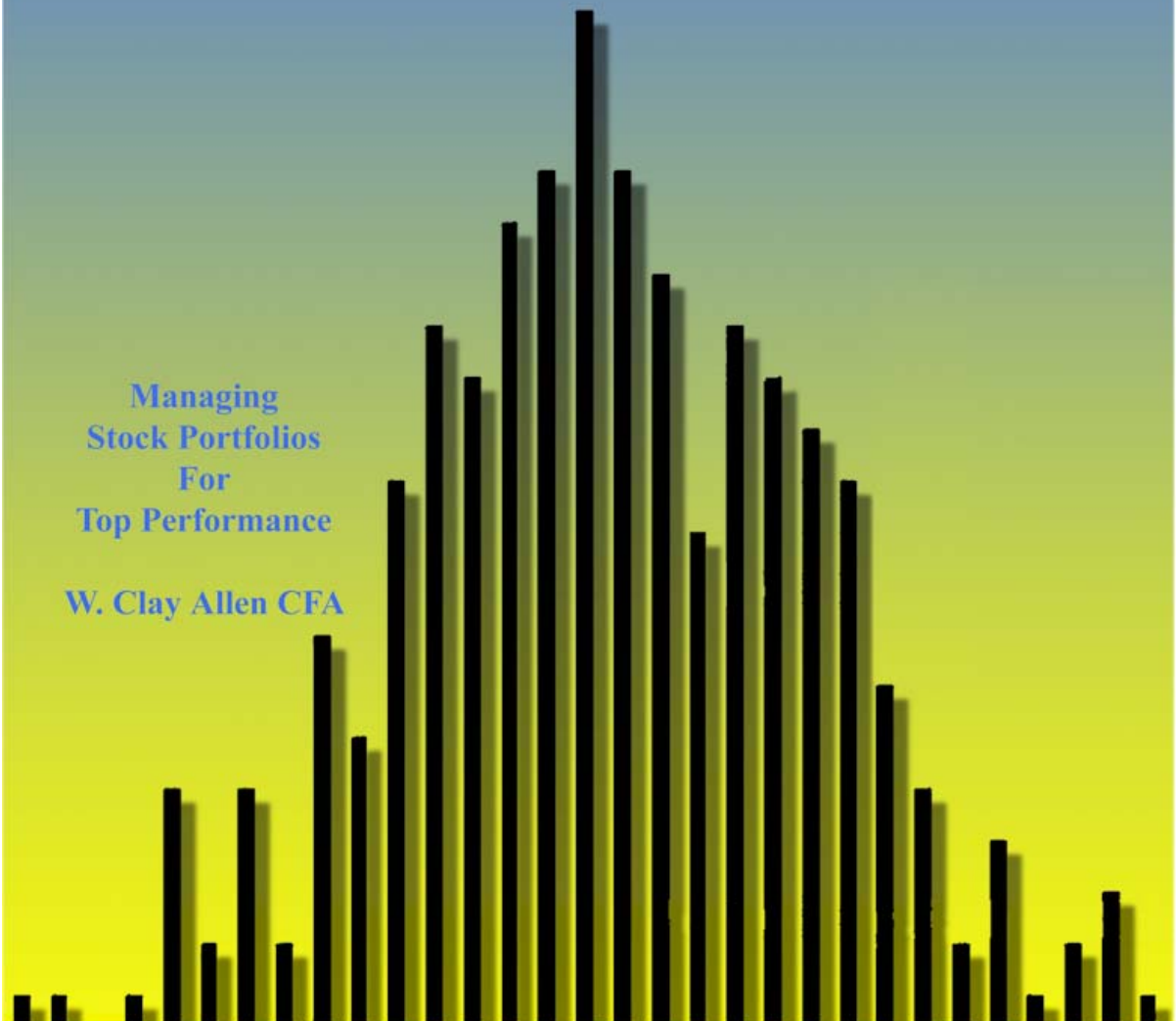


Winning the Performance Game

Managing
Stock Portfolios
For
Top Performance

W. Clay Allen CFA



Winning The Performance Game

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Stock Portfolios
For
Top Performance

by
W. Clay Allen CFA

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Winning The Performance Game – Managing Stock Portfolios For Top Performance

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1. Finance - Investments
2. Portfolio Management
3. Point and Figure charting
4. Performance Measurement

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Introduction - Take Control of Your Investment Performance

My purpose in writing this book is to share my experiences and the lessons I have learned about managing long-term institutional stock portfolios for performance. The primary objective is to help portfolio managers improve their investment performance. This book is not intended to be an introductory course in portfolio management and I assume that the reader is usually a professional, long-term, equity portfolio manager or a sophisticated individual investor.

Organization and use of this e-book

This e-book has been designed to allow the reader the full use of the main advantages of an electronic book – the use of hyperlinks. The table of contents is made up entirely of hyperlinks (a small hand appears over the hyperlink) to various parts of the e-book. The book has been organized into five loosely connected parts;

- [Investment Performance – Part 1](#) p13
- [Portfolio management – Part 2](#) p59
- [Successful Stock Charting – Part 3](#) p98
- [Investor Psychology – Part 4](#) p164
- [Schooled by the Market – Part 5](#) p203

The e-book is made up of short essays about various facets of investment management. It has been designed for the user to jump around within the book rather than reading straight through. The user who is primarily interested in Hidden Order can use the following link to jump straight to that topic – use the back key to return to this point – [Jump to Hidden Order](#) p101. The reader can also [Jump to Hidden Order to the Downside](#) p103.

Several topics are addressed repeatedly in this collection because of their importance and usefulness in successful portfolio management, particularly performance measurement, social proof, commitment and consistency, trading ranges and various aspects of chart construction and usage. If the user finds any of the repetition tedious then I recommend that the reader use a hyperlink to go to a different topic.

All of the charts in this book were prepared using the Market Dynamics point-and-figure software and service. These charts and this service are now being used by some of the largest institutional portfolio managers, hedge fund managers and individual investors. A complete tutorial on the construction and application of relative strength charting in a point-and-figure format can be found at <http://www.clayallen.com>. This extensive tutorial is over three hundred pages in length and can be downloaded free from that web site.

The fundamental idea behind this book is that in order to manage investment performance it must be measured.

“Measure it and it will improve.”

The Purple Cow

Seth Godin.

Since the approach is for long-term investors rather than short-term traders, it is important to describe a measurement system that eliminates the short-term noise from stock price data. In addition to removing the noise, the measurement system should also eliminate the influence of the overall market and produce an indication of performance that is adjusted for the movements of the market. It is assumed that investors want to perform better than the market.

Philosophically, when we sign off on the need to measure the performance of stocks in order to manage the performance of the portfolio, we then need to determine the best methods for measuring market performance. Measuring market performance is nothing more than gathering feedback from the market to validate or to refute our hopes and expectations about the performance of a stock.

The application of the three-box, point-and-figure charts of relative strength accomplishes the dual goals of removing the noise and presenting the performance data in a long-term format. I have used point-and-figure charts of price for many years and I adopted an emphasis on relative strength in the late 90's. I have assumed that the intended reader is more or less familiar with the techniques of three-box, point-and-figure charting.

The typical institutional portfolio manager is more inclined to use only fundamental security analysis in their portfolio management activities and this makes them vulnerable to performance problems whenever their expectations are too optimistic. The most important application of long-term charting is to verify those performance expectations about a stock by using feedback from the market itself.

It is my basic belief that the long-term performance of an investment grade stock that is recorded in the market, good or bad, occurs primarily for fundamental reasons and these reasons often persist for long periods of time. These fundamental factors affect the performance of the stock and the price performance of the stock in the market reflects on the state of the fundamental business conditions of the company.

This order in the market is often hidden from view by the short-term random noise in stock price fluctuations. This is why when the noise is removed and the price data adjusted for the influence of the market; a hidden order emerges from the data. This hidden order can be measured and used to manage the performance of the stocks in the portfolio.

The results of this measurement process are not used to make predictions but are used to grade the stock's performance as either acceptable or unacceptable within the context of long-term investment goals. Performance measurements that indicate persistent long-term performance that is unacceptable suggest the sale of the stock. Good performers are retained in the portfolio for as long as they outperform and poorly performing stocks are weeded out. This is the essential portfolio upgrading process that allows a portfolio manager to keep the portfolio fresh and directed toward the performance goals.

The economy, business conditions, and the investment fundamentals of companies are always in a state of change and this is reflected in the constant motion of prices recorded in the stock market. Conditions don't seem to ever achieve equilibrium and the successful portfolio manager must continually adapt to these changing factors. Portfolio managers need evidence that confirms the direction of the change and the magnitude of its impact on the performance of individual stocks.

Performance management is all about the sell decision. Sell and don't buy stocks with unacceptable performance records. Buy and continue to hold stocks that have good market performance. This allows the portfolio manager to take control of his performance with an understandable method that is based on genuine evidence from the market.

I first started using point-and-figure charts to defend against faulty Wall Street research and it still works. In addition to guarding against the mistakes of Wall Street analysts, I have to admit that I need to guard against my own investment mistakes and the charts are extremely helpful in keeping me on the right track.

Over the past 35 years or so I have worked with portfolio managers who used many different aspects of fundamental analysis to select stocks for purchase. It does not seem that good portfolio management is completed simply by selecting a stock for purchase. It's what happens to the performance of the stock after the purchase that counts. Performance is a function of price changes in the market and these accumulated price changes can be measured and filtered in such a way as to remove the noise and let the true performance show through. The true performance is what I call "hidden order."

The essays that make up this book were prepared over the past several years to help educate and inform my customers about my approach to the measurement and management of performance. The market experience over the past ten years has been a wonderful laboratory to test and refine these methods. Attention was given to important subjects at different times during the past two years and this has resulted in some subjects being covered more than once. To repeat, since I have chosen to include all of the weekly essays from the past two years, I hope the reader will forgive some repetition on some important aspects of the performance measurement process.

The book is dedicated to my wife Maria and our two sons Frank and Walter. They have been exceedingly patient and helpful during the preparation of this book. My son Frank was especially helpful in the design and preparation of the artwork that was used for the covers of the book. My thanks to Gary Bender and Barbara Osgood-Hartness for all their help and suggestions with the manuscript. To Vern Eliason, my thanks and gratitude for being my intellectual mentor for all these years.

W. Clay Allen CFA

Investment Performance – Part 1

Measuring & Managing to Enhance Performance

Manage The Portfolio Like A Business

A portfolio manager is more likely to succeed if he manages the portfolio like a business. The portfolio manager should view the various stock investments in the portfolio as the workers in the business. The business manager organizes and directs the activities of the workers to accomplish the goals of the business.

The business manager does not do the work. He manages the job performance of the workers. Feedback is gathered to provide a basis for evaluating the job performance of the individual workers. This process of gathering feedback should be almost continuous.

The business manager defines what is acceptable job performance. When the job performance of a worker sinks to an unacceptable level the worker must be terminated. A new, more capable worker is then hired as a replacement. The work force of the business is constantly refreshed and kept oriented toward the goals of the business.

The job performance of a worker in prior periods should not be allowed to unduly influence the evaluation of job performance in the most recent period. It is also recommended that the business manager not become too close or “chummy” with the workers because that might retard the ability to address the problem of poor job performance by the worker in the future—ditto for stocks.

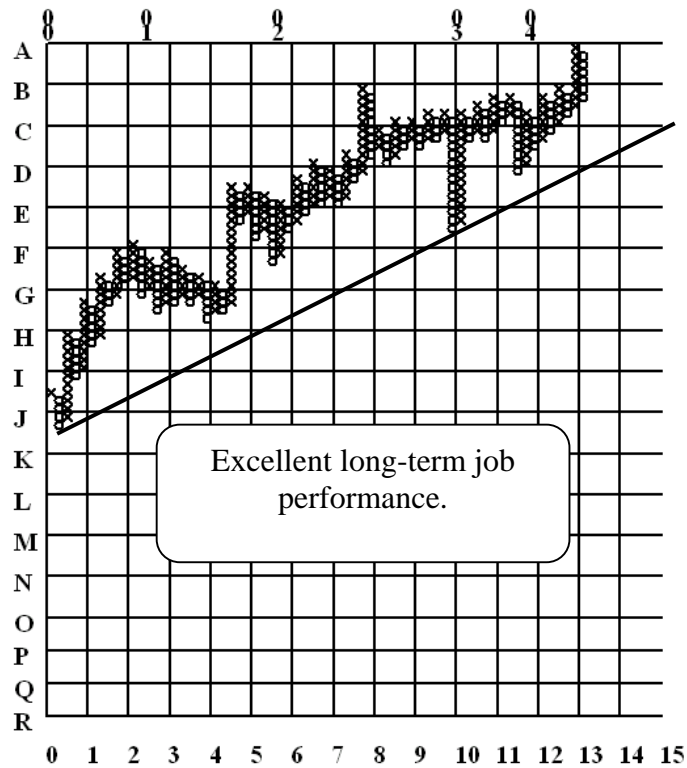
It should be remembered that it is the job performance of the worker that is being evaluated and criticized, not the abilities of the business (i.e. portfolio) manager. However, many portfolio managers become very defensive when stocks they have selected perform poorly. This defensive attitude seems misplaced and often gets in the way of an objective appraisal of the job performance by that worker (i.e. stock). All reasonable portfolio managers will admit that not all stock investments will work out as hoped and the feedback monitor is a direct method for dealing with disappointing investments.

The controlling rule in the business of investment management is to expect the unexpected. It is best to plan for surprise. A positive surprise will take care of itself and requires no action. The negative surprise is what triggers the feedback mechanism and sets the stage for remedial action.

The performance feedback process usually provides an early indication that something is developing in the wrong direction. It is usually a mistake to stubbornly maintain confidence in a prediction when the evidence from the market suggests that the prediction is suspect. Predictions must be continually tested and their “hoped-for” validity verified.

The performance feedback approach allows the portfolio to adjust and adapt to changing conditions while the fundamental inputs are still in flux. Once this approach has been adopted, it is a simple matter to develop the tools to implement a job performance feedback system.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
BLACKROCK INCORPORATED 05/14/2004 58.63 BLK



**“Men must be taught
as if you taught them not,
and things unknown
proposed as things forgot.”**

The Essay on Criticism

Alexander Pope

Adaptation—The Key To Success

Successful portfolio managers learn to adapt to changing circumstances that are often signaled by reversals in the movement of a stock's price. The example shown on the next page is an extreme case of a sudden reversal in the direction of the trend shown on the relative strength chart. The portfolio manager has to act on incomplete information and he may not be able to completely understand the reasons behind the stock price movement.

The successful investment manager understands that there are very good reasons behind the stock price movement and the onset of a serious downtrend is a danger signal that should be heeded. This seems to fit with the ideas behind the "wisdom of insecurity" that Bennett Goodspeed referred to in his book *The Tao Jones Averages*. Many times the true explanation for the negative price action cannot be discovered, but the "blip on the radar screen" just won't go away. The seasoned portfolio manager will trust his intuition and sell the position anyway.

This not only works on the downside. A change in the trend to the upside will often lead to the early recognition of a positive change in a company's financial fortunes. Most successful stock investments have been purchased in advance of the actual release of the fundamental data that justifies the higher price.

The portfolio manager who avoids a graphical measurement of price performance is unnecessarily removing an important stimulus to his or her intuitive feel for the market. Many times the very best investment decisions are made on the basis of very limited, soft information and it is often information that disagrees with the consensus opinions that are currently prevalent among most investors.

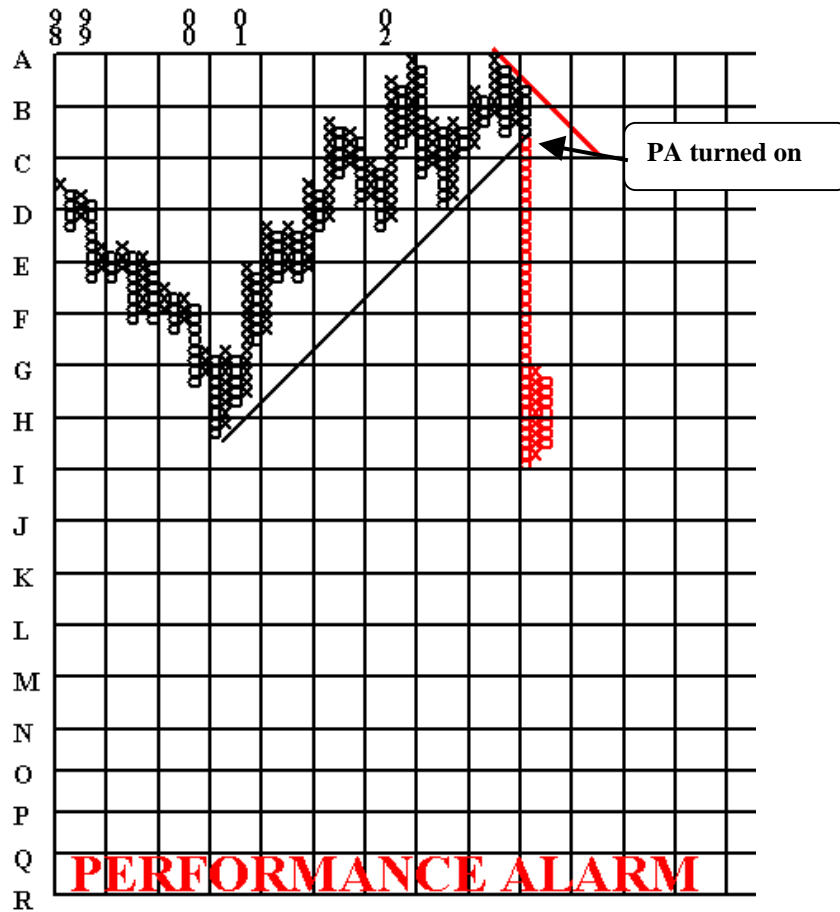
"The essence of successful investing is correct contrary opinion."

Currently chairman of the SEC - TV interview in the 1960s

Bill Donaldson

The development of correct contrary opinion often starts with clues drawn from the price action itself. The astute portfolio manager is a financial detective who is always looking for clues and hidden insights into the reasons behind the stock's price movements. The basic belief is that stock prices move for good reasons and while there is certainly a large amount of noise in the data, there is also a signal. The difficulty is that we cannot wait until we have a set of "ironclad" reasons to support our decisions. When the reasons become widely known and appreciated, the opportunity will no longer exist in the market.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
TXU CORP 10/10/2002 17.55 TXU



“The price mechanism is a system of signals that puts us in the situation of adapting to circumstances and experiences of which we know nothing. Our whole modern order and well-being rest on the possibility of adapting to processes that we do not know.”

The Use of Knowledge in Society

F. A. Hayek

The famous Austrian School economist

How To Improve Performance

In order to improve performance, the performance of the individual issues in the portfolio must be measured. The investment goals of a portfolio usually include the definition of a benchmark for such a comparison. The performance measurement process must incorporate this benchmark into the performance evaluation. The back and forth movement relative to the benchmark is recorded along the vertical Y-axis on the chart.

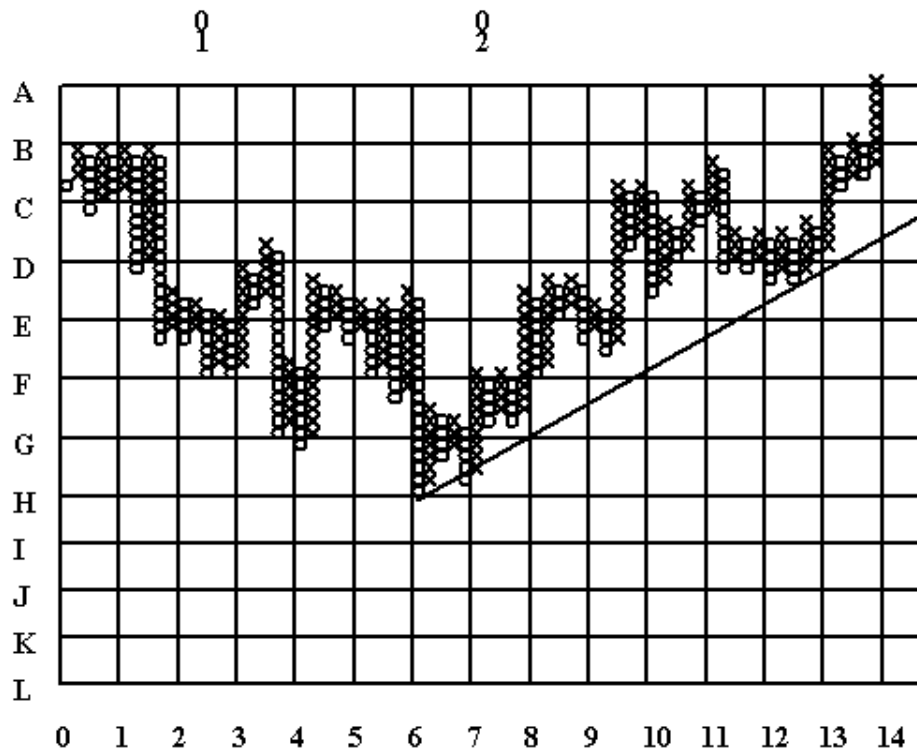
Another important aspect of performance measurement is the element of time. It is well known that the prices of individual stocks jump around in an erratic, unpredictable fashion. Short-term performance measurements are unreliable because of the random, statistical noise in the system. At the same time, the measurement process should not be so sluggish as to allow extremely negative, underperformance by an issue to jeopardize the performance goals of the portfolio. Therefore the performance measurement system should focus on the larger and longer-term movements but remain sensitive enough to pick up meaningful changes in performance.

There is a workable compromise in the selection of the proper time frame that adds an important strength to the measurement process. This is accomplished by measuring the relative price movements with a technique that filters out movements below a certain minimum fluctuation. That minimum fluctuation is designed to filter out the noise and only let the true performance signal be recorded. The back and forth movement of this component of the performance measurement process is recorded across the horizontal X-axis on the chart. A new column is recorded whenever a reversal of relative performance exceeds the minimum absolute amount. This converts the horizontal X-axis from the measurement of time to the measurement of alternations of trend. The alternation of trend is a function of the stock's volatility and that is a proxy for the stock's risk. Therefore the X-axis can be characterized as measuring risk and not time.

This exactly describes the construction of a three-box, point-and-figure chart of relative strength. These charts are an extremely useful tool to record and manage the performance of a stock relative to the market. A rising pattern or trend shows good performance and a declining pattern or trend shows negative performance.

Fundamental analysis leads to predictions regarding the future financial performance of a company and therefore expectations about the stock's future performance. A continued recording of bad performance by the stock should lead the portfolio manager to abandon his high expectations for the performance of the stock. The performance of the stock in the market, as recorded on the long-term relative strength charts in a point-and-figure format, acts like a check on the fundamental predictions that initially led to the purchase of the stock for the portfolio.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
AMAZON.COM INC 12/05/2002 22.58 AMZN



“Stock prices are merely people’s opinions of their value.”

Bear Markets and How to Survive Them

Harry Schultz

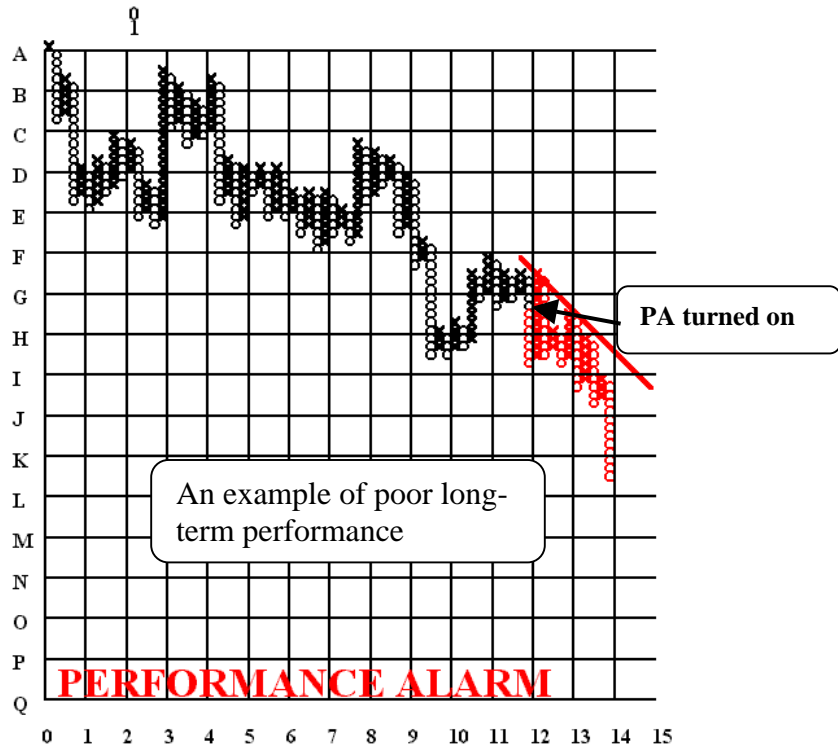
The Secret To Good Performance

The real secret to good performance is that there is no secret. The answer is there for all to see. In its simplest terms, the secret to good performance is to hold stocks that perform well and to avoid stocks that perform poorly. Knowing what stock to sell and when to sell it is the true secret to performance. The sell decision is the source of good performance!

The “trick” is how to measure a stock’s performance on a long-term basis. A portfolio manager needs constant feedback on the performance of his holdings so that adjustments in the portfolio can be made on a timely basis. Performance is almost always based on the comparison to some benchmark average—usually the S&P 500—but some portfolios are measured against the S&P 600 small cap index or other indices.

The primary purpose of relative strength is to facilitate the measurement of the performance of individual stocks within the portfolio. The methodology of the long-term point-and-figure approach also eliminates, or damps out, the small variations in performance. That filters out the noise and lets the more important, long-term trend show through. The point-and-figure methodology does not measure time across the X-axis since the movement on the X-axis is a function of alternations of trend. This means that the X-axis really measures volatility. This method of recording relative strength along the Y-axis and volatility along the X-axis is what makes these charts so important in achieving the performance goals of the portfolio. This is a system for the recording and measurement of performance—not a system to predict future performance. The poor performance of individual issues in the portfolio is often the result of many factors that only become known after the episode of underperformance has been recorded. It appears that, more often than not, the market performance of a stock leads the fundamentals.

Price changes in the stock market are almost always the result of important fundamental developments. Fundamental analysts spend most of their time trying to figure out, and predict ahead of time, what these fundamental developments will be. Price action measured by relative strength is a far better predictor of the future direction of fundamental change. The market always knows more than anyone. This lesson is always driven home by a period of adversity in the market. Bear markets, such as that experienced during the 2000-2002 period; always reveal the inattention given to the sell decision by most portfolio managers. Good selling is just as important to success in portfolio management as good stock picking, but very few portfolio managers spend the time to develop these skills and performance suffers.



“Where all think alike, no one thinks very much.”

Walter Lippmann

The Origins Of Poor Performance

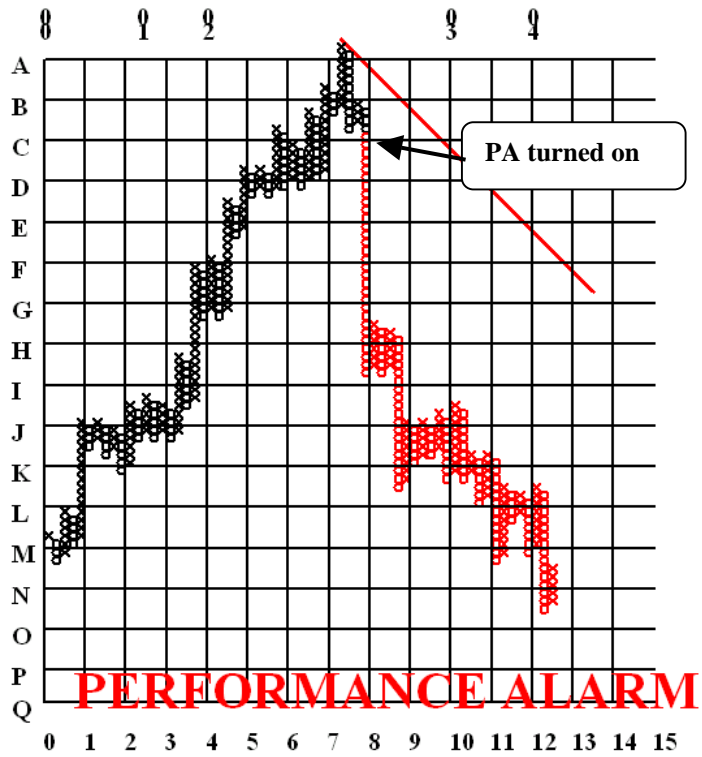
Portfolios underperform the market because stocks are held in the portfolio that underperforms the market for an extended period of time. Why are they not sold? Is it because the portfolio manager does not have the requisite skill and tools to make a good sell decision? Numerous authorities on portfolio management have concluded that the sell decision is far more difficult than the buy decision and have recommended that more time and effort be devoted to being a better seller (see Ellis, “The Loser’s Game”, *Financial Analyst’s Journal*, July/August 1975).

It seems that the movement and action of the price of the stock in the market is the most important part of the sell decision. Most portfolio managers are deeply committed to primarily fundamental analysis and shun the analysis of price, usually referred to as technical analysis. This lopsided approach leaves the portfolio manager vulnerable to serious errors whenever a stock begins a sustained period of underperformance. The true benefit of technical analysis is not to predict the future of the stock price but to recognize when a stock starts to underperform the market.

The measurement of the relative strength of each stock in the portfolio is the first step in improving the sell decision and enhancing the relative performance of the portfolio. Underperformance is a good reason to sell a stock. To assume or to believe explanations that there is no valid reason for the underperformance of a stock is to naively argue with the tape. Bargain hunters often find themselves in this situation where they believe the decline in the stock is unwarranted or overdone, only to be “surprised” by bad news. The market hears and sees everything and therefore the market price movements reflect everything that can be known about the stock.

The portfolio manager selects a stock for purchase based on the belief that it will outperform the market for certain fundamental reasons. He essentially develops a thesis about why the stock should outperform the market. Relative strength should then be used to validate or reject the thesis due to the actual performance of the stock in the market. The stock’s performance is either acceptable and the thesis is validated or its performance is unacceptable and the thesis is then rejected and the stock sold. The sale is not based on a prediction of future performance but on the rejection of the out performance hypothesis. Effective portfolio management depends importantly on knowing which stocks to hold and which stocks to sell, and relative performance should be the guide. It is an easy step to formulate relative strength into a format that provides a long-term focus.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
TENET HEALTHCARE CORP 05/14/2004 11.99 THC



Underperformance is a good reason to sell a stock.

Performance Measurement System

It is now well understood, but not widely appreciated, that the distribution of returns from common stocks is characterized by extremely heavy tails. In plain English, this means that the chances of investing in a major winner in the stock market are five to ten times better than the chances would be if the market was perfectly normal. It also means that the chances for buying a major loser are also five to ten times greater.

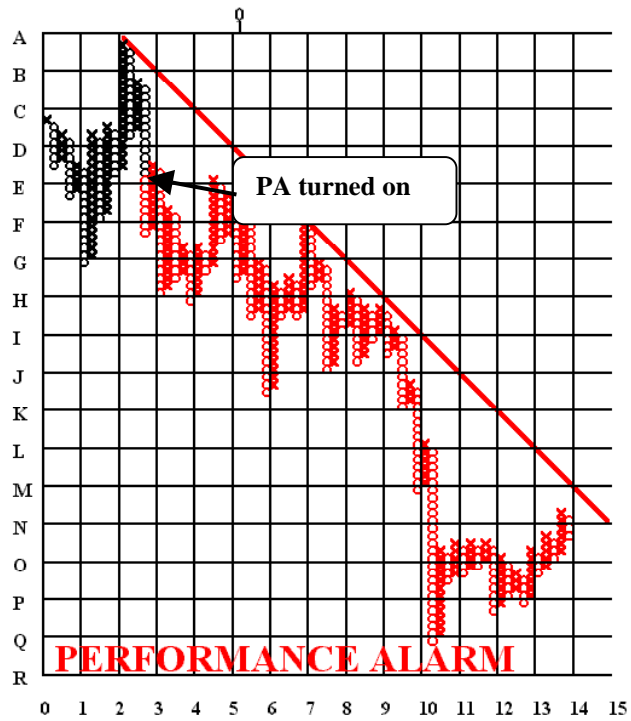
In practical terms, what does this mean for successful portfolio management? The primary rule for portfolio management should concentrate on the Pareto principle (the 80/20 rule). Eighty percent of your gains will probably be derived from the best 20% of your portfolio and 80% of your losses will probably be generated by the worst 20% of your portfolio. You should always let your winners run and cut your losses as soon as they can be identified.

The timely identification of the losers in the portfolio is the key to success. Almost no one doubts the idea that stocks are a leading indicator and that stock prices move up or down ahead of fundamental developments. There is a universal tendency for portfolio managers with strongly held optimistic convictions about the future financial performance of a company to overlook a change in trend that usually marks the transition from winner to loser.

The primary role of long-term, relative strength, point-and-figure charts is to record the price performance of a stock and to objectively report these changes in trend. The charts don't predict anything. They objectively measure when the performance of a stock becomes unacceptable. The use of long-term charts is no different than using an accounting system to record and report on the success or failure of the various parts of a business. An accounting system doesn't predict what will be successful in the future as much as it reports on what lines of the business are successful now and which aren't. Good business management then allocates more resources to the successful parts of the business and reinitiates or terminates the unsuccessful parts of the business.

In portfolio management, however, the portfolio manager often terminates the successful parts of the portfolio and allocates more resources to the parts of the portfolio that are failing. He should pay more attention to the portfolio performance measurement system (i.e. long-term, relative strength charts) and act more like a successful businessperson.

The role of the performance measurement system should be to record and verify the expectations of the portfolio manager regarding the performance of the investment. It is not too much to believe that unacceptable market performance is the direct result of expectations of unacceptable financial performance. It is critically important to believe, and to trust, the negative reports of the performance measurement system when the optimistic expectations of future financial performance become totally unrealistic, as happened in the recent stock market bubble of 1997-2000.



The timely identification of the losers in the portfolio is the key to success.

Poor Performance—Why?

The efficiency of the market and the resulting difficulty in making accurate predictions in the stock market are usually offered as explanations for poor investment performance by institutional investors. While this is true, there seem to be additional factors at work.

In the simplest of terms, stock portfolios perform poorly because the portfolio held stocks that performed poorly. Why were these stocks retained in the portfolio to the point that the overall portfolio performance suffered? Given an unmanaged portfolio, it would seem that a selection process that was based on random selection methods (for example, throwing darts) should get about 50% winners and 50% losers versus an unweighted market index, provided the sample was large enough.

Now factor in the process of active management. Does active management account for the underperformance of most institutional portfolios? If so, why?

The field of “behavioral finance” thinks so! Research in “behavioral finance” suggests a bias in the decision making of investors that leads to selling the winners and holding the losers. This indicates that there is something wrong with the way sell decisions are made, independent of how buy decisions are made.

Portfolio managers need to develop measures that provide feedback on the relative performance of the components of the portfolio and when this feedback indicates unacceptable performance, the stock should be sold. As long as the feedback remains positive, the performance is judged to be acceptable and the stock is held.

