16 per cent! The recent comparison of 1962 against 1957 again shows a shrinkage in the labor-force rate, which took up nearly half the slack caused by the drop in workers needed per capita.

The last fact has disquieting significance for the future. This portion of the decline in the labor-force rate was a surprising development, running counter to forecasts made by the U. S. Department of Labor. The expectations are now for a substantial increase in this ratio, growing out of the anticipated heavy influx of post-war babies into the labor force. Besides the "menace" of an expanding labor force for demographic reasons, we must also be conscious of the risk of further adverse changes resulting from purely arbitrary decisions of people over 14 not now in the labor force. These number presently about 55 million men and women. It would not be difficult to imagine, say, 2 million of these deciding to declare themselves "unemployed and seeking work"—possibly for reasons related to unemployment insurance—thus adding 50 per cent to the unemployment total.

Possibilities such as this suggest strongly that any changes in the unemployment ratio be scrutinized carefully to see what extent they have been brought about by essentially arbitrary or inexplicable variations in the labor force. Such variations should be clearly spotlighted and their effect explained and minimized in public discussions of the unemployment problem. It would be a helpful development if monthly changes in the *employment* ratio—expressed as a percentage of population over 13—were given as much publicity as those in the unemployment ratio.

Between years of approximately similar business activity there has been a persistent tendency for productivity to increase faster than per capita production. This tendency appears to have accelerated somewhat in the second half of our 72-year period, as shown by the figures in the two 35-year comparisons. No doubt the step-up has been produced in part by increasing automation. The spread was especially wide in the past five years, during which productivity rose at the rate of about 29 per cent per annum, but per capita GNP expanded only about six-tenths as much. The only one of our periods since 1900 in which GNP rose somewhat *faster* than productivity was that from the low level of 1940 to the post-war prosperity of 1950.

Seemingly, the significant declines in the work-year were necessary in the past to prevent this disparity between productivity and product from creating a truly massive unemployment problem. Gerard Piel, publisher of *Scientific American,* made this point vividly in his paper, "Consumers of Abundance," published by the Center for the Study of Democratic Institutions, by saying: "If the sixty-hour week still prevailed, only 40 million workers would be needed to produce the 1961 national product, and some 27 million workers would be unemployed." But it is quite possible to argue, at least from principle, that it was the shorter work-week that produced the lower relative GNP than the other way around. If we keep the number of workers constant and reduce their working hours, the arithmetical consequence must be a smaller rise in total production than in output per hour. It is for this reason that most people are instinctively opposed to reducing hours below the lower

[1] The word "population," whenever used in this paper, means the U. S. non-institutional population 14 years old and over. The labor-force ratio, or "participation rate," is calculated against this population segment; for consistent arithmetical results the "per capita" figures are based on the same total.

limit consonant with sufficient leisure. Such a reduction, they think, means accepting an unnecessarily lower level of production than the country is capable of; it means losing out in the international growth-rate sweepstakes; in short, it seems to be a counsel of defeatism.

Whether or not that argument from arithmetic would be valid for the future must—like almost all economic prescriptions—be at least partly a matter of opinion. But we can decide with some definiteness whether or not it applies to our *past* economic history. Did we reduce hours just to gain leisure, out of free choice electing to take only part of our productivity gains in higher GNP per capita? Could we readily have stepped up production at any time by keeping hours where they were, instead of cutting them as we did, or even by extending them to any figure we were willing to work out at the bargaining table? The economic evidence is strongly against this optimistic assumption. It is contradicted, basically, by the actual existence of more than frictional unemployment. For if not only the production but the *sale* of goods could be expanded at will by lengthening hours, it could similarly be expanded by taking on new workers and thus absorbing the unemployed. Increased production does indeed increase purchasing *power*, but it does not necessarily increase *actual* purchasing in an equivalent amount. In the American economy it is demand that creates supply, not supply that produces demand.

The rate of increase in demand is, of course, influenced by concurrent advances in productivity and by the number of hours worked and paid for. But it is influenced still more by many other factors. These include on the upward side: war and war preparations; economic booms, however initiated, and always characterized by larger than normal expansion in business debt; important new products (such as the motor car after 1900), and intensive sales efforts.

Our figures show that it is only under conditions of above-normal business expansion that GNP has increased faster than productivity. This favorable relationship shows up strongly in the period between 1940 and 1950, and it continued for most years through 1957. Many of us had come to consider the growth rate of the post-war period as "normal" for our economy, and one which could be counted on to continue. This optimistic view disregarded the fact that it far exceeded our former rates of growth, and that it was the consequence mainly of the "catching-up" demand after World War II, of the Korean war, of the cold war, and of the unusually rapid expansion of plant capacity made possible by an increase of over $400 billion in net private debt since 1945.

That the equilibrium established between productivity and GNP in 1951-1960 could not be easily continued appears only too clearly from the data for 1957-1962. The rate of productivity increase advanced, while the rise of GNP per capita fell back below the long-term average. These diverse movements produced a disconcerting rate of decline in *hours needed* per capita—approaching that shown in the unhappy comparisons of 1930 with 1920 and 1940 with 1930. This adverse development was offset in part by a moderate decline in the work-year—apparently stemming chiefly from lengthened vacations—but the shrinkage in workers needed (employed) per capita ran at the ten-year rate of nearly 7 per cent, close to the highest in our computations. But for the providential, and somewhat suspect, decline in the labor-force percentage—now reversed—the resultant growth in the unemployment rate might well have been regarded as critical.

Some Observations

by Benjamin Graham

Reading E. F. Renshaw's article on "Stock Market Instability" in the July *Financial Analysts Journal*, I was reminded of an old idea of mine with respect to percentages of advance and decline in stock or commodity prices. This was a device which I called the "% of high", or "%h", which calculates the amount of advance against the final figure instead of the starting figure. This measure, like any other, is theoretically admissible if clearly indicated by the symbol. It has the obvious advantage of making an advance of X %h equivalent to an (ordinary) decline of X%; whereas—as is emphasized in Renshaw's text—by the age-old method "a loss of 50% in one period will necessitate a gain of 100% in some other period to merely recoup one's principal". The arithmetic of conversion is simple: A gain of X% (conventional) = a gain of X/(X + 1) %h; e.g.:

$$+42\% = +42/1.42\ \%h = +29.6\ \%h.$$

Let me illustrate my point by adding %h figures to the second part of Renshaw's Table 1 (p. 82):

	Average Cyclical Percentage Changes in Stock Index		
Cycle in:	Rise (Standard Basis)	Rise (%h Basis)	Decline
1871-1900	42.3%	29.7%h	24.1%
1900-1923	41.0	28.7	24.9
1923-1940	73.9	42.5	33.2
1940-1962	49.6	33.1	16.8

The standard basis for figuring % declines is, of course, "% of high".

Readers of the *Journal* might like to experiment a bit with this suggested technique, to see if it would not give a better idea of the relative amplitude of advances and declines, without any offsetting disadvantages of importance. (I am not suggesting that this be applied to figuring % of profit, return on capital, and the like.) ♦

BENJAMIN GRAHAM *is a Founding Father of Security Analysis.*