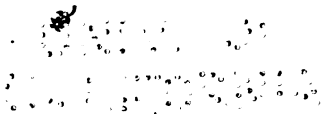


Tidal Swings of the Stock Market

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CONTENTS

CHAPTER	PAGE
I What Is Meant by Tidal Swings.....	7
II How Prices Are Made—What Is Meant by Demand and Supply.....	17
III Relation Between Money and Stocks—A Logical Similarity in Swings—How Money Rate Has Indicated Trend of Market.....	29
IV Relation Between Bonds and Stocks—Influence of the Major Cycle—The Reasons for Differences—Some Practical Suggestions.....	39
V Relation Between the Market and Business Conditions — Different Ways of Measuring Changes in Business Activity — Practical Conclusions.....	45
VI Influence of Psychology on the Broad Movements of Prices.....	57
VII Price Movements in Bull and Bear Markets. Some Interesting Differences — Why the Downward Swing Is Shorter Than the Upward	65
VIII What the Volume of Transactions Shows—Characteristics of Large and Small Movements—Reactions and Rallies.....	75 ✓
IX The Selections of Securities—Bonds or Stocks? —Classes of Stocks—Prospects of Individual Companies.....	85
X Following the Trend—Reactions and Rallies—Construction of Price Graphs.....	95
XI Some Practical Suggestions—What Helps Do Investors Need?—How to Use Them—Conclusion.....	103

CHAPTER I

What Is Meant by Tidal Swings

I DO not know whether the term "tidal swings" has been used before in connection with stock market fluctuations, and that does not especially matter. I use it because it expresses fairly well an idea which can, I believe, be more fully and clearly explained than has been done heretofore.

As everybody knows—and many of us have had the fact forced home to us at times by rather painful experiences—stock prices are constantly changing, and even bond prices, supposed to be more stable, pass through certain long cycles of change extending over several years or even a decade.

Importance to the Investor

For example, an average of ten high-grade bonds sold at 109 in 1902, at 100 in 1903, at 107

8 TIDAL SWINGS

in 1905, at 88 in 1907, near 103 in 1909, and near 79 in 1918 to date. In the thirteen years from 1905 to 1918, the value of the average high-grade bond, \$1,000 par, fell approximately \$300.

Such bonds represent the greatest possible safety for an investment, outside the bonds of the United States Government and our principal municipalities. They are found in the strong boxes of the most conservative investors, trust estates, and savings banks. When we see that they fell an amount equal to 30 per cent. of their par value in thirteen years, it is useless to pretend that the investor can afford to neglect the fluctuations of prices. It is a subject of vital interest to everybody, and most of all, in many cases, to those who pay least attention to it and imagine themselves to be almost unaffected by it.

Naturally, the prices of stocks have wider changes than those of bonds—since a bond represents a definite amount of money to be paid at maturity, while a share of stock represents merely a certain fraction of participation in the profits of a company after the bond interest has been paid. The profits of nearly all companies vary greatly from year to year and the prices of these companies' stocks naturally vary with

their profits, in addition to being subject to many other influences.

These fluctuations in the prices of stocks may be roughly classified as follows:

(1) Small changes due to the variations of demand and supply from hour to hour. These are for the most part dependent on the views of those persons who happen to be buying or selling any stock at the time.

(2) Price movements lasting from one to several days, due in part to the news which comes out during the period, or to the speculative condition of the market, or to the operations of big traders or investors.

(3) The "minor swings," which may last anywhere from a week to a month or even several months. By this term is meant general movements of the market for many stocks together. Some of these stocks will move widely, some only a little, with all degrees between. Other stocks may at the same time remain almost motionless and some may even be moving counter to the general market.

The more important of these minor swings are shown on the graph of stock prices which appears on the insert at end of this book.

(4) The "tidal swings," lasting from one to five years, and carrying the market as a whole over a wide range of price changes.

Some will deny the "tidal" character of these swings. That is, no one can deny that these long swings of prices do as a matter of fact take place, but some will assert that they have no regularity and are due merely to the changes in business and investment conditions which happen to be occurring at the time.

It is quite true, certainly, that these swings of the market show no such exact mathematical regularity as the tides. They are based on laws of economics, not of mathematics or of astronomy. The tides are in conditions, not in time.

I think the existence of the tidal swings, as well as some of the conditions which contribute to cause them, will become evident as we proceed. In the mean time, a glance at the graph herewith will serve to show what is meant by the term and what has been the general character of these swings for the last fifteen years.

What the Graph Shows

The graph shows the principal movements of a daily average of the prices of twenty and fifty

stocks. Owing to the constant changes in corporations, it is impossible to select any representative group of stocks which can be fairly used throughout the entire period.

The average of twenty railroad stocks, which has been faithfully kept up by the Dow-Jones Bureau for many years, fairly indicates the swings of the market down to the beginning of the war; but since then it has ceased to be representative. Therefore, an average of fifty stocks, twenty-five rails and twenty-five industrials, which has been compiled daily by the *New York Times* since 1912, is used in the last six years of the graph.

The diagram shows eight of these swings in full, with a part of another—the upward swing which ended in September, 1902. The extreme points which may be taken as separating the swings occurred in the following months:

September, 1902.

October, 1903.

January, 1906.

November, 1907.

August, 1909.

July, 1910.

October, 1912.

September, 1914.

November, 1916.

The lowest point of 1914 is taken as September, while the Stock Exchange was closed. It is, of course, impossible to say just when the lowest prices would have been made if the exchange had remained open. They would probably have been as low as those of 1907, and would very likely have been made in August, when the first crash came. The lowest curb prices for most stocks were made in September and October.

I doubt if any one can look over this graph and reach the conclusion that these broad swings of the market were purely the result of chance. The operation of some sort of law or laws is almost self-evident.

Even in the matter of duration there is more regularity than would be expected. It might be supposed that economic forces would have little to do with time. In some periods they might naturally be expected to work rapidly and powerfully and at other times slowly and gently. But we find the duration of these swings of the market to have been as follows:

Bull markets:

2 years, 3 months.

1 year, 9 months.

2 years, 3 months.

2 years, 2 months.

Bear markets:

1 year.

1 year, 11 months.

11 months.

1 year 11 months.

In connection with the bear markets it should be noted that the principal part of a bear market, during which prices fall rapidly, usually lasts not over one year—for example, December, 1906, to November, 1907; August, 1909, to July, 1910; October, 1912, to July, 1913.

Where We May Look for Causes

Where may we reasonably look for the causes of these great tidal movements of prices?

The market itself, in the sense of the records of transactions, gives us four kinds of data—and four only:

(1) Prices.

(2) The number of shares sold at each price, or within any period.

(3) Time; that is, the approximate time at which each transaction takes place, or the number of hours, days, or weeks which elapse between a low price and a high price, between two high prices, etc.

(4) The relations between the above data for different securities, or for different classes of securities.

The thousands of newspaper columns which are written every year in regard to the "character" or "condition" of the stock market—as distinguished from news announcements or the effect of rumors—are all based upon the conclusions of the writers drawn from the above four factors. As is well known, such conclusions are apt to vary widely.

Every permanent holder of a share of stock has in view the return on his investment in the form of the dividends he is getting or hopes to get; that is, the per cent. his money earns or will earn. But the "money rate" represents the same thing on money loaned, and the yield on a bond represents the same thing again on money in-

vested in that bond. Evidently we may find some interesting relationships here.

As to business conditions, the earnings on any stock—and through the earnings, eventually, the dividends—depend very largely on the activity of business; so there is manifestly a connection between that and the return that the investor will get on the money he has in stocks.

It will be observed that none of the above factors go to the bottom of the matter. That is, I have mentioned a number of factors which are interdependent—each one may reasonably be supposed to influence the others—but I have not mentioned any primary cause for the whole series of phenomena.

CHAPTER II

**How Prices Are Made—What Is Meant
by Demand and Supply**

THAT all prices are, under normal conditions, regulated by the relation between demand and supply, is a truism that has been impressed upon us from our earliest childhood.

Most economic maxims, however, are found to contain some kind of a "joker" which greatly modifies their definiteness.

The joker in the supply-and-demand truism lies in the words "under normal conditions." The war, especially, has shown us the importance of this qualification.

We have all had the opportunity during the war to see that a broad and general demand on the one hand and a broad and general supply on the other will result in the establishment of prices fairly approximating conditions—prices such as the law would call "reasonable"—but that any variation from these "normal conditions" of supply and demand affords opportuni-

ties for the exercise of some degree of personal control over prices by individuals or by groups acting in harmony.

This fact is of special importance in considering stock prices. There are many stocks for which both demand and supply are broad and general. Of these U. S. Steel common is the best example. So many different people own it, either for investment or speculation, and there is such a large trade in it from day to day, that its price is adjusted to changed conditions with reasonable promptness.

The same is often true of a stock in which the actual daily trade is small, but of which the ownership is widely distributed among intelligent investors—such as Union Pacific, for example. For several years there has been little motive for active speculation in this stock and daily transfers of it have been comparatively small. Nevertheless, so many investors are watching it that its price closely approximates the investment conditions which might be expected to control it under economic laws.

There are a considerable number of high grade investment stocks which are closely watched by investors, in spite of their inactivity.

Small Floating Supply

On the other hand, there are many other stocks of which the "floating supply" is small and for the most part concentrated in the hands of a few persons. It is quite obvious that those persons can if they wish, or if they find it profitable, or if they imagine it will be profitable, establish for such a stock a price higher or lower than would naturally be warranted by the investment conditions affecting it.

This would do no harm if the public would refuse to buy such a stock at artificially high prices or to sell it at artificially low prices; but the public does not possess that degree of wisdom. Hence the establishment of artificial prices for any stock—usually called "manipulation"—does do harm to the outside speculators who try to follow the manipulation, and would long ago have been suppressed if anybody could find a way to suppress it without interfering with the right of freedom of contract and thus doing more damage than good.