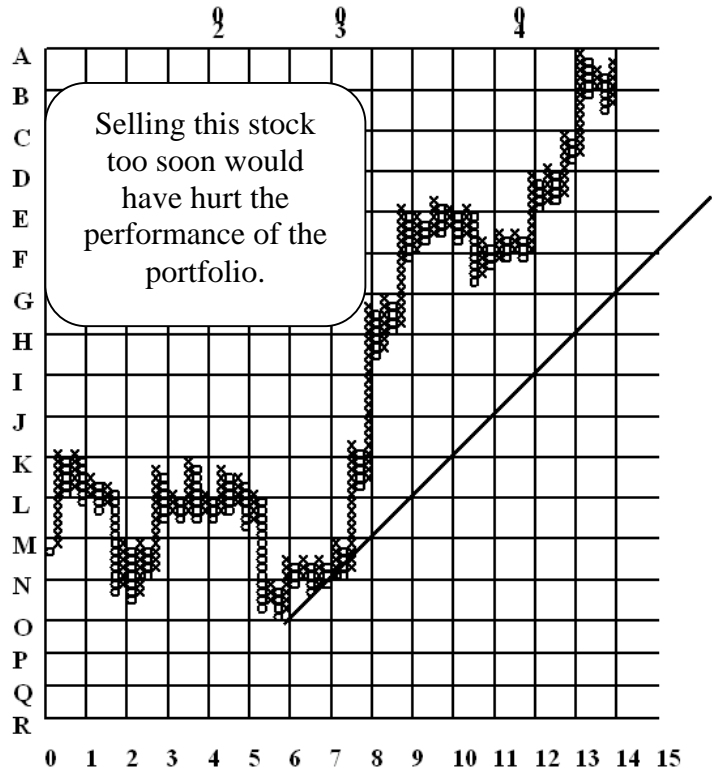
There are several beneficial results from such a feedback system. Winners would be allowed to run until their performance becomes unacceptable. Retention or adding to stocks with unacceptable performance characteristics would be stopped. New information that flowed into the market, with the power to change the relative performance of a stock, would automatically cause the portfolio manager to shift his position and adapt to the new market reality. The portfolio would be beneficially and continuously upgrading itself based on the new information and the facts from the market, while other investors were still in a mindset that assumes a continuation of the status quo.

This is not an approach based on predictions of what the market “ought to do.” It is based on the information provided continuously by the feedback from the market itself. This feedback system explicitly recognizes the efficiency of the market and is structured to take advantage of that efficiency.

Economic theory suggests that the true function of price in any market is to provide signals to help participants adjust their behaviors. It would seem that the stock market is no different. It seems more advantageous for active portfolio managers to use the information content from the market to implement such a feedback system rather than trying to anticipate or predict future movements. The market would continuously update its own forecast as new economic and financial conditions evolved. Active portfolio managers would automatically protect themselves from the predatory behaviors of some of the other participants in the market.

The active portfolio manager’s ability to improve his sell decisions with market feedback will have a dramatic and positive effect on the performance of the portfolio.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
MGI PHARMA INC 05/14/2004 63.06 MOGN



**“When the facts change, I change my mind.
What do you do, sir?”**

John M. Keynes

Positive Turnover = Good Performance

Positive turnover is a technique successful portfolio managers have developed to manage and create good performance. Positive turnover is not at all mysterious. It is very systematic in its application and it puts the portfolio manager in control of the performance of his or her investment portfolio.

The first step in the application of positive turnover is to develop a system for the identification of stocks in the portfolio that should be sold. We can never be totally sure that a stock should be sold so we must admit that we are dealing in probabilities. Techniques are readily available that yield positive results about 70% of the time (i.e. roughly two times out of three) and that is a good enough advantage to achieve excellent performance.

The early identification of problem stocks depends upon feedback from the market regarding the performance of each stock in the portfolio. A stock that is failing to perform after an adequate period of time should be judged to be a problem stock and it is then added to the list of switch candidates. Behavioral finance has well documented the tendency of investors to accept profits too quickly and to gamble with losses. Positive turnover explicitly recognizes this problem and creates a system that guards against it. Profits are allowed to run and problems are exposed early and identified for remedial action. When successful investments stop performing well, they are added to the switch list. Even if the batting average is good, two out of three, it means that for every three stocks purchased one will become a problem stock that will need to be eliminated from the portfolio as soon as possible.

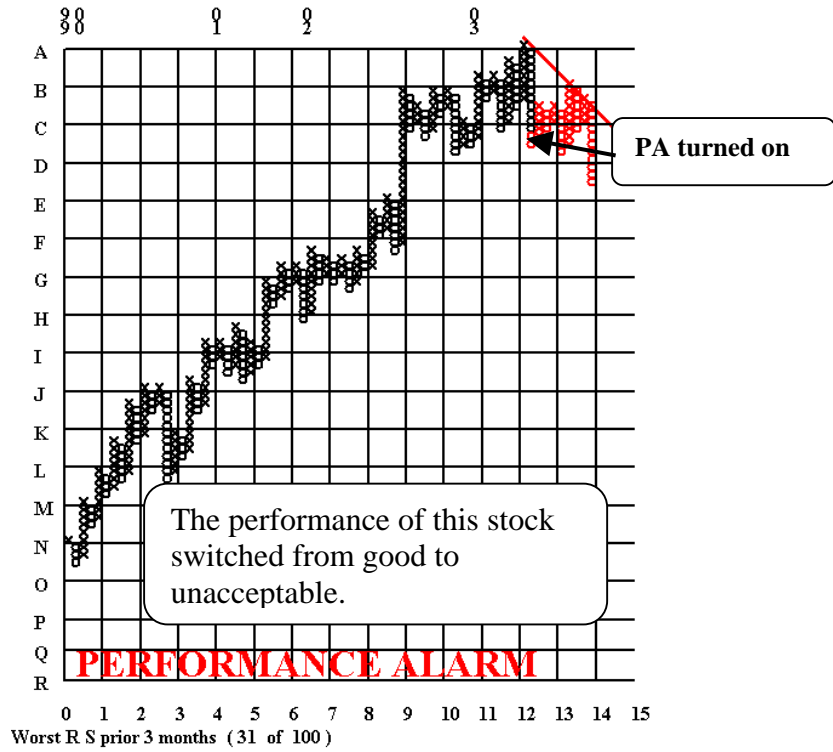
The relative strength feedback system should be applied regularly and systematically. The performance measurement system must be fast and easy to apply so that a review of all the positions in the portfolio is performed on a regular basis—at least weekly. The noise should be removed from the data and it is best to remove the influence of the overall market from the performance measurements. The performance indications should be fairly objective and leave little room for misinterpretation.

The application of positive turnover does not depend upon market timing in any way. A switch in the portfolio is set up when a stock is judged to be performing in an unacceptable manner. If positive turnover is applied consistently, the relative performance of the portfolio will not depend upon market conditions.

The buy side of the portfolio switch program is usually identified with the same sort of performance measurements. Fundamental analysis is then applied to make sure the potential buy candidate offers suitable value and expected returns.

The primary objective of positive turnover is to assure that a majority of the stocks in the portfolio are performing well relative to the overall market at all times. Positive turnover is not some theoretical fairytale. It is being applied by successful portfolio managers every day.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
FOREST LABORATORIES INC 07/17/2003 46.65 FRX



Most of tomorrow's problem stocks are in the portfolio now!

Pull The Weeds – Not The Flowers

Peter Lynch, of Fidelity Magellan fame, compared the typical portfolio manager to a gardener who pulled the flowers and watered the weeds. In many ways, it is a very appropriate comparison.

Successful portfolio managers know that they must identify those investments in the portfolio that represent undesirable investment “weeds” and remove them from the portfolio. It sounds so easy but there are several obstacles to keeping the garden (i.e. portfolio) properly weeded.

Not all stocks show up as weeds in the beginning but turn into weeds over time. How does the portfolio manager monitor the portfolio so that undesirable holdings are identified for attention? Most portfolios are charged with a mission to meet or exceed the performance of a popular index such as the S&P 500. Undesirable stocks will show up as underperforming the portfolio benchmark. The measurement process usually involves a comparison of the performance of the stock to the index. This is an application for relative strength.

The performance measurement technique should remove, or at least reduce, the influence of noise from the day-to-day fluctuations of the stock price. A moving average is one way to reduce the noise. Long-term relative strength, expressed in a three-box, point-and-figure chart, is the best.

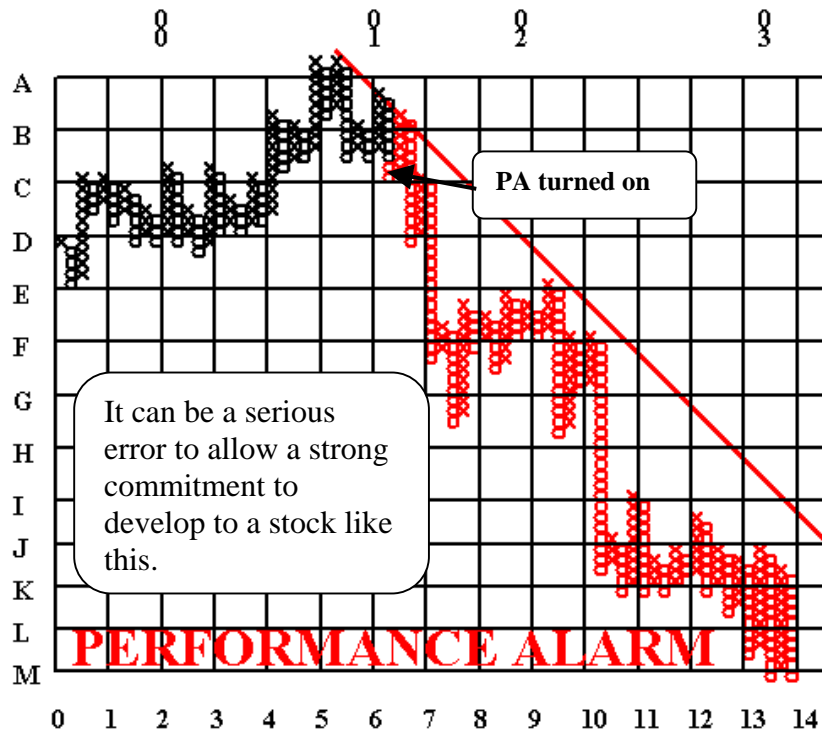
The purpose of the performance measurement process is to identify holdings in the portfolio that are not fulfilling their roles as productive investments. This technique should be sensitive enough to identify the underperforming stocks in time to remove them from the portfolio before serious damage is inflicted on the performance of the portfolio.

Another, more serious obstacle to the removal of an undesirable stock from the portfolio is the result of a psychological commitment to the idea that the stock will be a good investment. Buying a stock is usually not the result of a casual decision. It is a decision made under great uncertainty and it is usually the result of considerable time and effort to analyze the stock’s investment merits. A face-to-face meeting with management may have occurred. Many times, the results of the analysis are put into written reports and this has the power to increase the commitment to the stock.

Taking all of these factors together, the portfolio manager is usually subjected to a self-imposed commitment to the proposition that the stock will be a good investment for the portfolio. The result of this commitment is to produce behaviors that are consistent with that commitment long after the fundamental situation has changed. This “foolish consistency” is what explains the portfolio manager’s willingness to ride a stock down into a serious loss and this commitment can be the source of a failure to “pull the weeds.”

The relative strength performance measurement must act as an effective counterweight to the tendency to behave consistently with the idea that the stock is still a good investment long after the market performance has proven otherwise. The role of relative strength charting is not to predict, so much as to reliably identify stocks that are hurting the performance of the portfolio.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
ATLAS AIR WORLDWIDE HLDGS 08/14/2003 1.02 CGO



“Most investors, when they buy a stock, make not only a financial but an emotional and an intellectual commitment to the purchase...”

Why Most Investors Are Mostly Wrong, Most Of The Time

William X. Scheinman

Manage for High Excess Returns

Stocks should be selected and managed for their expected ability to produce excess returns, i.e. unusual profits relative to the average stock. This seems to be a straightforward proposition and an objective that can be readily accomplished. However, in the real world of investing, this seems to be an almost impossible task for most professional investors. Why?

The difficulty with the idea of investing for high excess returns seems to lie in the second half of the proposition. The selection process is usually the part of the problem that gets the most attention, and it is important, but stock selection is only part of the solution. How to manage an investment for high excess returns is often not considered, or is judged to be impossible.

The game investors play is what Keynes called “a mixed game of skill and chance.” Most investors spend too much of their time and effort trying to improve their stock selection skills, or finding a “skilled” advisor. Facing up to the element of chance is given little thought.

Assume that the investor is involved in a game where chance and randomness varies from period to period but biases appear and persist for variable lengths of time. The strength and extent of these biases or trends are unpredictable and almost completely a function of chance.

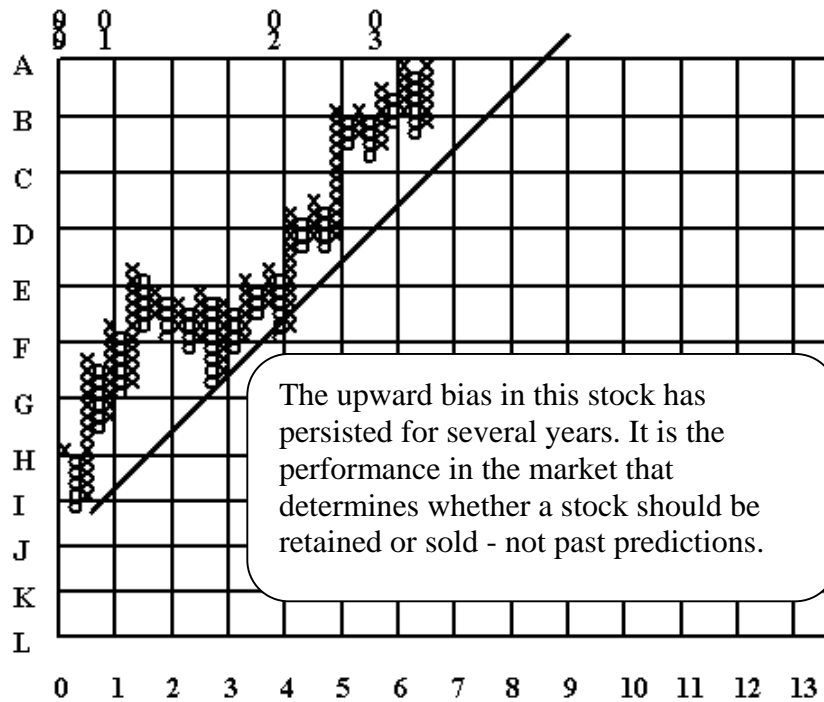
It would be to the player’s considerable advantage to gather data, measure the bias and to play the game so that the player would benefit from the bias that was then in effect, for as long as that bias lasted. He would also be aware of the need to change his strategy of play when the data showed a change in the strength or direction of the bias. It would be silly for the player to make predictions of the future bias in the game that would be based on anything other than the evidence from the data regarding the bias at work in the game, at that time.

This hypothetical game seems to be very close to the actual situation investors face in the workings of the stock market. The bias shows up in the trend of the performance of a stock, relative to the market. The investor seeking above average returns is not satisfied with the returns generated by the average stock. The behavior of the average stock becomes the measuring benchmark, and this role is usually achieved by using a market average, for example, the S&P 500.

The comparison of the performance of an individual stock to a market average is usually defined as relative strength. These increments of relative strength accumulate as a random process from the movements of both the individual stock and the market average. As long as these accumulations move up, the investor is achieving his goal. When the bias changes and the accumulations move down in a significant way, the investor is no longer moving toward his goal of excess returns. Regardless of his previous expectations or predictions, it is now obvious that the objective is not being met by that stock and it should be sold.

The use of charts, particularly point-and-figure charts, is a very important management tool for investors. Charts do not predict the future, but will measure the performance of each stock and evaluate the progress toward the goal of capturing high excess returns.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
XTO ENERGY INC 11/26/2003 25.33 XTO



“Businessmen play a mixed game of skill and chance.”

The General Theory of Employment, Interest and Money

J. M. Keynes

Right Brained versus Left Brained

Performance insight implies the ability to quickly perceive the inner nature of the performance of a stock. This involves perception not analysis. The insight is captured using a visual representation of the historic performance of the stock. The conclusion that the performance of the stock is acceptable, or unacceptable, should seize the viewer. It should not depend upon a detailed analysis or reasoning.

Humans have potent pattern recognition skills that have been very important contributors to the success of the species. These are skills that are primarily located in the right hemisphere of the brain. The use of performance charts and other visual representations are extremely useful because they call forth the pattern recognition skills of the right hemisphere of the brain. These abilities are the source of insight, perception and intuition.

Insight involves the ability to discern and distinguish differences between objects. When using performance charts, this results in the quick recognition of stocks that are performing well versus stocks that are performing poorly. Naturally, the stock that is performing poorly should be eliminated from the portfolio and then be replaced with a stock whose visual appearance suggests good performance. This does not fall into the category of market timing as much as it is a system to keep the portfolio fresh through a process of continuous upgrading (i.e. positive turnover).

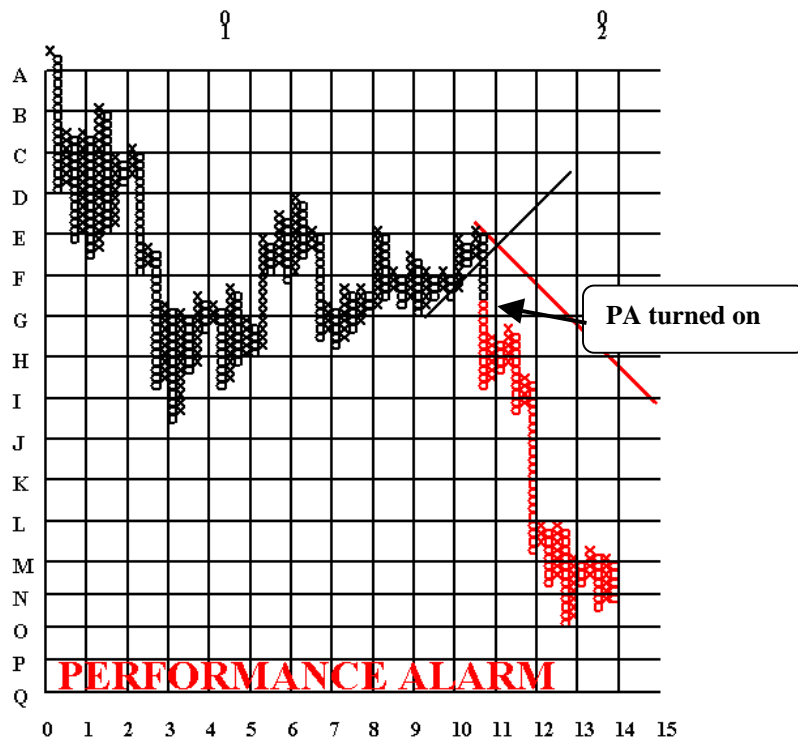
The perceptions reached by a visual pattern recognition approach are often far different, and more effective, than the conclusions reached by a relative strength ranking system. The visual approach incorporates trends and movements on the performance chart that cannot be captured by the ranking approach. The portfolio manager is constantly made aware of reversals of the direction of movement on the performance charts that usually precede the recognition of a change in the fundamental financial performance of a company.

Modern man has neglected the development of many right-brained skills because of the dominance of logic, math, and analytical, left-brained skills in education. However, the use of insight and intuitive skills can be developed and improved through the use of visual representations of performance. Technical analysis of charts should be less dependent on left-brained analysis and more concerned with right-brained insight and perception.

The chart of a stock's performance provides a picture that is hard to misinterpret. The Market Dynamics point-and-figure charting system goes one step further. When a stock's performance traces out a particular negative pattern, the color of the chart is changed to a glaring red to indicate unacceptable market performance. This is called a Performance Alarm. This pattern has been associated almost universally with major reversals of trend.

The most effective approach to insight regarding a stock's performance is through the use of visual perceptions. These skills get better with practice and the portfolio manager will soon learn to trust his intuitive judgments, especially when dealing with stocks that are underperforming. Performance insight will warn the portfolio manager when a highly popular stock starts to lose its luster.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
CAPSTONE TURBINE CORP 02/01/2002 4.6 CPST



To learn more about right-brained investing

The Tao Jones Averages

Bennett Goodspeed

Adaptability = Better Performance

Change creates winners and losers. In the stock market, constant change is the only constant. The ability to adapt to change is the key to better investment performance.

It seems that most professional investment managers tend to resist change and to ignore the feedback from the market that marks certain stocks as winners and others as losers. Human beings seem to have a certain built in resistance to change that may be part of our evolutionary heritage. The current situation may be very bad but it is very dangerous to make changes until we are certain of the outcome. The fear of the unknown thus forces us to endure bad situations.

Uncertainty also reduces our ability to adapt to change because we are often unable to evaluate the significance of changes while the events are taking place. This is certainly true in the stock market. We cannot be sure of the significance of many events while they are in motion but the market, which is forward looking, seems to be fairly good at judging the importance of these changing developments.

At the margin, the collective judgments of the market, more often than not, are very effective at weighing the importance of these changes. The collective judgments are reflected as price changes that accumulate over time. They provide a very important insight into the direction and magnitude of these changes. The accumulated price changes form trends that often persist for long periods of time.

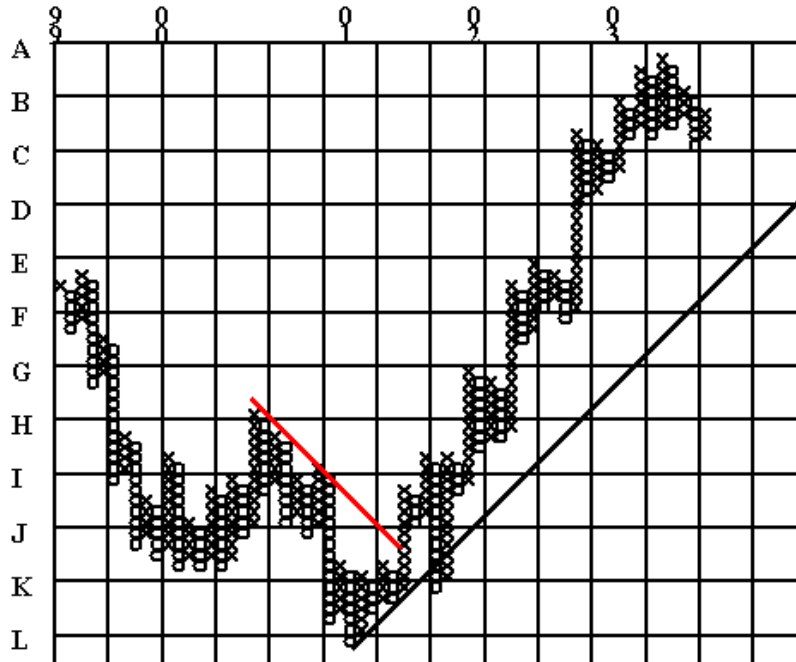
As an investor, I may not fully understand the significance of these changing fundamental conditions but I can rely on the trends in the market to help me evaluate their significance. It seems almost a truism that if the significance of these changes is fully understood then their ability to affect the market is totally lost. In other words, there must be uncertainty to provide an opportunity for profit.

These price changes accumulate as a random process over time, as opposed to a precise mathematical function. However, the lack of mathematical precision does not render these accumulated price changes as meaningless. The trends that these price changes produce are essential to the evaluation of the significance of the fundamental changes that are taking place in the company.

The ability to adapt to changing fundamental conditions while these changes are still in motion is the key to investment success. It seems that portfolio managers have conveniently convinced themselves that as “long-term” investors they can ignore changing trends in the market and have therefore cut themselves off from one of the most important sources of insight into the significance of changing fundamental conditions.

It seems axiomatic that if you believe changing fundamentals will affect stock prices then you should also believe that changing stock prices would reflect changing fundamental conditions.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
BOSTON SCIENTIFIC CORP 04/24/2003 43.66 BSX



“Financial genius is a rising stock market.”

John Kenneth Galbraith

Use Feedback To Improve Investment Performance

Feedback is absolutely essential to the successful management and control of any process regardless of whether it is athletic, physical, political, or business. Athletic coaches constantly observe and measure the performance of their athletes. The winners of athletic contests are determined by their performance in terms of points, speed, strength, strokes, or some other measurement central to that contest. A physical process is often controlled by sensors that measure and report on pressure, temperature, flow rates, or some other measured quantity. Politicians often use political polls, caucuses, conventions and other forms of feedback to gain an insight into what is required to win (i.e. perform) the political contest. Business generates vast amounts of accounting data and other forms of feedback that guides management and workers in adjusting the activities of the business to improve financial performance and achieve other goals as well.

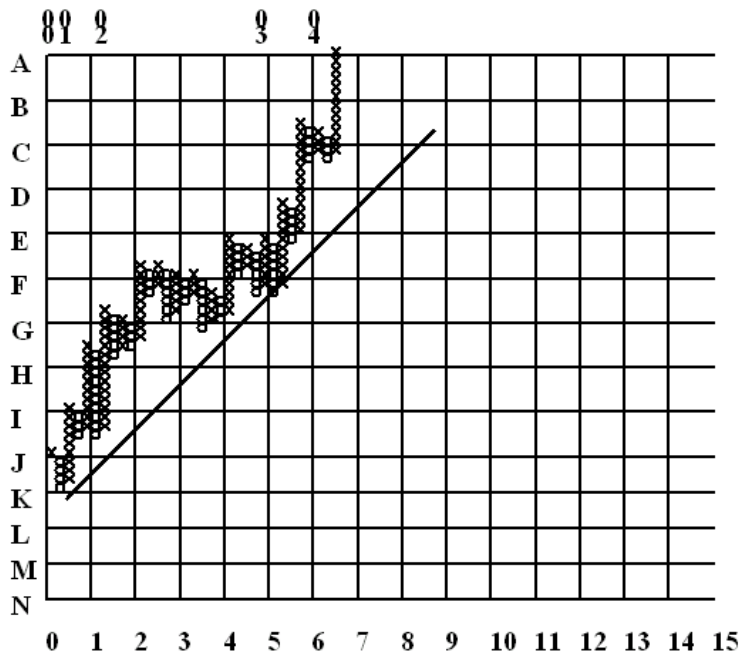
Portfolio managers are almost always given performance objectives in terms of some market index or average. The comparison of the movements of the portfolio relative to the benchmark determines whether the performance objectives of the investment portfolio are being met, exceeded or are falling short over a given period of time.

Feedback regarding the performance of individual investments is essential to achieving the goals of the portfolio. The movements of the stock market generate huge quantities of data that can be used to measure the performance of individual investments. This feedback process is usually constructed using graphical presentations of price, volume, and other measurements over time. This process is usually referred to as technical analysis. If the performance of the athlete were lacking during practice it would be foolish for the coach to believe that the athlete's performance will miraculously improve to acceptable levels during the real game.

And so it should be with stocks. Stocks that are unable to perform during practice (i.e. before purchase) should not be expected to suddenly perform better in the real contest (i.e. after addition to the portfolio). Stocks that are on the team but not performing well should be cut from the team and new members, with demonstrated performance qualities, should be added to the team. Members of the team that are performing well should be retained and more of the efforts of the team oriented around their performance capabilities.

The coach (portfolio manager) knows that many of the fundamental factors that lead to superior performance may be well understood and encouraged through practice and coaching. Other factors that can contribute powerfully to performance may not be easily explained and may depend upon less well-understood qualities such as state of mind or motivation and desire. So it is with stocks. Some factors that contribute to good or bad performance may not be understood at all, but the performance can still be measured. If the performance can be measured, it can be managed. It is this feedback that is so essential to good portfolio management.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
JB HUNT TRANSPORT SVCS 07/02/2004 38.24 JBHT



“Winning isn’t a big thing, it’s the only thing.”

Vince Lombardi

Legendary coach of the Green Bay Packers

Fat Tails and High Performance

Most investors say that they just want to own “good” stocks. In this sense, a good stock is a stock that goes up a lot and it also goes up for a long time. These are usually the stocks in the far right-hand tail of the normal distribution of returns and they do generate high rates of performance.

How can these high-performance stocks be found? How can investments in these stocks be successfully managed? These are questions of considerable practical importance.

Both of these questions are best answered by the use of long-term, relative strength charts in a point-and-figure format. Measuring performance is the primary purpose and use for this type of chart. High performance in the stock market usually starts with a “bang” and then persists for a long period of time.

The first step is to identify those stocks that have started to show unusually high performance in a recent period of time, for example, the past month. The Market Dynamics service includes a screen every day of the best performing stocks over the prior month. Another screen shows the largest jump in relative strength rank over the past three weeks and a third screen shows the list of stocks that have recorded a column of at least ten boxes with Xs straight up. These screens show stocks that have started to move along a high performance trajectory. It is not uncommon for successful investors to wait for a modest pullback before purchasing these stocks. Market conditions may also affect the timing of purchase.

Once the stock has been identified and bought, the investor now faces the problem of managing the position. The stock either follows through to the upside in an acceptable manner or it doesn't. If the performance continues at a rate that is acceptable, the investor will watch a series of higher highs and higher lows develop on the chart. The columns of Xs will depict upside relative movement by the stock that is greater than the movement of the overall market. The columns of Os should record downward movements in relative price that are usually much less than the market. The alignment of the tops of the columns of Xs and the bottoms of the columns of Os will define the slope and direction of the primary trend.

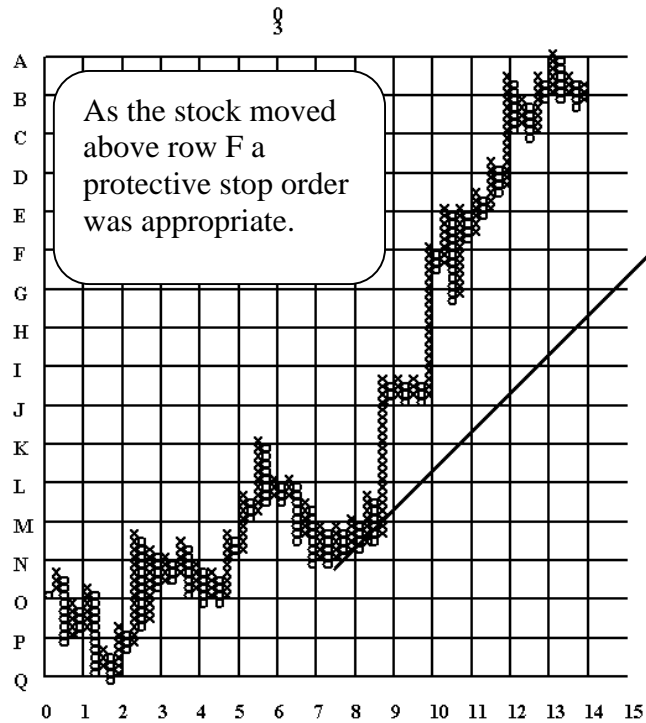
The slope of these pivot points should be greater than one, and may approach two, or even three. These slopes actually mean that the relative strength chart is gaining one, two, or even three boxes up for each alternation of trend along the horizontal, X-axis. It is assumed that the market for this “fat tail” stock will move upward in a seesaw motion, back and forth, but that the gains represented by the columns of Xs should consistently outperform the losses represented by the columns of Os.

As long as the alignment of the pivot points records high relative performance by the stock, the position can be maintained. Should the relative strength plot start to go sideways, the position must be monitored carefully for any signs of a downside reversal. Sometimes a high-performance stock can switch suddenly and dramatically to a downtrend, so quick application of defensive action may be required.

On the other hand, should the relative strength become stretched out to the upside in a column of 15 or 20 Xs straight up, the investor may decide to accept profits at that point. Another useful rule is that if the distance from the 45-degree bullish support line to the top of a column of Xs reaches 25 boxes, then the stock is so stretched out to the upside that selling or protecting the position with a close stop is usually a good idea.

The high-performance, right-hand, “fat-tail” stocks are often very exciting and volatile, but the relative strength in the point-and-figure format provides a proven method for the management of these stocks.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 SANDISK CORP 11/20/2003 76.97 SNDK



**“A bull market runs until it outruns values;
 in the final stage it is discounting possibilities only.”**

William P. Hamilton

Dow Theory Disciple

Performance Feedback

Feedback is essential to the control or management of any goal-oriented process. This is as true in investment management as in any other field. Feedback provides indications of progress toward goals and calls attention to members of the system that require remedial action.

In the field of portfolio management, the feedback measures the progress of the components of the portfolio relative to some benchmark, such as a market average. This comparison to a market average is usually referred to as relative strength. Since it has been well determined that the small movements in the market are random, the feedback system should damp out minor movements and concentrate on the long-term, major changes.

It should be noted that the performance measurement system does not produce a prediction of how the stock should perform in the future, other than a projection of recent performance into the future. It provides an objective indication of whether the stock's performance matches, exceeds, or falls short of the long-term goals set for the portfolio. Strongly held predictions often cause the portfolio manager to ignore unacceptable performance in the market at the expense of the goals set for the portfolio. Unless the portfolio manager has specific fundamental reasons to believe otherwise, he should conclude that unacceptable performance will continue into the future and it will hurt his chances of achieving the goals of the portfolio.

The major trends of stock prices relative to a major average seem to distill everything that is known about the stock. New information may reinforce the current trend or, if sufficiently strong, may reverse the direction of the trend. It is the feedback from the marketplace that allows the portfolio manager to adapt to these trends while the factors that motivated these decisions to buy or sell may not be completely understood.

The spirit of technical analysis is to evaluate trends relative to the market. The belief is that once in motion, the trend will proceed in that direction until something meaningful changes it. When it changes direction it will be seen and can be acted upon. The central idea is to cooperate with the market in the understanding that the collective wisdom of the market is almost always superior to the judgment of any individual participant.

The long-term, three-box, point-and-figure relative strength presentation is just such a performance feedback system. The short-term movements are damped out by the three-box filter. The relative performance is presented relative to the S&P 500. The Performance Alarm is an objective measure of performance that visually alerts the portfolio manager to unacceptable performance. Serious, long-term, negative performance always occurs for good reasons—reasons that may not become known for some time. In the meantime, the decline in the stock price can be quite serious. The experience of portfolio managers using the Market Dynamics System confirm its effectiveness.



“The force, Luke, trust the force.”

From the movie *Star Wars*

Obi Wan Kenobi

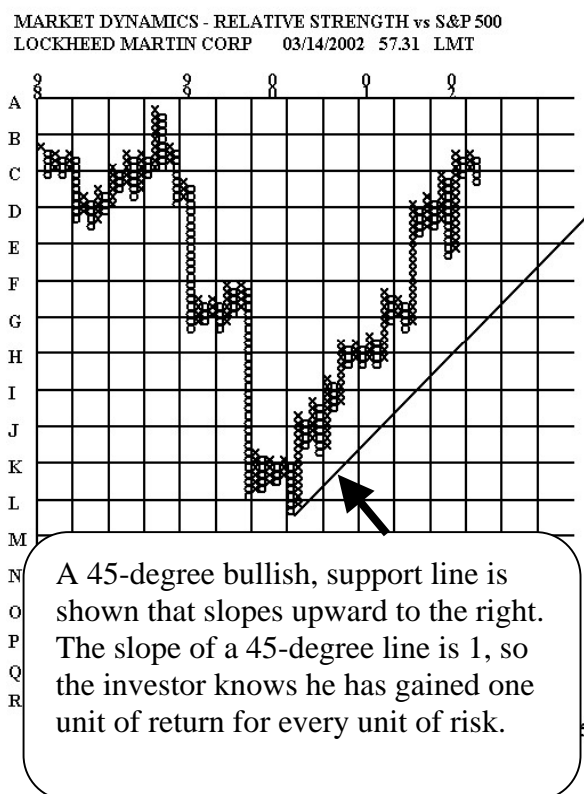
Relative Returns versus Risk

The X-axis on this relative strength point-and-figure chart does not measure time. It measures alternations of trend, which is a function of volatility. Volatility is often thought of as a proxy for risk. On these charts the X-axis is scaled in units of risk. The Y-axis is measured in units of return, relative to the market, as measured by the S&P 500. The true essence of this type of chart is the recording of relative returns versus risk.

