

sophisticated and rational approach will usually be well rewarded for their effort. This book is directed toward a definition of what objectives are reasonable and the development of a sophisticated and rational approach to the realization of those objectives.

The first step in building a successful investment strategy is to learn as much as possible about where stock prices in general are headed. **Part One, Stock Market Indicators**, is devoted to an in-depth analysis of the vast array of techniques which have been developed over the years to forecast stock market trends. Computer-aided testing has provided new insights into many traditional indicators and has made possible the development of a number of new market barometers revealed here for the first time.

Although many of the indicators work well enough most of the time, virtually none are always correct and rarely do they all ever point in exactly the same direction. The relatively new science of econometrics provides a number of useful statistical tools for combining information from diverse sources into a single rational forecast. **Part Two, Econometrics and the Stock Market**, describes the integration of the stock market indicators into useful econometric forecasting models, and explains the advantages of an econometric approach to stock market prediction.

At any given moment the odds are about two to one in favor of a bullish forecast being the correct one. A number of possible answers to the then logically ensuing question of what stocks should be bought are explored in **Part Three, Stock Selection Theories**. The seemingly endless number of techniques for picking winners are shown to be but variations on a handful of basic themes, most of which are of dubious value.

There are surely many paths to success, but **Part Four, Stock Selection: From Theory to Practice**, concentrates on an approach that combines a rational theory with a long history of superior results. Evidence is adduced that raises extreme doubts about the validity of the random walk

theory. An old Wall street adage goes, "Don't tell me *what* to buy, tell me *when* to buy it." In fact, *what* and *when* are two sides of the same coin – both essential to a successful investment strategy.

The next step to making money on Wall Street is learning to apply the tools of portfolio management, covered in **Part Five, A Total Financial Management System**. After defining objectives, several methods, some common and some unorthodox, of improving total returns and adjusting risk levels are explored.

Game theorists call the stock market a "positive sum game" because in the long run the market rises and, in aggregate, all investors make money. But the money game does not yield uniform profits to all its participants. Instead it dispenses large gains or losses to a relative handful of participants, leaving most players as small winners. **Part Six, Measuring the Market: Keeping Score**, explains how to measure relative performance to learn if your portfolio is doing better than someone throwing a handful of darts at a page of stock listings might do by chance alone; in short, you will be shown how to truly distinguish between winning and losing performances.

Individuals who own small stock portfolios, or who, for whatever reason, do not wish to devote much of their time to the investment decision-making process, have a ready alternative in mutual funds. **Part Seven, The Mutual Fund Alternative**, unveils a new method of profit maximization and risk reduction using these popular investment and trading vehicles.

Finally, for those who fear that a random walk still lurks somewhere on Wall Street waiting to trip up investors seeking above average profits, breathe easier. The concluding **Part Eight, A Run Down Random Walk Street**, allays those fears by tripping up the random walk instead.

#### 4 STOCK MARKET LOGIC

**Technical Note:** Risk proposes and defines a new risk measure which better meets the tests of common sense and statistical theory than more traditional measures.

Finally, the author asks readers to appreciate that any inquiry into the stock market, particularly one that is grounded in statistical analysis, as this one is, can be dated by events. By its very nature a book is not easily revised to reflect all of these changes. To keep readers up to date, the author writes an investment advisory newsletter, *Market Logic*, that regularly publishes new analyses of market timing, stock selection, and portfolio management techniques, including updates of many that are presented here. Please feel free to contact the author for a complimentary issue of the newsletter.

# PART ONE STOCK MARKET INDICATORS

## 1 Riches Beyond the Dreams of Avarice

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The endless quest by fundamentalists and technicians alike to discover the secret of calling market turns is driven by a knowledge of the incredible returns a completely successful timing strategy would yield.

Consider, for example, that from early 1964 through the end of 1984, the average New York Stock Exchange common stock provided its holders with a total return from dividends and capital appreciation of 11% per annum compounded. By comparison, an investor with the intelligence and foresight to step out of stocks and hold cash during the three bear markets of the period could have earned nearly twice that return — 21% per annum compounded. He could have achieved such a performance without ever picking a single stock or speculating on margin; by merely buying and selling “the market” (which is easier than you might think).

Taking the illustration a step further, an investor who actually sold the market short during the three bear moves (instead of just holding cash) would have reaped an additional profit sufficient to increase the compounded

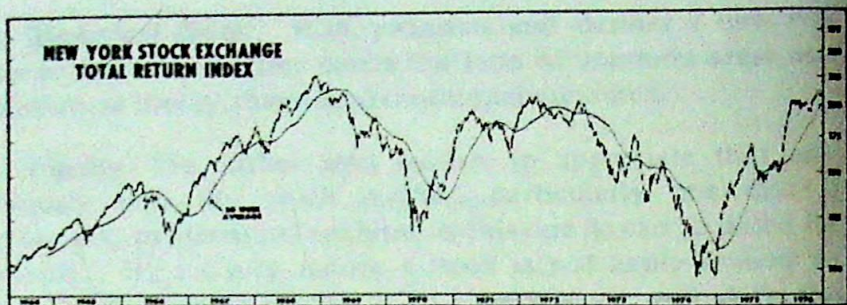


FIGURE 1. New York Stock Exchange Total Return Index  
Weekly range of daily closing prices; May 1964 - July 1976.

return to 27% per annum, a stunning cumulative return of 13,812% (see Table 1).