Moreover, who shall say when the price of a stock is legitimate and when it is artificial? Evidently, this would require some sort of superman,

not yet developed on the earthly plane. It very often happens that a price which is regarded as artificial afterward proves to have been entirely warranted by conditions, those conditions having been at the time known to only a few persons.

It is evident, therefore, that we cannot dispose of the question, "How are stock prices made?" by any easy generality or ready-made formula.

Urgency vs. Quantity

So far as actual sales of any stock are concerned, demand and supply are always exactly equal. For every share bought there must necessarily be a share sold, and vice versa.

This perfectly obvious fact is by no means generally recognized in current stock market comment. "There was heavy buying of Reading to-day," writes the reporter. Manifestly there must have been equally heavy selling, since no one could buy unless some one else would sell to him.

What is meant is that there was *urgent* buying of Reading. The size of the buying order in

the market would amount to nothing unless the buyer were ready to bid up the price in order to get the stock. There might be buying orders for 10,000 shares of Reading at 90 and selling orders for only 1,000, but this would not have any effect on the price unless some buyer was willing to pay $90\frac{1}{8}$.

Clear thinking in this matter is essential. Many investors seem to be hopelessly confused about it. If, for example, 10,000 shares of Steel common are recorded as bought—and sold—at 125, then 25,000 at $125\frac{1}{8}$, 15,000 at $\frac{1}{4}$, 30,000 at $\frac{1}{8}$, 40,000 at $\frac{1}{4}$, etc., one observer will be saying, "Big demand for Steel," and at the same moment another will remark, "Somebody is feeding out a lot of Steel." The simple fact is that these figures show only two things:

(1) An active market for Steel.

(2) That buyers have been willing to raise their bids from 120 to $120\frac{1}{4}$.

Any conclusions in regard to the character of the market *derived from these figures* must be based on those two premises and on them alone.

I shall later show that certain broad conclusions may be drawn from the activity of the market, in the sense of the number of shares

bought and sold in a day or week. And I do not deny that some "tape-readers" of many years' experience may get help in "sensing" the immediate movement of a stock from the volumes shown on the tape. But the most important point to be steadily kept in mind by the ordinary observer of stock market phenomena is the *urgency* of the demand or supply.

Who Makes Stock Prices?

Closely connected with the question how stock prices are made is the question who makes them, or what are the sources of demand and supply? For example, "Good buying in Steel to-day" is a telegram that often goes out over brokers' private wires. It means that some of the people who are believed to be buying Steel have usually proved good judges of the market, or that the buyers are people who have abundant funds to hold their stock in case the price should decline.

The persons who buy and sell stocks may be roughly classified as follows:

(1) *Investors*, who buy chiefly for dividends, but naturally do not despise an additional profit when obtainable.

(2) *Long pull speculators*, who often carry stocks for several years. They are chiefly interested in getting a profit—selling higher than they buy—but often they are also influenced by the dividends they may obtain while they own their stocks. They usually consider themselves, and are commonly called, investors, in order to distinguish them from more active speculators.

In the long run—although it is usually difficult to predict how long the run may be—these two classes really “make the market,” because their commitments are reasonably permanent.

The man who buys a stock because he believes it to be low—whether he has in mind the dividends or the prospects of profit—and who will not sell *simply because the stock goes still lower*, gives the market for that stock permanent support. His influence continues just so long as he holds his shares. Likewise if he sells at what he believes to be a high price and refuses to repurchase at a higher price, he has added just so much to the permanent load the market for that stock must carry.

Of course I do not mean that investors and long pull speculators always sell higher than they buy, although generally speaking it is true

that a majority of active traders are likely to lose and the conservative class of long pull investors are likely to add profits to their dividends.

Investors are necessarily influenced by their own financial condition as well as by the condition of the market.

(3) *Big operators*, who endeavor to exercise some degree of control over the price of a stock or a group of stocks. They are, of course, speculators, and they are often wrong, but in most cases the fact that they have obtained, or have kept, money enough to be classed as big operators shows that they have expert knowledge of conditions. The term "pool" is often applied to a group of such operators acting together in one stock.

The general method of these operators is to select a time when a stock is believed to have unusually good prospects; then to depress the price by offering large blocks of the stock until they find that they can no longer buy back these sales any lower than the sales were made; next to "accumulate" as much of the stock as possible at low prices; then to bid the stock up steadily by continued purchases; and finally to sell (or "distribute") all their holdings to "the public"—

that is, to speculators attracted into the market by the rapid rise of prices.

The same method is followed on the bear side by simply reversing purchases and sales.

This scheme is not so easy as it sounds. It sometimes goes wrong and the forced liquidation of the pool causes a very weak market, since the pool gets no sympathy but "plenty of help" in its selling. Operators of this class, to be successful, have to be very shrewd judges not only of investment conditions but of the psychology of other speculators.

One difficulty encountered by such a pool is that a considerable number of followers generally get wind of what is going on, either by the information which leaks out in devious ways or by watching the behavior of the market, and "ride" on the pool's back for part of the movement. This is particularly annoying to the pool's managers.

Floor Traders

(4) *Floor traders*; that is, members of the Stock Exchange operating for their own account. Their principal income is usually derived from taking advantage of fractional fluctuations.

Having no commissions to pay, they can make a greater number of trades with small profits or losses, with the object of having a net profit at the end of the day or the week.

Most floor traders "work on the bull side" or on the bear side, according to their judgment of the technical condition of the market at the moment; that is, although in and out of the market frequently, they have a net balance of commitments on one side or the other. In this respect most of them are likely to be aligned on the same side, not through definite collusion, but through following some leader or because they see the same things and logically reach the same conclusions.

Sometimes they discover that they have been "filled up" by larger operators and sell out hastily, causing a quick break; or that they are "oversold" on the short side, so that their urgency to repurchase results in a sharp rally in the price. In this way the operations of floor traders sometimes causes a narrow, swaying movement of prices up and down over a range of a few points.

(5) *Active traders through commission houses or miscellaneous speculators.* Of these there is

the greatest possible variety—as many kinds of them as there are kinds of people in the world. Probably they have only one trait in common, the desire to make money rapidly.

CHAPTER III

**Relation Between Money and Stocks—
A Logical Similarity in Swings—How
Money Rate Has Indicated Trend of
Market**

IN the first chapter I explained the meaning of the term "tidal swings," showed that they do, as a matter of fact, occur with a certain rough regularity, and briefly indicated the directions in which we may reasonably look for the causes of these broad movements. And since all price changes must necessarily be a result of demand and supply, I discussed in the second chapter the nature and special characteristics of demand and supply as we see them in the stock market.

In examining into the causes of tidal swings, it must be understood that we are dealing for the most part with what might be called "secondary" causes—that is, with factors which are interdependent, in the sense that each one influences all the others.

If we try to get down to the primary or fundamental cause of the tidal swing in stock prices, we enter the realm of psychology, where it is impossible to apply any definite standards of measurement. Ultimately, stock prices are made by the minds of men, and most minds are superficial—liable to be influenced by appearances rather than fundamentals, or to “make the worse appear the better reason,” as one Socrates remarked some years ago. Incidentally, this accounts for the fact, often noticed by members of the exchanges, that the most successful stock speculator is not the deep man but the ready man—the man who is skillful at perceiving, from whatever source, the drift of speculative sentiment, right or wrong.

The word psychology has been overworked of late and for that reason may bring a smile from “practical men,” but there is no doubt of its importance as an element in speculation, and fundamentally the tidal waves in prices and business conditions are due to certain mental limitations or misconceptions of people in general which can hardly be described in any other way than as “psychological.” This phase of the subject will

be taken up in a later chapter. In the meantime let us begin with some of the factors which are logically related to stock prices and which are capable of being recorded in figures and may therefore be spread out and examined over a series of years.

Money and Stocks

An investor puts his money into stocks with a view to interest return (present or prospective). His real object is to get the highest interest rate compatible with safety. Instead of buying stocks he could of course lend the money out at interest, and the money rate represents the rate of interest he would get in that way. Evidently, therefore, there is a logical connection between the money rate and the level of stock prices.

The longest term investment for idle money outside the security markets is found in commercial paper. For that reason the rate for commercial paper in New York is used in the graph herewith (see insert at end of book) to represent the money market in general. The graph permits an easy comparison between the

monthly average commercial paper rate and the general course of the stock market.

It is only necessary to glance over the graph to see that, broadly speaking, stocks rise when the money rate is low and fall when it is high, which is what would naturally be expected.

The result is that we have tidal swings in money rates similar to those in stocks.

In the sixteen years shown on the graph, there have been two cases of panic which have carried money rates out of their natural course. The first was the money panic in the fall of 1907, when commercial paper rose to 8 per cent.—a rate which, under modern business conditions, could be due only to fear. (It must be borne in mind that we are dealing with the rate on strictly prime paper at New York. Rates on inferior paper or in some of the more distant sections of the country would naturally be higher.

The second instance of abnormal rate was in the War Panic of 1914 when 7 per cent. was touched, although the average for any one month was not higher than $6\frac{5}{8}$.

These panic rates for money represented a sort of temporary aberration from the course of the tidal swing.

The smaller fluctuations in the commercial paper rate are mostly due to seasonal conditions. Money is naturally higher in the fall when the crops are being moved than it is in the winter and spring, when business is less active. These seasonal changes can be eliminated, or compensated, by a method of averaging, if desired, but that is unnecessary for our purpose.

Money as a Guide

Making a closer comparison, we note that the highest point of the money rate corresponds pretty closely with the lowest level of stock prices, but that the lowest point of the money rate does not coincide with the highest stock prices.

This difference is due to speculation. When stock are falling public speculation is at a low ebb and prices are made by investors, who have an eye chiefly to interest return. But a bull market is accompanied by growing speculation, so that when stocks are high, prices are made largely by speculators, with whom interest return is only a minor factor. Hence the money rate has its most direct influence at the end of a bear

market, and only an indirect and partial influence when stocks are high.