The upward sloping line on the chart is called a 45-degree bullish support line. As long as the chart records movement that is above the line, the performance is acceptable and the investor knows he is beating the market. Experience shows that price action that moves sideways or downward past the 45-degree bullish support line is failing to out-perform the market and should be considered a sale candidate.

45-degree bullish support lines

- Slopes upward to the right.
- The starting point when drawing these lines is a prominent low point on the chart.
- Acceptable performance requires that the movement remain above the line.



How to Measure Performance

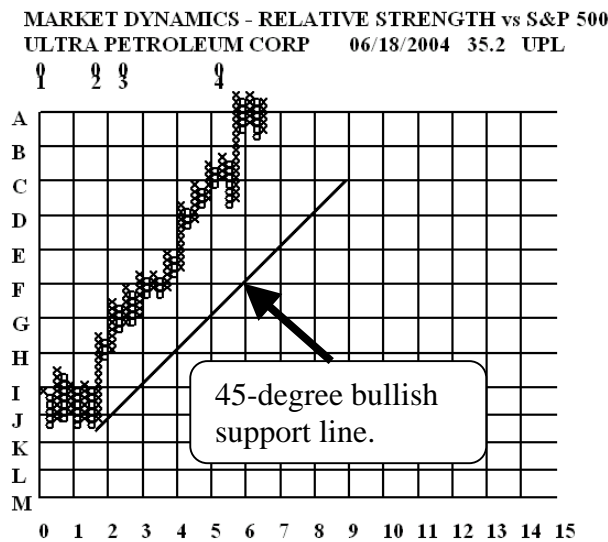
Stock price movement is composed of random noise and long-term trend movement. The long-term trend movement is far more important than short-term fluctuations and is a function of the fundamental financial performance of the company.

The first step in performance measurement is to damp out the random noise. The three-box, point-and-figure chart requires a minimum movement before it is recorded on the chart. This filters out the short-term noise and lets the long-term trend movement show more clearly. The relative strength approach removes the influence of the market and what remains is the movement that is specific to that stock's fundamentals.

The 45-degree, bullish support line provides a convenient measurement tool that defines acceptable versus unacceptable performance. Successful portfolio managers keep the largest portion of their portfolios invested in stocks that are steadily moving up on this type of chart.

The 45-degree bullish support line defines a basic requirement that the stock generate a minimum amount of excess return, over and above the performance of the market. This rule is simple to apply and has the advantage of providing an objective minimum performance standard for each stock, if it is to be retained in the portfolio.

The long-term relative strength charts, in a point-and-figure format, keep the portfolio manager focused on the long-term relative performance of each stock in the portfolio. As a result the management of the portfolio's performance becomes predictable and understandable, and is guided by a system of rules.



“You cannot manage what you do not measure.”

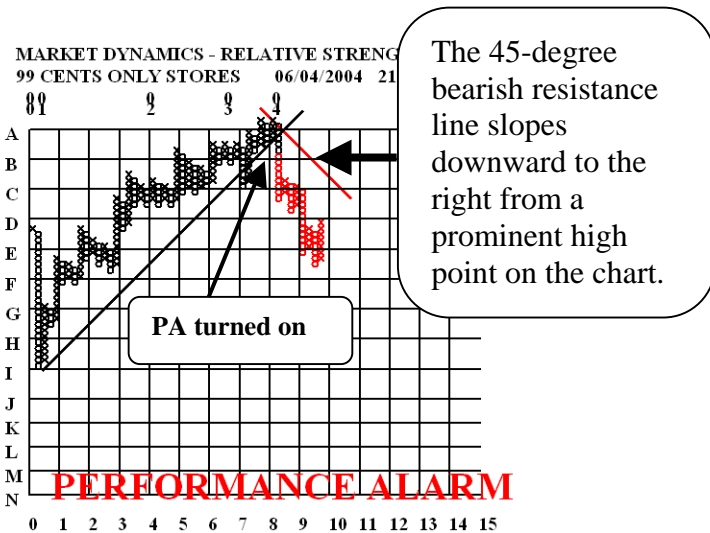
Peter F. Drucker

Famous Management Guru

The Bearish Resistance Line

It seems unrealistic to assume that all of your stock picks will work out as expected. An old saying in portfolio management says, “Most of your really big problems over the next year are in the portfolio now.” How do you weed out the bad ones and retain the good ones?

Trends that alternate back and forth, but also remain below a downward sloping 45-degree line, define unacceptable performance. The downward sloping 45-degree line is called a bearish resistance line. After a serious decline, it often takes extended movement back and forth before the 45-degree bearish resistance line is reached and exceeded. The example shown in the chart indicates just how long this stock will have to back and fill before it turns back up. This eliminates the temptation to “bottom fish” because you believe the stock is too cheap. The movement back to the 45-degree bearish resistance line is proof that the stock has stopped going down.



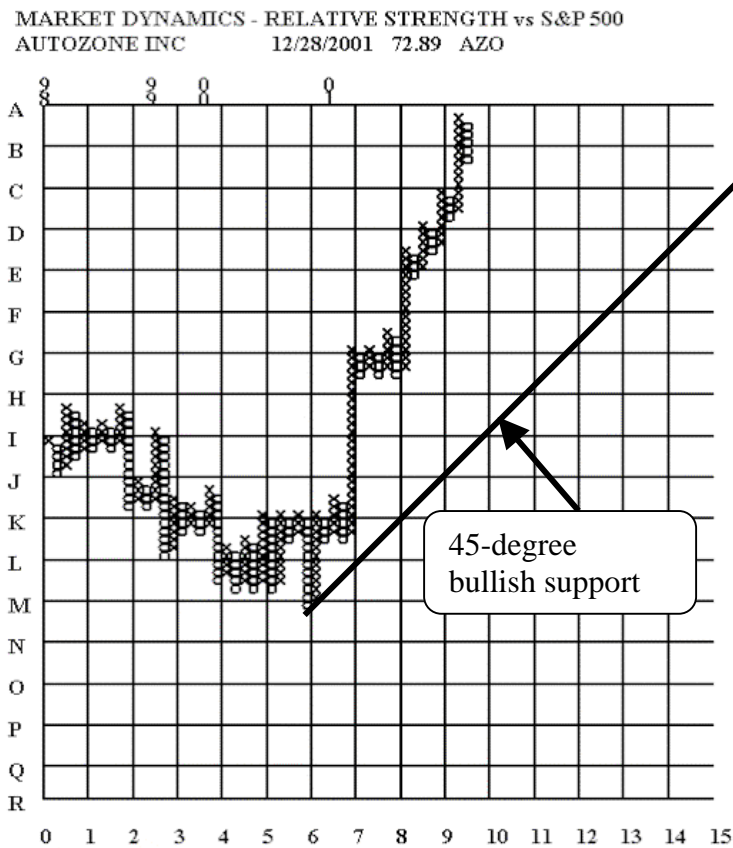
45-degree bearish resistance lines

- Slopes downward to the right at a 45° angle.
- The starting point when drawing these lines is a prominent high point on the chart.
- As long as the relative strength remains below the bearish resistance line, the performance is unacceptable.

Relative Strength Feedback

The relative strength feedback on AZO turned positive in late 2000 and remained positive during the time period covered by this chart. The chart remained above the 45-degree bullish support line for more than a year. AZO was one of the biggest winners in the stock market during that time.

A significant base was recorded during the essentially sideways movement between rows K and M. This horizontal backing and filling was shown to be accumulation when the column of Xs moved up above row J. The trend progression shows clearly from down to flat to up. This trend progression was recorded using a long-term, point-and-figure perspective. The positive feedback from this pattern was very consistent.



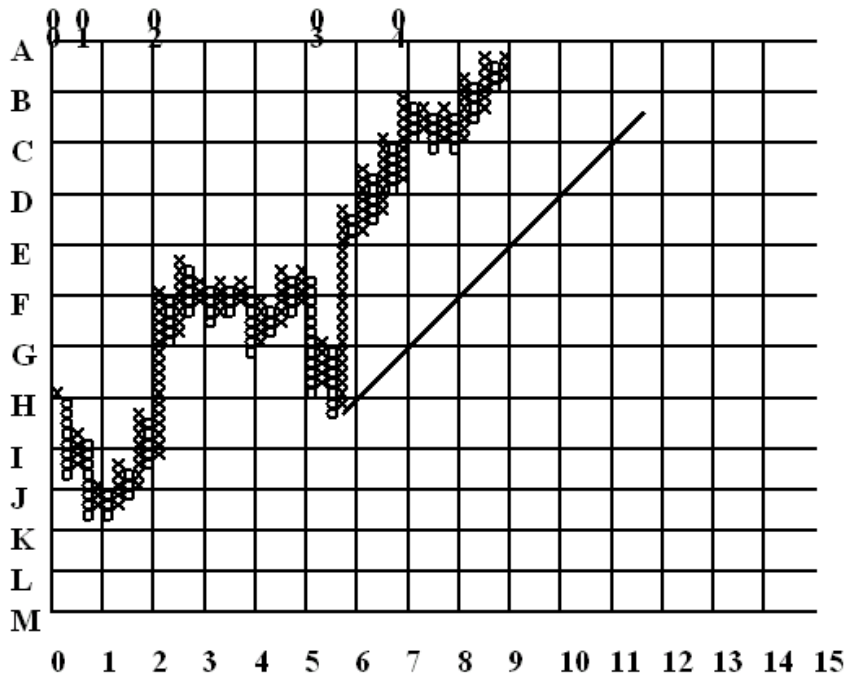
The long-term relative strength charts, in a point-and-figure format, suppress the random noise and let the true trend show through clearly. It is not a matter of prediction as much as it is an effective way to measure the trend and recognize when the trend changes direction.

Damp Out The Noise - Look For The Trend

It is very important for portfolio managers to search out and invest in stocks undergoing major long-term positive trends such as the example shown below. Relative strength provides a tool for searching for these patterns and an ongoing measuring methodology to make sure the feedback remains positive. No stock goes up forever and sooner or later the feedback will change from positive to flat or down. When the feedback is no longer positive the portfolio manager should sell the position.

It must be recognized that the day-to-day price movement within this long-term trend was probably random. Randomness says nothing about the ability of a portfolio manager to observe and measure long-term trends in the market place.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
NOBLE INTERNATIONAL LTD 05/14/2004 29.37 NOBL



“One of the few flat statements you can make about the stock market is that any price trend will eventually be carried to excess.”

The Intelligent Chartist

John W. Schulz

The Battle For Investment Performance

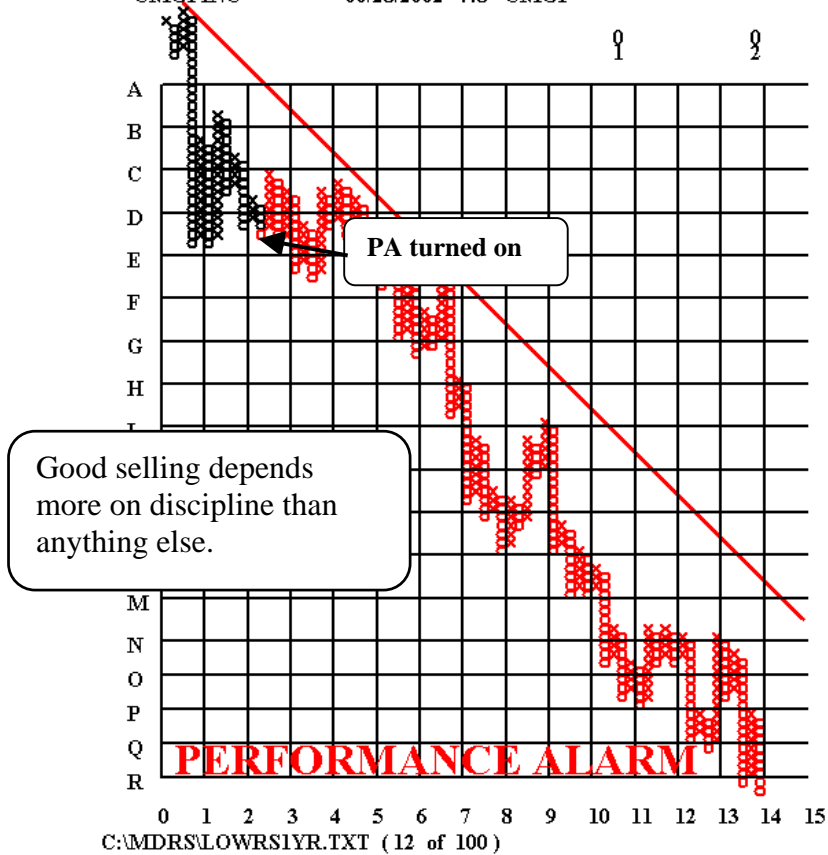
It is now clear that the performance game is not a game at all but a deadly serious competition for survival among investment managers. The quest for performance has dealt some risk takers the “dead man’s hand,” while others have been more fortunate. The primary question now is: What characteristics do the winners of the performance game share?

First of all, most institutional portfolio managers are constrained by policy to stay fully invested at all times—so the market timing option does not seem to be a primary strategy for surviving a bear market. Short-term trading and high turnover does not seem to be an adequate recipe for success in portfolio management. It almost seems certain that short-term trading is a better reason for failure in the battle for performance.

We are left with the idea that disaster avoidance is the primary strategy shared by successful portfolio managers. The Pareto Principle (80/20 rule) tells us that 80% of the damage to a portfolio’s performance is usually caused by the worst 20% of the stocks in the portfolio. Successful portfolio managers develop disciplines that allow them to identify potential disasters and to prune the portfolio before the damage becomes very serious. This also has the salutary effect that major winners are allowed to run and portfolio turnover is reduced. Extremely high turnover really means that the portfolio manager is selling the winners along with the losers and the absence of major winners hampers performance along with trading costs and slippage. Extremely low turnover suggests that problems are not being addressed in a timely fashion. Like many diseases, early detection and treatment of developing portfolio problems are the keys to successfully dealing with potential disasters. The portfolio must be regularly scanned and examined for stocks that are showing the warning signs. It is not so much a function of predicting future disasters, as it is a matter of dealing with unacceptable performance before disaster strikes. This process is not so much a result of genius as much as it is the result of discipline. It should also be noted that stocks showing the warning signs of poor future performance are not even considered for purchase for the portfolio.

Experience shows that stocks that have been highly popular and are priced at very high PEs often turn into market disasters. Fad stocks should always be considered highly suspect. Successful portfolio managers must wear two hats; the buyer’s hat and the seller’s hat. We must not let the excitement of the bull market lull us into overlooking the importance of the seller’s hat. Conversely, as we grope for the bottom of the bear market, we must not overlook the importance of the buyer’s hat.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 CMGI INC 06/28/2002 .48 CMGI



Successful portfolio management depends upon good sell decisions as well as good buy decisions. Good buying should be based on reasons that are about 80% fundamental and only 20% technical, while good selling should be about 80% technical and only 20% fundamental. Investors should fit the tool to the required task.

The Source of Poor Performance

If we can discover the reasons for poor performance, portfolio managers will be able to correct these causes of poor performance and improve the results generated by their portfolios. This is not a theoretical problem but is of the utmost, practical importance to money managers everywhere.

In my experience, institutional portfolio managers are usually very hard working people who are committed to successfully discharging their responsibilities. They are almost universally well-educated and highly intelligent individuals. They usually work long hours and are highly motivated. The origins of poor performance cannot be found in a weak work ethic or a lack of professional qualifications.

The simple answer to the origins of poor portfolio performance is that stocks that underperform the market are held too long. The question is: Why are these underperforming stocks held until they seriously damage the performance of the portfolio?

One answer may be that portfolio managers don't measure the performance of the stocks they own or that they don't measure the performance effectively. Many performance measurements are usually recorded as charts and graphs so the widespread adverse reaction to technical analysis may prohibit some managers from using proper performance measurements. The refusal to use charts, however, does not adequately explain why 80% of professionally managed portfolios underperform the market.

The true cause of poor performance may be a function of the psychological makeup of most portfolio managers and their resulting behaviors. Dr. Robert B. Cialdini describes these traits in the chapter on "Commitment and Consistency" in his excellent book *Influence—The Psychology of Persuasion*.

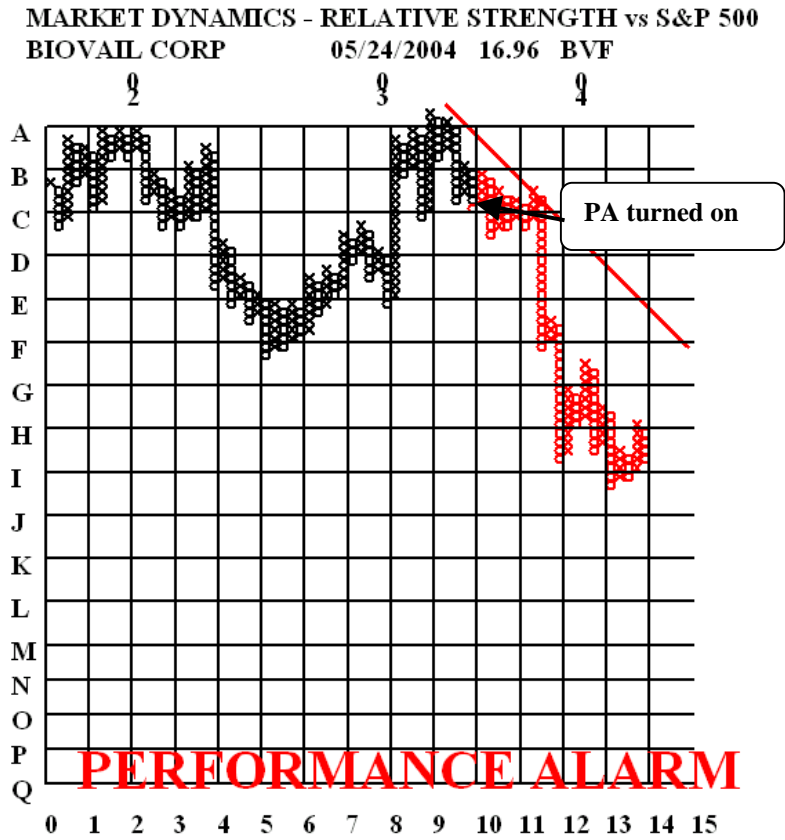
Once a commitment to an idea is made, it is most likely that subsequent behaviors will be consistent with that commitment. This is true for even casual commitments. A verbal public declaration will result in an even stronger commitment to the idea. When a person takes a stand that requires considerable effort, the commitment is made stronger. It is most important to note that a position that is written down can result in a very strong commitment.

The decision to buy a stock is often written down in a report. The report is usually made public and the portfolio manager probably put considerable mental effort into the decision. For most portfolio managers, the decision to buy a stock is not a casual decision and it requires a serious commitment to the idea that the stock will be a good investment.

The principle of consistency requires that subsequent behaviors will be unthinkingly consistent with the idea that the stock is still a good investment. This automatic consistency will be exhibited even after the conditions that motivated the original purchase have changed. The stock may be performing poorly but the portfolio manager will still believe the stock represents a good investment.

It seems likely that the process of commitment to the buy idea and the subsequent behavior that is consistent with the original commitment is the true origin of poor performance. The portfolio manager must continuously be on his guard with respect to an unwitting, or foolish, consistency that results in holding poorly performing stocks.

Dr. Cialdini provides considerable evidence regarding this behavior. In my experience, I have witnessed many portfolio managers who remained steadfastly committed to stocks that were declining rapidly. I have also found that it is far easier for me, an outsider, to point out the stinkers in a client's portfolio, since I am not committed to the previous buy decision in any way.



The stock market is not a good place to be stubborn!

Don't Worry About Poor Performance

In psychology, the principle of Social Proof indicates that the greater the number of people who do something, the greater the proof that it is the right thing to do. The record clearly indicates that most professional portfolio managers underperform the index they are supposed to beat. This is not only a recent phenomenon but has been going on for a long time. Social Proof indicates that most people now believe that underperformance by the majority is the correct state of affairs and so a convenient excuse is provided for those who underperform. The very large numbers of portfolio managers that turn in poor performance is proof that the behavior is correct.

How many times have we heard the excuse, "I didn't do anything that everybody else wasn't doing." In fact, in situations of high uncertainty, people most want to know what others are doing so they can do the same thing. This is the force that creates the herd effect on Wall Street and leads to behaviors that look unbelievably silly in hindsight. The 1999-2000 Internet Bubble is an example.

The quest for input about what others are doing leads to close attention to the "buzz" on the street about a stock or an industry. This excited talking about stocks, sometimes in hushed tones, is a primary source of input about what others are doing. This is a good explanation why analysts and portfolio managers are constantly on the phone seeking out and contributing to the buzz.

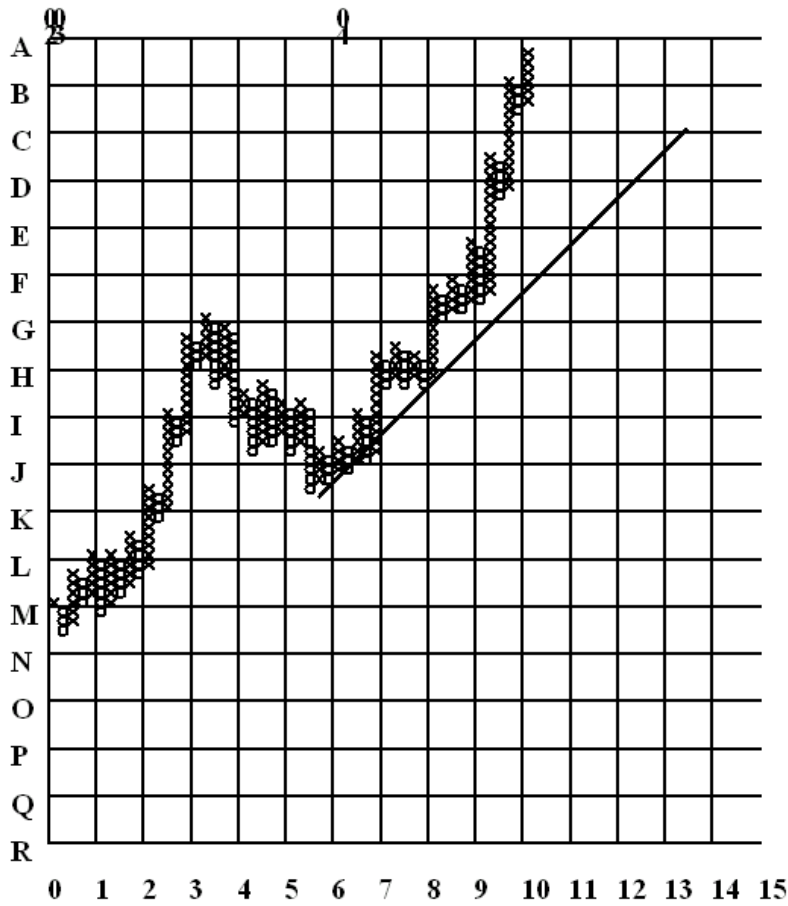
Another aspect of "influence" is that information that is not widely available or is represented as a secret is highly prized and sought after. From years of experience in portfolio management, it is not uncommon for information to be passed along as "inside information," or at least colored by the idea that it is not widely available. This just adds to its ability to exert a powerful influence on the portfolio manager and is frequently used as a sales technique.

The concept of Social Proof appears to be a reliable model of behavior for most, but not all, of the players on Wall Street. There are those who know how to evaluate the behavior of the crowd and to judge when the influence of Social Proof has reached its maximum and is starting to reverse. This is a minority in terms of numbers of people, but it may represent a very large concentration of the ownership of a stock (i.e. insiders, market-makers and others with a significant stake in the company). The shift in the direction of Social Proof is often subtle and can be confusing as the majority clings to a previous belief that is now losing its influence on the stock.

In a TV interview in the '60s, the current Chairman of the SEC, Mr. William Donaldson, said, "the essence of successful investing is correct contrary opinion." Not just contrary opinion-but knowing when to go against the crowd. This comment also seems to convey the message that knowing when to go with the crowd is also very important.

The hard realities of the world of investment management indicate that Social Proof may make us feel better about poor performance but that, in the long-term, individual careers and the success of investment management firms depend upon good performance.

**MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
CHICAGO MERCANTILE EXCHAN 05/28/2004 129.2 CME**



To paraphrase the principle of Social Proof:

**“The greater the number of people who do something,
The greater the proof it is correct.”**

Influence: The Psychology of Persuasion

Dr. Robert Cialdini

Start Getting Better Investment Performance - Today!

Investment performance is an elusive goal for many portfolio managers. And yet, investment performance often determines compensation, career advancement, and even the success or failure of investment management firms. Unfortunately, investment performance that is not measured and managed is therefore left to chance and becomes a function of the random fluctuations of the market.

Investment managers need a workable plan to achieve performance in a more predictable way. The Market Dynamics point-and-figure, relative strength system offers just such an approach. The three-box system filters out the noise while the application of relative strength filters out the influence of the overall market. What is left is called Specific Price Movement (i.e. SPM). It should be noted that the horizontal X-axis does not measure time, but records alternations of trend and that reflects volatility. The vertical Y-axis is scaled in units of return relative to a popular market index, such as the S&P 500.

SPM is a more direct reflection of the fundamentals of the company and the long-term perspective of this measurement system focuses on the major price movements that should be of primary concern to all investment managers. The SPM will always show alternating columns of Xs for up movement and Os for down movement.

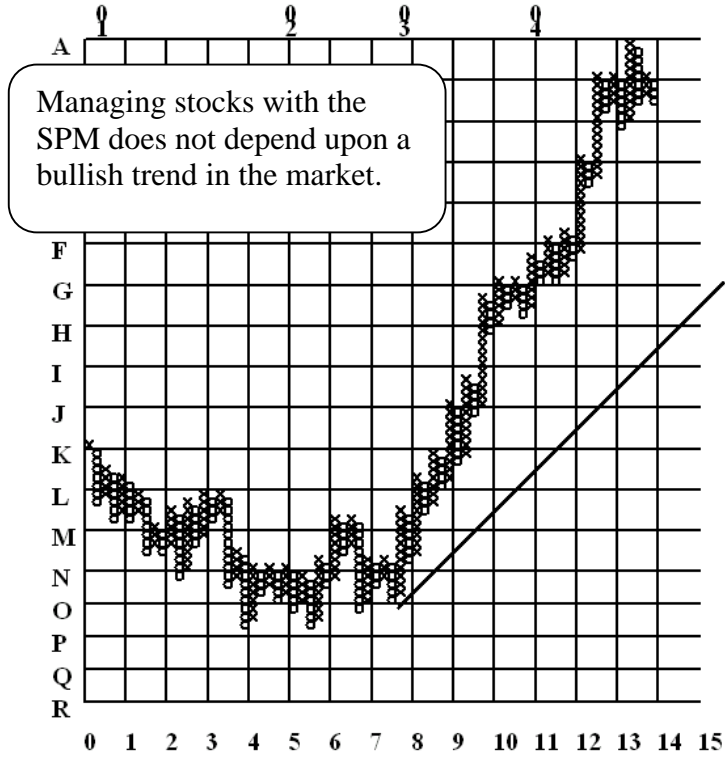
The most important application of this system is the ability to create an upward-sloping, 45-degree bullish support line. These lines are usually begun at a prominent low on the chart. As long as the bottoms of the columns of Os can remain above the 45-degree bullish support line, the portfolio manager knows that this investment is moving up at a rate faster than the market. The SPM is contributing to the success of his portfolio. If the SPM is zero then the chart will march horizontally across the page and there will be no excess return to record. If the SPM is significant (as shown in the following example), the plot of the chart will rise at a steep angle. If the SPM shows a negative bias, the plot will decline downward and to the right.

The SPM upward and to the right is concrete evidence of returns that exceed the market. The 45-degree bullish support line provides a clear indication that this investment is doing its intended job. Stocks that do not show sufficient upward SPM should be eliminated from the portfolio and be replaced by a stock showing strong SPM.

This is not a prediction of things to come but recognition that the performance of the stock is unacceptable. It seems clear that disappointing SPM is sufficient justification to sell a stock out of the portfolio. When the SPM changes direction, a penetration of the 45-degree bullish support line will clearly tell the portfolio manager that a negative change is underway. This should not be considered a prediction of future price declines but recognition that the performance has become unacceptable.

Each stock in the portfolio must contribute to the performance goals of the portfolio or be replaced with a better performing issue. This is the key to better performance and it can be used now. The primary insight offered by this approach is that the SPM provides a more direct reflection of the perceived fundamentals of the stock.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
ONYX PHARMACEUTICALS INC 05/14/2004 51 ONXX



“Water the flowers and pull the weeds.”

to paraphrase

Peter Lynch

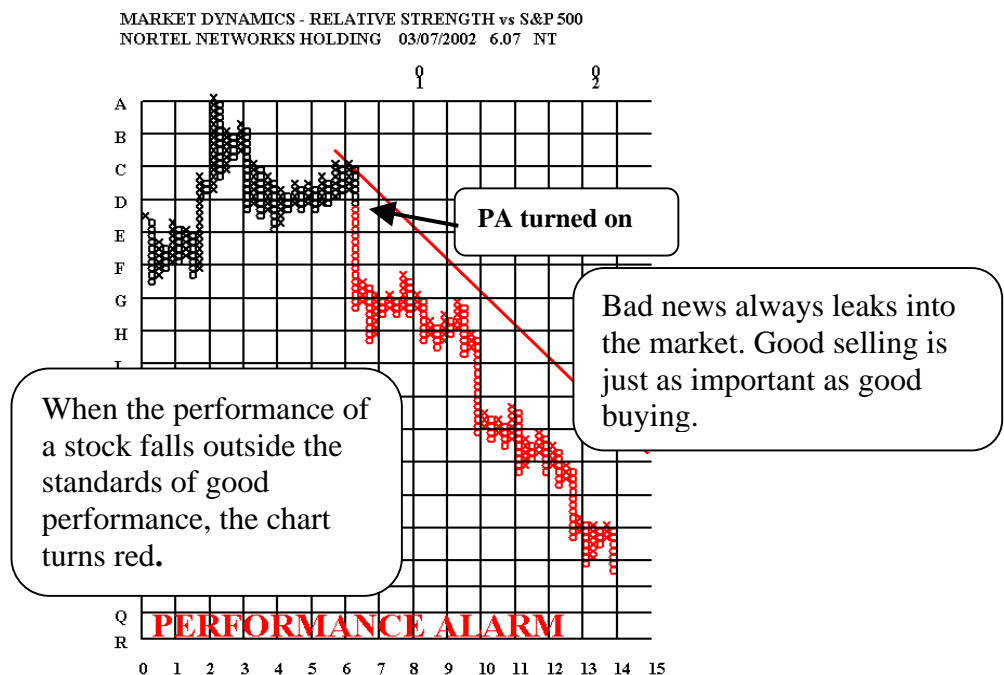
Charts Don't Predict - Charts Should Measure Performance

There is a great temptation to review a chart like the one for NT and believe that the chart somehow predicted the terrific downside collapse ahead of time, as though someone knew what was going to happen and dumped the stock on an unsuspecting public.

The truth, however, is that almost no one knew how bad things would get at NT. The chart didn't predict as much as it signaled unacceptable performance. The unacceptable performance revealed that the fundamentals were turning very negative.

The chart started to show unacceptable performance when prior lows were violated and the support line was broken. The chart turned red to indicate that the performance of this stock had become unacceptable. Most holders of NT were surprised by how bad the decline became!

You don't use relative price histories to predict the future as much as you rely on these special charts to signal when the performance turns bad.



Conditions that Produce the Performance Alarm

- A drop below a 45-degree bullish support line that slopes upward to the right.
- A triple bottom sell signal.
- The performance alarm remains **on** until a reversing buy signal is recorded.
- The performance alarm is completely built into the program and does not require interpretation by the investment manager.

Listen to the message from the market

The behavior of stock prices has a long history of reflecting serious problems, long before the negative fundamentals are revealed. Bad news always seems to leak into the market. The stock market is widely considered to be a leading indicator and this is why!

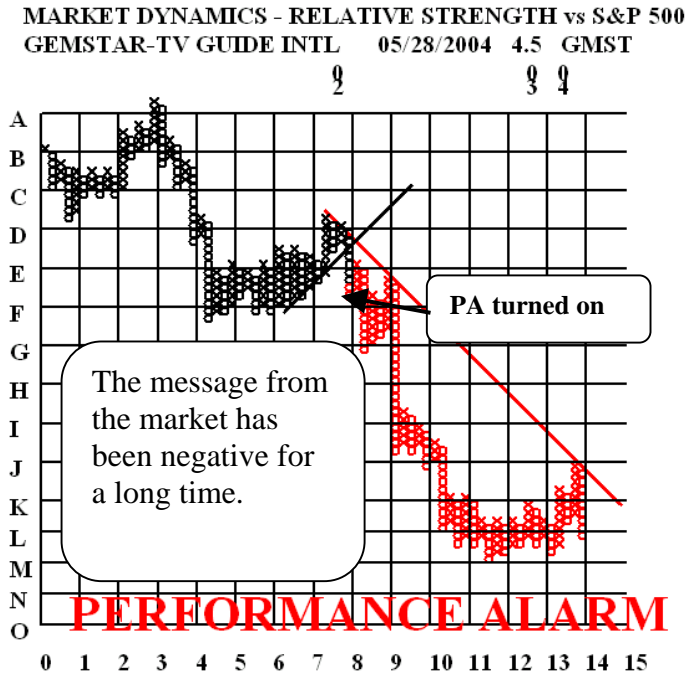
The long-term relative strength charts suppress the noise in stock prices and relative strength removes the influence of the market.

Persistent downtrends should always be viewed with alarm.

The Market Dynamics System dramatically changes the color of the chart to red when the price movement falls below the established standards of acceptable performance. The Performance Alarm sounded in the case of NT months before the collapse.

Long-term relative strength in a point-and-figure format should provide an insight that will lead to the sale of a deteriorating problem stock long before things become a disaster.

We must not assume that NORTEL is the last such disaster to bag investors.



A question to Livermore, What do you think of Balzac?

“I never trade in them Curb stocks”

Jesse L. Livermore

Portfolio Management – Part 2

How To Achieve Performance Goals

What Does A Portfolio Manager Manage?

To many professional investors, the role of a portfolio manager is simply to pick stocks for the portfolio. If we could accurately predict the future of the economy or a business, then stock selection would be all that would be required to be a successful portfolio manager. Since our abilities to predict the future of the economy or a business falls far short of perfection, the portfolio manager's primary role is to deal with the stocks that don't work out as hoped.

Before a stock is purchased for the portfolio, we usually develop expectations about how we think the stock will perform in the future. Once the stock has been purchased, the portfolio manager should measure the performance of the stock to verify that the expectations about performance are working out as planned. The market behavior that is being recorded acts as a check on the projections of financial performance that motivated the purchase of the stock in the first place. It seems, therefore, that the primary responsibility of a portfolio manager is to identify and eliminate poorly performing stocks from the portfolio.