But let us take our illustration yet a further step. An investor who perfectly forecast every up and down market swing of at least 5% during those years, buying just before each upmove and selling short just before the market was about to drop 5% or more, would have garnered a return approaching an astounding 52.4 million percent, equivalent to nearly doubling his money every year.

Perfectly forecasting even small price swings would naturally lead to even larger profits, although ultimately commission costs would equal the size of the swing itself and eat up all gains.

TABLE 1  
CYCLICAL MARKET TIMING STRATEGY - MAJOR SWINGS  
(April 30, 1964 - December 31, 1984)

Position	Time Period	NYSE Total Return Index	Theoretical Profit
Long	Apr. 30, 1964 - Apr. 21, 1966	101.77 - 147.16	44.6%
Short	Apr. 21, 1966 - Oct. 7, 1966	147.16 - 112.17	23.8%
Long	Oct. 7, 1966 - Dec. 13, 1968	112.17 - 230.51	105.5%
Short	Dec. 13, 1968 - July 7, 1970	230.51 - 117.04	49.2%
Long	July 7, 1970 - Apr. 12, 1972	117.04 - 209.15	78.7%
Short	Apr. 12, 1972 - Sep. 13, 1974	209.15 - 96.55	53.8%
Long	Sep. 13, 1974 - Dec. 31, 1984	96.55 - 890.40	822.2%

Total Compounded Return 13,812%

So the next time you hear someone say that all you need to do is buy good stocks and hold them, think of these comparisons of "buy and hold" with various market timing strategies.

Of course, few investors ever time a single market cycle to perfection, much less repeat the feat year in and year out. And accurately timing all market moves as small as 5% is simply impossible. Indeed, the incredible returns of the short-term trading strategies shown in Table 2 demonstrate how improbable such perfect timing is. Thus, the endless quest for new market timing techniques is based less on a belief that perfection is achievable than on an understanding of how profitable even the slightest success in market timing can be.

TABLE 2  
ALTERNATIVE MARKET STRATEGIES (1964-1984)

Strategy	Average Annual Gain	\$10,000 Grows To
Buy and Hold	+11%	\$ 87,500
Avoiding the Bear Markets	+21%	\$ 489,700
Long & Short Major Swings Only	+27%	\$ 1,391,200
Long & Short Every 5% Swing	+89%	\$5.24 billion

Even readily attainable levels of market timing success can have a dramatic impact on overall returns. For example, an investor who was short for only one-quarter of each of those three bear markets in the past twenty years would have spared himself half the losses incurred by his fully invested counterparts, and his \$10,000 would have grown to \$237,790 — tripling the profits of buy and hold.

Just what magnitude of returns constitutes a realistic expectation is a function of the degree of forecasting accuracy that can, in practice, be achieved. It might seem likely that accurate market forecasts for the next few days would be relatively easy to achieve, and that any prediction of prices six

months or a year in the future would be highly conjectural. Interestingly enough, exactly the opposite is true. As we shall observe later, long-term market cycles are much easier to anticipate than day-to-day wiggles in the averages. Furthermore, besides being exceedingly difficult to predict, small, brief price movements are rendered even less profitable by the burden of repeated transactions costs.

Be it from impatience or curiosity, most investors are unduly concerned about what the market will do in the next few days when their attention would far better be focused on where the market will be in three, six, or twelve months. The answers to questions about tomorrow's ripple may be more interesting, but answers to questions about the major trend are ultimately far more profitable.

Not surprisingly, many of the academic studies that have concluded that successive stock price changes are random (unrelated to one another), have analyzed only very short-term market movements, which do exhibit a large random component. However, when the longer term, which has been all but ignored by random walk theorists, is viewed in the light of market forecasting indicators, it becomes clear that the market does *not* follow a random pattern, and that superior profits await investors willing to follow the guidance of those indicators.

The indicators that have been developed in pursuit of the ultimate market timing index are legion. The following chapters are devoted to descriptions and studies of the most important indicators. The presentations are based not on mere anecdotal evidence but on rigorous and objective analyses of historical reliability.

## 2 The Dow Theory

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The venerable Dow Theory is a system of market analysis developed by Charles H. Dow around the turn of the century, and later refined by William Hamilton and Robert Rhea. The theory purports to identify and measure changes in important cyclical trends in stock prices on the basis of movements in the Dow Jones Industrial Average and the Dow Jones Transportation Average (formerly the Dow Jones Rail Average).

To ascertain the present trend of the market with the Dow Theory, an observer must first establish a definite set of criteria to compensate for the theory's lack of specificity. Unfortunately, because stock prices seldom seem to move in uniform, perfectly defined cyclical patterns, it is difficult to develop such criteria. In fact, different Dow theorists have derived radically different criteria for Dow Theory buy and sell signals.

The stated criteria for any set of Dow Theory signals normally include three basic elements. First, the industrial average and the transportation average must confirm one another. A signal by one of the averages but not the other is insufficient to yield a full fledged Dow Theory signal.

Second, following a substantial market decline, a buy signal is established as follows: a rise by each of the averages to points substantially above their major lows; then a decline by each of the averages of some minimum length that does not penetrate their previous lows. (Dow theorists have never quite agreed what the minimum should be.) Finally, each average must rebound from this second intermediate low and establish a new cyclical recovery high.

Third, following an extended market advance, a bear market is signalled in precisely the opposite manner: a decline