Nevertheless, a rising money rate will eventually check speculation. In 1902 the 6 per cent. rate for commercial paper marked the end of the bull market, and in 1906 the highest average of stock prices was in January after money first touched 6 per cent. in December, 1905. In December, 1909, the 6 per cent. rate was touched, although the monthly average was $5\frac{3}{4}$ per cent., and the same rate marked the culmination of the bull market of 1912.

In each of these cases, it will be noted, speculation was able to keep stock prices rising at the same time with the advance in the money rate, but it was not able to maintain the rise after the 6 per cent. rate was reached. Business requirements began to draw money away from the stock market, leaving the speculators suspended in air. Then relatively high money rates continued to prevail until the stock market was thoroughly liquidated.

Since 1914 the war and the new Federal Reserve Bank system have disturbed the natural swing of the money market. The flood of gold which flowed to our shores during 1915 and

1916, coming at the same time with the great reduction in the legal requirements for bank reserves, caused unprecedentedly low rates for money throughout the bull stock market which culminated in November, 1916.

In a ward, during the war we have had a war market because the war was a more powerful influence than the money rate. After the war is over I see no reason to doubt that the relations between money and stocks will be similar to those that preceded the war. In fact, I should say that the money rate would be an even better guide than before the adoption of the Federal Bank system, for money panics will either be entirely obviated or greatly reduced in severity by the provisions of the new law.

We cannot now tell what the war, before it is over, may do to the money market, but European governments have succeeded in exercising control over their money rates and the Federal Board ought to be able to do the same in this country.

Difference Between Money and Capital

It is important to remember that a scarcity of capital for permanent investment is not the

same thing as scarcity of money, although there is usually a close connection between the two. The term money, as we use it in discussing money rates, means *that fund of capital which is temporarily idle or available for short-term purposes*. It may or may not be available for permanent investment also.

For example, investors might be unwilling to invest their capital on less than a 6 per cent. basis; but that very fact might lead them to leave their money in the banks and the banks might lend it on call at 3 per cent. or in time loans at 4 or 5 per cent. It has frequently been the case that high interest returns on permanent investments have been temporarily accompanied by very low money rates. Such a disparity is always followed by a readjustment of both security prices and money rates, but in case of a world war like the present one, the readjustment might be long delayed. Under normal conditions, such a readjustment is nearly always accomplished in less than a year.

Briefly, then, stock prices are near the bottom when the commercial paper rate is highest; and a bull stock market cannot climb much further after the paper rate rises to 6 per cent.

A sharp fall in the money rate from a high level is usually followed by rising stock prices.

It is probably safe to say that a wide bull swing cannot be carried through without the aid of a low money rate ; but we have seen that under war conditions, at any rate, a bull market may culminate before any considerable rise in the money rate occurs.

CHAPTER IV

**Relation Between Bonds and Stocks—
Influence of the Major Cycle—The
Reasons for Differences—Some Prac-
tical Suggestions**

SINCE both bonds and stocks are essentially nothing but convenient ways of investing money so as to make it earn more money, or investments intending to yield an income—either now or in the future—it is evident that there should be some sort of relationship or similarity in the broader fluctuations of these two classes of securities.

On the other hand the important differences between bonds and stocks must be borne in mind. The value of high grade bonds depends primarily upon the supply of capital available for investment as compared with the quantity of investment securities offered in the markets.

In fact, in the case of good Government or municipal bonds this is practically the sole price-making factor, since the security behind such

bonds is so ample as to eliminate almost entirely all possible doubts about the payment of interest and principal when due. So far as those bonds are themselves concerned, there is no reason why there should be any change worth mentioning in the rate of interest yield to the investor from one year to another. The reason for change is found, not in the bonds, but in general investment conditions—that is, in the relation between the supply of capital and the demand for it.

Nearly all corporation bonds are influenced to some extent by the current earnings of their companies—a trifle in the case of the strongest, a great deal in case of the weakest. But any average of the prices of a number of high grade bonds will be found to reflect the changes in the conditions affecting capital much more closely than it reflects changes in earnings.

Stocks, however, are far more directly dependent for their dividends upon the earnings of their companies, and they are also greatly influenced by the attitude of the public toward speculation. Hence while prices of high-grade bonds depend chiefly upon a single factor, prices of stocks depend upon at least three general factors.

Bonds and Stocks

The graph herewith (see insert at end of book) affords an easy comparison between bond prices and stock prices since 1902. The first point to catch the eye is that there has been a general downward drift in bond prices for 15 years, while there has been no such general declining tendency in stock prices. This is due to the effect of the "Major Cycle" or "20-Year Cycle," and since 1914 to the effect of the war, which has modified the Major Cycle.

It is a historical fact that the United States (we will not extend the inquiry to foreign nations at this time) tends to accumulate capital for about ten years and thereafter to dissipate its capital for about the same period. Thus in a broad way we were accumulating capital from 1873 to about 1883 and dissipating capital from 1883 to 1893, accumulating from 1893 to 1902 and dissipating since then.

The period of accumulation generally begins after a panic of greater or less severity, such as 1857, 1873, 1893, or 1914; since such a panic shocks the public into saving money, and the

memory of the shock instils caution into everybody for years afterward.

It is a matter of course that the ten year period is only a rough approximation and that events lengthen or shorten it. Thus the panic of 1914 would naturally have ended the period of dissipation of capital, but the war has developed to such gigantic dimensions as to compel the further dissipation of capital on a scale never before known.

Stocks also have felt the force of this long-time capital factor, but in 1915 and 1916 its influence was more than counterbalanced by the phenomenal earnings of industrial companies.

The Logic of Fluctuations

Examining the graphs a little closer, we see that the lowest prices for bonds have coincided pretty closely with the low of stocks but the high of bonds has preceded the high of stocks; also that the war has upset the regularity of these movements.

There is a sound philosophy underlying these facts. When stocks are at the bottom, specula-

tive holdings of the public have been pretty much squeezed out. Investors are making the prices and they are most strongly influenced by the income return afforded them. This, as we have seen, is the principal factor influencing bonds. Hence it is natural that, at the low point of the swing, bonds and stocks should be moving nearly in harmony.

At high prices, however, stocks are strongly influenced by big earnings and by public speculation. These factors carry stocks upward for a time after bonds have become stationary or have begun to decline.

It is notable that the first good rally in the monthly average of high grade bond prices after a panic (accompanied, as we saw in the last article, by high money rates) has heretofore indicated that an upward tidal swing in stocks would follow.

Bonds have usually shown a declining tendency for about six months by the time stocks are at the top. This is noted in 1902, 1905, 1909 and 1912. The general reasons for this fact have already been explained.

After a declining tendency in bonds which has

now lasted 15 years, a broad upward swing of the Major Cycle during a period of years is naturally to be expected, when once the end of the present rapid dissipation of capital is reached.

CHAPTER V

Relation Between the Market and Business Conditions—Different Ways of Measuring Changes in Business Activity—Practical Conclusions

THE statement that there must be a connection between the broad changes in business conditions and the tidal swings of the stock market is so obvious as hardly to require demonstration. Stock dividends are based on the earnings of the corporations issuing the stocks, and those earnings change with changes in the activity of business. Hence it is clear that the prices of stocks are in part dependent on business property or depression.

The important question is, What is the nature of this relationship between stocks and business? Which factor precedes the other, or do they move in unison? If, as we may reasonably expect, we find some degree of regularity in their fluctuations, is the degree of regularity great enough to afford us any practical assistance in judging

the future of the stock market or the outlook for business?

Measuring Business Activity

Any reliable record of the quantity of business handled, either in all lines or in any great, fundamental branch of activity, will of course show to some extent changes in business conditions.

The only record that would reflect business activity exactly would be a record of all goods produced and all goods exchanged, expressed in quantities—that is, in tons, bushels, dozens, and so on. No such statistical record is to be had, and it is not at all probable that anything of that kind will ever be available. The labor of keeping track of such statistics and of collecting and compiling the figures would be prohibitive.

It follows that we cannot have a complete and accurate record of business conditions. What we have to do is to look over the various figures available and select those which come the nearest to expressing general business activity. There are at least four classes of figures which may be used for this purpose. All have their defects

and their advantages. I will discuss them as briefly as possible.

I. BANK CLEARINGS.—For many years a fairly complete record has been kept of the total money value of checks passing through the bank clearing houses. There have been minor variations in the figures included, but not sufficiently to interfere seriously with the broad changes to be observed.

This is the record most commonly used in discussing business activity. It has, however, two serious defects. First, the very large sales of securities, on the stock exchanges and outside of them, are all paid for by checks and therefore appear in the bank clearings. Many of these sales are speculative and therefore may not closely correspond with changes in the actual production and sales of goods intended for consumption.

This difficulty is often remedied in part by taking the bank clearings outside of New York City—since in that city somewhat more than half of the bank clearings usually represent sales of securities. But there is still a considerable speculative element left in the bank clearings outside New York.

The second great defect in bank clearings as a business record lies in the fact that they show, not the *quantity* of goods manufactured and exchanged, but the *money value* of those goods. Hence if the price of any article rises, the bank clearings based on that article will rise also, even without any change in the actual quantity of that article that is being made or sold. So in a time of generally rising prices the bank clearings may show a great gain without any gain at all in the quantity of goods being handled. At the time this is written, the general level of prices has risen almost 100 per cent. in a little over three years. Under such conditions it is evident that bank clearings will afford a very poor measure of business activity.

It might be thought that this difficulty could be avoided by dividing the bank clearings by an index figure representing the general price level, but actual experiment shows that this plan is not a success. The trouble is that we have no way of knowing what part of the bank clearings is based on things which have risen or fallen in price.