The question now becomes: How best to measure a stock's performance and what constitutes unacceptable market performance?

An investor's time horizon is much longer than that of a short-term trader, so the performance must be measured around a long-term time frame. It is also important to remove the effects of short-term market noise.

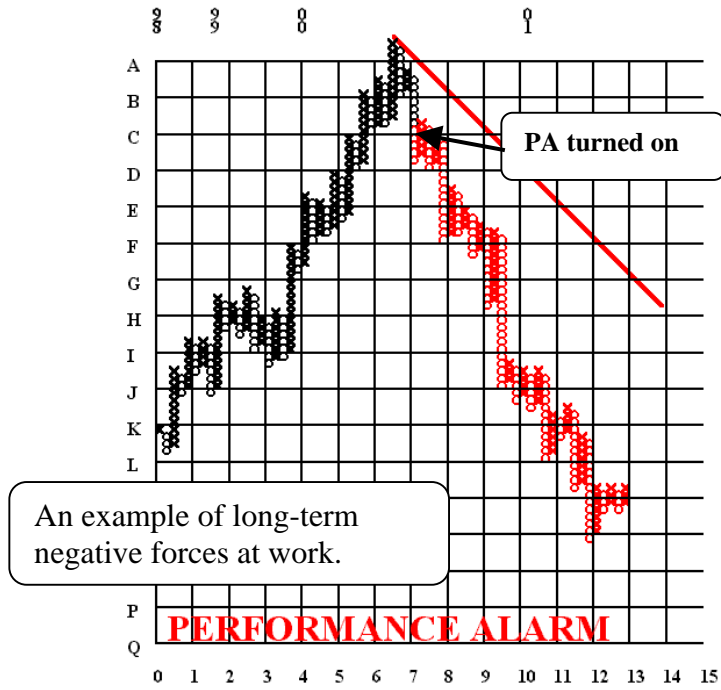
The three box, point-and-figure charting system provides a technique that removes the short term noise from the data and the trend indications are drawn from the alignment of at least six columns of price movement, which usually take months to form. The point-and-figure approach also converts the chart into a format that records price change versus risk, and that is far superior to price change versus time.

The second major influence on relative price performance is the movement of the market itself. The influence of the market is removed by converting the price change to relative price change by dividing the stock's price by a measure of the market—usually a major market index, such as the S&P 500. This conversion process is usually referred to as relative strength. It must be emphasized that relative strength is not presented as a ranking index and that it is the trend of relative strength that is important.

Stocks that persistently show downward trends on the point-and-figure, relative strength charts are stocks that should be removed from the portfolio. Stocks that show upward movement, to the right, on the chart can be retained in the portfolio for as long as the up trend lasts. This tool allows the portfolio manager to identify the stocks that are not performing as expected.

This does not involve a prediction of the future behavior of the stock, other than a belief that persistently poor market performance results from long-term fundamental factors that can reasonably be expected to continue to affect the stock negatively in the future. Short-term trends can be the result of noise. But long-term trends that persist are primarily the result of the fundamental financial performance of the company.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
DEUTSCHE TELEKOM AG 12/11/2001 17.7 DT



“To win, the first thing you have to do is not lose.”

Supermoney

Adam Smith

Why You Need A Sell Discipline

Most institutional investors, and almost all individual investors, give little thought to the sell decision. The failure to consider the factors that go into the sell decision places most investors at a significant disadvantage in the stock market. Every investor should have a strategy for making the sell decision.

The first element in the sell strategy should be the definition of unacceptable performance. How do you decide that a stock's performance is unacceptable? If the trend of the moving average of relative strength for the stock declines for three months in a row, that could represent a definition of unacceptable performance.

In the three-box, point-and-figure system, the combination of a triple bottom sell signal and the violation of the bullish support line constitutes unacceptable performance. When these conditions are met, the program turns the chart to bright red (shown in gray in this book). This is a clear indication that something is wrong and that the stock should be sold.

The performance of the portfolio will be greatly enhanced by the elimination of the losers from the portfolio. Stocks that are just taking up space in the portfolio but are not contributing to the overall portfolio performance can be a serious drag on the performance of the portfolio.

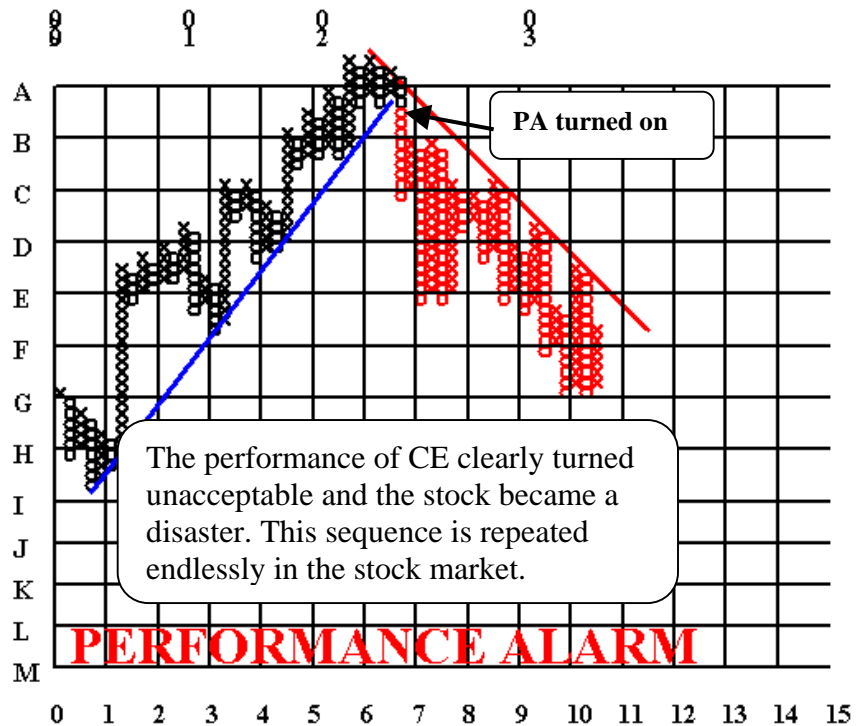
Many times, a stock that is generating unacceptable performance can suddenly turn into a major investment disaster, experiencing a suspension of trading and a major downside collapse in price. The avoidance of these market disasters is the mark of a disciplined portfolio manager. The discipline of selling all stocks with unacceptable performance will not only keep the portfolio fresh, it will also steer the portfolio manager away from the big problems.

In order to identify unacceptable performance, the portfolio manager must measure the performance of every stock in the portfolio on a continuous basis. The performance measurement technique should minimize or eliminate the noise from the price data. It is also important to eliminate the effects on the stock price that are produced by the action of the overall market, as measured by some major index like the S&P 500.

The measurement process can be accomplished by using numerical methods or by using a visual presentation of the data in a chart format. The presentation is not as important as the commitment to the measurement process. In fact, the practice of portfolio management should be built on just such a measurement process.

It has been over twenty-five years since the publication of "The Losers Game" by Charles D. Ellis in the *Financial Analyst's Journal* in 1975. And yet, today most investors are still preoccupied with the decision of "what to buy" rather than "what to sell." This is a serious deficiency and a major reason for poor performance among many institutional portfolios.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 CONCORD EFS INC 12/18/2003 13.8 CE



There is an important difference between market timing and the measurement of performance, leading to the elimination of stocks showing unacceptable performance from the portfolio. Market timing represents a guess about future market conditions while performance measurement represents a portfolio management discipline based on solid evidence from the market.

The Importance of the Vital Few

There is an important principle that is often called the 80/20 rule (i.e. The Pareto Principle). It describes the results of many processes in human activities that are disproportionately affected by the vital few. The largest share of the results, usually 80% or more, are accounted for by only 20% of the participants. This is not a precise rule and the proportions can vary from 60/40 to 90/10. But the principle is the same. The greatest amount of the output of a process is accounted for by a minority of the inputs. This seems to be a very important factor in portfolio management.

Experience shows that very often the largest share of the profits of a portfolio will be contributed by the best 20% of the stocks. Also, the largest share of the losses in a portfolio will be the results of holding the worst 20% of the stocks in the portfolio. The 60% of the stocks in the middle of the spectrum of returns will probably have a neutral impact on the overall performance of the portfolio. It seems, then, that the scales of performance are tipped by the relationship of the best 20% of the portfolio to the worst 20% of the portfolio.

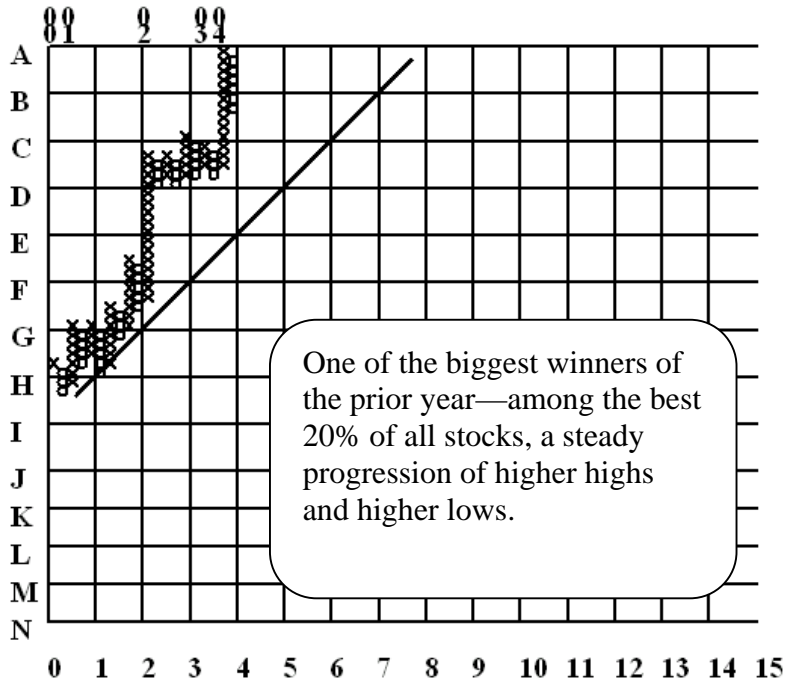
Therefore the best allocation of the portfolio manager's time is to measure the performance of each stock in the portfolio relative to its benchmark, with the objective being the identification of the worst performing stocks in the portfolio. Stocks that underperform on a persistent basis are members of the worst 20% of the portfolio and should be sold. Stocks that persistently outperform should be retained in the portfolio for as long as the excess performance persists.

The overall market should be continuously monitored for new ideas about the best performing stocks and economic sectors. As new groups are identified as outperformers, they should be added to the portfolio, with the weakest performing stocks used as a source of funds. This results in keeping the portfolio fresh and in step with new developments and changing business conditions.

Unfortunately, the field of behavioral finance suggests that most portfolio managers tend to gamble with their losses and to take their profits prematurely. It seems that by gambling with their losses they retain the losers in the portfolio too long and perhaps even add to these losing positions by averaging down. Averaging down on losing positions almost guarantees that the worst 20% of the stocks in the portfolio are retained too long and the result is a serious drag on performance. Value oriented portfolio managers have to be especially careful about the negative effects of averaging down. Bargain hunting by long-term investors also leads them into the worst performing sectors of the market as a result of their search for "cheap" stocks. Bargain hunting should be attempted only by short-term traders and protected with stops.

The best 20% of the portfolio should be monitored for stocks whose outperformance has carried them into the realm of speculative price momentum and overvaluation. When a stock achieves gross over-valuation, it can be sold into strength rather than held until the onset of underperformance that might result in a dramatic price drop without much warning.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 JEFFERIES GROUP INC 06/04/2004 32.06 JEF



Eighty percent of next year's major problems are probably in the portfolio now.

Portfolio Upgrading

Portfolio upgrading means enhancing the portfolio's potential for good performance in the future. It starts with knowing what to hold and what to sell. There is a tremendous difference between stocks that should be held and stocks that should be sold.

Much research and effort has been spent on the question of how to buy stocks. The sell decision, however, seems to occupy a neglected backseat. The neglect of the sell decision leads to confusion and errors regarding which stocks to hold and which stocks to sell and this is often a direct contributor to many portfolios' poor performance.

The most important factor in effective portfolio management is knowing which stocks to sell. I know of only two serious books oriented to the question of selling—see Cassidy, *It's Not What Stocks You Buy; It's When You Sell That Counts* and *When To Sell*, by Justin Mamis.

After a few bitter experiences early in my career, I learned that knowing what and when to sell was a most important skill in managing long-term investment portfolios. I spent considerable time and effort to develop those skills. My experimentations took me in the direction of long-term technical analysis as an answer to the question of effective selling. In several performance “horse-races,” my organization won because of superior selling skills.

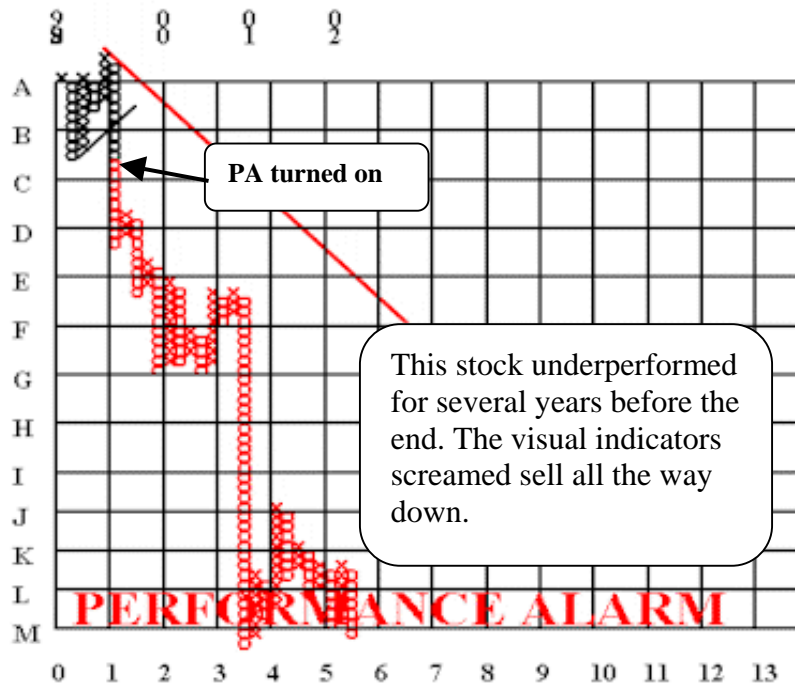
Wall Street does not tell you what to sell. Management is absolutely silent, or sometimes less than truthful, about when to sell. It seems somewhat naïve and childlike to think that a corporate management would actually suggest that you sell their stock. Corporate managements and investment bankers fulfill the role of cheerleaders for the stock. Selling is a job the portfolio manager has to perform by himself.

After many years of experience and observation, I have concluded that there is a significant difference in the proper application of the tools used to accomplish good buying and good selling. Good buying depends on the ability to estimate the future potential for a stock in the market. It should be weighted about 80% fundamental and only 20%, or so, technical. Good selling, on the other hand, depends on the ability to measure a stock's performance, or lack of performance, in the market and the sell decision should be based about 80% on long-term technical factors and only 20% on fundamental considerations.

Experience shows that fundamentally oriented portfolio managers almost always have trouble with the sell decision. My experience confirms that the sell decision is best handled with long-term visual analysis. If you know what stock to sell, you also know what stock not to buy.

A good portfolio manager has to fit the proper tool to the task at hand. He should buy on the fundamentals and sell on the technical. It requires both a good offense and a good defense. Investors who become fanatically committed to a single method of decision-making cripple themselves unnecessarily and performance usually suffers. Successful long-term portfolio managers use both techniques for decision-making.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
OWENS-CORNING FIBERGLAS 12/19/2002 .51 OWC



“ If you only have a hammer, you will treat everything like a nail.”

Unknown

More Than Stock Picking

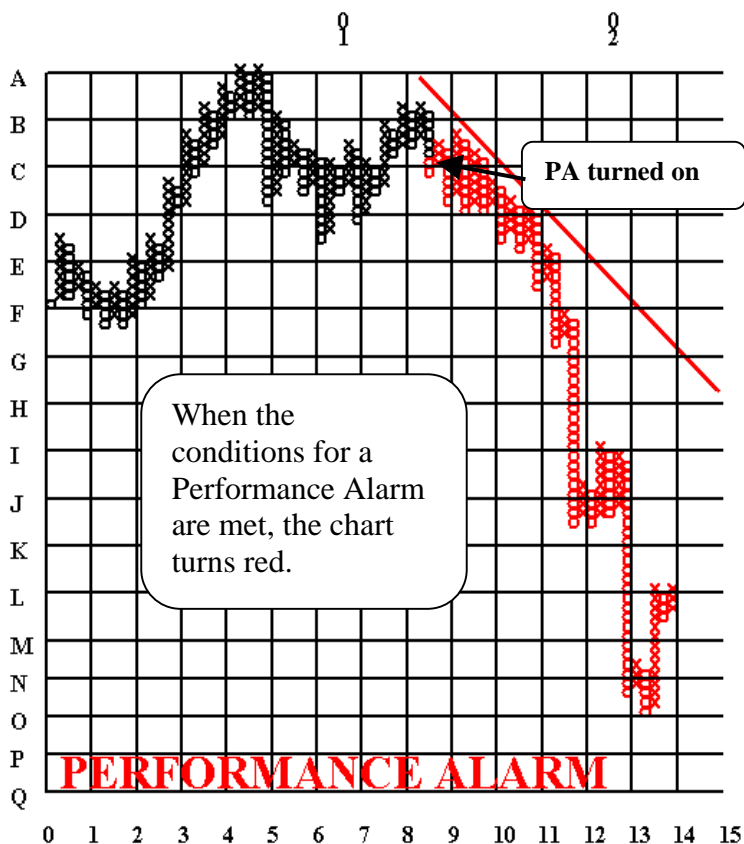
There is much more to successful portfolio management than just good stock picking. Successful portfolio managers typically use some sort of feedback mechanism to alert them to stocks that are not performing as desired.

When these standards of acceptable performance are violated, the stock is sold. This sale raises cash for another investment that offers a better prospect for good performance.

No portfolio manager can be right 100% of the time. Good portfolio managers know this and organize their efforts in such a way as to address stocks that don't work out as expected.

The Performance Alarm has been developed to provide just such an alert for long-term portfolio managers.

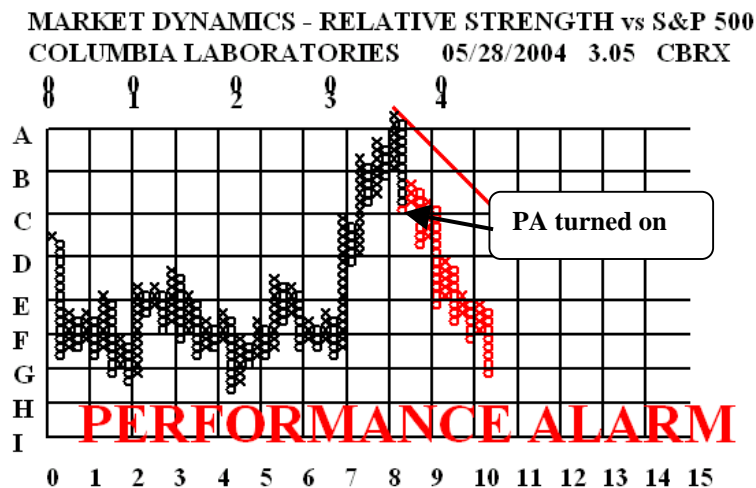
MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
AES CORPORATION 04/09/2002 8.76 AES



The Standards of Performance

The performance of each stock in the portfolio must be measured to enable the portfolio manager to achieve the performance goals for the overall portfolio. This measurement system provides crucial feedback regarding progress toward the goals of the portfolio and the contribution of each stock in the portfolio.

Without feedback, the portfolio manager is blind and unable to effectively make the difficult decisions regarding the investments in the portfolio. Further, without this essential feedback the portfolio manager is usually left totally dependent on the opinions of others regarding the direction and management of the portfolio. Portfolio turnover often becomes misdirected and the resulting performance becomes mismanaged and random.



**“Portfolios heavy with underperforming
stocks rarely outperform the market.”**

Ignat’s Law

Manage Risk & Return

The key to successful portfolio management is to manage risk and return simultaneously, while both are in motion. A management system that relates both risk and return would be most helpful in accomplishing this goal.

The relative strength approach is a straightforward method to track relative returns. The S&P 500 is used as the benchmark and stocks outperforming the S&P 500 would show an increasing relative strength ratio and, conversely, a declining ratio for stocks that are performing poorly.

Relative strength can easily be shown on a standard three-box, point-and-figure chart. The long-term point-and-figure chart has the added advantage of incorporating a measure that tracks the stock's risk.

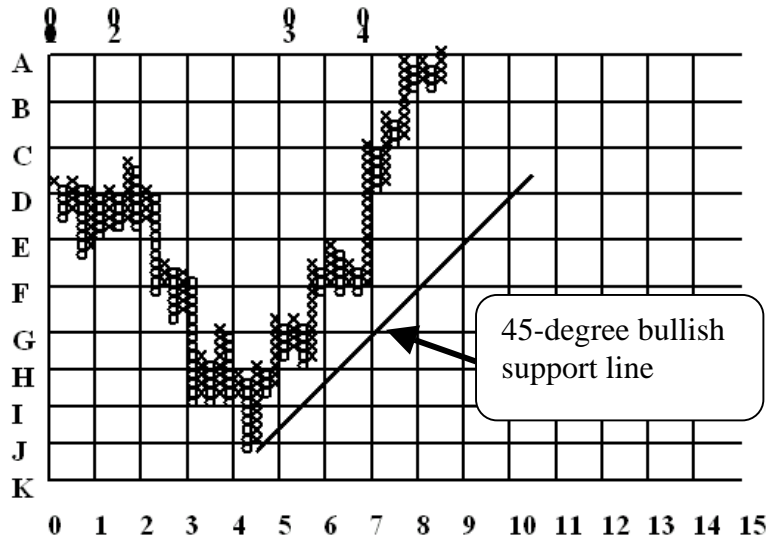
The horizontal X-axis on the point-and-figure chart does not measure time. The number of alternating columns of Xs and Os is a function of the stock's volatility. The stock's volatility is usually considered a proxy for risk, so movement across the horizontal X-axis actually records volatility or risk. The three box, point-and-figure chart only records movements that are at least three points, and that acts as a filter to reduce the influence of the noise in the price data.

The relative returns plotted on these charts show the alternating ups and downs of returns that are a function of the natural ebb and flow of the market. Movement that matches the market will result in a horizontal line of Xs and Os across the chart. Relative returns that exceed the returns from the market will result in a pattern of alternating columns of Xs and Os that slopes upward to the right. Underperformance will result in a channel that declines downward to the right.

The charts of highly volatile stocks will have many more columns of Xs and Os, relative to the chart of a stock with low volatility that covers the same period of time. If the volatility of the stock increases, the plot will show more alternating columns of Xs and Os. Increasing volatility is often observed on the charts of stocks that become highly speculative. Many times, after a major decline, a stock will have lost its speculative appeal and the volatility will subside, resulting in fewer and fewer of the alternating columns of Xs and Os.

The movements of risk and return can be tracked simultaneously using the three-box, long-term, point-and-figure chart. Usually the grid on a point-and-figure chart is square, which provides an effective method to relate the movements of risk relative to return. A 45-degree line that slopes upward to the right defines a relationship that requires one unit of gain in relative return for each alternation of trend (i.e. unit of risk). If the relative strength plot can remain above this line, then the relative returns for that stock are acceptable. This upward sloping, 45-degree-line is called a bullish support line. It is not predictive, but it does allow the portfolio manager to ensure that the stock generates sufficient relative return to compensate for the risk. The upward sloping line is a key factor in the successful management of investment portfolios.

**MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
TESORO PETROLEUM CORP 05/14/2004 22.07 TSO**



“You cannot manage what you do not measure.”

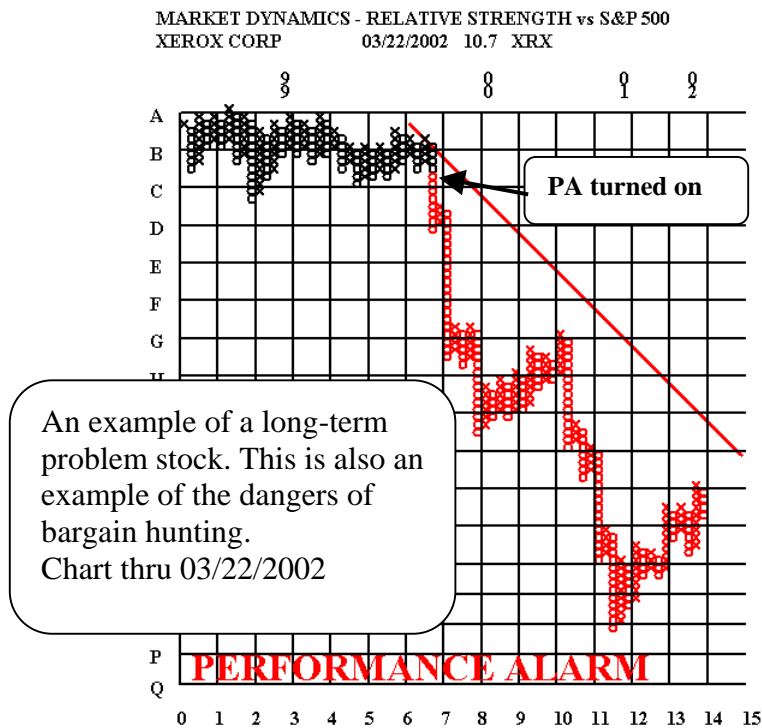
Peter Drucker

Famous management guru

Avoid Problem Stocks

Portfolio managers need a system to identify problem stocks. Far too much time and energy is wasted on problem stocks. It is the long-term, problem stock that drags down performance.

The market knows more than anyone. Persistent underperformance will almost always precede the reports of an actual deterioration in the fundamental financial performance of the company. The successful portfolio manager will aggressively weed out problem stocks and concentrate his time on finding new opportunities. This is just good management.



“To make service institutions perform, it should by now be clear, does not require great men. It requires instead a system.”

Management

Peter F. Drucker

Performance and the Organization

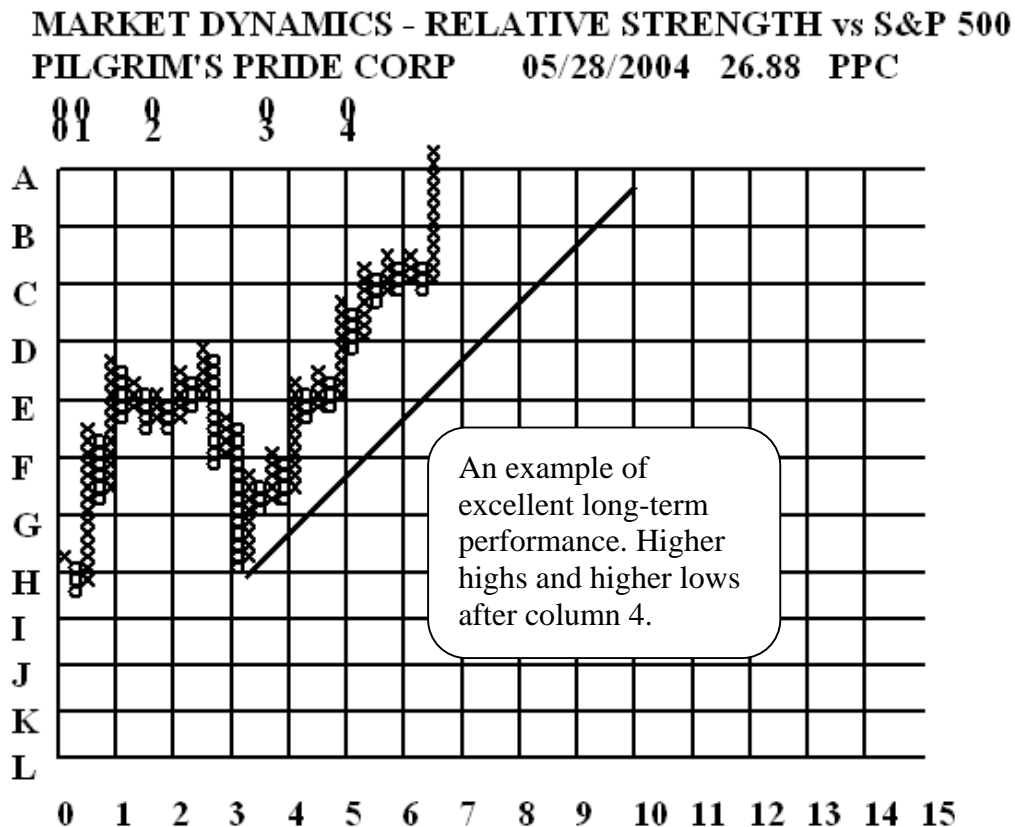
“1. The focus of the organization must be on performance. The first requirement of the spirit of organization is high performance standards, for the group as well as for each individual. The organization must inculcate in itself the habit of achievement. But performance does not mean “success every time.” Performance is rather a “batting average.” It will, indeed it must, have room for mistakes and even for failures. What performance has no room for is complacency and low standards.

2. The focus of the organization must be on opportunities rather than on problems.”

Management

Peter F. Drucker

Harper & Row



Investors Should Minimize Mistakes

There seem to be two primary mistakes that are repeatedly made by investors. They sell their winners too soon and they hold their losers too long. How can we do a better job of holding onto the winners in the portfolio and, at the same time, act to eliminate the losers from the portfolio before the loss becomes overly serious? This is a highly practical question facing all investors.

First of all, we need to recognize that mistakes are inevitable, no matter how hard we try to do our fundamental homework to reduce the probability of buying into, or holding onto a losing investment. If we can accept the fact that mistakes are inevitable, we are well on our way to fixing the problem.

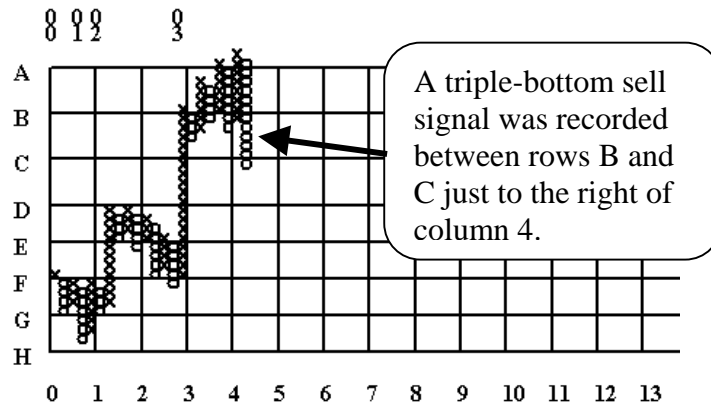
What information is readily available that might help us recognize an investment mistake before it is too late? The information that we need is feedback from the market. We need to measure the performance of the stock in the market against some predefined standard that will tell us when the performance becomes unacceptable. When we say that a stock doesn't "act right," we imply that we have a standard for comparison that gives us the ability to rate the performance as either acceptable or unacceptable.

The performance measurement procedure should eliminate short-term noise from the signal. It is also best to remove the price movement that is related to the movement of the overall market. The point-and-figure method of charting relative strength is just such a feedback measurement tool. Since we are using this approach within a long-term investment time horizon, the signals that are based on a triple bottom sell pattern are appropriate.

A triple-bottom sell signal requires a setup that covers at least five columns on the chart. From experience we know that each column usually takes a month or more to form, so a triple bottom sell signal usually requires at least several months or more to "set up" on the chart. The time required for the sell signal to develop assures that the investor remains focused on long-term price movements. Short-term, day-to-day fluctuations are not allowed to exert undue influence the decision to hold or to sell the stock.

The time required for the formation of a triple bottom sell signal on a speculative stock that is highly volatile can be far less than five or six months but the sell signal should be respected because of the high risk inherent in a speculative stock.

As long as the stock's relative performance is moving up, the performance can be judged to be acceptable. The appearance of a triple-bottom sell signal is an objective indication that the performance has deteriorated significantly. By using this straightforward method of performance measurement, we will achieve the ability to minimize the adverse effects of holding losers too long. As long as the relative performance is acceptable we should feel comfortable holding the stock in the portfolio, which solves the other problem of selling winners too soon. It is all about when to sell. The sell decision is an important part of portfolio management that is often neglected by long-term investors.



“When you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind.”

William Thomson

Lord Kelvin

Don't Average Down!

Portfolio managers often become overly committed to a stock and when it declines in price, they will, more often than not, buy more of the stock even though there may be evidence that the situation has changed for the worse. This behavior is totally consistent with the prior psychological commitment to the idea that the stock represented an attractive opportunity for a successful investment. The best way to avoid the highly predictable and absolutely consistent, behavior of averaging down is to adopt a policy that prohibits the ability to add to holdings that are going down in price.

This seems to go against common sense, however. If the stock was deemed a good buy at a higher price, then it is logical to believe that it is an even better buy at a lower price. And this is true, unless the fundamental situation has changed negatively and in a substantial way. The portfolio manager must be doubly careful to find out the reasons for the decline in price, and also to uncover any changes in the facts that might negate the decision to add to the losing position. After all, the portfolio manager is putting himself in the position of saying that the market is wrong, and that is a highly unlikely event.

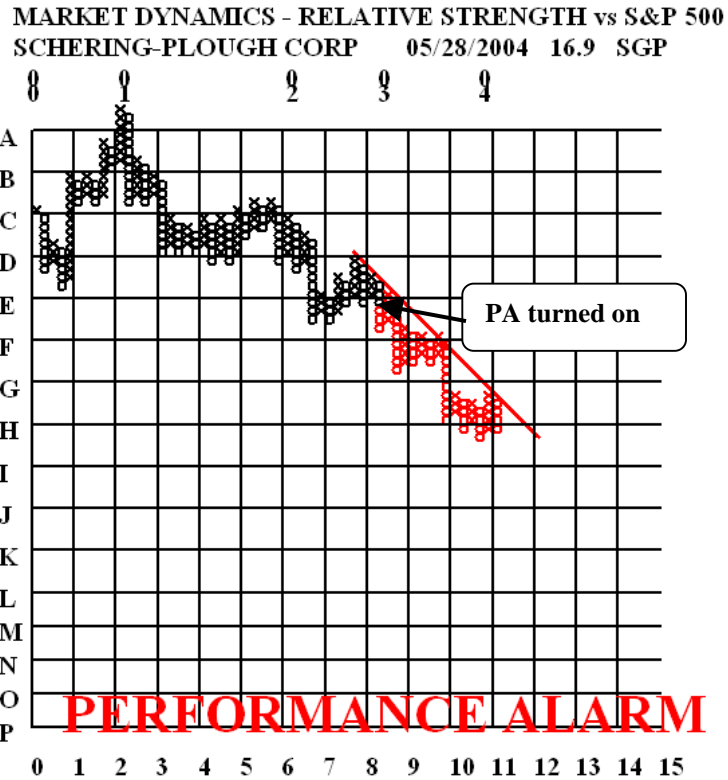
I once worked with a customer who, in the late 80's, averaged down three times in the stock of Digital Equipment (DEC) as it declined from almost \$200 to about \$15. DEC had been one of the biggest winners in the whole market over the prior 15 years, so it was very easy to assume that the stock had declined too much. This whole episode started with the crash of '87. I had prevailed upon my customer to sell DEC while it was going up at about \$175 but his boss made him buy it back close to \$200. He added to the position shortly after the crash of '87 at about \$120. He then added to the position over the next two years at about \$80 and again at about \$50. After another year or two, he sold the stock in total disgust at about \$15. This is the worst case of averaging down that I ever witnessed as a broker.

The true measure of the performance of an investment is not to compare the current price to the cost of the investment but to evaluate the current price adjusted for the movement of the market. This is usually a measurement of relative strength and the measurement technique should also remove the noise and any other meaningless variation from the record. The long-term measurement of relative strength, when presented in a long-term, point-and-figure chart, is an ideal way to evaluate performance. The point-and-figure technique also transforms the chart from a presentation of relative return versus time, to a chart of relative return versus volatility. The X-axis on the point-and-figure chart actually records reversals of trend as the plot moves across the page. This allows the chart to track the movements of relative return versus risk since volatility is considered a proxy for risk. The management of risk and return is at the very heart of the investment management process.

The investor who owns the stock is taking on the risk of ownership and he should demand to be compensated by a return adequate for the risk involved. When the risk is greater than the relative return being recorded on the chart, the relative strength plot will decline. The chart allows for the normal back and forth movement of the stock price, but the alignment of the tops and bottoms of the columns of Xs and Os will identify the direction of the trend and define the relationship between the risk (i.e. volatility) and the relative return.

When the tops of the columns of Xs and the bottoms of the columns of Os line up in a pattern of lower lows and lower highs, the portfolio manager knows that the relative return being generated by the investment is inadequate for the risk involved. To buy more of a stock

with this pattern is to deny the negative implications of the movements of risk and return. The only prediction that is involved is the recognition that whatever the reasons for the unfavorable risk/return relationship, those forces will continue to affect the stock negatively.



“All nature is but art,
 Unknown to thee;
 All chance, direction,
 Which thou cans't not see.”

Essay on Man

Alexander Pope

Bad News Leaks Into the Market

Many times the deterioration in a company's fundamental financial performance may be fairly slow. At other times these negative forces may develop extremely quickly. One common characteristic that both the fast and the slow situations share is the apparent reduction in the availability of information from management about the true nature and extent of the decline in the fortunes of the company. Experience shows that the natural tendency is for a management to "clam up," or even to lie, about the unfavorable facts. The best laid plans and direction of the company has not produced the expected corporate performance. The members of the management team are not at all proud of these developments and more often than not it shows.

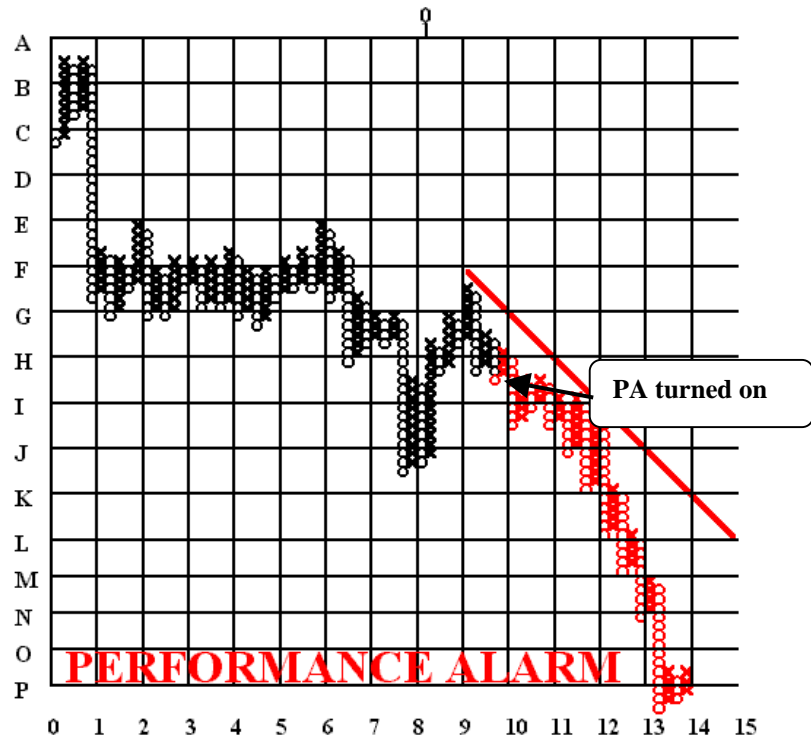
Even though management silence or a cover-up is directed to investors—the true nature of the negative developments starts to leak into the market. Friends and business associates of the company management, along with their social contacts and acquaintances start to sense that something is wrong. This "buzz" starts a chain reaction that leads to additional marginal selling in the company's stock. Market makers, and others close to the affairs of a company, also pick up this persistent change in the order flow for the stock. Insider selling will only add to the awareness that something may be falling apart.

There are clear reasons why this bad news travels slowly at first—the major players need time to liquidate their holdings. Spreading the bad news will only cause the stock to decline more sharply, making the liquidation even more difficult. The much lamented, lopsided, 29 to one, ratio of analysts' written buy reports to written sell reports does not tell the complete story. A sell report is published only after the major holders have been given sufficient time to sell their holdings. It must be recognized that major institutional holders probably own the stock because of an analysts' recommendation and the analyst is very much aware of their needs.

Who buys this stock and why? The buyers are the bargain hunting investors who look for stocks that are selling at cheaper prices relative to recent levels. These marked down shares draw investors directly into deteriorating situations "like a moth to the flame."

Investors need to understand this leakage of negative information, and its predictable effects on the stock price.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
GLOBAL CROSSING LTD 12/11/2001 1.06 GX



“Though it be honest, it is never good to bring bad news.”

Antony and Cleopatra

William Shakespeare

It Is Always a Good Time To Sell a Loser!

Losing stocks usually hurt the portfolio's performance in two ways. First, the stock's poor performance acts as a drag on the performance of the portfolio. Second, but just as important, the losing position in the portfolio is taking up a slot that could be invested in a winner.

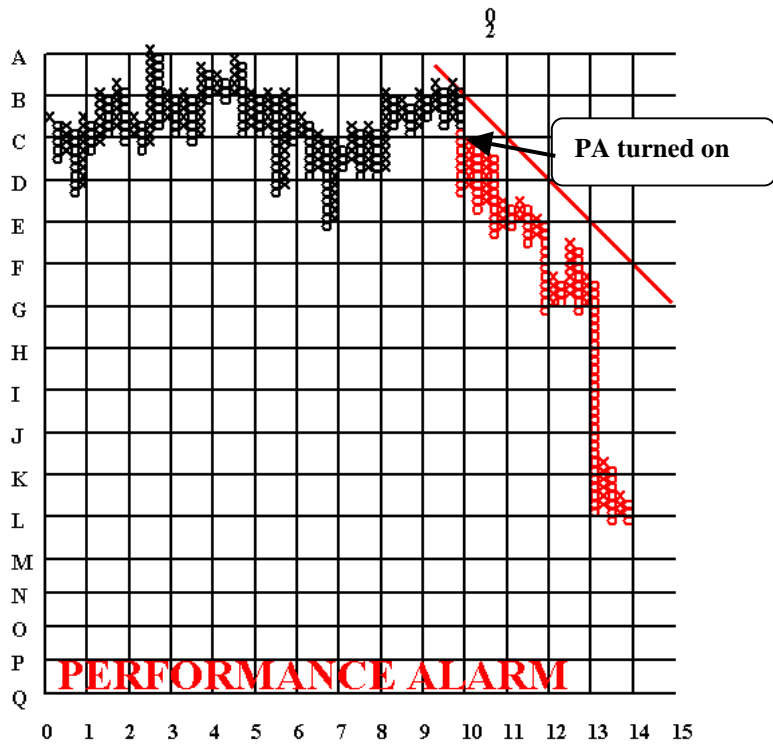
As soon as a stock can be judged to be a poor-performer, the portfolio manager should immediately start the search for a replacement. If the switch is going to result in a simultaneous sell and purchase, then overall market conditions don't matter. It makes little difference whether the broad market is in a bull trend or a bear trend-the switch should always be made. More often than not, it is a mistake to delay the switch in the hope that the loser might recover. Once the evidence becomes convincing that the investment is not working, the portfolio will be better off if a new stock is purchased, one that has demonstrated an ability to perform well.

It takes more than just a brief dip in relative strength to prove that a stock is a loser. Many stocks have short-term dips in relative strength and then go on to perform well for the portfolio. Care should be taken to ensure that relative strength measurements filter out the short-term noise and they should be viewed in a long-term context.

In my experience, a losing stock will usually start to fall off relative to the market, but not in a big way initially. The poor relative strength, however, will persist and often the downside momentum may increase. It is the persistence of poor performance that is the true indication that something is going in the wrong direction. Once the downside momentum has started to increase, the urgency of the sell decision becomes more apparent since the absolute magnitude of the loss is increasing as well.

It is at this critical point that the portfolio manager must act to eliminate the poor performer from the portfolio. In actual practice, however, the portfolio manager may fall victim to indecision and uncertainty. A follow-up call to the recommending analyst or a contact with management may be used as a substitute activity, thereby avoiding making the switch. Once the evidence of poor performance has become convincing, delaying the decision in order to get more data and information rarely ever changes the outcome, while the risks of a serious market event increase greatly.

The poor performance is there for all to see and increasingly large numbers of portfolio managers will be put "on notice" as the poor performance persists. More often than not, the bad relative strength is being caused by negative fundamental information leaking into the market. The poor performance will cause more and more investors to seek out and discover the reasons behind the negative relative strength. In cases like this, information from management, or written reports from sponsoring analysts, may not reflect the true situation. Sponsoring analysts may confidentially alert their very best (i.e. largest) customers to the true facts of the situation but those comments will almost never be seen in a written report. The analysts have far too much to lose from writing negative reports that might alienate a cooperative corporate management or important investment-banking client.



A large loss in a portfolio can poison the relationship with individual customers and make the portfolio manager appear to be unreasonable, inflexible, and stubborn.

Buy and Hold—An Obsolete Strategy?

The recent, explosive growth of hedge funds, a five-fold increase since 1998 (as of late 2002), suggests that large numbers of investors believe that an investment policy based on a buy and hold philosophy is obsolete. Hedge funds not only use the short side but they also use leverage. They trade four times more aggressively than more traditional investors.

Many investors, after suffering the massive losses of the past three years, have decided that shorter and shorter time frames are what are required to beat the game. Numerous short-term trading systems are being offered to the public at very low costs and these systems directly encourage increased trading activity.

The idea that an investor has bought a stock “for keeps” is now considered foolish or at least “out of touch.” I seldom hear the expression that “I am a long-term investor in this company” while this phrase was heard almost constantly during the heady days of speculation in the bubble of the late '90s and 2000. It seems that defining yourself, as a long-term investor was just an excuse to participate in the most outrageously speculative market U.S. investors have ever seen.

What now?

The previous significant increase in short-term, aggressive speculation occurred in the middle to late '60s to early '70s. It was exemplified by the experience with the Manhattan Fund, the Mates Fund, the Enterprise Fund, letter stock, conglomerates, National Student Marketing, Levitz Furniture and the Nifty-Fifty stocks with extremely high PE ratios. The Nifty-Fifty stocks were a bit of an exception. The idea was that you could pay any price for these stocks because they would deliver exceptional returns in the long run.

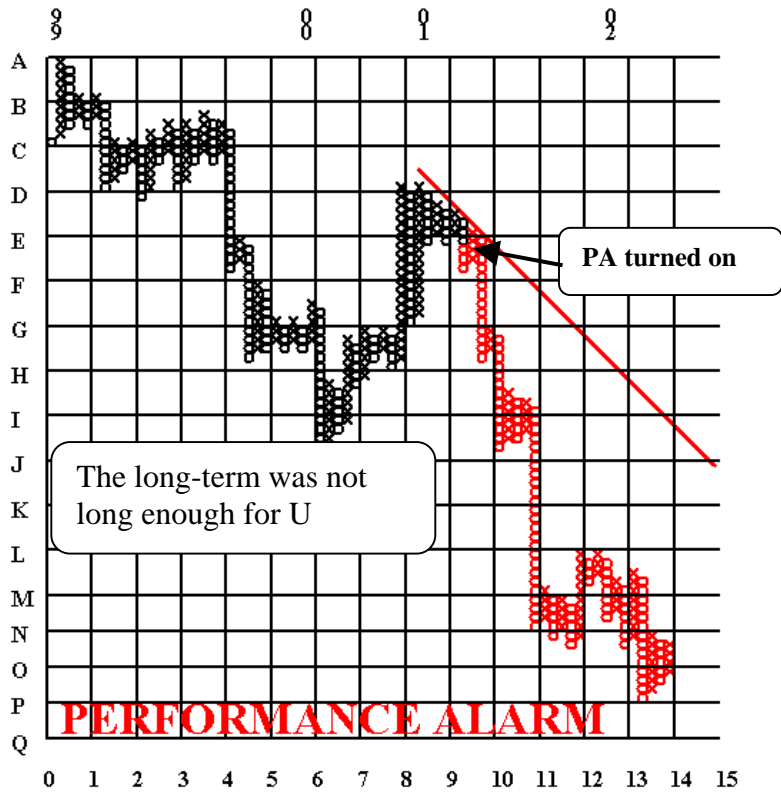
The Nifty-Fifty were extremely speculative, but not in the sense of an aggressive trading approach. These stocks were another example of gross speculation being excused and covered over by the phrase, “I’m in it for the long run.” Most of the Nifty-Fifty stocks lost 80% or more of their value and many of those stocks are no longer operating companies.

The long run did not turn out to be long enough for the Nifty-Fifty!

The lack of an overall uptrend from the middle '60s to the early '80s changed the nature of the market to a zero-sum game, that was characterized by a long term trading range. The rising trend of interest rates exerted continuous downward pressure on PE ratios. The constant withdrawal of fees, spreads, and commissions by Wall Street firms and money managers left little return for the public investor and performance was substandard throughout the period.

The long-term trading range began in the late '60s, with considerable enthusiasm for aggressive trading, and ended in dullness in 1982 with most stocks more than cheap. Many of today’s short-term traders will be caught in the trap of a short-term trade that goes bad. Everyone cannot win and someone must lose in the zero-sum game. As stocks become dull and more fairly valued, the long-term investor will start to win again. How long will it take? It seems that, as of 2002, we have only started this journey.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
U.S. AIRWAYS GROUP INC 06/28/2002 3.7 U



“A long-term investment is a short-term trade that went bad”

Old Wall Street Expression

They Never Tell You When To Sell

A former chairman of the SEC complained vigorously about the fact that Wall Street produced 29 written buy reports for each written sell report. He alluded to the conflicts of interest between analysts at investment banks and the clients of those banks. These conflicts are certainly real. Large fines and settlements were paid by several large investment banks as a result of similar accusations.

There are several additional factors that keep Wall Street analysts from issuing written sell reports. Analysts commit a large amount of time and effort in gaining the friendship and confidence of the managements of the companies that they follow. They would be foolish to risk the alienation of those very managers by issuing a negative report on the stock. There have been cases where a corporate management reacted very angrily to a negative report, going so far as to ask for the offending analyst's "scalp."

Wall Street analysts also spend a large amount of time and effort selling their ideas to the most important institutional clients of their firm. Should their analysis point to truly negative information about the company, it is in their best interest to confidentially communicate these opinions to the large institutional investors first, so that their holdings can be distributed before these opinions gain widespread acceptance. The analyst must be careful in the preparation of his opinions in order to avoid running afoul of the laws prohibiting the use of inside information. There are many ways to couch an opinion without using illegal information, and it appears to be common practice.

Many times the Wall Street analyst will have made an emotional and an intellectual commitment to the ideas behind the buy recommendation. This limits his ability to change his position in the future, in spite of changing facts in the situation. Dr. Robert Cialdini discusses the phenomena of Commitment and Constituency in his excellent book, *Influence*. This contributes to the inability of the analyst to actually see negative facts or to develop a sell recommendation, whether he intends to publish it in written form or not.

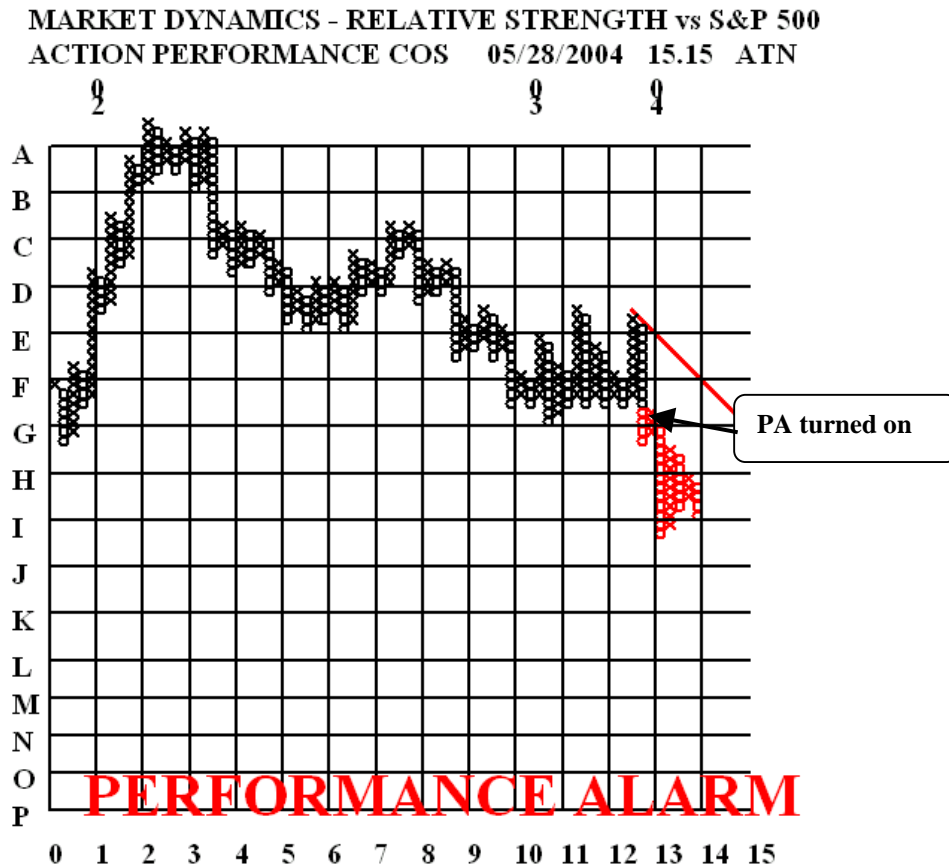
It is also true that many analysts are primarily reporters that develop their opinions from the comments and guidance of the managements of the companies that they follow. The management of a company often has great hopes that his plans and strategies will succeed and that the company will prosper. Sometimes the management's plans will be just completely wrong and the analyst will have been misled. When developments take a turn for the worse, it is not uncommon for a corporate management to "clam up" or to misrepresent the true seriousness of the situation.

Many times when the analyst becomes uncertain about a prior recommendation he will change his opinion to "hold." A rating of "hold" usually means that things are not working out as hoped but that the analyst does not want to move to the more drastic and negative opinion of "sell," for all the reasons mentioned above.

All this means that investors, both individuals and most institutional investors, must develop their own ideas about what stocks should be sold out of the portfolio and when. Good selling is an art and a talent that few investors appreciate or spend the time and effort to develop. In the stock market, sometimes, the best offense is a good defense.

In my experience, good long-term technical analysis is the primary tool for making effective sell decisions. A persistent long-term downtrend on the relative price chart should produce a decision to sell the stock long before the negative facts will be made public

Sometimes the tape will be misleading on the way up, but it is hardly ever wrong on the way down.



“Almost all of the really big trouble that you're going to experience in the next year is in your portfolio right now; if you could reduce some of those really big problems, you might come out the winner in the Loser's Game.”

“The Loser's Game”

Financial Analyst's Journal

July/August '75

Charles D. Ellis

Good Selling

The Neglected Aspect of Good Portfolio Management

It seems that the buy decision is given too much emphasis by most portfolio managers and that the sell decision is left to chance. Many investors have a very good handle on how to qualify a stock for purchase, but have little or no discipline at all about how to reach a decision to sell a stock.

The sell decision must deal with two completely opposite situations. First, when a stock investment has been extremely successful. Second, when a stock investment proves to be a worsening mistake. These are very different circumstances and the approach to each type of sell decision should be different and incorporate different factors.

The decision to sell a winner is often made too soon. Behavioral finance suggests that investors are eager to accept a profit and this often results in the premature sale of big winners. It is important to long-run success to let your winners run. Like Mae West said, “too much of a good thing can be wonderful.”

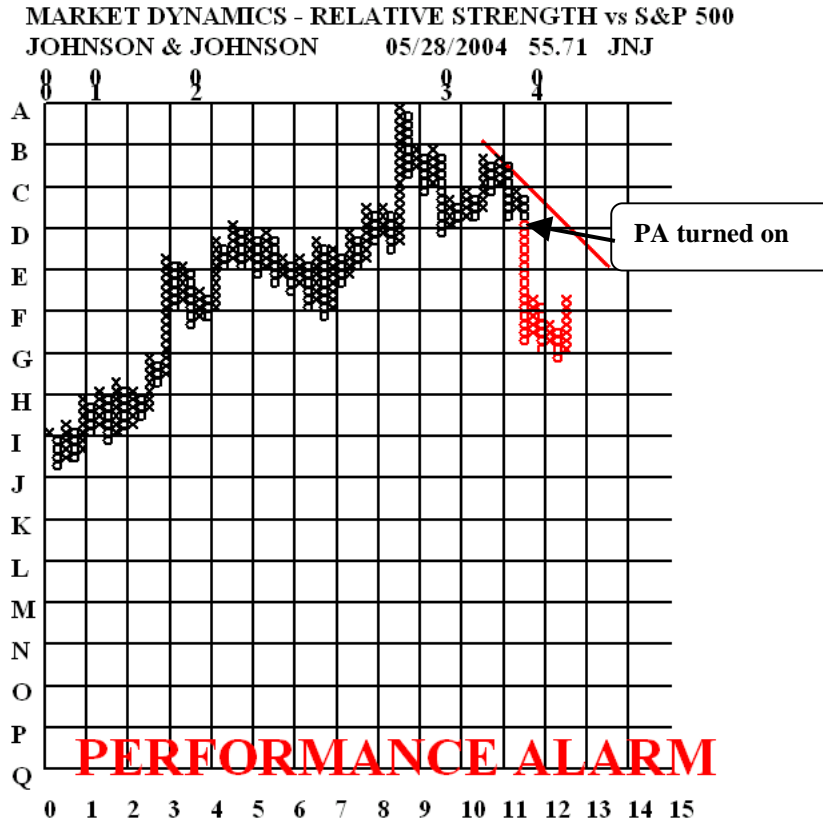
However, at some point the most successful investments in the portfolio must be recognized as over-valued and candidates for sale. Jimmy Rogers, in the interview with Jack Schwager in *The Market Wizards*, suggested that investors should sell hysteria. He indicated that when the market for a stock becomes hysterical it would start to have frequent gaps in price. This frequent gapping indicates that the market for the stock has become completely speculative, and therefore highly dangerous, for a long-term, value conscious investor.

Years of experience with technical analysis prove that in a very large proportion of the cases, big cap stocks will trace out wide horizontal trading ranges that will evolve into major tops. A portfolio manager who observes a lengthy sideways movement after a big run up is given plenty of time to make the decision to sell. In order to see the top, the portfolio manager must be aware of the chart pattern and that implies that he is attuned to technical analysis. Portfolio managers who operate strictly from a fundamental orientation will not be aware of these tops. Therefore, gaps and sideways movement after a big run to the upside are both effective signals to take profits in the big winners.

The second case is more difficult. The admission of an investment mistake runs against the grain for most portfolio managers. The stock has declined from the purchase price and therefore represents an even more attractive value, provided the fundamentals that motivated the purchase can still be believed. The portfolio manager must remove the noise from the price data and he must also remove the effects of the market in order to evaluate how seriously the decline might reflect changed fundamentals. A decline in price will automatically call forth plausible explanations for the decline from the media and securities analysts. Once again behavioral finance offers an explanation for the behavior of investors, in that they are willing to gamble with their losses. In many cases they will refuse to recognize their error and will buy more of the losing stock. It is best to set a maximum allowable decline and accept the loss when the limit is reached.

The neglect of the sell decision is the result of academic course content that is almost totally oriented toward the value recognition incorporated into the buy decision. Most institutional investors, until very recently, have been prohibited from exploiting the short sale, so the recognition of good sell candidates is not mastered. Because of the long-run

growth of the U.S. economy, most portfolio managers are biased to the bullish side and the sell decision has been neglected. Better sellers become better buyers!



“ You’ve got to know when to hold ’em
and know when to fold ’em.”

The Gambler

A hit song by

Kenny Rogers

The Buy Decision is Only the First Step

Successful portfolio management is much more than just stock picking. The decision to buy a stock is only the first step toward successful portfolio management.

Many portfolio managers spend the lion's share of their time and energy picking stocks to buy. The ongoing management of the stocks in the portfolio is often neglected, usually with a negative influence on the results of the portfolio. The performance of the portfolio depends on the measurement of the performance of each stock after it is purchased for the portfolio. This will ensure that the performance of each stock lives up to the expectations that motivated the purchase.

We should not assume that our stock picking abilities are foolproof. We will always make some mistakes. Some of these mistakes will be serious and will have a capacity to seriously damage the portfolio's performance. The more successful portfolio managers will deal with these mistakes while they are still small. The knack of evaluating these minor to intermediate-term fluctuations into the separate categories of acceptable performance and unacceptable performance is crucial. All the tools that can be brought to bear on this critical process should be used. Gathering feedback from the price fluctuations in the market is key to successful performance management.

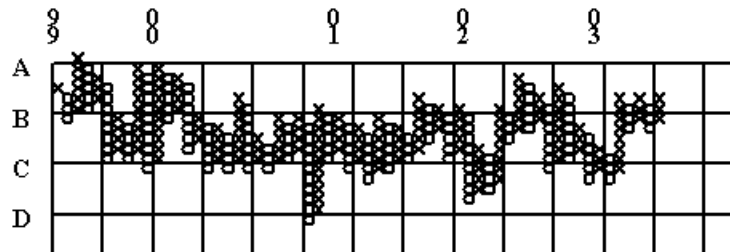
Much of this feedback data is noisy and erratic. Care must be taken to play down the noise while retaining as much sensitivity as possible. By acting on feedback that is too sensitive, the portfolio manager will trade his portfolio furiously as he responds to the noise. Data that is too insensitive will result in the slow recognition of problem stocks and overly large losses. This is a difficult, but not insurmountable, problem. It should also be remembered that a standard of perfection should not apply. The batting average is what counts and the portfolio manager needs to be right on the stocks with a big payoff and be absolutely right on the stocks that can produce a big loss.

In addition to the problem of feedback sensitivity, is the recognition that certain stocks move in long trends while most other stocks move up and down in well established trading ranges. The portfolio manager must be able to classify the behavior of the stock under study ahead of time, and apply different rules for feedback behaviors depending on whether the stock is a trending stock or a trading range stock. Most statistical studies of the stock market neglect this aspect of stock price behavior, resulting in the academic conclusion that active portfolio management is impossible.

In my experience, it is best to conclude that a stock in a trading range will remain in or near that trading range until it can demonstrate otherwise. Stocks following major trends, either up or down, will continue in those trends until a reversal can be seen. This is not revolutionary but the tactics for dealing with the three classes of stocks are very different.

The major trending stocks seem to be the most interesting and profitable. Major uptrends usually follow an upside breakout from an extended trading range that we often call a base. Major downtrends develop after a downside breakout from a trading range called a top. In either case, a trading range seems to be set up when supply and demand are more or less in balance for an extended period of time.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
ESTEE LAUDER COS INC 04/30/2003 32.5 EL



This is an example of a long-term trading range.

The measurement of performance is the key to successful portfolio management.

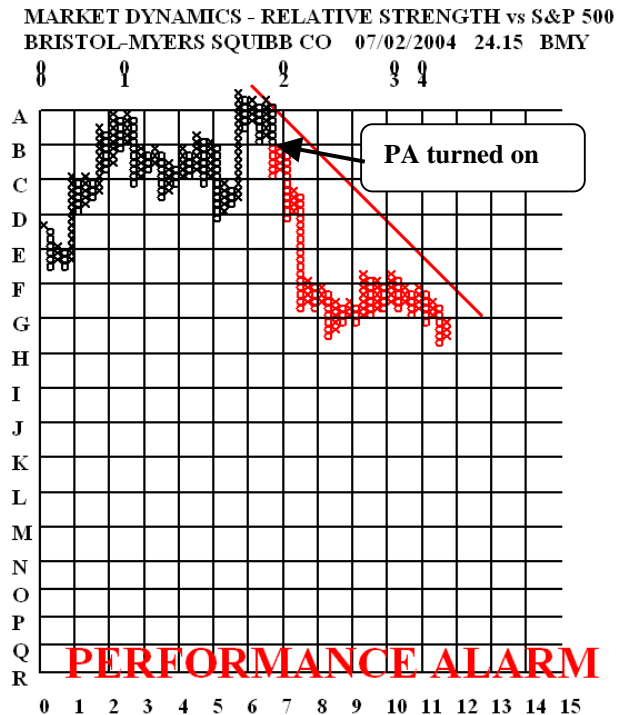
“Hope is Not a Method”

It seems that many investors fall into the trap of hope when managing their portfolios. A stock is purchased and they hope for the best. Little thought is given to the possibility that the stock won't perform as expected. Most of the time poor performance is swept under the far too familiar rug of long-term investing.

Does a long-term investment orientation excuse prolonged and persistently poor performance? Hardly!

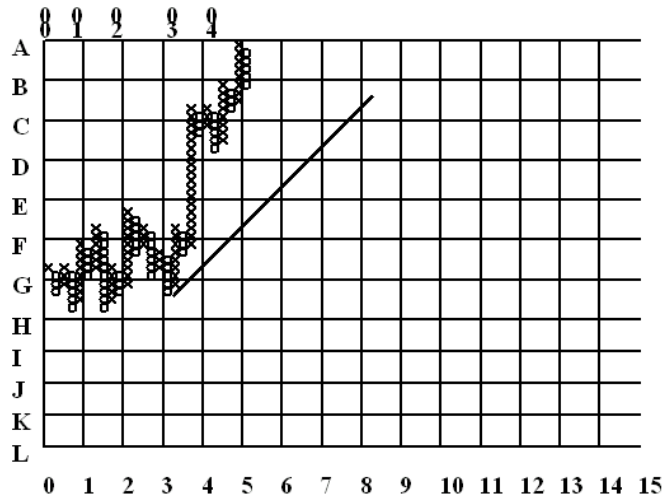
It is now easier than ever to monitor and measure the performance of stock investments. The Market Dynamics system utilizes the traditional, long-term, point-and-figure approach to track relative performance.

Your stocks are like your employees and they have a job to do. Your job is to set standards of job performance and to evaluate the workers performance relative to the established standard. It is a far easier task to fire a stock than to fire a real employee. The good workers are retained and the poor workers are let go and new workers are hired in their place. It is, or should be, a straightforward approach to the successful management of an investment portfolio. Think about how bad your business would be if you continuously fired your good workers and retained the bad. Yet this is what happens in many investment portfolios!

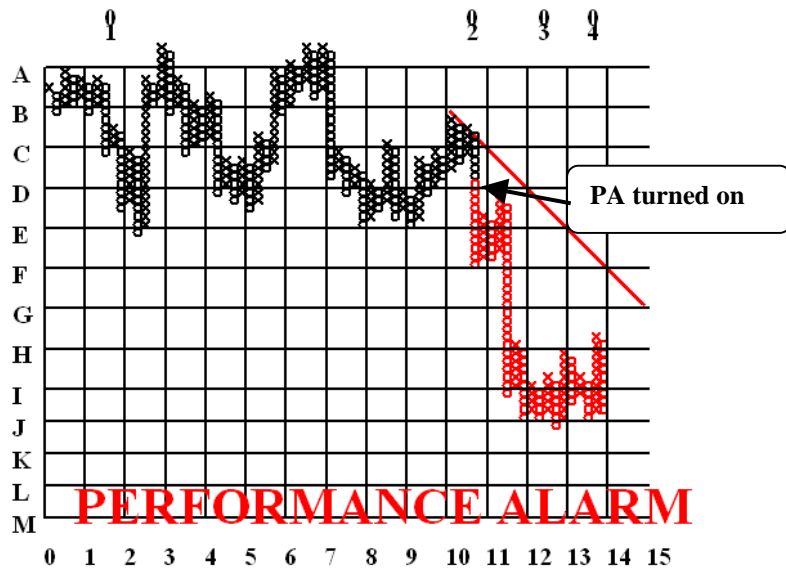


Good workers versus bad workers

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
LOUISIANA-PACIFIC CORP 06/04/2004 23.57 LPX



MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
CURAGEN CORP 06/04/2004 5.03 CRGN



“Hope springs eternal in the human breast...”

The Essay on Man

Alexander Pope

Collapsing Stocks & Sand Piles

Sand piles represent a type of non-linear behavior in nature. Once the slopes of the sides of the sand pile have achieved certain steepness, the addition of a single grain of sand can cause the pile to undergo a major collapse. The size of the input is unrelated to the size of the output of the system.

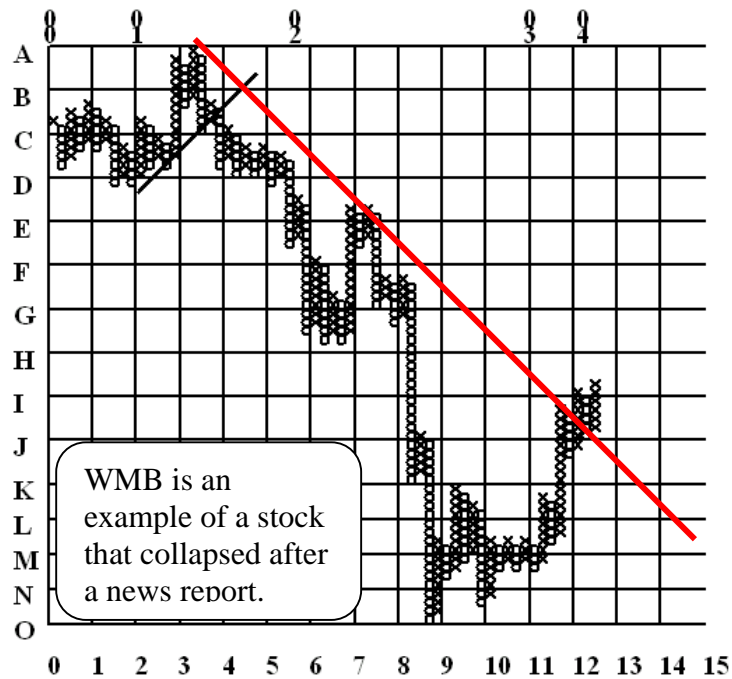
It seems that stocks in major downtrends often perform like a sand pile. The balance between the forces of supply and demand reaches a critical state that can shift suddenly, from a minor oversupply of sellers to an overwhelming increase in the amount of stock for sale and a withdrawal of bids to purchase the stock at any price. This sudden shift leads to a dramatic collapse in the price of the stock. Often the magnitude of the input seems totally out of proportion to the size of the price drop.

The declines in price attract bargain hunters on the way down until this critical condition is reached and, at that point, the ability of declining prices to attract buyers collapses. This is often triggered by a news announcement that is offered as the explanation for the dramatic drop in the price of the stock.