II. RAILROAD GROSS EARNINGS.—In a rough way, the gross earnings of all the railroads in the

country change with changes in business. Variations in mileage operated are not enough to vitiate the results. Changes in rates, however, do interfere seriously. A 10 per cent. increase in rates would of course cause a 10 per cent. gain in gross earnings without any change in the tonnage hauled. If we had figures showing the number of *tons* of freight transported monthly, that trouble would be eliminated, but such figures are not now available.

There is also a very wide "seasonal variation" in gross earnings, since the roads haul much more business in the fall than in the winter and spring. This variation can be allowed for by computations based on past years, but the results are rather unsatisfactory.

A still greater difficulty is that a complete tabulation of gross earnings is not available until two months or more after the business was actually hauled. This keeps the statistician constantly behind time.

III. COMMODITY PRICES.—Rising prices stimulate business and falling prices depress it. Depending on that principle, we could, before the war, get a very good idea of business activity by keeping a record of the average level of

commodity prices. Several index numbers of these prices are made up monthly, Bradstreet's and Dun's being perhaps as good as any and promptly available.

But this principle holds good only under reasonably normal conditions. When, as at present, the rise in prices is in part due to a great inflation of credit, resulting largely from changes in our bank laws, or when it is due to actual famine in various lines, so that a further rise in price fails to cause any perceptible increase in production, then we can no longer conclude that higher prices mean more active business. They may in fact check business by causing widespread apprehension.

IV. UNFILLED ORDERS.—If we had a complete record of the unfilled orders (measured in quantities) of all the business concerns in the country, that would give us a better and earlier index to commercial activity than anything else. The orders come first. Production follows. Next comes transportation. Still later, in most cases, payment for the goods. Hence orders precede all such figures as iron production, railroad gross earnings (even if those were obtainable as soon

as earned, instead of long afterward), or bank clearings.

Unfortunately, most companies are very shy about giving out their unfilled orders. The only current record we have that would be available for this purpose is the unfilled tonnage statement of the U. S. Steel Corporation, which is given out regularly on the 10th of each month for the last day of the preceding month.

True, this is the statement of a single corporation, which may be affected by special conditions; but the Steel company is such a predominating factor in the steel and iron business of the United States, and the steel business is such an important index to activity in all lines of construction, that its statement of unfilled orders is entitled to more weight than might at first be imagined.

A large part of the steel manufactured is always used for new construction, and new construction is the best index of *changes* in business conditions. Consumption of goods in other ways, outside of new construction, varies somewhat, but varies far less than the quantities of material used in new construction. In fact, in the United States at any rate, large new construction

is necessary in order to create and maintain what we call "prosperity."

In the graph herewith (see insert at end of book) I have used a line showing U. S. Steel's unfilled orders from month to month. Under present conditions, at least, I believe it is a better gauge of business activity than anything else that is available.

Two points must be borne in mind in regard to these unfilled orders. First, previous to 1908 "intercompany" orders were included in this statement, so that the total as shown was relatively greater than in subsequent years. That is the principal reason why unfilled orders for 1912, for example, appear to have been less than for 1906. But this change did not seriously interfere with the broad upward and downward swings in the unfilled tonnage.

Second, the decline in unfilled tonnage in 1917 has been partly due to the fact that the company has been holding back its capacity in order to be in a position to handle government war orders promptly. But even without this influence there would, I believe, have been some falling off in orders due to the absurd level to which steel prices had been forced.

Another point to be noted is that down to June 30, 1910, these orders were made public quarterly, instead of monthly. The result is that changes do not appear on the graph as accurately before that date as after it.

The fact that unfilled tonnage has a normally increasing tendency over a considerable period of years, while the stock market does not have any such rising tendency, is perhaps too obvious to require mention. Our comparisons must be made, not between the *levels* of the two lines at different times, but between the upward and downward tidal swings, regardless of the extent of the swing.

Business Follows Stocks

Without going over the graph from year to year, which the reader can do as well as I could, it is evident that in a broad way this unfilled tonnage line follows the stock market and that it is usually behindhand at the turns by a period of three to six months.

On page 149 of THE MAGAZINE OF WALL STREET for Nov. 10, 1917, appeared a small graph showing unfilled tonnage and the price of Steel

common, which shows that the price of that stock follows unfilled tonnage at the upper turns of the tidal swings much more closely than does the average of 50 stocks which is given in the present graph. At the bottom turns, however, the price of Steel stock anticipates the changes in unfilled tonnage by about the same interval as does the price of the average of 50 stocks.

It is usually estimated that the tidal swings on the stock market precede changes in business by about six months. In view of the fact that unfilled orders are naturally and necessarily one of the first features of business conditions to feel a coming change, this graph may be said to back up that conclusion.

We see plainly that the stock market forecasts business conditions. *In fact, no business man can afford to ignore the tidal swings of the market. They give him "advance information" as to what he may expect in his business, which is more reliable than any he can obtain through ordinary trade channels.*

For the investor, the more practical question is, Do unfilled orders help in judging the stock market? Since they are usually three or more months behindhand, they give only a limited

amount of help. Still, since a genuine tidal swing generally lasts two years on the bull side and one year or more on the bear side, even an indication which is three months behind is not to be entirely ignored. In 1917, for example, or in 1909, many investors would have saved a good deal of money if they had sold out when the unfilled orders turned, instead of holding their stocks until the bear market had run its course.

CHAPTER VI

**Influence of Psychology on the Broad
Movements of Prices**

PERHAPS "psychology" is not just the right word to express the idea, but it is difficult to find a better one. Prices, as has often been said, are made by the minds of men. Hence there is always involved a certain mental factor which we may call psychology without severely wrenching the English language.

There is no doubt about the influence of this mental factor on the immediate speculative movements of prices. So far as the first effect is concerned, what people think about some piece of news is much more important than its actual influence on earnings or on financial conditions, for it is what they think that causes them to put in orders to buy and sell and the real effects do not come until later—sometimes very much later.

Psychology as a "Long Pull" Factor

When, however, we come to the consideration of the tidal swings of the market, the influence of

people's mental attitudes is not so easily discerned. It is plain that "fundamental" factors are closely connected with the tidal swings. Where then does "psychology" come in?

It comes in two ways: First, it is one influence along with other influences, in causing the broad movements of prices. Second, it participates as one cause of some of the so-called fundamental factors themselves.

An illustration or two will make this clear. During a speculative boom in the market, when stocks "look strong" and one issue after another is jumping to new high prices day by day, a great many people feel that they are really losing money by not participating in the advance. The whole atmosphere of the Street becomes permeated with optimism. Making money seems easy—in fact, it is easy, for the moment. And this general feeling of cheerfulness and confidence leads many people to buy stocks, thus putting prices higher than they would otherwise have gone.

When the market begins to decline these buyers first look upon the fall as a "natural reaction." After the decline goes still further, they recognize the fact that they have been wrong

but think prices will recover later on. At still lower prices, they conclude that they should have sold, and promise themselves that they will do so on the next good rally. When the market has fallen still further they reason that stocks are then too low to sell—that they are “cheap.”

But conditions keep getting worse, losses keep getting bigger and bigger. At length the same persons who bought under the influence of optimism at or near the top fall into a mood of excessive depression and sell out. One tells himself that he sells because the market is now and will be for a long time to come under a new set of conditions which entirely change the situation. Another sells because although prices are low, he believes he can reinstate his holdings still lower. Still another sells because he has become disgusted with the stock market and has made up his mind to get out of it and let it alone in future.

But underlying all the varied reasons which losing speculators give themselves for selling at low prices, is the central “psychological” factor of general depression, discouragement and gloom.

And this feeling of gloom is not confined to

stock market circles. It extends throughout many industries. In that way it influences the "fundamental" conditions which affect the earnings of corporations, and thus comes back to the stock market by a roundabout route.

For example, in the last article I showed that the unfilled orders of the U. S. Steel Corporation afford a fair index to the general activity of business. But those orders are all placed by human beings, whose minds are often subject to the same influences that affect the minds of investors. The buyer of steel holds back his orders as long as he thinks prices are likely to go lower. But when he thinks steel prices are on the up grade he orders ahead as far as possible. Hence there is a psychological factor in the Steel orders, and to a greater or less extent in every form of business activity.

One Cause of Extreme Prices

It is easy enough to see how all these things react on one another, with the result that prices go too high in boom times and too low in times of depression. In other words, here is one of the important causes of the tidal swing.

At the top, stock prices are high because trade is booming and, to some extent at least, trade is booming because stock prices are high. At the bottom, people are selling their stocks because industrial conditions are dull, and business men hesitate to place their orders for goods partly because the depression of the stock market has spread into business circles.

The novice may ask, "If that is so, why do prices ever stop going up or down when once they get started?"

It is because a lot of investors, and especially a lot of wealthy men and big financial interests, are too hard-headed and have too much actual knowledge of what securities are really worth in the long run, to allow themselves to be carried away by "psychology." We all know men who seem to be incapable of enthusiasm. Such men are likely to be selling when everybody else seems to want to buy. We know others whose spirits seem to rise in the face of difficulty and whose courage is the strongest when others are ready to give up. Those men are buyers at times of acute depression.

While speculators are merrily buying stocks at inflated prices, bankers, big financiers, man-

agers of trust estates, the investment departments of insurance companies, are coldly applying to those prices the yard-stick of interest return on the money.

In a word, there are two classes: (1) Those who buy because they think prices are going up and sell because they think prices are going lower; and (2) those who buy because they believe prices are low and sell because they think prices are high. The difference between the two is as wide as the poles. Class (1) has the greatest immediate effect on prices—often runs away with them, in fact. Class (2) eventually checks a boom and supports the market in a panic.

Measuring the Effects of Psychology

I have been able to illustrate by graphs the relation of the stock market to money rates, to bonds, and to business conditions. There is no way to show the effects of psychology except by the study of the market itself.