These events are usually considered as a one-time discontinuity and yet they seem to share considerable commonality. The downtrend in price has usually been underway for an extended period of time, so it is implied that a fairly large proportion of the participants (i.e. sellers) correctly anticipated the potential for a serious problem to develop, perhaps without knowing the nature of the specific problem. During a downtrend, market-makers become acutely aware of the order flow. Their willingness to bid for stock is restrained, the inventory of stock held is greatly reduced, and their willingness to supply buy orders with shorts is greatly enhanced — to the extent that a net short position may be maintained. On the NASDAQ, it is highly probable that some market-makers will withdraw from making a market in an unprofitable stock. This heightens the onset of the critical state between supply and demand. In my years of experience in investment management, I have heard of very few instances of market-makers suffering large losses on these catastrophic declines in the price of a stock. The presumption, therefore, must be that market-makers are usually able to profit from these developments.

The potential for a catastrophic collapse in the price should stimulate portfolio managers to sell stocks that develop persistent downtrends.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
WILLIAMS COMPANIES INC 06/04/2004 11.7 WMB



“It is perfectly astonishing how much stock a man can get rid of on a decline.”

Reminiscences of a Stock Operator

Edwin Lefevre

attributed to Jesse L. Livermore

Don't Waste Time On a Loser!

Time is a portfolio manager's most limited resource. His attention must be focused on new ideas that have a high probability of working out if they are selected for the portfolio. One of the most important benefits of point-and-figure analysis of relative strength is the quick and effective elimination of certain stocks from consideration as a long-term investment.

Stocks that are below the 45-degree Bearish Resistance Line (BRL) can be culled from the list of potential investment candidates. The portfolio manager can be assured that, in a large majority of cases, stocks below the BRL will continue to perform poorly.

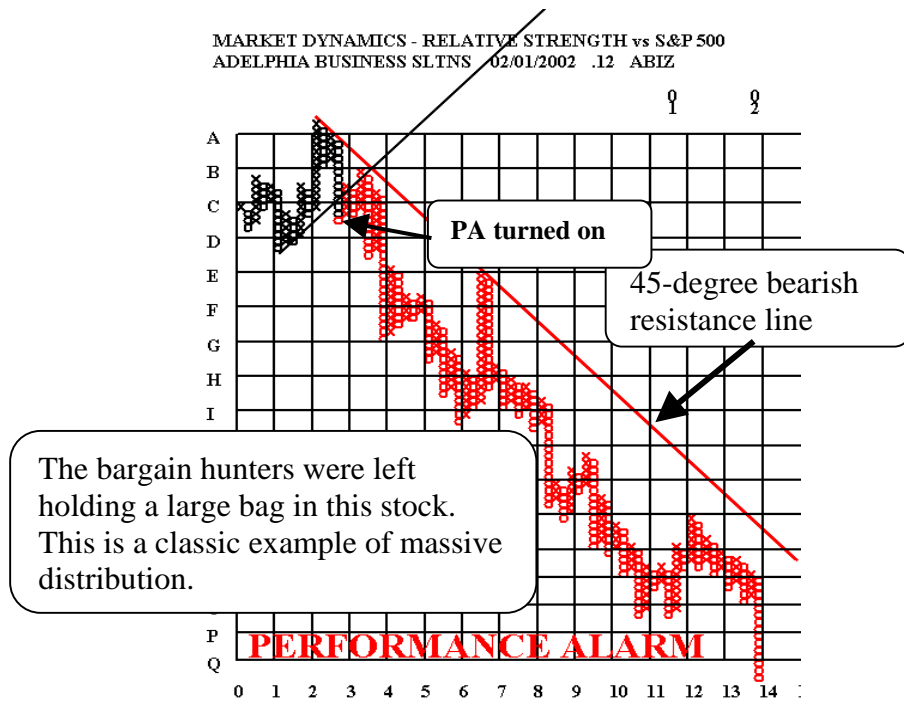
The BRL is drawn downward to the right at a 45-degree angle from a prominent high point on the chart. This line has a slope of minus one, which means that one unit of relative return is being lost for each alternation of trend. This also means that stocks that decline substantially must spend a long time backing and filling before the BRL can be reached and exceeded. In practice, a stock that suffers a major decline spends a long time building a base that allows the transfer of stock from weak-hands (losers) to strong-hands (winners). This process is called accumulation. The rule is, the bigger the drop in price, the wider the base has to be before the accumulation is complete and the stock is again prepared to rise.

Bargain hunters often rush into stocks that have suffered big declines only to be frustrated by the length of time required before the stock is ready to go up. As long as the relative strength chart is below the BRL the stock can be successfully avoided. In many cases of serious deterioration in the financial performance of the company, the BRL is never seriously challenged and the "bad apple" is never allowed to enter the portfolio. The portfolio manager avoids wasting any time trying to research the investment merits of a problem stock.

Stocks in the negative left-hand tail of the distribution of returns are below their BRL. The odds are exceedingly unfavorable against a sudden reversal of performance from bad to good. In addition, the left-hand tail of the distribution is the region with a very high proportion of financial disasters.

Recommendations to buy stocks in the left-hand tail are often based on the idea that the stock has gone down "too much." What is "too much" can only be gauged with hindsight. When a stock has truly gone down "too much" it recovers, usually modestly, and then starts a sideways movement that will probably trail off into dullness. To invest for the modest recovery from a deep, oversold does not seem to adequately compensate for the risk, and ignores the prospect of dullness.

As a stock moves from the right-hand tail of the distribution of returns to the left-hand tail, the portfolio manager will be able to see the failure of the long-term Bullish Support Line and the appearance of the Bearish Resistance Line. In the Market Dynamics System, this happens automatically. The chart will turn bright red to highlight the poor performance of the stock that has fallen below its BRL.



Rule Number One.

Don't buy into problem stocks! You will have enough investment problems in the portfolio without buying a stock that starts out by being a problem.

Why Does a CFA Use Technical Analysis?

Long-term technical analysis is a legitimate tool for portfolio managers because expectations based on fundamental analysis alone are not always correct. The expected financial performance of a company may not materialize or the expected market response may not develop, even when the expected financial performance is accurately forecast. Long-term technical analysis should be used to track the performance of the stock in the market, as a check on our fundamental expectations.

The use of technical analysis is primarily to identify stocks in the portfolio that are failing to add economic value to the performance of the portfolio. Every position in the portfolio must pull its own weight in terms of performance. If the performance of the stock does not measure up, then there should be a strong presumption that the expectations (which led to the investment in the first place) are flawed.

If we could accurately predict the future of stock prices then we could invest “risk free” because we would know the future. In such a situation, we could just buy our stocks and “go fishing.” There would be no need for the verification of expectations that is provided by technical analysis.

Technical analysis has received almost universal criticism and condemnation by the finance faculties of business schools all across America. They preach that the stock market is random and therefore technical analysis is worthless because you can’t predict the outcome of a random process. There is no argument from me that the day-to-day movements of stock prices are random.

It seems that the academic community has completely overlooked the potential of technical analysis when used to measure performance. If your objective is to achieve performance relative to some market benchmark, then the first step is to measure the performance of the investments in the portfolio against that benchmark.

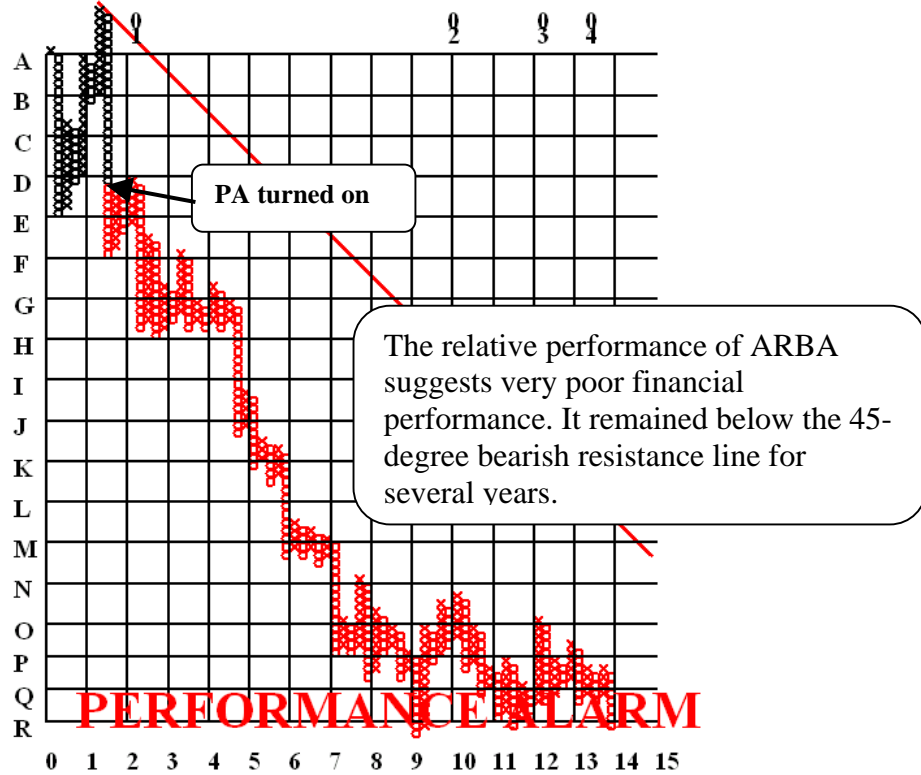
Poorly performing stocks are like a poorly performing employee in a business. The business manager accepts the fact that the job performance has been unacceptable and the employee is terminated. The manager does not need to make some precise mathematical prediction of the future job performance of that employee. He accepts the fact that the job performance has not been satisfactory and makes a decision to replace that employee with one better suited to the task.

So it should be with investments. The measurement of performance should be based on long-term considerations and inputs. The measurement process can be constructed in such a way that the random, short-term noise in stock prices is removed. Since experience shows that stock prices usually lead the fundamentals, the measurement of the performance of a stock price will provide a useful and, for the most part, accurate check on the fundamental performance of the company.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500

ARIBA INC

05/19/2004 1.79 ARBA



“Every enterprise should be conducted according to a system; chance alone can never bring success.”

Napoleon

Successful Stock Charting – Part 3

Measuring Performance with Charts

Simulations of Randomness

The three-box, point-and-figure chart shown in the example below was created by a computer program that produced random daily percent changes, based on a normal distribution with a known mean and a known standard deviation. The simulation ran for a year (i.e. 250 days) with a positive mean. The mean was then switched to a negative and another year's price changes were produced. The last year switched the mean back to positive and the percent price changes were applied to the time series. Each iteration of the simulator represented one day and there were 250 days for each year. The simulator used the random percent changes to produce a price time series, and that series was used to produce the point-and-figure chart.

It is impossible to tell the simulated chart from the chart of a real stock. The meanderings back and forth around the trend are clear. The chart shows a year of uptrend, followed by a year of downtrend, and then another year of uptrend.

This chart happened to have no false signals, but most chart simulations show a few false simple buy and sell signals. This chart shows only three signals; buy at 35, sell at 58, and buy at 26, for a total profit of 86 points. This example happens to be an extremely idealized version of the point-and-figure methodology.

I have used this method to produce hundreds of simulated charts, using various combinations of average daily percent price changes and standard deviations. In every case, the simulated profits from the application of simple buy signals and simple sell signals exceeded the losses from false signals by a margin of over two to one.

Naturally the number of false signals increased as the standard deviation was increased. This behavior suggests that, in the real world, highly volatile stocks should be charted using a filter greater than three-boxes; maybe four or even five boxes would work better.

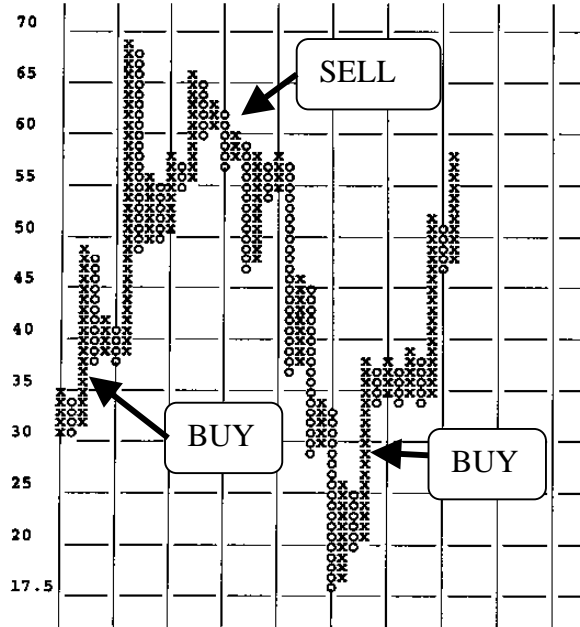
This simulation was based on data that was completely random. Care was taken to reseed the random number generator before each simulation was prepared. The program used the Box-Muller transformation to produce the random deviates from a normal distribution as described in *Numerical Recipes In C*.

In the real world, trends may not last for a full year. In that case, the accumulated price changes would not be as great.

These simulations certainly suggest that filtering random price data by using the three-box, point-and-figure methodology produces excellent results. This is not to say that the point-and-figure charts predicted this movement, but when the trend changed, the reversal showed up clearly. The fact that price data is random does not imply that reversals of long-term trends cannot be recognized in a practical, and profitable, manner as suggested by these simulations.

MARKET DYNAMICS
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(303)-804-0507
clayallen@msn.com

random AVG CHG = 0.25%
 STD DEVIATION = 3.0%



This simulation program was written in QBasic and will run in DOS with a Hewlett-Packard laser-jet printer. The source code is available to anyone wishing to review the methodology or to test the simulator under different conditions by changing the code. Contact <mailto:clayallen@msn.com>

Hidden Order?

The stock of Best Buy was chosen for this analysis because its performance over the year 2003 was among the top 100 performing stocks in the Market Dynamics database. The time period covered by this study is 253 days, or one full year.

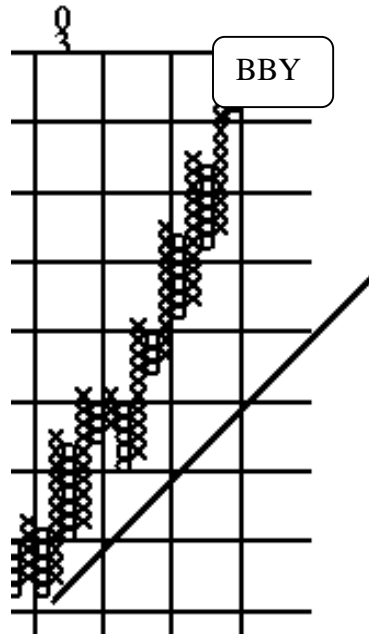
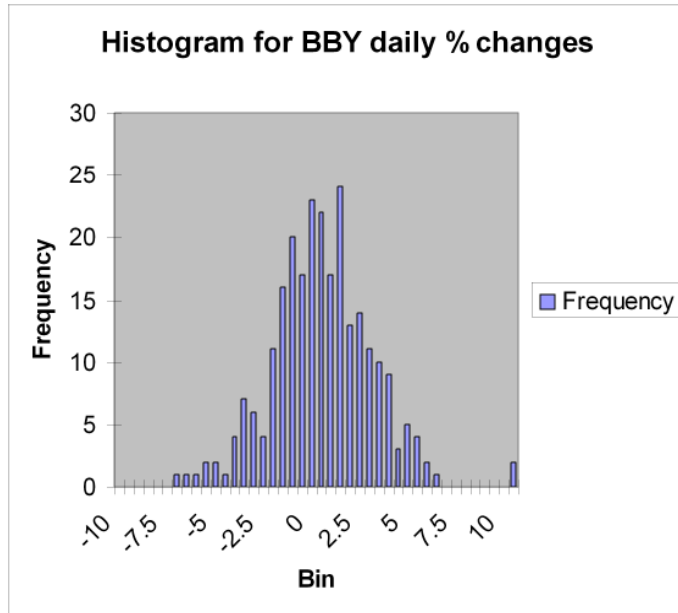
The lower chart is a 3-point, point-and-figure chart of the relative strength of BBY over the past year. This chart has been cropped to focus on only the record for 2003.

The BBY point-and-figure chart shows an amazingly regular upward progression with only one significant correction. BBY remained above the 45-degree bullish support line during the entire time period covered. This suggests a regular or systematic process at work to steadily propel the stock price higher, relative to the S&P 500 during this time period.

The upper chart is a histogram of the daily percent changes in the price of BBY over the past year. The histogram shows the characteristic bell shaped curve that is usually produced by a random process. The sample is slightly skewed to the right and the average daily price change is .33% per day over the past year. During this time, 54% of the days were up and 46% of the days were down—very close to 50-50.

It is striking that the raw data looks so completely random. Yet the point-and-figure chart produced from that data looks so orderly. It's as if there was an invisible hand guiding the stock upward in a persistent and regular pattern. This example clearly shows the results of the highly effective transformation of the raw data produced by the three-box, point-and-figure methodology.

The relative strength of the stock shows the characteristic saw-tooth, back and forth action and, in this example, the upward thrusts were greater than the downward reactions as the relative strength worked its way steadily higher. The point-and-figure chart clearly shows the ability of the point-and-figure methodology to remove the noise from the data. The positive days were larger than the negative days, so the relative strength upward trends tended to accumulate to higher levels and the downward reactions turned out to be mild. When the relationship between the up days and the down days changes, the direction of movement on the chart will change. There are many examples of orderly patterns among the best performing stocks. There also appear to be orderly patterns when the trend turns down. It is amazing that random data could be transformed into such an orderly progression on the point-and-figure chart.



It is amazing that random data could be transformed into such an orderly progression on the chart.

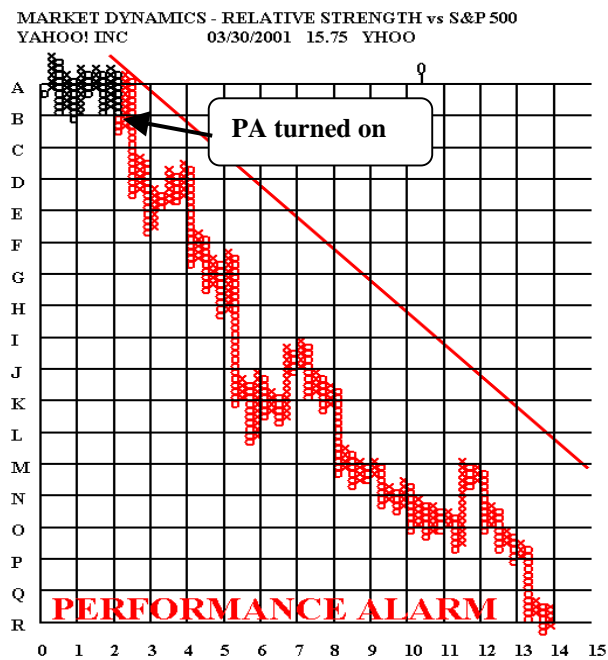
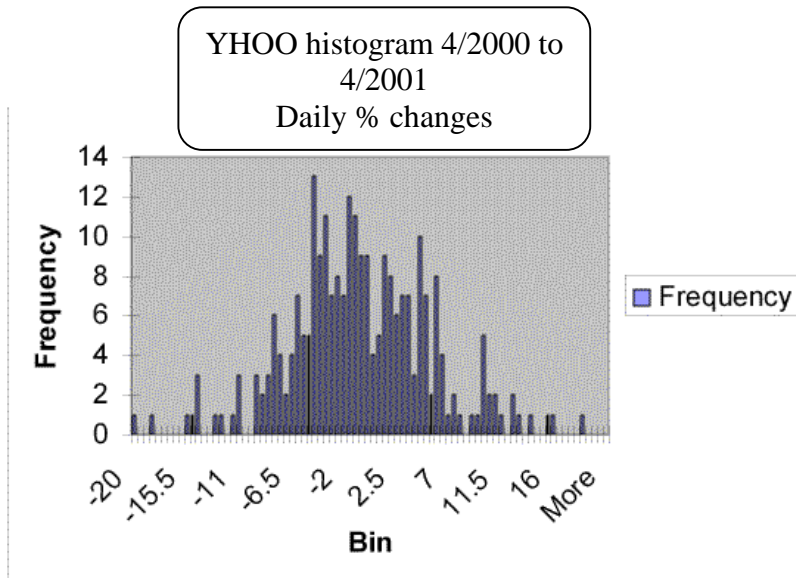
Hidden Order to the Downside

This is the second in a series of research reports dealing with “hidden order” in the stock market. This analysis is based on the movements of YHOO during the year ending in early April 2001. The stock fell from over \$160/share to under \$15/share. The number of days when the price went down was 59% of the total and the days up amounted to 41%. The average percent change on the down days was -4.73% and the days up was +4.73%-almost an exact match. The distribution of daily percent changes showed modest skewness and kurtosis was low as well. The average daily change was -0.87% and the median was -1.34%. A test of the number of runs indicated that there were actually more runs than should have been expected, showing rapid back and forth action in the stock price. The analysis of the data indicates that the daily price changes were very close to random, but that the average daily percent change was strongly negative.

The relative strength, point-and-figure chart covers almost the full year ending March 31, 2001. There were two attempts at a rally on the point-and-figure chart but those rallies did not sustain a reversal of that persistent downtrend. At no point on the chart did the relative strength even come near the 45-degree bearish resistance line. The red portion of the chart shows the period when YHOO stock was under a relative strength Performance Alarm.

The choice of YHOO for this study was made because of the spectacular collapse of the stock and the possibility that the stock might have behaved in a non-random fashion on the way down. That does not seem to be the case. It is difficult to argue from the data that the stock became non-random during this period.

The chart shows a very regular progression to the downside as these relative price changes accumulated. The Performance Alarm appeared as the stock started to show unacceptable performance. The performance measurement system gave a clear indication of poor performance in a timely manner. Many investors believed the stock had gone down too much and repeatedly tried to probe for a bottom as the stock declined. This is a picture of massive distribution at work. The lesson is, that when the distribution is complete, it will then become visible on the chart. Until the distribution is completed, it is best to steer clear of situations showing persistent declines in relative strength.



It is amazing that random data could be transformed into such an orderly progression on the chart.

A Measure of Success

The 45-degree Bullish Support Line (BSL) helps a portfolio manager measure success and recognize failure. It is a very important feature of long-term, point-and-figure charting and it is especially effective when applied to relative strength in a point-and-figure format.

The BSL is drawn from a prominent low on the chart, upward to the right at a 45-degree angle. The grid on a relative strength point-and-figure chart is square, so the slope of the BSL is one. This means that, to remain above the BSL, the plot of RS must gain one box up on the vertical Y-axis for each box recorded along the horizontal X-axis. The vertical Y-axis records the relative performance of the stock against the S&P 500.

The horizontal X-axis records the alternations of the columns of Xs (up) and the columns of Os (down). These alternations of trend are truly a function of volatility. The greater the volatility of the stock, the greater the number of columns of Xs and Os. It is generally understood that volatility is a proxy for risk, so the movement along the horizontal X-axis is a measurement of risk.

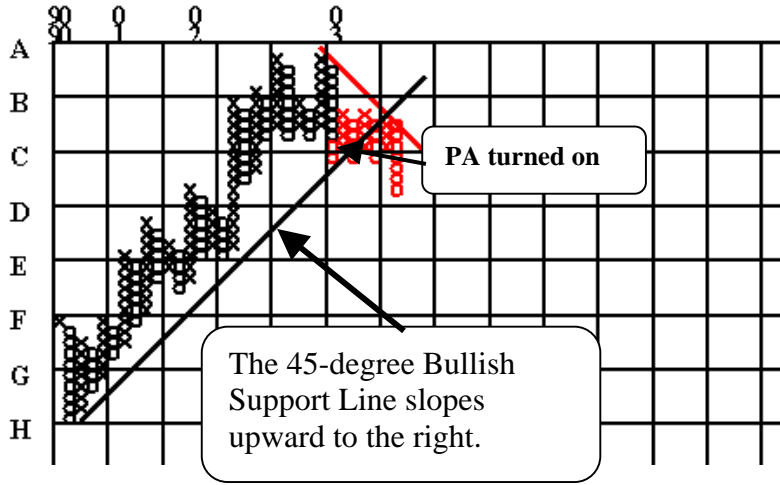
The relative strength charts in a point-and-figure format actually record units of relative return versus units of risk. Since the tradeoff between risk and return is fundamental to the field of investment management, these charts provide an essential insight into the ability of an individual stock to achieve returns that are commensurate with the risk being undertaken. This is where the 45-degree BSL comes in.

The slope of the 45-degree BSL is one, so a stock that stays above the BSL is gaining one unit of return for every unit of risk. This is the definition of minimal acceptable relative performance for a stock. This is not a prediction of future performance, but a “hard-nosed” measurement of how the stock has been moving, relative to the market. In a world of relative performance, portfolio managers should not hold stocks that cannot remain above their 45-degree BSL. It is a surprisingly simple way to record and measure the two most important quantities of investment performance, risk versus return.

At some point, all stocks will either overshoot, or at least fulfill, their upside potential and the graph of their performance will flatten out and start to move sideways or go down. The downside penetration of the BSL is the tip off that underperformance has now set in. This provides a “black and white” signal for the portfolio manager to move to another stock.

Stocks sometimes go sideways for a short period and then resume their upward journey. The violation of the BSL, on the other hand, can represent a major top and the beginnings of a major downward trend in performance. A refusal to hold stocks that fall below their 45-degree BSL will ensure that the portfolio manager will not get caught in these disastrous, collapsing stocks that destroy the portfolio’s performance.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
AMEREN CORP 10/16/2003 44.17 AEE



The BSL is not a prediction of future performance but the measurement of actual performance. As long as the stock's performance is acceptable, it can be held. When it becomes unacceptable, it should be sold.

Stock Price as Communication

It seems appropriate to consider stock price movements as a medium of communication. These communications flow between investors, traders, market-makers, brokers, analysts, investment bankers, reporters and insiders. Essentially this communication occurs between and among everyone with an interest in a stock.

Sometimes these messages are crystal clear and at other times the message seems garbled and confused. It must also be considered that the communication can be guided by special interests at certain times and at other times be relatively free from purposeful influence.

The communications signal is partially noise and partially a meaningful communication. The signal can be processed in certain ways to reduce the influence of noise and to emphasize the true signal. A filtering of the signal shows various points that are prominent and “stick out.” The alignment of these prominent points provides the content of a message that can produce a response among large numbers of investors and traders — because they can decode the signal. Livermore called these prominent points “pivots,” and he described their use in his stock market manipulations.

It is also very interesting to follow the movements of price and the explanations for these price movements that naturally appear in the press and broadcast media. This is another part of the communications process. The news follows the trend of price in a predictable way and this phenomenon is well understood by those who know how to decode these messages.

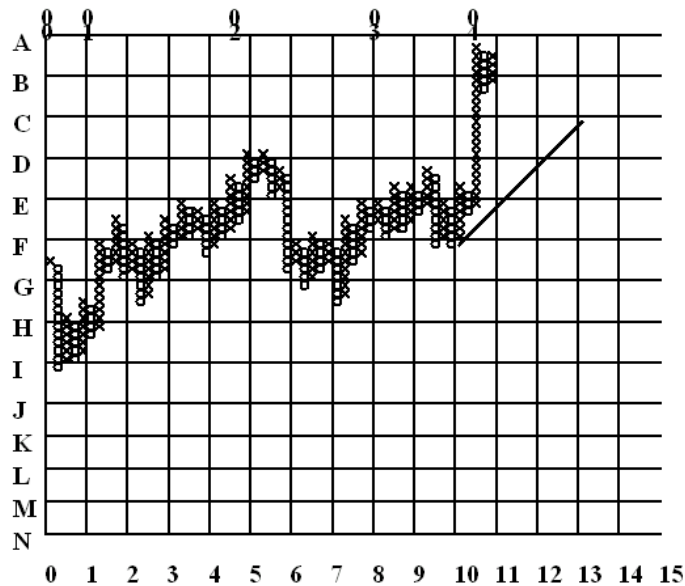
The alignment of the pivot points into higher highs and higher lows provides the most essential component of the message—the direction of the trend. Another important part of the message is regarding the speculative tempo and the level of excitement surrounding the price movements in the stock. The shape of the curve of the price data registers a message about the level of excitement and the tempo of speculation. Another message relates to the likely reversal points that can be anticipated, based on historic turning points at extremes in the stock or in the market overall. These three ideas appear to represent the essential content of these communications.

Do these messages predict the future or do they only provide an insight about the current status of the trend direction, speculative excitement and turning points? There has been great deal of useless debate about the randomness of price changes and their presumed lack of predictive capability. The ability to plug into these communications is all that is required to benefit from their message.

Many investors are victimized frequently by their inability to appreciate these messages. This is especially true for that broad class of bargain hunting investors who actively seek out pivot alignments of lower lows and lower highs and do not appreciate the warning message that is embedded in that alignment. The willingness to ignore the message of the downward trend, in the hopes of buying at the low, seems almost irresistible to certain investors.

These communications and messages are not difficult to see, but it does require the necessity to look for them. Investors who are blinded by choice (i.e. the random-walkers) or those who do not bother to look, out of ignorance or indifference, will continue to be in second place, behind those investors who can receive and understand the messages from the market.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
AUTODESK INC 05/28/2004 35.86 ADSK



“When there is activity, there is a synchronous demand for explanations; and that means, of course, that the necessary reasons —for publication— supply themselves without the slightest aid from me.”

Reminiscences of a Stock Operator

Jesse L. Livermore

In the chapters about stock manipulation – XX and XXI

Stocks In Trading Ranges

The distribution of returns from common stocks corresponds to the familiar bell shape curve in a general sense, but it differs from a classical normal curve in a very important way. The tails are fat. Why is this important and what does it mean for investors?

When we say that the tails are fat we really mean that the proportion of the sample of stocks that lie in the extremes of the tails is far higher than it should be. In other words, the probability of a major winner or a major loser is far higher in the actual stock market than it would be if a strictly academic, normal distribution prevailed.

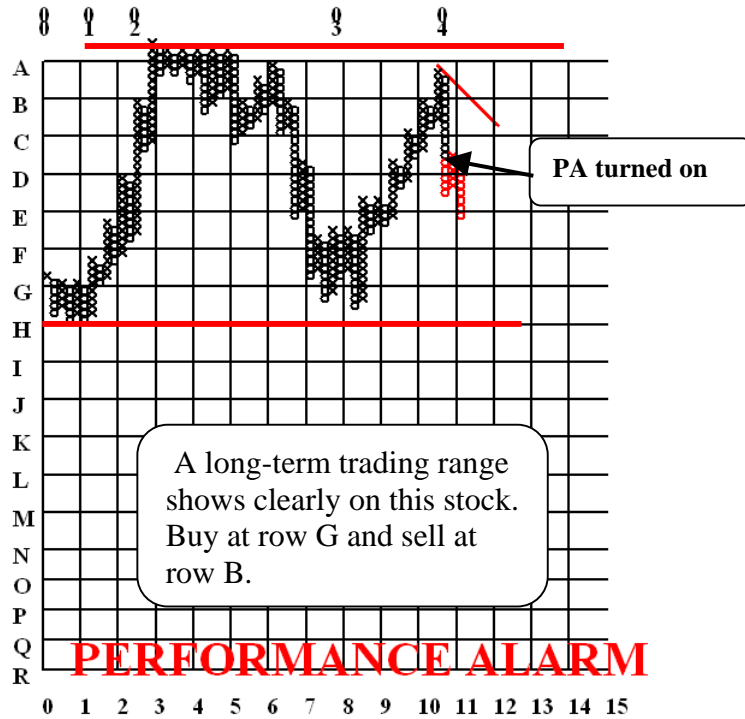
In a normal distribution, based on percent price change, the percent of stocks that would fall two standard deviations or more above or below the average should be about 2%. Given the extreme variability of stock returns, the shape of the distribution of returns is often highly distorted and the proportion of stocks experiencing a significant departure from the mean is probably between 10% and 20% of the total sample, on either side of the mean. This also implies that the peak in the distribution is fairly narrow and that 60% to 80% of all stocks perform at a rate of change that is relatively close to the average for the market as a whole. (The distribution of returns is often characterized by very high levels of skewness and kurtosis.)

Stocks that perform in close conformity to the average of the market are what we call trading range stocks and they are by far the most common type of stock in the market. This is especially true for big cap stocks and these trading ranges can persist for years. They do not depart for very long or by very much from the behavior of the market as a whole. When plotted on a relative strength chart they tend to move up and down relative to the market in a fairly narrow, horizontal band. They seem unable to move away from the performance of the market. These trading ranges show up as a horizontal, back-and-forth pattern on the RS charts.

A portfolio manager needs to develop a method for dealing with this very common behavior in the market. This conduct is completely different from the action exhibited by a stock in a major trend. Trending stocks tend to jump and run. Trading range stocks tend to bob up and down within a recognizable trading range, within well-defined boundaries. Trading range stocks should be sold at the high end of the trading range and purchased at the low end of the trading range.

Long-term, point-and-figure charts of relative strength are an ideal tool for measuring the extremes of trading ranges. Trading range stocks tend to be predominately big cap stocks with business fundamentals that are more or less mature and not subject to substantial change in the short run. The biggest problem for a portfolio manager who is performance oriented is that the movement up and down does not result in much net progress relative to the market over the long-term. To capture the relative performance, trading range stocks must be sold while they are up (i.e. in the upper reaches of the trading range). This is by far the most common pattern found in the market and selling into the higher levels of the trading range can provide an effective way to capture the relative performance for a large proportion of big cap stocks.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
SEARS ROEBUCK & CO 05/18/2004 37.8 S



Trading ranges require a different perspective when measuring performance.

Filter Out the Noise

Stock price changes are partially noise and partially a true signal or trend. The fact that stock price fluctuations contain a component that is random variation does not indicate that stock price trends are totally meaningless and of little or no value to portfolio managers. The removal of noise from an electrical signal is well understood by electrical engineers and these filtering methods can be successfully applied to the processing of stock price data.

This filtering methodology is one of the primary strengths of the three-box, point-and-figure technique of stock price charting. The dominant source of noise in stock price movement is found in the very short-term price changes (i.e. daily). The three-box point-and-figure method removes (i.e. does not record) price trends of less than three points. The data is recorded in alternating columns of Xs and Os representing trend movement up and down of more than three points—Xs for increases and Os for declines. Since the day-to-day fluctuation is minimized, the point-and-figure charts tend to compress the chart so that years of historical fluctuation can be recorded on a relatively small chart.

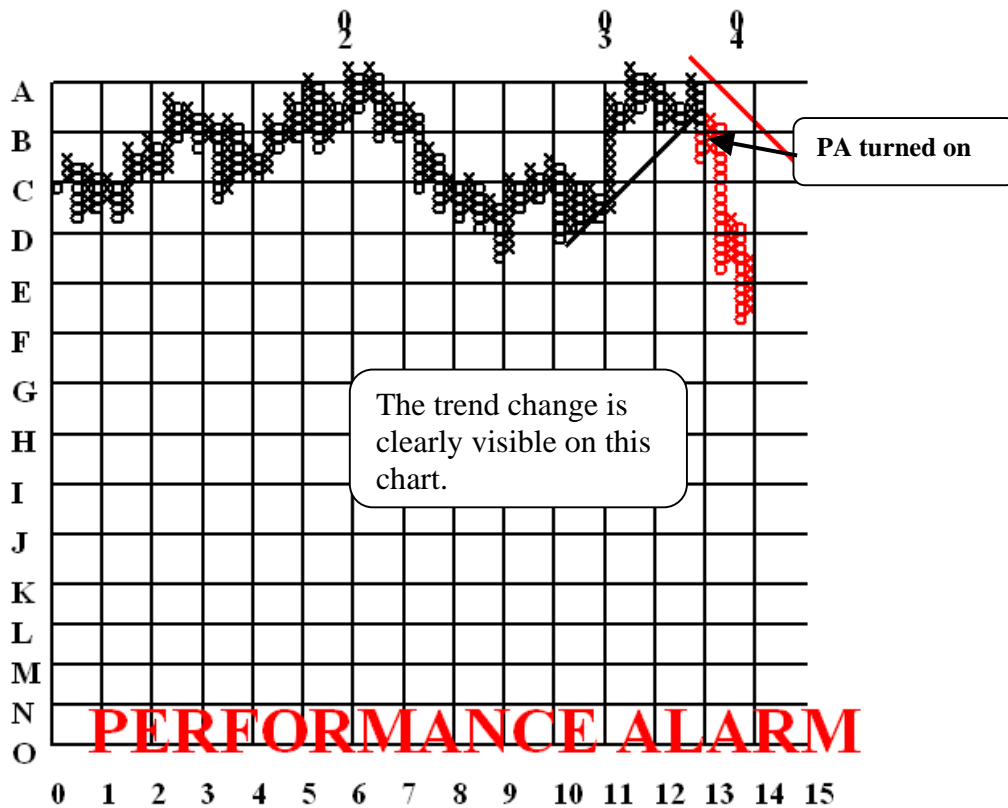
The filtering process can be applied to point-and-figure charts that are based on relative strength just as effectively as on charts of price.

The charts focus on the longer, more important runs in the data and the alignment of the highs and lows provides a direct indication of the primary, long-term trend. The portfolio manager must accept the uncertainty of not knowing how long the trend might last, but can be comfortable in the fact, that when the trend does change, he will be able to recognize and act on that trend change. This is well short of making an precise prediction of what a stock price will do in the future, but in the real world of portfolio management it gives the portfolio manager a tremendous edge in making buy and sell decisions.

If stock prices truly reflect the fundamental performance of a company then these trend changes provide an extremely important insight into the changing fundamentals of a stock. The process of damping out the short-term noise greatly enhances the likelihood of correctly adapting to these trend changes. This is not an exercise in making predictions of future stock price movement but is directed toward the recognition of changing direction of long-term trends.

The three-box, point-and-figure method, which applies a constant three-point filter, has the built in advantage of increasing the filter size in percent as the stock declines in price. For example; three points on a \$20 stock is 15%, a \$30 stock is 10% and a \$50 stock is only 6%. And this is how it should be. In real terms, it takes considerably more “work” to produce a trend reversal on a \$20 stock than on a \$50 stock. Experience shows that this relationship is very useful. In general, high priced stocks, price over \$50, will quickly produce big broad tops. Cheaper stocks, with a price less than \$30, will take a long time to build a base and reverse its trend back to the upside. I am not sure that the original creators of the three-box method had this in mind, but it certainly is a significant advantage of the method.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
MEDIMMUNE INC 06/04/2004 25.05 MEDI



“The great thing in life is not so much where we stand as in what direction we are moving.”

Oliver W. Holmes

The Downside Is More Violent

There is considerable evidence that the fluctuations to the downside in individual stock prices are far more violent than the movements up. My analysis was based on a measure of the stretch of stock prices away from their 50-day moving average of price. The stretch was squared, which based the analysis on the absolute deviation without regard to sign or trend direction. The stretch statistic was accumulated for the past 100 days and then ranked.

This stretch statistic is called the Trend Persistence Index. The idea is that stocks that moved in major trends would pull away from their moving average and remain stretched far away from that average for an extended period of time. The stocks that did not move in major trends would oscillate back and forth across the moving average but would remain in close proximity to the moving average itself. This tendency for major trends to stretch out from the moving average is easily observable in the historical charts of individual stocks over many different types of market environments.

The rankings produced by the movements of the Trend Persistence Index clearly showed that the individual stocks with the largest amount of stretch were the stocks that had experienced serious and prolonged price declines. This ranking provides clear evidence that the downside price drops are far more violent than the upside price movements in the stock market.

Professional money managers, who seem to believe that the distributions of returns from common stocks are identical for all stocks, should realize that although stock price movements may be random, the distributions of returns are usually far different from each other. From a theoretical point of view, the evidence of long-term trends and the differences in the distributions of returns between stocks going up and stocks going down goes a long way to disprove the idea of Brownian movement of stock prices or pure white noise.

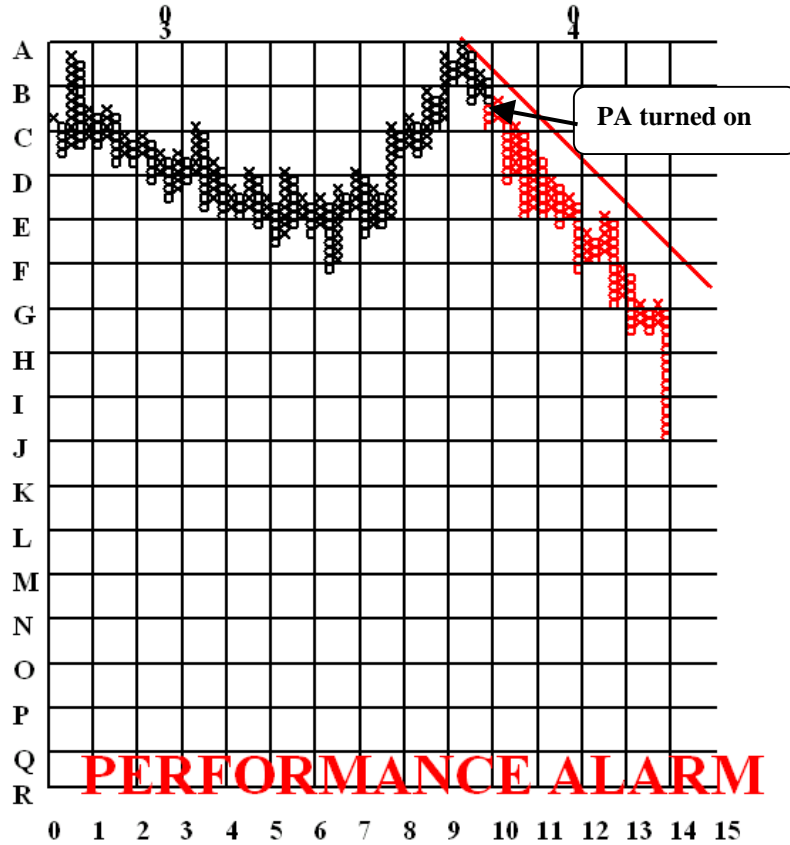
This evidence also has a far more important practical value for those responsible for the management of stock portfolios. A complacent attitude on the part of portfolio managers regarding downtrends is completely misplaced. All of the various tactics for buying or adding to stocks in downtrends should be seriously questioned because of the violent nature of downtrends in the market. This would include bargain hunting and averaging down as portfolio tactics that produce poor results on average and in the long run.

The violent nature of downtrends seems to be a permanent feature of the structure of stock prices and their dynamics. It seems that the market for an individual stock can become completely polarized, all sellers and no buyers, on the way down, resulting in downside price gaps and a lack of liquidity. The occurrence of this type of violent price drop indicates that this structure is frequently exploited by market-makers and professional short-term traders.

It does little good to excuse or avoid responsibility for these downside price changes by explaining that the portfolio manager is a long-term investor. In the long-term, a portfolio manager will surely face many of these violent, downside price movements and he must learn to anticipate and avoid them. To ignore a developing downtrend is to ask for disaster.

I once heard a stock market guru say; “ The stock market is like picking daisies in a mine field.”

**MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
CABOT MICROELECTRONICS 05/24/2004 27.62 CCMP**



“Take care of what is difficult while it is still easy, and deal with what will become big while it is yet small.”

LAO TSU

Philosopher

Victims of Distribution

One definition of the word distribution is “to scatter—to spread out evenly.” We must constantly remind ourselves that the primary business of Wall Street is to “distribute securities.” When insiders and other large holders of stock decide that their concentrated holdings need to be distributed more widely, is that a good time to buy?

The day-to-day fluctuations of the stock market tend to assist this process of distribution in a very important way. Most investors share a common predisposition to buy stocks that appear to be price bargains. This assures that there will be plenty of buyers as a stock declines in price. This bargain hunting mentality provides insiders and other sophisticated (i.e. knowledgeable) investors a ready market for the sale of their shares. This common sense desire for stocks that are down in price allows huge amounts of stock to be spread out among unsuspecting investors. We must be very wary of casual comments that suggest that a stock “is too cheap,” “has gone down too much,” or “is too low to sell.” How do we know what “too much” really is? Beware the use of the word “TOO.”

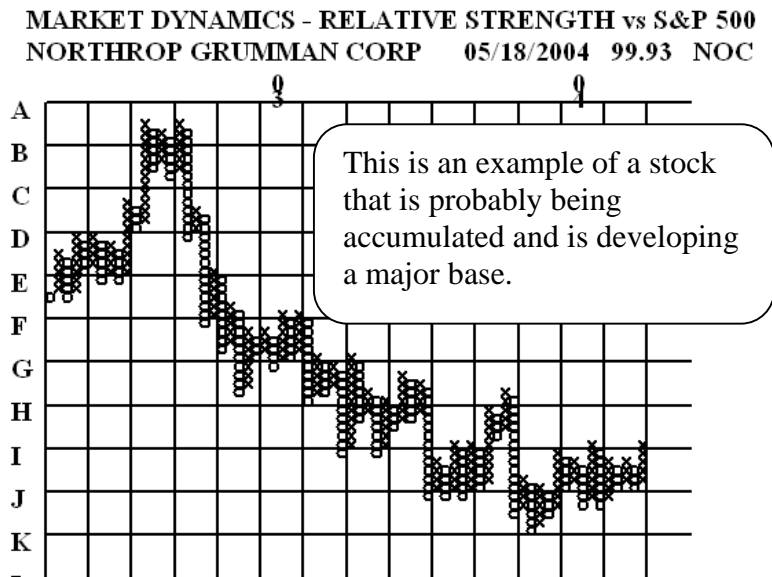


Danger in the use of the word TOO!

Accumulation — The Opposite of Distribution

Investors should demand proof from the price action of a stock that it has stopped going down. This evidence from the market is absolutely essential if large losses are to be avoided. This proof is usually an extended period of movement sideways on the chart, and the pattern is defined as a base. A rule of thumb for long-term point-and-figure charts is that the base should be as wide in columns as the number of rows recorded during the decline. In other words, a base must move to the right until the chart crosses above a 45-degree downward sloping line from a prominent peak.

It is not uncommon for a base to take months or even years to complete. During the period of base building, a process of accumulation takes place, which is the opposite of distribution. The stock returns to the portfolios of strong (i.e. knowledgeable) holders and the stage is set for a strong advance in price. The base will, more often than not, represent a trading range and usually a stock's price action will become very dull during this period. The dullness drives the speculators away because there is little excitement and the buying will be dominated by investors seeking fundamental value. This process is repeated endlessly in the stock market.



“Every time a trade takes place on the floor of the stock exchange someone is making a mistake.”

Unknown

A Long-Term Trading Range

It is highly probable, but by no means certain, that the bear market from 2000 to 2002 is over and the stock market has entered a new phase of price fluctuation. The key question at this point is: What is the most likely shape of the market in the long-term future?

History suggests that when a major long-term bull-market terminates, such as the bull market from 1982 to 2000, it will be followed by a major long-term consolidation that may last for several market cycles. Since a dominant market cycle lasts for a little over 4 years—several market cycles indicates that the consolidation period might last between 4 and 8 years—maybe even longer. This is not a pessimistic or negative forecast. It is just the recognition of historical precedent.

Does a trading range mean that it will be impossible to make good returns in the stock market? Absolutely not. There will be major movements up and down among stocks overall and there will be exaggerated bull and bear markets in individual industry groups and market sectors.

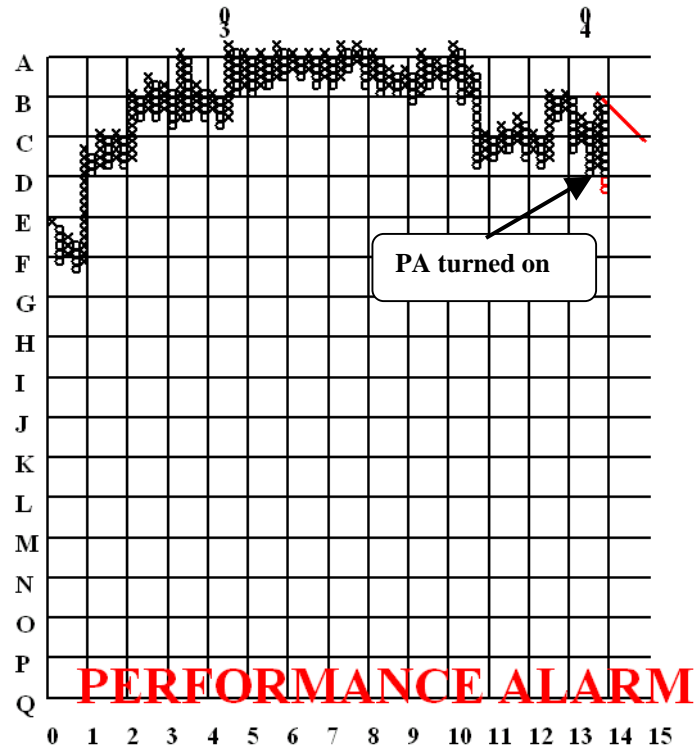
The recent bear-market low suggests a lower boundary for this expected trading range of about 775 on the S&P 500. The upper boundary over the next few years is probably about 1250 to 1300 on the S&P 500. The upper boundary is suggested by inspection of a long-term bar chart of the S&P 500.

The chart shown below is a long-term, relative strength, point-and-figure chart for IBM. The massive resistance showing on a price chart at about \$95 indicates that it is likely that bullish moves in the future will terminate, as resistance is encountered in the vicinity of \$95 and higher. A similar pattern of long-term resistance shows on almost all stocks in the DJIA and the S&P 500. This is the primary reason for the expectation of a long-term trading range.

Experience during the long-term trading range between 1966 and 1982 suggests that the fluctuations of the market will usually create three, sometimes four oversold conditions during the year. This is in contrast to the 90's, which showed a tendency to experience only one or two oversold conditions per year. The frequency of oversolds will exert a strong influence on successful portfolio management tactics in the years ahead. Market timing will become even more important, and long-term buy and hold strategies that ignore the importance of resistance levels will be less rewarding than in the years of the 90's.

(Written 10-18-2002)

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
INTERNAT BUSINESS MACH 05/14/2004 86.41 IBM



“I have bought when things seemed low enough and sold when they seemed high enough. In that way I have managed to avoid being swept along to those wild extremes of market fluctuations which prove so disastrous.”

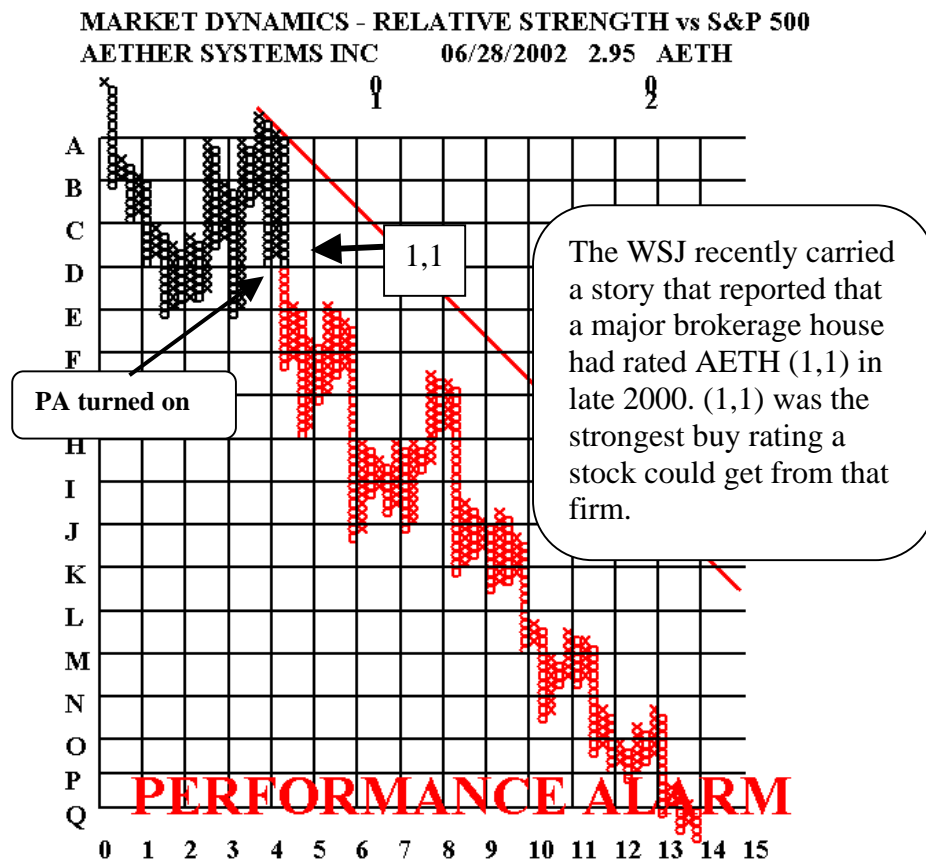
My Own Life

Bernard M. Baruch

What Is The Market's Rating?

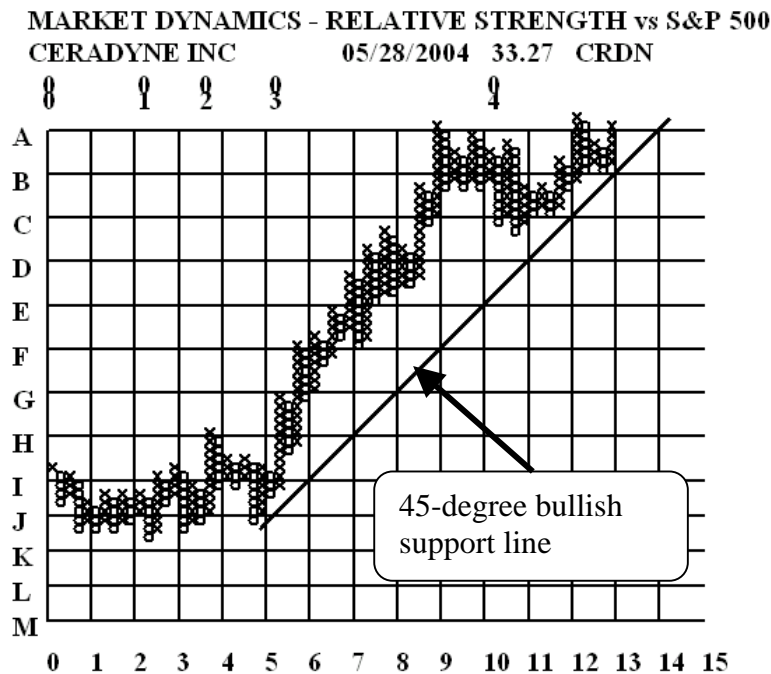
Shortly after a major broker's strong buy (i.e. 1,1) rating in late 2000, the market's rating on AETH switched to a strong sell. There is a market rating on every stock that is there for all to see, every day, in all kinds of markets. This rating system can be made to be totally objective and should be configured to remove noise and meaningless variation. By using relative strength, the effects of market fluctuation can be removed and only the trend movement that is specific to that stock is used to develop the rating.

In Market Dynamics the rating is either black or red, up or down. Analyst's ratings, along with everything else, are taken into account by the market and given their proper weight to develop this rating. The market knows more about a stock than analysts can ever know.



A Voting Machine

The stock market not only records the votes of investors but it also registers the urgency felt by the voters when casting their votes. This sense of urgency is expressed by a willingness to accept a lower price or pay up a higher price relative to the last voter. A persistent sense of urgency in one direction establishes a trend of prices. The sense of urgency is almost completely emotional and assumptions of totally rational behavior are not appropriate. The knowledge of the facts surrounding the situation is highly fragmented among the participants, but the price discovery process behaves as if there was a single individual who possessed the combined knowledge of all and he sets the price (see F. Hayek). This all-knowing, shadowy figure is often referred to as “they.”



“Buy from bored investors and sell to excited ones.”

John Templeton

Trading Ranges

The distribution of returns from common stocks indicates that there are three kinds of stocks; major up trends that account for about 10% to 20% of all stocks, major down trends another 10% to 20%, and stocks in long-term trading ranges account for the remaining 60% to 80% of all stocks. A statistician would describe this distribution as a normal distribution that is peaked in the middle with very fat tails. Stocks in the middle of the distribution are usually trading range stocks.

Trading ranges can best be observed by reviewing long-term charts of relative strength in a point-and-figure format. Long-term requires that the chart be based on at least four years of data. Four years of history is usually long enough to record a complete market cycle that averages a little over four years from low to low. It is extremely important to be aware of the extremes in relative strength movement that have been recorded over a complete market cycle.

Stocks in long-term trading ranges can often record movements of 100% from low to high and still remain within the trading range. It seems that the stocks of most large, mature companies fall into the trading range category. Most of these stocks would be classified as large cap.

The chart displays the long-term trading range on General Motors. A couple of oscillations back and forth within the trading range boundaries are shown. Since this chart is based on relative strength versus the S&P 500, the chart is actually showing the maximums and minimums of the valuation of GM relative to the market. It seems reasonable to believe that these extremes should be repeated in some rough fashion during a market cycle.

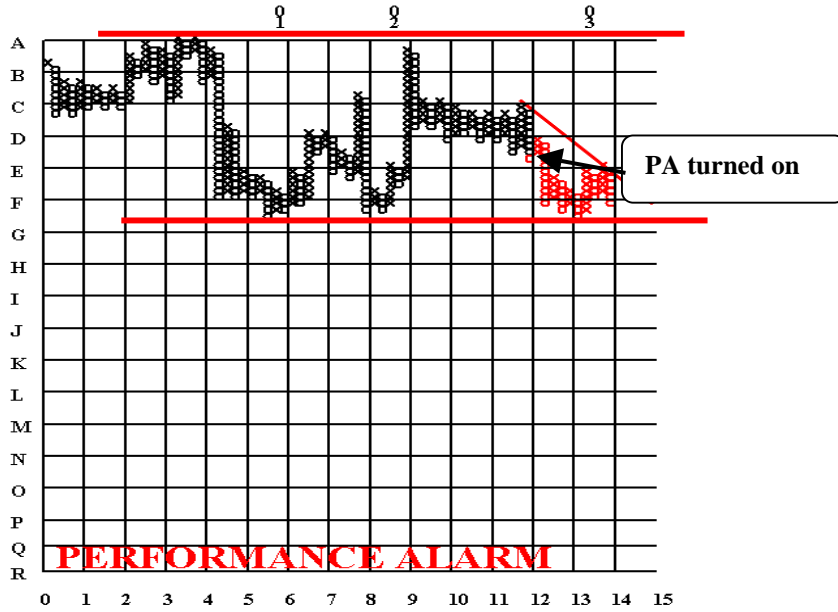
In my experience, most portfolio managers do not sufficiently appreciate the implications of the long-term trading ranges of most large cap, mature stocks. Portfolio managers with an extremely short-term orientation will be oblivious to these trading ranges.

The highs and lows of these trading ranges provide valuable guidance in the management of large cap portfolios. As a stock's relative strength approaches an old high, the portfolio manager should trim the position's weight in the portfolio—maybe even eliminate it completely. The old highs of the trading range provide a useful estimate of the likely high point of the move and the stock can be sold while it is still relatively strong.

Buying a stock just because it is approaching the low end of the trading range is a little more involved. If the overall background market condition is deeply oversold then a stock at the lower extreme of the trading range is a safer purchase. It seems that if a stock breaks support at the low end of the historic trading range, it may be transformed into a major down trend as it moves out into the left-hand tail of the distribution.

The examination of the historic trading range can be very useful in anticipating resistance levels that might stop an up trend. The trading range can thus provide an insight into the potential of any developing up trend.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
GENERAL MOTORS CORP 02/27/2003 33.8 GM



Large cap, mature stocks often exhibit a trading range pattern that can be seen on a long-term, relative strength chart.

The Charts Ask the Right Questions

In scientific research it is well understood that the best questions generate the best answers. This is true in investment research as well. Any activity that will help ask the right questions at the right time is likely to provide extremely useful and profitable insights. Many times the question needs to be rephrased to get around the answers already known by the experts.

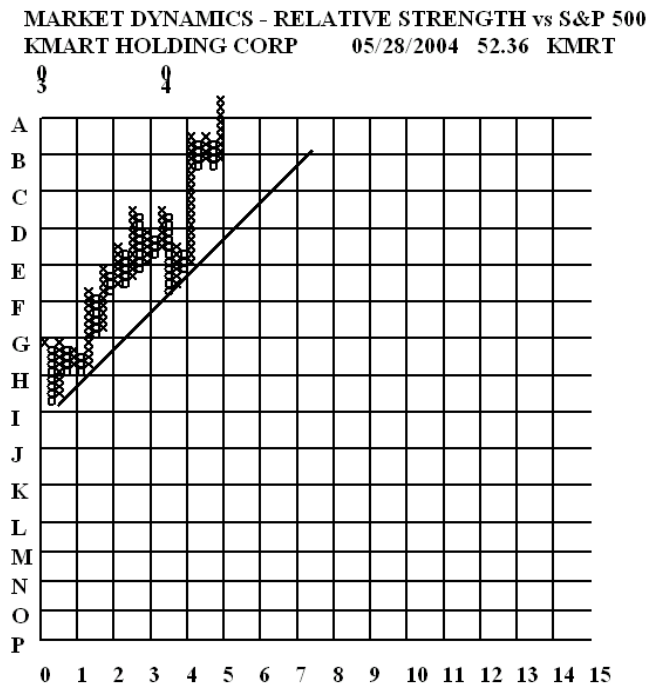
The true role for technical analysis is to generate these questions. The price action presented in a graphical context is a great source of questions (for example, in August 2000, “If ENRON’s stock is so great, why is it underperforming the market?” [Click to jump to the chapter on ENRON](#)). The efficient market hypothesis dictates that the use of charts is a waste of time because you can’t predict a random variable. But what if the task is not to predict, but to evaluate the performance of the stock? Charts can be extremely useful in this context and can help provide the critical questions about supply and demand in the market place at the right time. Many variables in business and economics are random but their trends persist for years (for example, interest rates).



Change is the only constant

In the stock market, as in business, change is the only constant and change produces winners and losers. How do we keep track of the stocks that are winners and those that are losers? Easy! Watch the relative performance.

This is best done by using the tried and true technique of three-box, point-and-figure charting. The three-box method acts like a filter to damp out the noise and the relative strength removes the influence of the overall market. The relative strength chart that is generated is a record of the price movement that is specific to that stock. A pattern of higher highs and higher lows provides a picture of a winner. Lower lows and lower highs provide a picture of a loser. The critical questions emerge when a winner becomes a loser and vice versa. It is at these reversal points, when the winning phase shifts into a losing phase, that extremely useful insights can be formed. It is at this point that critical questions are raised that the already-formed answers of the experts do not satisfy. This also occurs when the phase shift is from loser to winner. These phase shifts follow a pattern that is endlessly repetitive in the stock market.



“If you think you know the answers, where’s the motivation to learn?”

Conrad Schlumberger

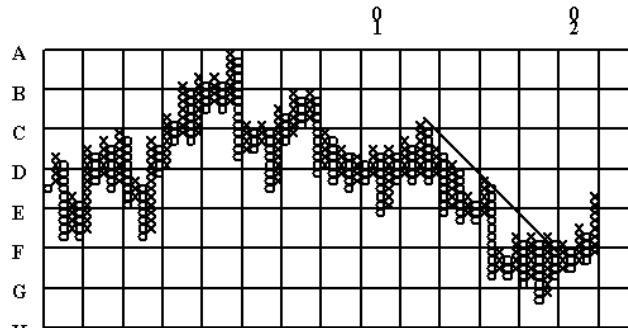
Geophysicist Executive

How To Spot Reversals

A primary advantage to the use of long-term, point-and-figure charts is the enhanced ability to recognize major trend reversals. In the example shown below, the long-term trend reversed from down to up. A very important part of the reversal process is the formation of a sideways base. While moving sideways the implication is that supply and demand are in balance. The base is shown across row F. When the Xs moved above the recent tops established during the base, an upside breakout was recorded confirming that the base represented an area of accumulation.

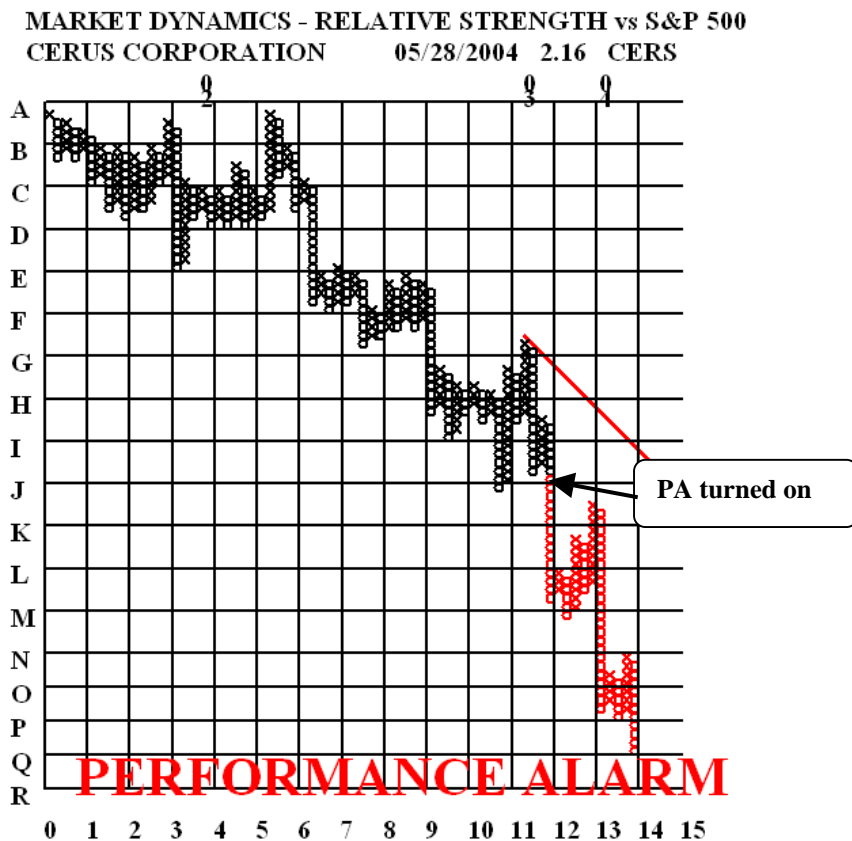
In actual practice, the base is formed as shareholders with losses sell to buyers who are accumulating stock at lower costs. This procedure often takes a long time and a major base may take months or even years to complete. As the weak holders sell to strong holders, eventually the strong holders come to dominate the shareholder base and the amount of stock offered for sale begins to decline. As the supply recedes, the price begins to rise and an upside breakout occurs. The reversal process is now complete and a new long-term up-trend is set in motion. This process is repeated endlessly in the stock market. The downside reversal is just the reverse.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
RADIO SHACK CORP 05/16/2002 36 RSH



Point-and-figure charts plot risk versus return

The alternating columns of Xs and Os represent movement up and down in relative strength—Xs up and Os down. The three-box, point-and-figure chart uses a rule that a reversal of trend must be at least three-boxes to be recorded. This rule acts like a filter on the price data and minor fluctuations are damped out. As a result, the point-and-figure chart shows only the major trend. While minor, meaningless noise is removed. The alternating trend reversals are recorded across the X-axis on the chart. The frequency of trend reversal is a function of volatility. Volatility is usually considered a proxy for risk so the point-and-figure chart measures risk across the X-axis. This is another extremely important advantage to the use of long-term, point-and-figure charts. These charts actually measure risk versus relative return.



Beware of bargain hunting. Stocks should be able to prove that they have stopped going down. The establishment of a significant base represents the proof that the stock has stopped going down. The time to act is when the chart breaks out above the base.

How To Spot Accumulation

The long-term investor should always be searching for patterns of accumulation as a source of high returns on investment. Accumulation takes place when stock is purchased by knowledgeable long-term investors who understand the long-term value characteristics of the stock. The purchase of the stock by short-term traders and speculators does not qualify as long-term accumulation.

The process of accumulation usually shows up on the point-and-figure charts as an extended period of sideways movement. This is a period when there is equilibrium between supply and demand for the stock. It actually results in a long period of dullness. The stock is said to be moving from weak hands to strong hands.

The element of dullness is a very important aspect of accumulation. Speculation is usually driven by excitement, so the dullness assures that the stock is being bought by long-term value oriented investors rather than speculators. If the accumulation is taking place after a major decline in price, the dullness will convince the holders with losses in the stock to sell and take the loss for tax purposes.

On the charts, the period of accumulation will show up as an extended sideways trading range. Sometimes this trading range will take months or even years to complete. This chart pattern is called a base and the Market Dynamics System includes a screen for stocks emerging from major bases. This list of stocks can be reviewed by clicking on the “Lists” dropdown menu and then going to part three.

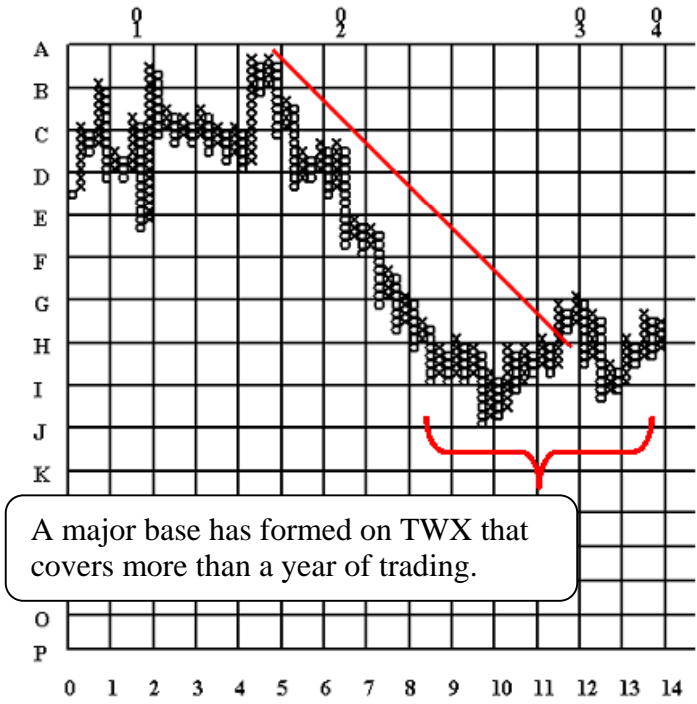
The width of the base seems to have some ability to forecast the magnitude of the ensuing price rise. This relationship is not precise, but it does offer a general rule that “the wider the base the greater the price rise that follows the base.”

There is another extremely important aspect of accumulation. We cannot know for sure that accumulation has taken place until the stock breaks out to the upside from the base. The upside breakout validates the bullish expectations of the buyers during the basing phase. Without the upside breakout, the true nature of the supply/demand relationship remains uncertain. The breakout usually requires a triple top buy signal on the point-and-figure charts to qualify as a genuine upside breakout.