A boom in stocks is characterized by an active market, feverish price movements and big transactions, without much change in the general

level of prices. This condition follows a major bull market. Such a period of activity at a high level, is often called a period of distribution. I don't think it is a very happy or accurate term, but it answers the purpose.

A depression is characterized by sharp declines at very low prices, with great activity, followed by a period of dullness, narrow price changes and comparatively stationary prices, still at a low level, but usually somewhat above the lowest point touched in the first decline. This is usually called a period of accumulation, by which is meant that shrewd investors, large and small, are picking up the stocks that speculators are throwing over at a sacrifice.

Both in the boom and in the panic or depression, the public's state of mind is a factor of considerable importance, but one which we have no direct way of studying or measuring. Its effects can be estimated only by closely watching the character of the market and the nature of the buying and selling.

These are best observed by keeping a daily record of average prices and volume of transactions. They are also reflected to some extent in newspaper comment.

CHAPTER VII

Price Movements in Bull and Bear Markets—Some Interesting Differences—Why the Downward Swing Is Shorter Than the Upward

IN the first chapter of this series I mentioned the fact that bear markets are usually shorter than bull markets. The subject is of sufficient importance to warrant a more thorough examination.

It is understood, of course, that the tidal swings are not limited by time. They are created by conditions, which may work themselves out slowly or quickly, in a great variety of ways. At the same time, as we have already seen, the combined upward and downward swing involved in a "Minor Cycle" usually does, as a matter of fact and history, occupy a period of three or four years.

This is because about that length of time is necessary for the conditions which cause the

swing to work themselves out. Economic forces always work slowly.

Analysis of Fifteen Years

If we examine the broad market movements of the past fifteen years, we arrive at substantially the following time schedule:

	Months
Bear, Sept., 1902 to July, 1903.....	10
Accumulation, July, 1903 to April, 1904.....	9
Bull, March, 1904 to Jan., 1906.....	22
Distribution, Jan. to Dec., 1906.....	11
Bear, Dec., 1906 to Nov., 1907.....	11
Accumulation, Nov., 1907 to Feb., 1908.....	3
Bull, Feb., 1908 to Aug., 1909.....	17
Distribution, Aug. to Dec., 1909.....	4
Bear, Dec., 1909 to July, 1910.....	6
Accumulation, July to Oct., 1910.....	3
Bull, Oct., 1910 to Sept., 1912.....	23
Bear, Oct., 1912 to June, 1913.....	8
(July, 1913, to Oct., '14, deranged by war.)	
Bull, Oct., 1914 to Nov., 1916.....	23
Bear, Nov., 1916 to Dec., 1917.....(?)	13

Some of these periods need a little comment. I have classified the period from October, 1910, to September, 1912, as a bull market in spite of the fact that it embraced a sort of minor

bear market for two months in August and September, 1911. This exceedingly sharp reaction was due for the most part to foreign selling. Europe really feared war then, and we have since learned that its fears were justified, although the war did not break out until nearly three years later. The result was a big setback in prices, but I believe the entire period should be classified as a long, slow bull market.

At the top of the upward swing which culminated in 1912 there was no long period of distribution, and the same was true in the fall of 1916. In the latter instance there had already been a good deal of distribution throughout the year, and a good deal more was done on rapidly falling prices during December and January.

As to the period from June, 1913, to the War Panic of 1914, we can hardly say that it was a part of a normal bear market. It practically defies classification. General investment conditions were favorable to an advance but prices refused to rise. We can see now that the reason lay in apprehension of the war which finally came in July. The war had cast its shadow before, like most coming events.

In the above list we have four complete bear

markets, lasting 10, 11, 6 and 8 months respectively, or an average of about 9 months. The present bear market has lasted 13 months at the time this is written.

On the other hand, the four bull markets lasted 22, 17, 23 and 23 months, an average of about 21 months, or a little more than twice the average length of the bear markets.

About the same relation will be found in smaller movements. For example, the distribution period of 1906 included a quick fall and a rise lasting about twice as long; the decline in the middle of 1911, already mentioned, was very sharp; and of course the war break of 1914 was unprecedentedly precipitous.

The Reason

It is easy to see the reason for this difference. The stock market is always carrying a load of "undigested" securities. When a new issue of stock is brought out it usually goes first into the hands of speculators or speculative investors, since it is not "seasoned" enough for the sort of investor who expects to hold his stocks indefinitely for their dividends. In some instances

practically the whole issue may eventually drift into the strong boxes of investors who will not sell it, and the load is then off the market. But in other cases this never happens. U. S. Steel common is a notable example. The company was formed in 1901, but about half of the common stock is still in the hands of people who are more interested in market profits than they are in its dividends.

During a bull swing a considerable part of the market's load of undigested stocks is frequently passing from one owner to another. Nine-tenths of the public work entirely on the bull side. It is only the semi-professional who takes the short side. Hence on reactions in a bull market, there are plenty of new buyers to come in and carry the load. But once a bear market is fairly started, nobody really wants to carry stocks except the investor who pays no attention to prices and merely looks at the dividends. Speculators and speculative investors who have stocks have them because they are waiting for a chance to "get out," either with a profit or with a smaller loss than they have at the moment. When they give up and sell out, or as frequently happens

in the case of holders on margin, are forced out, there are few buyers. Hence prices decline more rapidly than they advanced in the bull market.

To draw a metaphor from the force of gravitation, since the market carries a load it has to be *pushed* up but *falls* down of itself. Therefore it naturally falls faster.

Influence of Commodity Prices

The attempt has several times been made to show that bear markets are normally longer in periods when the tendency of commodity prices is downward than when commodity prices are rising. Thus it has been calculated that from 1871 to 1896, when the broad tendency of commodity prices was downward, bear markets averaged nearly as long as bull markets, while since 1896, with a general upward drift of commodity prices, bull markets have been about twice as long as bear markets.

I was at first inclined to think that some connection might be traced here, but on further reflection I doubt it. I do not see on what reasoning it could be soundly based. I believe it is far more likely that the difference since

1896 is due to the great change in the character of the stock market.

A big, wide-spread public speculation in this country really had its birth in the great bull market which started in 1897. The market of earlier years was a much narrower affair, pretty much confined to genuine investors and to a small number of professional speculators and their followers. This is probably the reason for the change in the relative length of the up and down swings.

It is, in fact, very little use to study the markets of a quarter of a century ago. We are living now in a new world, financial, economic, business and investment, as compared with that earlier period.

How This Affects the Investor

This discussion of the relative length of bull and bear markets may seem at first glance a little bit technical, but it has a very real application to practical investing.

In the first place, since no bull market for twenty years has lasted less than a year and a-half, the investor who holds stocks when the

market starts or who buys them early in the bull movement does not need to be in a hurry about taking his profits. And that is something which the average speculative investor is very likely to do. In fact, the principal reason why he loses money is that he takes a small profit and a big loss.

If he has stocks when the bull market begins—having very possibly carried them over from the previous bull movement—he argues that since conditions are very bearish no great advance is likely, and that he should therefore sell his stocks on the first fair advance and await an opportunity to repurchase at a lower price. He does this, and perhaps the market reacts, but not so much as he expects and the final result is that prices go up without him. He dislikes to buy his stocks back at a higher price than where he sold, so he keeps waiting for a break, until at last the market becomes very strong and conditions appear to him so bullish that he concludes the only thing to do is to buy at the market—but by that time prices are relatively high. If he had judged the market by a broad consideration of the tidal swings, remembering that a bull

market lasts one and a half or two years, he would have been much better off.

The same thing is true of the bear market. The investor who buys after a year or so of falling prices is in a comparatively safe position, even regardless of all other considerations. He will not buy at the bottom, but it is doubtful whether anybody ever does that, except by accident.

Another point is that, in view of the length of the average bull market, the holder of dividend-paying stocks has a material advantage over the owner of non-dividend payers. Carrying a non-dividend stock for a couple of years means quite a bit of interest money. The dividend-paying stock usually carries itself, since the dividends on the average will about pay for the use of the money.

A non-dividend paying stock may of course be such a bargain that it pays to buy it even with the handicap of loss of interest, but it takes a good deal more skill and knowledge of the markets to pick out such a stock than to select a good dividend-payer.

Bearing these points in mind, the investor who never takes the short side should be able to get dividends on his money about two-thirds of the

time. And when a bull market has continued for nearly two years he will be able to calculate that his best policy is to turn his stocks into money and buy one-year notes or commercial paper, or plan in some way to use his money outside the market for about a year.

As for the investor who is not prejudiced against the short side—and to me operations on the short side appear just as legitimate and just as useful to the community as on the long side—it is evident that he should, as a rule, get nearly double the profits in the same time as on the long side.

But it is dangerous, from the long pull point of view, to take the short side after six months or more of bear market—and that is just when the average speculator is most tempted to take it. Short sales, if made at all, should be put out early in the bear market. Then the seller will be in a position to afford support to the market by buying back when stocks are at their weakest.

CHAPTER VIII

What the Volume of Transactions Shows—Characteristics of Large and Small Movements—Reactions and Rallies

ALMOST every one who watches the behavior of the stock market, even in a casual way, has noticed that a sharp rise in prices is nearly always accompanied by a large volume of transactions, and that the volume of trade is also heavy in times of panic. This is a very natural condition. A wide swing in prices reaches a larger number of standing orders to buy or sell, so that more orders are executed, and it also attracts a greater number of those day-to-day speculators who try to "go with the tide."

An illustration will make clearer the working of this principle. Suppose the price of a stock after a prolonged decline reaches 80, rallies to 85, and again reacts to 81½. The fall to 80 is caused by liquidation. Holders of the stock

have become discouraged and are throwing it over. Also, since the price is breaking down into new territory, "stop orders" are constantly reached—that is, a certain number of holders of the stock have decided that they will not risk any more money, but will sell out if the price falls to a figure they have set in advance, as 83, 81, etc. Again, brokers are sometimes forced to sell some stock they are carrying for speculators because margins are getting too low for the safety of the broker.

The natural result is that the price falls rapidly and a great number of orders are executed—in other words, large transactions.

But after the stock rallies to 85 and starts to return toward 80 again the situation is different. The price is not now dropping into new territory, but is merely retracing a decline previously recorded. Fewer "stop orders" are reached and holders on margins are better protected, since the weak accounts were closed out on the first break.

The situation then depends on who bought the stocks which were sold on the first break. If they were bought by speculators "for a turn" and are sold out on the rally to 85, the burden on

the market will not be reduced and there will be renewed activity and wide price movements as soon as the market gets fairly started down again. But if the stocks liquidated were bought by investors, who intend to hold them for some time or for a greater advance in prices, transactions on the second decline will be considerably lighter than on the first.

Connection Between Prices and Volumes

We may lay down the general principle, then, that the volume of transactions in the market depends on two factors:

- (1) Extent of price changes.
- (2) Extent of public participation in the market.

Wide price changes bring larger transactions than narrow ones, when the extent of public participation is the same. And a large public participation in the market will bring greater volumes for the same price changes than a small public participation.

In each "minor cycle" of the stock market—usually covering, as we have seen, three or four years—there is one point which may be identi-

fied as the *period of rest*. This comes after the bear market has ended and before the next bull market begins. On the graph herewith, which shows the volume of trade for all stocks month by month in connection with the price movement, these periods of rest may be easily identified in the following months :

May and June, 1904.
February, 1908.
September, 1910.
January and February, 1915.

As soon as a bull market starts, after such a period of rest, transactions normally begin to increase. In a broad way, they continue to increase as long as prices rise and remain heavy *during the first liquidating period which begins the ensuing bear market*. These first liquidating periods are shown as follows on the graphs (see insert at end of book) :

Last quarter of 1902.
First quarter of 1907.
January, 1910.
Last quarter of 1912.
December, 1916.

During the remainder of the bear market transactions show a disposition to fall off, but there

are usually a few days of big transactions when the bear market ends. These do not show up clearly in the monthly volumes because they are likely to be preceded and followed by dullness. Then comes the period of rest from which we started. Those who want to sell, or are compelled to sell by lack of funds to carry their stocks, are for the most part out of the market, while those who want to buy have not yet made up their minds to take hold.

Apparent Exceptions

Readers who have referred to the graph have already noticed a few exceptions to the general program above explained. The only important exceptions, however, occur in the period which covers the last half of 1910, the whole of 1911, and the first three quarters of 1912, which I have previously characterized as a bull market carried on in the face of great difficulties. Transactions during this period did not show the normal increase characteristic of a bull market, because of the influence of the second main factor mentioned above—a great falling off in public participation. And the heavy transactions during

the very sharp reaction of August and September, 1911, were due chiefly to foreign liquidation in fear of war, which, as we have since learned, came within a hair's breadth of breaking out then.

Even in this case, however, the normal increase in transactions appeared when the upward movement was renewed in 1912; but a new high point in volume of trade was not reached during the brief and somewhat artificial rise with which the whole movement culminated in October, 1912.

Smaller Movements

It is notable that these same principles apply to smaller movements of the market. For example, after the considerable reaction in the second quarter of 1905 we note a sort of intermediate period of rest, and we see the same thing again in August, 1906; February, 1912, and July, 1916. Likewise the top of a considerable rally in a bear market is usually accompanied by increased transactions.

Those who wish to note these smaller movements would do well to construct a weekly graph on the same plan as this monthly graph. A

weekly graph will show more exceptions to the working of the principles than a monthly graph, because public participation may vary greatly at times from week to week, and weekly transactions may be interfered with by holidays, wire troubles in heavy storms, etc.

Even a daily graph will show substantially the same conditions, but with still more exceptions due to the fact that it does not show what part of a day was characterized by a general upward price movement and what part by a downward movement.

The thought may occur to the reader, Why not make an hourly graph and catch the small turns in the market? But still more difficulties are encountered here because the normal volume of trade varies in different hours. The first hour is usually the most active as a result of overnight orders. The last hour is relatively active because of the fact that many floor traders close all their trades at the end of the day. The hour from 12 to 1 is normally inactive, since many traders are at luncheon, and this influence also has some effect on the hour from 1 to 2. Again, the receipt of special items of news may affect transactions during certain hours.

The fact must be emphasized that *the operation of all stock market principles is approximate only*. The factors affecting the market are not mathematical, and the man of a mathematical turn of mind rarely makes a good speculator. From the investment or "long pull" standpoint, the stock market is a business proposition. From the speculative standpoint it is a study of the psychology of the speculator. (Incidentally, that is why the business man usually fails as active speculator—he is not a psychologist.)

Reactions and Rallies

The behavior of volumes on reactions in a bull market is worthy of some comment. Such reactions usually occur in one of two forms. They may present the appearance of a small bear market, with a day or two of active liquidation at the bottom of the reaction, followed by a brief period of rest; or they may be characterized by a gradual falling off in volume as prices sag slowly lower and by a renewal of activity when the upward swing is resumed.

Which one of these two forms of reaction occurs in any particular case depends partly on

the news and partly on the "vulnerability" of the bull accounts outstanding. The sinking of the *Lusitania*, for example, precipitated violent liquidation on a reaction in a bull market, followed by a brief pause. But when holders of stocks cling persistently to their position on a reaction and no bear news of special importance comes out, transactions will become smaller at the decline.

Rallies in a bear market differ from reactions in a bull market for two reasons; because the public works almost entirely on the long side, and because the professional short interest is easily driven to cover.

If the rally does not go far enough to cause any general covering of shorts, activity will fall off on the advance and will soon increase when the downward swing is resumed. In other cases the shorts are driven to cover by a violent rise, and that is all there is to the ~~rally~~. In still other instances a certain amount of public buying may come in after the shorts have covered, so that an active rise is followed by a gradual "petering out" of the volume of transactions while the price level still remains near the top of the rally.

In estimating the probable character of a

rally before it takes place, it is necessary to bear two points in mind: the extent of the short interest, and the amount of public buying which may reasonably be expected to come in at an advance.

Day-to-day news has less influence on a rally than it has on a reaction. This is because news is not so likely to induce the public to buy on a rally in a bear market as it is to scare them into selling on a reaction in a bull market.

CHAPTER IX

The Selections of Securities—Bonds or Stocks?—Classes of Stocks—Prospects of Individual Companies

THE eight preceding chapters have been devoted to the general principles underlying the tidal swings of the market—the fundamental causes and the manner in which they work themselves out. An understanding of these principles is necessary to the investor who wishes to take advantage in a practical way of these broad “cyclical” movements.

The remaining articles of the series will deal more directly with the investor’s actual operations. That is, having in mind the general principles and the various details in regard to their manifestation which have already been brought out, what shall the investor do about it?

Evidently he will try to buy securities as near as may be to the beginning of the upward swing and to sell them as near as may be to the end of it, and if he is so minded he will endeavor

to sell short near the beginning of the downward swing and to cover his sales near the end of it. That much is obvious. He may also try to buy, under some conditions, on a considerable reaction in the upward swing, or to sell short on an important rally during the course of the downward swing. That will depend upon his temperament and *should*, at any rate, depend on his financial and personal condition—the degree of risk he is warranted in taking.

Selections of Securities

An important question in this connection is: What securities shall be selected? What classes and what companies?

For this purpose stocks are almost always better than bonds. By turning to the graph at the end of this volume, you will notice that in the bull market of 1904 and 1905 the bond average advanced about 6 points while stocks gained 50 points. In the bull market of 1908 and 1909, bonds rose 14 points, but stocks advanced nearly 50 points, and in 1915 and 1916 the difference was still more pronounced.

The bond averages there shown are based on

high grade bonds. The fluctuations of speculative bonds—or those not so strongly secured—are wider, but usually not equal to the price changes in stocks. Some of the so-called “income” bonds are practically equivalent to stocks, and fluctuate just about as much as stocks.

This does not mean, however, that the investor in bonds can afford to ignore the tidal swings. I have already shown that these movements are very important to him. It means that the investor whose main object is to make a profit in addition to income can usually get better results in stocks than in bonds.

Next, to what general class of stocks shall the investor turn in planning to take advantage of the tidal swings?

The Question of Dividends

In the matter of dividends, he will prefer, when operating on the long side, to buy stocks paying dividends which give a liberal interest return on the money invested, so that his profits may be in addition to dividends and not instead of dividends. He will naturally avoid stocks on the one hand having earnings so small that no

dividends are paid, and on the other hand stocks so strongly protected by big earnings that they fluctuate but little and give but a small interest return on the money required to carry them.

He will select stocks which pay dividends, but which are nevertheless regarded as in the speculative class. Stocks of this kind have the double advantage, for his purpose, or relatively wide fluctuations and dividends which show a good interest return on the price.

For the short side, if he wishes to follow that side, he will select non-dividend paying stocks. He should not be prevented from this by the fact that such stocks naturally sell on a lower plane of values than dividend-payers, for he cares nothing about whether the stock is high or low in comparison with others—he is interested solely in its *relative* fluctuations. It is better for him to sell short a non-dividend-payer at 40 and buy it back at 25 than to sell one-third as much of a dividend-payer at 120 and buy it back at 75, after having been charged with whatever dividends were paid during the time he was short of the stock. (Since the holder of a stock gets the dividends, the short who has sold to

him must pay those dividends out of his own pocket.)

The short must, however, avoid those non-dividend-paying stocks which represent rapidly growing companies and are therefore just about to emerge into the dividend-paying class. If a stock of this class begins to pay dividends or even if the prospects for dividends improve greatly during a downward tidal swing, it may fail to decline or may even advance against the general current of the market.

As between railroad and industrial stocks; the industrials are now decidedly the better for the tidal-swing investor. The rails have narrower fluctuations, the dividend return on them is smaller in proportion to price, and the nature of the railroad business is more stable than that of industrial companies.

Yielding Over 10 Per Cent

For example, turning to the last table of "Industrial Earnings, Dividends and Income Yields" in *THE MAGAZINE OF WALL STREET*, I find that there were 19 stocks in the list for which the income yield on the price was over 10 per cent.

It is a great help to the tidal-swing investor to be getting over 10 per cent on his money all the time it is invested in stock, even though his primary purpose is to take advantage of the swing in the price.

I also find in that table six non-dividend-paying stocks which are selling near or above 40—and this at a time when stock values in general were relatively low. Just after a bull market culminates there is always a considerably wider choice than this in the matter of non-dividend-payers.

Other things being equal, the investor who wishes to take advantage of the swings will prefer an active, listed stock, so that he is always assured of a good market whenever he wishes to buy or sell. And since there are plenty of those stocks there is very little object in his going into an unlisted or inactive issue.

Choosing Special Issues

In the matter of the particular stock or stocks to be selected, the tidal-swing investor has great opportunity for the exercise of judgment and sound business sense.

The best stock to select for a purchase is naturally one which has been showing a steady increase in the annual per cent. earned year by year and which appears to have good prospects for a continuation of this same tendency.

For example, turning back to the bargain days of 1914, we note certain industrial stocks for which earnings had been showing a decidedly progressive tendency:

	1911	1912	1913
Gen. Motors	15.7%	17.3%	38.8%
Kresge	8.7	14.7
Woolworth	8.9	11.0
Sears, Roebuck.....	17.0	19.3	21.2
Tenn. Copper.....	8.1	21.9	19.3
Utah Copper.....	39.7	53.5	50.7
Pittsburgh Coal pfd.....	5.1	7.5	10.1
Bethlehem Steel.....	6.7	6.9	27.4
Rep. Iron & Steel.....	0.7	1.7	5.0
U. S. Steel.....	5.9	5.7	11.1

All these issues did well in the ensuing bull market, but the largest returns were reaped by those investors who had imagination enough to conceive what the war meant to Bethlehem Steel, General Motors, and the more speculative issues among the steels and coppers.

In this case the special conditions created by

the war were the controlling element. Under more normal conditions the important point is to select the stocks of companies which are in the growing stage, which are just beginning to get results from the foundation which has been laid in recent years—not companies which have already “arrived,” or which are not likely to arrive.

I have said that the best stocks to sell short after a bull swing culminates are the non-dividend-payers. There is one exception to this—stocks on which the dividends are about to be passed. It is more difficult to select these, of course, and it is perhaps unwise for the novice to attempt it unless he has competent assistance. Yet it really required no very high degree of statistical knowledge or judgment in the fall of 1912, for example, to see that New Haven was on the down grade; or to see in the latter part of 1913 that M., K. & T. was getting into trouble.

Diversification of Holdings

The investor for income generally prefers to diversify his holdings among different industries, different classes of stocks, or between stocks and bonds, so that if something unexpected hap-

pens to one industry or one company he will not be so heavily affected by it as he would have been if his holdings had happened to be all in that line or that stock.

The tidal-swing investor may well employ this principle in a modified form by distributing his holdings among several of those issues which seem to him the most desirable. In 1914, for example, a distribution among one motor stock, one steel, one copper, and one chain store issue would have given excellent average results.

An important aid in selecting stocks for the swing is to observe the relative strength of various issues during the minor movements which take place around the turning point of the main swing. For example, after the investor believes a bear market has ended, suppose he finds that the prices of two stocks, which we will call A and B, have fluctuated as follows during a period of, let us say, two months:

	Stock A	Stock B
High	79	52
Low	72	48
High	75	51
Low	69	47
High	74	53
Low	70	50

It is clear that Stock B has shown considerably better resistance to the selling pressure than Stock A. On the small downward moves B's declines have been less in proportion than A's, while B's advances have been relatively better than A's.

The principle is so obvious as to require no elaboration. It has much less value during the progress of the up-swing or the down-swing. It is most useful around the turning points, when a bull market is culminating, or when a bear market is drawing to a close and the upward movement is beginning.

CHAPTER X

Following the Trend—Reactions and Rallies—Construction of Price Graphs

WE have seen that the upward or downward “leg” of a tidal swing usually lasts from one to two years—the entire period, from the low point of one swing to the low point of the next, or from the high point of one to the high point of the next, being usually three or four years.

Therefore, the investor who endeavors to buy after the down swing has ended and to sell after the upward movement has culminated will change his position only once in about one and three-quarter years on the average. This requires a good deal more patience than the ordinary investor has. So nearly everybody who is interested in the market tries to “follow the trend” while the swing is in progress—buying on reactions during the upward move or selling on rallies during the down swing.

It is a question whether the average investor,

whose business life lasts perhaps thirty years, would not get better results in the end by waiting patiently for what he believes to be the end of the swing before changing his position. But since, as a matter of fact, very few are willing to do that, it is essential to discuss the best methods of following the trend while a swing is in progress.

It may be mentioned in passing that the word "trend" is a more or less comparative term. For example, notice the year 1906 on the graph herewith. The downward tidal swing began with January of that year, so that the downward trend, as I am using the word, prevailed throughout the year. But an operator who was trying to follow the more immediate speculative fluctuations would identify an upward trend from July to October, 1906.

Extent of Reactions and Rallies

Taking the term trend to mean the direction of the tidal swing, we note from the diagram that out of four complete bull markets shown three were interrupted, at about the middle of their course, by a reaction extending to more

than ten points for the average used. The fourth, that from November, 1907, to August, 1909, did not show a single reaction of ten points.

The exact extent of the four principal reactions in this last movement, as measured by twenty rails, was as follows:

	Points
Jan. 18 to Feb. 17, 1908.....	9.71
May 18 to June 22, 1908.....	6.49
Sept. 29 to Sept. 22, 1908.....	6.90
Jan. 2 to Feb. 23, 1909.....	7.03

In the five bear markets shown there is only one instance of a rally extending to ten points—that in the last half of 1906. But every bear market has been interrupted by one or more rallies of about five points. This corresponds with our previous observation that bear markets are usually shorter and sharper than bull markets. The reasons for this have been explained.

One important point to be noted is that *a reaction of five points or more occurred near the beginning of every bull market.* It is on this customary reaction that the investor generally has his best and safest buying opportunity.

On the other hand, it is evidently *not* safe for

the investor to wait for an important rally after he believes a bull market has culminated. This is a very common mistake.

The average investor will not be able to estimate the probable extent of any reaction or rally which may occur in the course of a main swing. His attempts to do so are likely to be little better than guess work.

It will be noted, also, that during these sixteen years *no extended reaction occurred in any bull market until the movement had been in progress for at least a year.*

Conclusion

It would be useless to attempt to lay down any hard and fast rules for the investor who endeavors to join in the trend after a swing is well under way. He can see for himself, by examining the graph, what his chances are—and it may be added that he would not be materially helped by extending the examination to years previous to those shown. The last decade is a better guide than any previous decade because there is always a gradual change in the general conditions surrounding the market.

The following suggestions, however, may be useful:

(1) During the first year of a bull market, or at any time in a bear market, probabilities do not favor a reaction or rally of more than five points in the averages.

(2) In the second year of a bull market, probabilities favor a reaction of ten points or more, followed by an advance to a new high point. This is due to increased public participation in the market, so that a greater proportion of the supply of stocks is in "weak hands."

In connection with the graph of stock prices shown at the end of this book, the question has doubtless occurred to many readers whether the change from 20 railroad stocks to 50 railroad and industrial stocks, with the necessary shifting of the scale, does not seriously interfere with the continuity of the graph and perhaps give a misleading impression of the general course of the market. From time to time, also, some one writes us that we ought to use the "logarithmic scale" for these graphs. The practical effect of this would be to widen the fluctuations of the 50 stocks as compared with those of the 20

stocks, so that the low point of 1914 (while the stock exchange was open—we have no means of knowing how low the market would have gone if the exchange had remained open throughout the war panic) would have been the same as the low of 1903, while the high point of 1916 would have been considerably above the highs of 1906 and 1909.

This is a somewhat technical point and has no important bearing on the principles discussed in these articles, but for the benefit of those interested I add a letter received from a prominent civil engineer and my reply thereto.

Editor of THE MAGAZINE OF WALL STREET:

There has appeared in several recent numbers of your magazine, a chart showing prices of 20 railroad stocks from 1902 to 1912 and 50 stocks from 1913 to 1917 inclusive. The chart is quite misleading, as the two different classes of stocks have not been plotted on the same scale, whereas the relative value of the 50 stocks is only about 67 per cent of the value of the 20 railroad stocks.

Possibly the only correct method of continuing the chart with the 50 stocks, in place of the 20 stocks, is by what is known as the logarithmic chart. I have plotted the same stocks on a logarithmic scale and find that the bull market of 1908-1909, according to the ordinary chart seems to have been of greater magnitude than the bull market of 1915-16, although it was really

of less magnitude. This is easily proved, as the high point of 1909 was 59 per cent greater than the low point of 1907, and the high point of 1916 was 67 per cent greater than the low point of 1914.

The ordinary chart would indicate that the low point of 1907 was approximately 16 points below the low point of 1914, whereas in reality the difference was only 5 points approximately. Also the ordinary chart shows the high point of 1906 exactly the same as the high point of 1916, although the latter was really about ten points the higher. The logarithmic chart clearly demonstrates this to the eye. The features would be more strikingly illustrated if your chart were plotted on the logarithmic scale.

T. W.

We have read your letter with much interest. The logarithmic scale is admirably adapted to most of the graphs constructed for ordinary business purposes. The gain in gross business of a company, for example, is most accurately shown as the per cent of gain over the previous year, and the same is true of nearly all graphs where quantities are concerned. The reason we do not use it for such figures is that the logarithmic graph is not readily understood by the non-mathematical reader, and unless changes are very wide the difference in the two methods is usually unimportant.

We are inclined to doubt, however, whether the logarithmic scale is properly used in showing price fluctuations of stocks. It is far from being true that a stock selling around 100 fluctuates four times as widely as one selling around 25. For example, compare Atchison common with Erie common, or General Electric with International Paper. The width of fluctuations depends to some extent upon whether the

price is high or low, but it also depends upon a great variety of other considerations.

It seems to us, also, that our graphs of price averages are more truly representative of actual conditions than yours. Before 1912 the railroad stocks give the best idea of the general swing of the market. Since then the industrials have become a more important factor, but industrials naturally fluctuate more widely than rails in proportion to their price level. Hence, to make the average of 50 stocks fairly comparable with 20 rails, the last part of the graph should, in our opinion, be based on the lower price-scale rather than on the logarithmic scale.

CHAPTER XI

Some Practical Suggestions—What Helps Do Investors Need?—How to Use Them—Conclusion

THE preceding ten articles have covered, in condensed form, those factors which I believe to be of the greatest value to the investor in forming his judgment as to the broad tidal movements of stock prices. It remains to add some practical suggestions which may aid in summarizing the whole and in putting it into actual use.

Only a part of that collection of facts and conclusions upon which the investor's judgment will be based can be reduced to graphic form, but those factors which can be represented in that way should be. There is no reason why the student should burden his memory with relationships which can be committed to a graph.

Statistics in Graphic Form

A graphic record of the following is highly desirable:

The weekly range of some standard average of stock prices.*

Weekly volume of shares traded in on the New York Stock Exchange.*

Weekly range of a standard average of bond prices.

The interest rate on prime commercial paper of about six months' maturity, at New York City. This may be recorded at the end of each week, as changes are usually gradual.

Unfilled tonnage of United States Steel Corporation monthly, as given out by the company.

All these may easily be combined on one large graph, which will then cover money, bonds, stocks and business conditions. As we have seen in previous articles, it is the interrelations among these four which shed perhaps the clearest light on the tidal swing of stocks.

The necessary figures are easily obtained from various publications. The New York Sunday *Times* contains satisfactory averages and quotes commercial paper rates. Total sales of stocks for the week appear in the Monday edition.

* These are explained in greater detail in the author's book, "How to Read the Financial Page," \$1.06 post-paid.

U. S. Steel orders are published as soon as given out by the company. The weeks should be plotted as close together as possible on the graph, so that a view of the movements over a year or more can easily be obtained.

The graphs used with these articles have all been constructed on the monthly basis because weekly graphs covering so many years would be too unwieldy to print. The principles brought out appear even more clearly on the weekly graphs than on the monthly.

In regard to the selection of individual stocks, an almost unlimited amount of work can be done if desired. The investor who keeps no special records on these will get the most direct help, when the time comes, from the several "Bargain Indicators" and condensed statements of industrial earnings and dividends over a period of years which appear regularly in THE MAGAZINE OF WALL STREET. These show fairly well the trend of earnings for each stock.

But the more the investor knows about the earnings and prospects of various companies the better, when it comes to selecting issues which are most likely to advance or decline, and it is not a bad idea to keep weekly graphs of the

price range of some of the more attractive issues in which the investor thinks it probable that he might wish to make a commitment. This is especially desirable in connection with the principle touched upon at the end of Chapter IX.

Averaging

A question of considerable importance is whether the investor, when he believes the time has come to buy, should purchase his full line at once or should buy a part of it and wait to see whether he can buy the rest cheaper. This is known as "averaging." It may be done "on a scale"—for example, buying at 30, 28, 26, and so on down—or by buying half one's requirements and then waiting until the time seems ripe to buy the other half.

When the investor confines his efforts to trying to buy as near to the bottom of the tidal swing as he can and sell as near the top, I see no advantage in averaging. He has only one man's judgment to use and all he can do is use it. There is inevitably a certain point where he believes that the market has *just turned*. He might as well buy or sell at that point, since that

represents his best judgment. If he has caught the turning point closely, he is more or less of a "wizard." But whether he has or not, he has done his best and can do no otherwise. If he buys only half his intended line and waits to buy the other half later, that means that he is using his best judgment on only half.

In nine cases out of ten, probably, the market will go against him somewhat after he makes the purchase. He will then say, "I could have done better by averaging." True enough, but *would* he? Or would he have waited until the golden opportunity slipped away entirely? For, as we have seen, that is just what the great mass of the public does.

The case is somewhat different, however, when he endeavors to follow the trend by buying or selling in the course of a movement which is already in progress. The average investor's guess as to the bottom of a reaction in a bull market or the top of a rally in a bear market is worth very little, and it is important for him to avoid getting heavily loaded up near the beginning of a reaction only to see prices fall far below his purchase price.

In this case he is no longer buying at bargain

levels. He is buying after a considerable advance in the belief that the market will advance still further. He must therefore be more cautious, and may well follow the principle of buying "on a scale," or of buying at first only a part of what he is able to carry.

Use of Stop Orders

Another question is, Should stop orders be used? (The stop order is an order to sell when the price touches a stated figure *below* the current market, or to buy when the price reaches a fixed figure *above* the market.)

For example, turning to the graph of stock prices, suppose that the investor concludes in February, 1904, that the market has turned for a long upward swing and buys at a price represented by 93 on the scale of average prices. Should he then place an order to sell in case the market goes lower than it sold in September, 1903, on the theory that such a movement would prove him wrong and he could then better get out and wait for the next opportunity? Or should he patiently hold his position and wait for prices to recover?

This depends on the man—on how much money he has in proportion to his commitment, and whether he is of the speculative or the investment temperament. It is impossible to lay down a rule as to which method is the better, because that depends on how often or to what extent the investor is going to be wrong.

We may say this, however, that whichever method the investor decides upon, he must follow it consistently. He must not buy with the intention of holding on until he has a satisfactory profit, and then when the market turns weak change his plan and decide to sell out and try again, or buy with the intention of using a stop order and then cancel the stop order, through unwillingness to take a loss, when the price begins to approach his order. Such changes of plan always result in confusion.

Another common use of the stop order is to prevent a profit from running into a loss. For example, if a stock bought at 80 advances to 85, the buyer then puts in an order to close his deal in case the price again falls to say $80\frac{1}{2}$. He can then forget the trade and proceed to use his funds in other stocks if an opportunity presents itself.

Evidently the higher the general scale of prices rises, the more important it is to prevent a profit from running into a loss. When the prices are low it is not usually desirable for the tidal swing investor to use this plan, since it may result in his being closed out on a reaction just before the market is ready to start on a prolonged advance. If he has bought after due consideration and has exercised ordinarily good judgment, he will usually do better to hold his position during early reactions in the market—which are, of course, highly probable—without being alarmed if his first paper profit runs into a temporary loss.

But when a purchase has been made on a reaction in the middle of a bull market, so that the buyer has paid considerably more for his stocks than he would have had to pay if he had bought near the bottom, it is desirable to apply this principle of preventing a profit from running into a loss; because if it turns out that he has misjudged the situation, so that a bear market has caught him unawares, his loss may eventually become large.

It will be seen that there is a greater possibility of this after such a trade, made in the middle of

the bull market, has shown a fair paper profit than there was when the investor made his purchase, because the bull market will then be just that much farther advanced in its course.

To make this a little clearer, suppose during the summer reaction in the bull market of 1916, a purchase had been made at the level represented by the price of 85 for the 50 stock average. Prices then advanced above 100 and by the end of the year had again declined to about 90. Assuming that the investor had up to that time failed to recognize the beginning of the bear market, if he once allowed his purchase at 85 to begin to run into a loss he would be likely—following the theory that merely another reaction in the bull market was taking place—to allow prices to fall to perhaps 75 before becoming discouraged and selling out. He would have been considerably better off if he had “stopped” his trade at $85\frac{1}{2}$ on the assumption that he might be wrong, and that even if he was right he still had the chance of repurchasing as low or lower than he had sold.

On the other hand, if he had bought at the level of 60, when the stock exchange reopened in 1914, he would have been wrong in placing a

stop at $60\frac{1}{2}$ after the first advance to 65, as he would then have been closed out near the bottom of the first reaction and at a very low range of prices.

The stop order is a very helpful device, but judgment and discrimination must be employed in making use of it.

Conclusion

Throughout these articles I have endeavored to avoid giving the impression that the application of the principles explained will enable any one to buy at the bottom and sell at the top, or that sudden wealth can be acquired by following the tidal swings.

The investor's greatest danger is *getting in too much of a hurry*. Having started with the determination to act conservatively, he is liable to be gradually led astray into the field of active speculation, which is a profession in itself and something entirely different from endeavoring to follow the tidal swings.

The fact can hardly be emphasized too strongly that the study of the tidal swings is merely *an aid to the investor proper*—a means of **enabling**

him to increase his average yearly returns on his capital.

It would be easy to figure out with pencil and pad just how great the investor's profits would be if he bought within five points of the bottom and sold within five points of the top of each broad swing of the market, and the result would be impressive—but unimportant. The optimism generated by such hind-sight calculations has often caused heavy losses by those who overestimated their ability to do in the future what they saw might have been done in the past.

It has been estimated by G. C. Selden, in his book "Investing for Profit," that an experienced investor of sound judgment may not unreasonably hope for an average return of 20 per cent. annually, including both interest and profits. I see no reason to disagree with that statement, but of course everything depends upon that one word "judgment." It is to the cultivation of judgment and the avoidance of impulsive action that the investor's efforts must be constantly directed.

If such efforts are somewhat facilitated by what I have had to say in these chapters, my hopes will have been fully realized.