In certain cases the breakout from the sideways pattern is to the downside and that reveals that the period of equilibrium between supply and demand was resolved in favor of the sellers and the pattern actually represents distribution. This sideways movement turns out to be a “ledge” rather than a base.

After the stock has broken out and moved up and away from the base, we should expect the inevitable downside reaction in price. The base of accumulation provides another very important and positive consideration for long-term investors. The base will usually provide buying support for the stock after the upside breakout. This is an important factor that limits the downside risk until the up trend gathers momentum. Nothing about the stock market is ever “for sure,” but buying stocks after the formation of a broad base and an upside breakout seems to tilt the odds importantly in favor of the investor.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
TIME WARNER INC 01/08/2004 18.59 TWX



“Make haste slowly.”

Augustus

How To Spot Distribution

In the endlessly repetitive world of the stock market, major long-term bullish moves usually terminate with a major distributive top. The process of distribution is recognized by the onset of a sideways pattern that develops on the alternating columns of Xs and Os. On a long-term, relative strength, point-and-figure chart, the sideways movement may be recorded across 15 to 20 columns or more. The common sense rule: The broader the top, the greater the implications for the subsequent downside move.

While forming the top, the relationship between supply and demand has become more or less balanced and the relative performance is no longer exceeding the market. Holders of large positions in the stock are selling, on balance, and the stock is being distributed into the hands of smaller, less knowledgeable investors. The excitement that drove the stock upward has now largely subsided and traders are looking elsewhere for “action.”

It should not be assumed that the market-makers play no role in this process. They are at the center of the order flow and it can be concluded that they are well aware of the distribution that is taking place and they are acting in their own best interest. They continually lower their bids to avoid increasing their inventory. This encourages the bargain hunters to buy the stock.

The distribution is confirmed when the relative strength drops below the previous low pivot points, indicating a failure of the previous support to hold the stock up. This usually results in a triple bottom sell signal on the long-term, point-and-figure charts of relative strength. If this triple bottom sell signal also results in a drop below the 45-degree bullish support line, a Performance Alarm is generated and the subsequent chart will be shown in red.

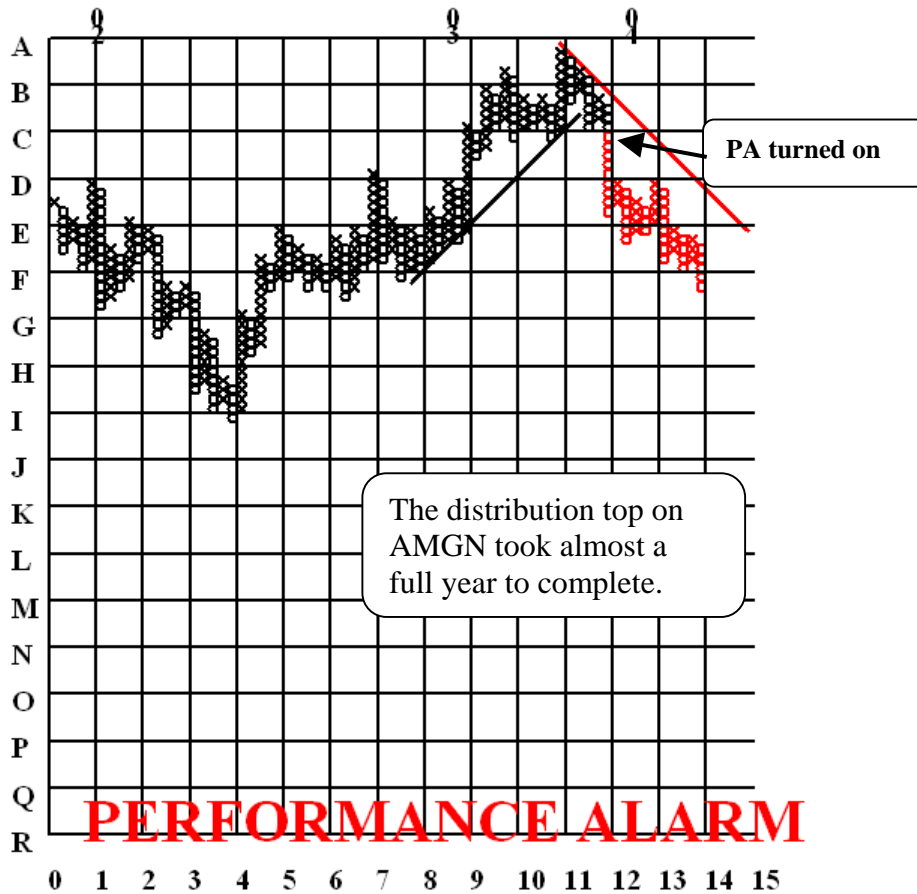
Once the downside breakout has been registered, another very important perspective is suggested. The distribution top now represents a major zone of resistance that can be expected to impede or reverse future attempts at rallies. This zone of resistance becomes obvious to the market-makers and short-term traders, who will join in by shorting the stock on rallies back into the top.

These tops become so obvious to those watching the long-term charts that it is astonishing that investors will continue to bargain hunt by buying the stock as it declines. Livermore said, “It is perfectly astonishing how much stock a man can get rid of on the way down.” This observation seems to be just as true today as it was in Livermore’s time.

The development of broad tops is primarily seen on the charts of big cap stocks that are widely followed. Smaller, more speculative stocks can make tops that are often called a blow-off. They do not broaden out like the tops on the bigger, investment grade stocks.

It is a well-known fact that Wall Street analysts do not prepare many written sell reports. The portfolio manager is left to his own devices when it comes to making the sell decision. The long-term, point-and-figure charts are a very valuable tool to spot tops before the damage becomes too great. No stock goes up forever and even long-term investors need to make the sell decision at times. In my experience, the point-and-figure charts are a perfect system for keeping track of the performance of your stocks with a primary objective of recognizing tops and avoiding stocks in serious declines.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 AMGEN INC 06/04/2004 55.43 AMGN



The main business of Wall Street is to distribute stock to the public. Bargain hunting by investors plays a big role in the process of distribution.

Distribution

It is useful to reflect on the topic of distribution and how it works. Distribution is usually defined as the breaking up of big blocks of stock for sale to the public. It is sort of a wholesale to retail function. It is easier to understand how it works than it is to understand why it works.

Distribution, in the parlance of Wall Street, implies that over-priced stocks are sold to an unsuspecting public who don't understand what they are buying. How can this be? People are usually not that cavalier with their hard-earned money. Why do they suddenly become "pigeons" when they enter Wall Street?

The message carried by the quotation from Jesse Livermore was first published in 1923, so this activity has been going on for quite a while. It is not new, although the recent bubble ('97 to 2000) shows distribution on a scale never seen before in the history of the stock market. Investors now understand the mechanics of distribution and it probably won't take place on such a scale for another generation.

What is the blind spot that allows this apparent scam to repeat itself in the stock market? The element of human nature that allows distribution to take place is the desire to buy bargains. If I can buy a bar of soap or a pound of coffee at a price substantially less than a week ago it must be a good deal and it probably is. These goods represent tangible items and their value is inherent in their use and ability to satisfy a need.

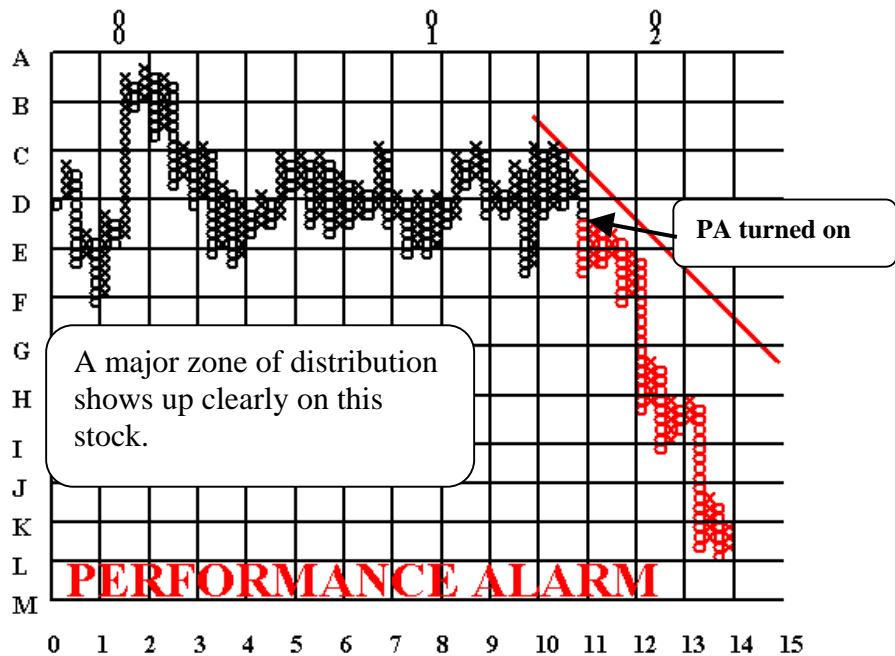
Stocks, on the other hand, represent an intangible item and they have no inherent utility or value in and of themselves. The price of a stock, in simplest terms, is determined only by what someone else thinks it is worth and is willing to pay for it.

However the bargain hunting mentality "slops over" into how people go about buying and selling stocks. A stock that can be bought at a substantial discount to its price just a short time ago is considered to be a good deal. Just ask any retail broker about what they can sell. They can only sell stocks that individuals are willing to buy and the primary motivation is to buy bargains.

This bargain hunting mentality means that there will usually be large numbers of buyers for stocks that are declining. The insiders and large holders do not have to sell on the way up! They can rest easy in their understanding that there will probably be plenty of "suckers" ready to buy their stocks on the way down.

This bargain hunting mentality seems to be built in to the psychology of investors. It is not limited to the public, but seems to influence the activities of numerous institutional investors as well. Chapters 20 and 21 of *Reminiscences of A Stock Operator* provide a fairly complete description of stock market manipulation. In my interpretation, the ability to make distribution work depends upon this predictable bargain hunting behavior by the public.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
BROADWING INCORPORATED 06/28/2002 2.6 BRW



“Stocks are manipulated to the highest point possible and then sold to the public on the way down.”

Reminiscences of a Stock Operator

Edwin LeFevre

about Jesse L. Livermore

Ch. XX

Buy Dullness

Over years of portfolio management experience, I have learned that stocks emerging from bases make the best long-term investment candidates. Stocks that have been in prolonged bases often appear to be characterized by dullness. Why should buying into stocks emerging from bases be the best way to pick stocks?

Speculation is, more often than not, driven by excitement. Stocks that are moving back and forth, in a dull trading range, are of little interest to speculators. These stocks are boring and their owners are bored, as well. A base that forms after a major long-term decline is really a reflection of the slow process of the acceptance of investment losses by those investors who rode the stock down. This process is often drawn out in terms of time.

If the speculators aren't buying and the sellers are investors taking losses, then who are the buyers? The buyers appear to be long-term, value-oriented investors. They recognize the stock's value and are willing to accept a dull performance until that value will be recognized by others. The buyers appear to represent long-term accumulators of the stock. The essential difference between the buyers and sellers, in a stock that is moving sideways in a base, is their respective time horizons.

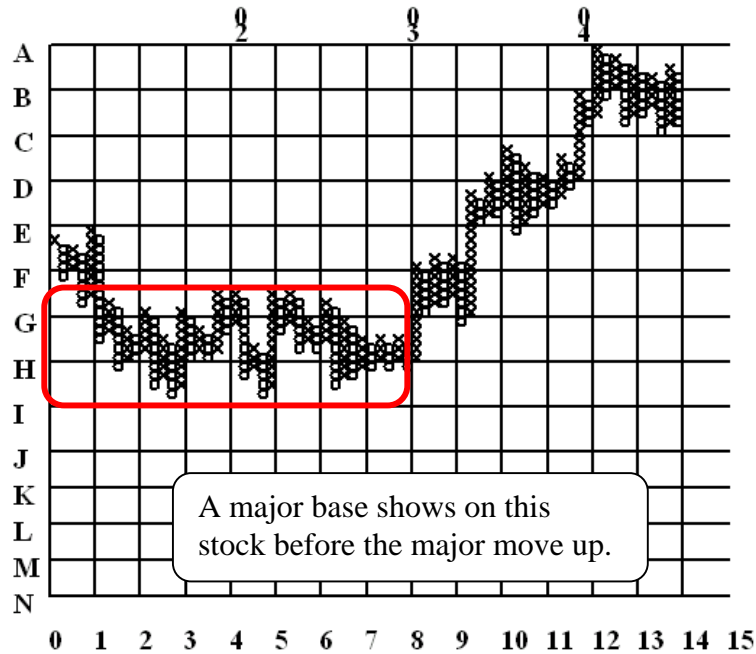
The previous bulls in the stock have been proven wrong and the recognition of their error is being forced upon them by the current dullness in the stock. They are being motivated by what's happening to the price right now. They usually throw in the towel with a comment like "this dog will never come back." Brokers often use year-end, tax loss selling to get a customer out of a dull stock.

The magnitude of the prior price drop will determine how long the basing period will last. Major declines require a long period of time for the accumulation process to complete. The current buyer has a longer time horizon and does not expect the stock to do much in the near term. He is looking beyond the current dullness to a more distant time when the financial performance of the stock can be expected to improve. In many ways, the dullness of the stock is actually proof that long-term investors are accumulating the stock.

The base is hard evidence that the stock has stopped going down. In my experience, bargain-hunters buy into stocks prematurely and as they recognize their mistake they become part of the creation of the base. Performance oriented investors should wait for the stock to register an upside breakout on the relative strength, point-and-figure charts. More value-oriented investors can buy the stock after the pattern has registered ten or more reversals, back and forth within the base. I prefer to wait for the stock to breakout above the 45-degree, bearish resistance line before I consider buying the stock.

The width of the base seems to have forecasting implications for the magnitude of the subsequent move up. The wider the base the better. A broad base also provides an indication of future support for the stock during corrections in the market. The low end of the base suggests a stop-out level, should the base fail.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
CLAYTON WILLIAMS ENERGY 05/14/2004 30.33 CWEL



“Actually the procedure one should follow is to sell the bad stock and keep the good stock. With rare exceptions, stocks are high because they are good, and stocks are low because they are of doubtful value”

My Own Story

Bernard M. Baruch

Relative Strength Tops

A regular part of the daily updates to the Market Dynamics relative strength charting system is a list of stocks making major tops. This list is sent out as a file titled RSTOPS.TXT. The list can be viewed using the “lists” drop-down menu and browsing to the RSTOPS.TXT file in the \MDRS\ folder. You may need to change the “files of type” box to show .TXT files.

The list is compiled using a program that searches the entire database for stocks that meet the conditions that define a top. The first condition requires that the stock be on a “triple bottom sell” signal. The second condition requires a certain amount of sideways movement on the relative strength, point-and-figure chart.

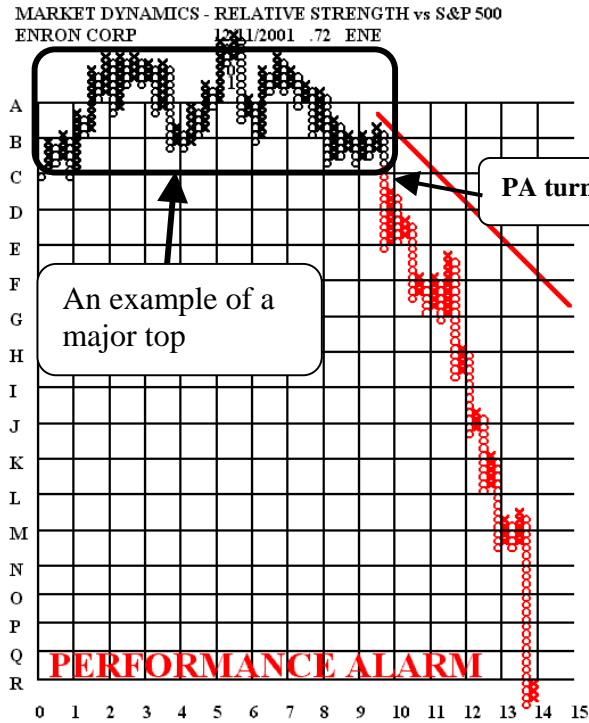
The program searches the chart for a row that contains eight of nine boxes or ten of twelve boxes that are filled in with Xs and Os. This condition provides the indication that the relative strength chart has moved sideways for an extended period.

The chart shows an example of a stock that meets the conditions to register a major top. This example also shows a break of the 45-degree, bullish-support line. The combination of the “triple bottom sell” signal and a break of the support line are required for a Performance Alarm to be shown and the chart turned red. The chart will remain colored in red for as long as the Performance Alarm persists.

The chart of ENRON was picked as an example of a major top, and a subsequent total collapse, of the stock as the magnitude of the corporate fraud became public. It does not mean that the sellers knew that something was wrong. The persistent failure of relative strength was an indication that something was not quite right. In the case of ENRON, it turned out to be a spectacular problem for investors. I advised my customers to sell the stock. But I have to admit that I had no inkling of what was actually going wrong and how bad it would get!

The widest part of the top is also an estimate of the point where any rally back into the top will probably encounter resistance. Very wide tops usually offer a very strong resistance to any attempt to rally back up through the top.

Hedge funds, and others active on the short side, should review this list of tops frequently.



“Sticking with a declining stock can cost you double: First, if it declines further; second, if it keeps you from buying another share that is advancing.”

The Battle for Investment Survival

Gerald Loeb

Trading Ranges: Long-Term Support and Resistance

An analysis of the distribution of returns from stocks shows a peaked, bell-shaped curve in which 60% to 70% of all returns are within the peak of the distribution. These returns usually differ from the average of the distribution by a small amount. This small difference from the average indicates that these stocks do not trend very much relative to the market.

A stock that fails to trend relative to the market can be defined as a trading range stock. These trading ranges appear on a very high proportion of all actively traded stocks. The boundaries of the trading ranges offer opportunities to buy and sell on a favorable basis.

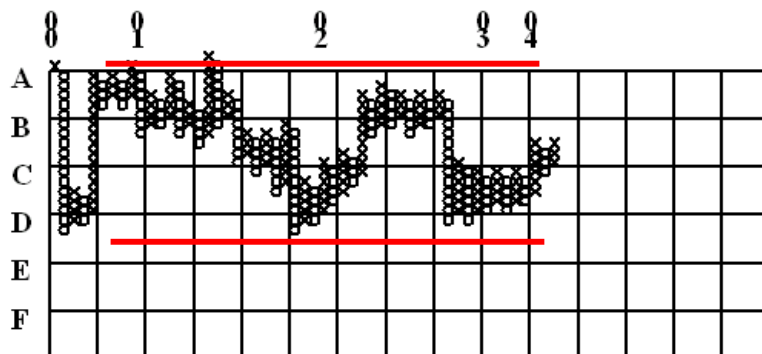
I have been amazed at the tendency of these extremes to repeat themselves on a long-term basis. The upper boundary defines a zone of resistance and the lower boundary defines a zone of support. The support and resistance zones are shown as red lines on the examples.

Since these are relative strength charts, the boundaries of the trading range show maximums and minimums relative to the market. It is understandable that stocks tend to peak and trough at roughly the same levels, relative to the market over time.

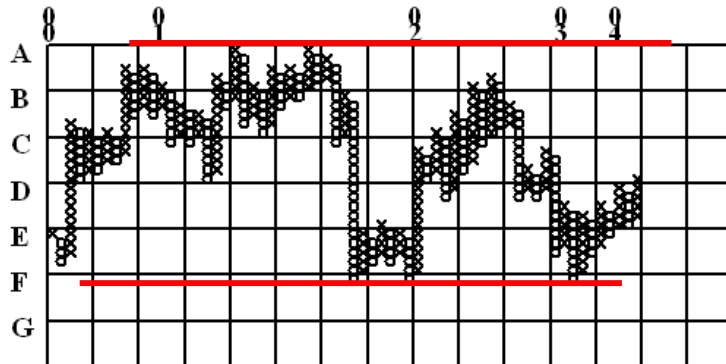
Investors should take a more trading-oriented approach to dealing with trading range stocks. These charts are long-term in nature, so the peaks and troughs may repeat on intervals of more than a year. Target prices for entry and exit can be established in advance and timed to coincide with overbought and oversold conditions in the overall market.

Should a trading range stock break out to the downside, the trading range will produce stiff resistance to any rallies that might develop in the future.

**MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
HONEYWELL INTERNATIONAL 05/14/2004 33.48 HON**



MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
BOEING CO 05/14/2004 43.44 BA



“Remember that a stock will break out of its trading range only once.”

Preston Marble

A very successful trader in Denver

Pivot Points Show the Trend

Juniper Networks is a stock with a persistent uptrend over the past year. The average daily percent change was +0.497% per day indicating a total rise amounting to almost 125% during the past 250 days. (the region on the chart shown in the circle) The rate of gain was strong and the trend was persistent.

The tops of the columns of Xs and the bottom of the columns of Os are called pivot points. The alignment of the pivot points will define the direction of the long-term trend. In my experience, it usually takes from two weeks to a month, or longer, to create a column of Xs or Os. It is usually best to wait for the alignment of three pairs of columns—a pair being a column of Xs and an adjacent column of Os.

An alignment of the pivots into a pattern where the most recent top pivot is above the prior two top pivots defines an uptrend. This is called a triple top buy signal. An opposite alignment where the most recent bottom pivot is below the prior two bottom pivots defines a downtrend. This is called a triple bottom sell signal.

The trend reversal on JNPR took place at about column 11, between rows I and J. This up trend has persisted for over a year. The alignment of the pivot points has been consistently bullish throughout the period since the reversal. The relative strength chart shows that this stock has performed much better than the S&P 500 during this time period.

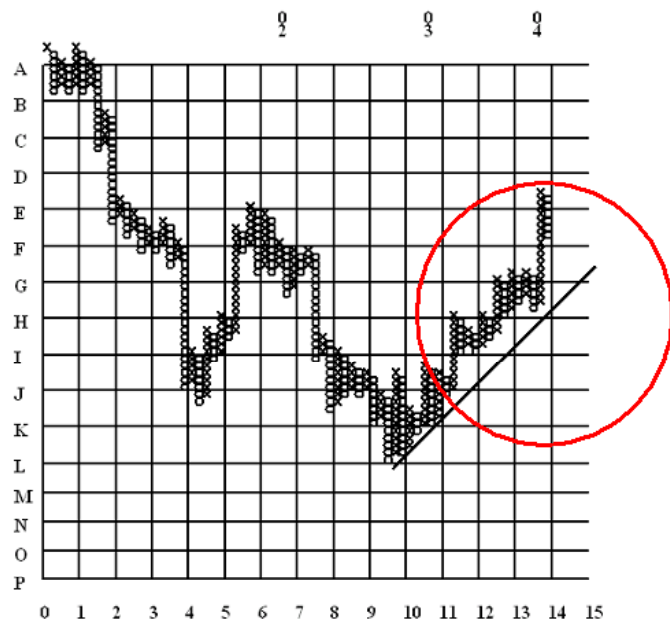
JNPR also showed a high degree of positive skewness during this time period. Positive skewness indicates that there were many more days of big gains (i.e. gains well above the average) and this is a result of a distribution with “fat tails.” It is very interesting to note that 51.4% of the days were up and 48.6% of the days were down—almost like flipping a coin.

It is not unusual for the long-term, point-and-figure charts of relative strength to show such orderly patterns, and for these patterns persist for long periods of time. Sometimes these patterns will persist for more than two years.

We are often told that because stock price changes are random, that charts are worthless; we cannot predict the future performance of a stock with charts. It seems reasonable to conclude that there are so many variables that affect the performance of a stock, that to accurately predict those independent variables and to give them their proper weights is impossible. Accurately predicting the future performance of a stock, by any method, is probably impossible.

However, the problem is not to predict the future performance of a stock but to measure its trend and to act accordingly. The interaction of all these variables produces the price changes that are captured by the relative strength chart. The trend tells us that the performance of the stock is either acceptable or not. We cannot predict how long these trends will last but we can be confident that when the trend changes direction, from up to down, we will be able to see it and act on it. Without predicting, we can be confident that the financial performance of the company will be reflected by the stock.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
JUNIPER NETWORKS 04/01/2004 26.28 JNPR



The existence of a long-term, average daily price change in percent that is significantly different from zero is proof of a long-term trend at work. This is only one example of many. At any time there will be many, many stocks with average daily changes that are significantly different from zero indicating a long-term trend in either direction.

Relative Strength is Like a Stock Market X-ray

Relative strength in a long-term, three-box, point-and-figure format reveals the underlying structure of stock price movements in a way that is not appreciated by many market participants. The surface appearance of price movements is often at odds with the true nature of the situation. This is especially true at major trend reversal points.

A principal advantage of three-box, point-and-figure charting is that the methodology classifies movement that is less than three-boxes as meaningless and insignificant. This, in large measure, eliminates the random noise and meaningless price variation from the chart.

In addition to the removal of the noise, the use of relative strength eliminates the influence of the overall market on the presentation. Several studies have shown that a large proportion of the movement of a stock price is a direct function of the movement of the market. What is left after the market is removed is the movement of the stock that is specific to that stock. Industry and company fundamentals are shown more truthfully by this specific price movement than in any other way.

In sort of a commercial “survival of the fittest,” the ideas and methods that do not produce a successful outcome are replaced by ideas and methods that do produce a positive result. Point-and-figure charting is one of the oldest stock charting methods that is still in use today. This survivability is a testament to the effectiveness of point-and-figure charting.

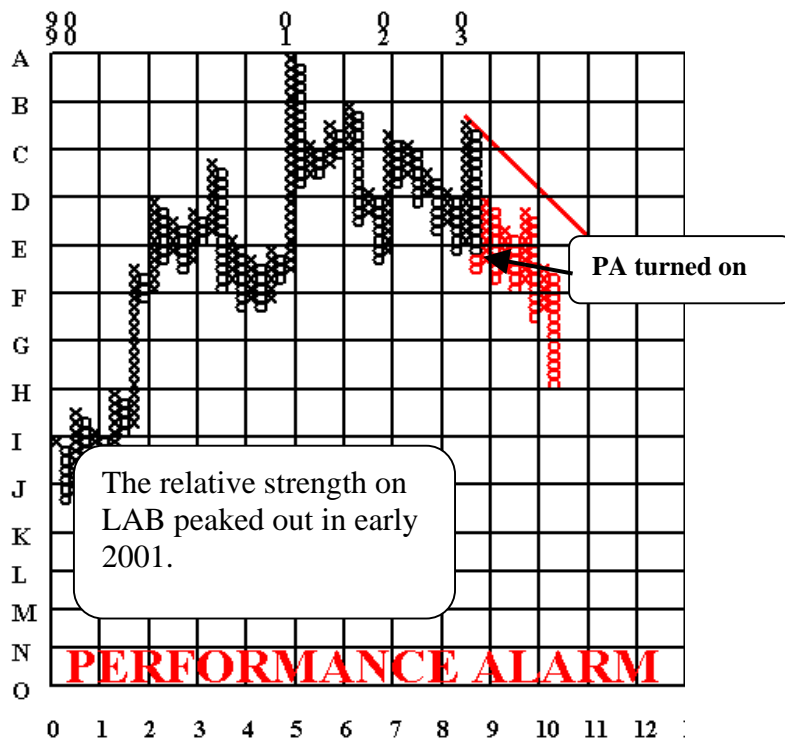
When I got started with point-and-figure charting, I had to keep my charts up by hand from the quotation pages of a newspaper, usually the Wall Street Journal. To transform the data into relative strength ratios was just too time consuming to be practical. The improvements in the computational power of personal computers and the availability of low cost data feeds allowed me to develop systems that effectively produced relative strength charts in a three-box, point-and-figure format.

My experimentation with the relative strength charts has convinced me that the relative strength approach is more reliable and effective than the charting of pure price alone. The removal of the noise seems to be more effective, and the removal of the influence of the market provides a better method to evaluate the long-term trends that are specific to that company. In addition, long-term trading ranges show up clearly.

The relative strength point-and-figure charts are best used to measure relative performance. This is a key factor in portfolio management. The poorly performing stocks stand out in high relief and it facilitates the removal of bad investments from the portfolio. The specific price movement provides a true indication of changing fundamentals.

In my estimation, the long-term relative strength charts are the most effective defense against faulty fundamental research, not only a defense against poor research done by others, but also a defense against my own errors in fundamental analysis.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
LABRANCHE & CO INC 10/02/2003 13.37 LAB



“Appearances can be deceiving.”

Unknown

Finding The Best Industry Groups

The Market Dynamics System contains a daily file of the 20 best industry groups, in terms of their performance over the prior 34 trading days. The time period covered is a little more than six weeks. The length of time was chosen to highlight long-term trends but to remain fairly sensitive to changing conditions. The file is updated and sent out on a daily basis.

To access this file, use the “lists” drop-down menu item at the top of the Market Dynamics main screen and go to part six. Then browse to the \MDRS\ folder and select and open the file labeled “MGTOP20.TXT.” View the industry charts by clicking on the draw chart button.

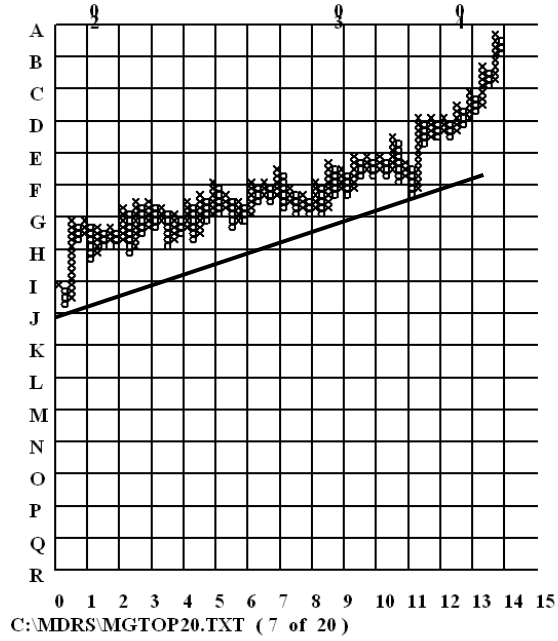
Examples are shown below. These examples show industry groups that have experienced strong, long-term relative strength up trends. Bullish support lines and bearish resistance lines can be applied to these industry charts just as you would use them on the chart of an individual stock.

Experience shows that the identification of the best performing industry groups is an extremely important factor in the stock selection process that leads to participation in major stock market winners. The trends in the major industry groups usually last for two to three years.

There is a similar file that is updated periodically called SECTORS.TXT and it can be used to review market sectors and exchange traded funds. Use the “lists” drop-down menu and go to part six. The file is found at “\MDRS\SECTORS.TXT”. Select the file and open it to view the charts on the various items in the file.

These screens and lists are offered in the belief that the identification and selection of strong industry groups and sectors will contribute importantly to improving portfolio performance.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
MEDICAL INSTRUMENTS & SUP 05/14/2004 1214.77 MG521

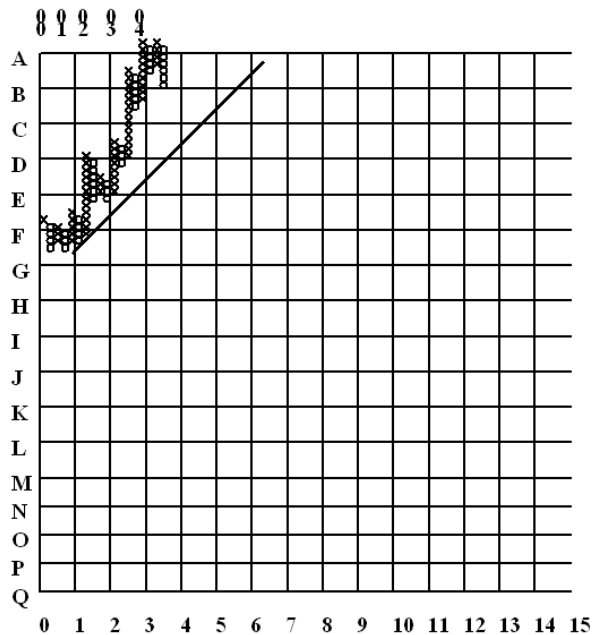


“Basically, one conclusion I have come to is that sector analysis is more useful and rewarding than top down overall market analysis.”

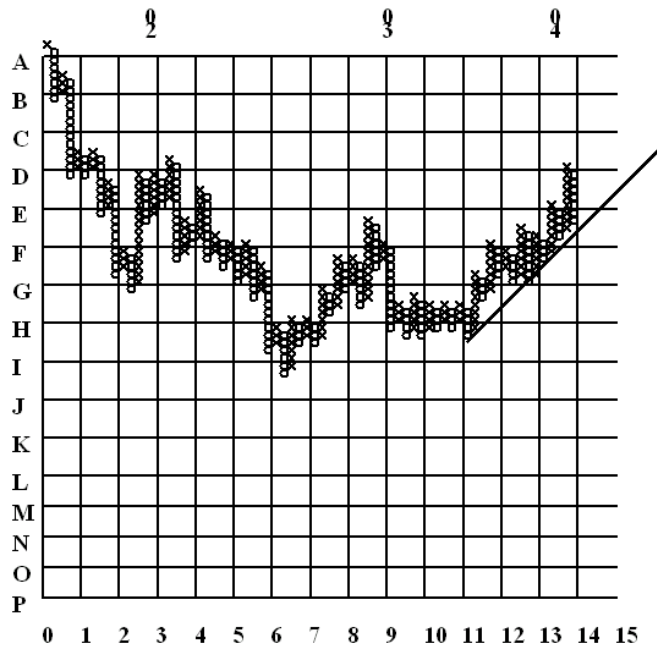
Bob Farrell in a speech to the MTA

May 13, 1994

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 TRUCKS & OTHER VEHICLES 05/28/2004 52.28 MG332



MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 SEMICONDUCTOR-MEMORY CHIP 05/28/2004 1187.68 MG



Specific Price Movement

The three-box, point-and-figure charting technique performs a very important transformation on a stock-price time series. This transformation creates a chart based on the historical price movement that is specific to that stock. This gives the long-term investor an important edge when gauging the strength or weakness of that price trend.

The first step is to remove the noise from the price history. Noise is usually defined as random movement that is minor and short-term in nature. The removal of the noise is accomplished by defining movement of less than three boxes as meaningless variation. These small trends are ignored. A trend must proceed for at least three boxes to show up on the chart. The amount of time required to generate a reversing trend does not matter.

A trend is considered to be in place until a reversing trend with three or more boxes is recorded. The highs and the lows for the day are used to record the extremes of the trends up and down. Lower priced stocks need a greater percentage movement to produce a trend of three boxes. For example, three boxes on a \$20 stock is 15% while three boxes on a \$50 stock is only 6%. The scaling effect that is produced by the three-box rule tends to make it more difficult for a low-priced stock to build a significant sideways base that might suggest an opportunity for a purchase. It also makes it easier for a high-priced stock to trace out a sideways top, since the three-box requirement results in a lower percentage movement for a high priced stock to record a trend change on the chart.

The second part of the transformation on the Market Dynamics charts is the removal of the influence of the overall market. This is accomplished by dividing the high and low prices of the stock by a major market index, such as the S&P 500. The resulting ratio is then used to construct the chart. This is a standard application of what is usually called a conversion to relative strength.

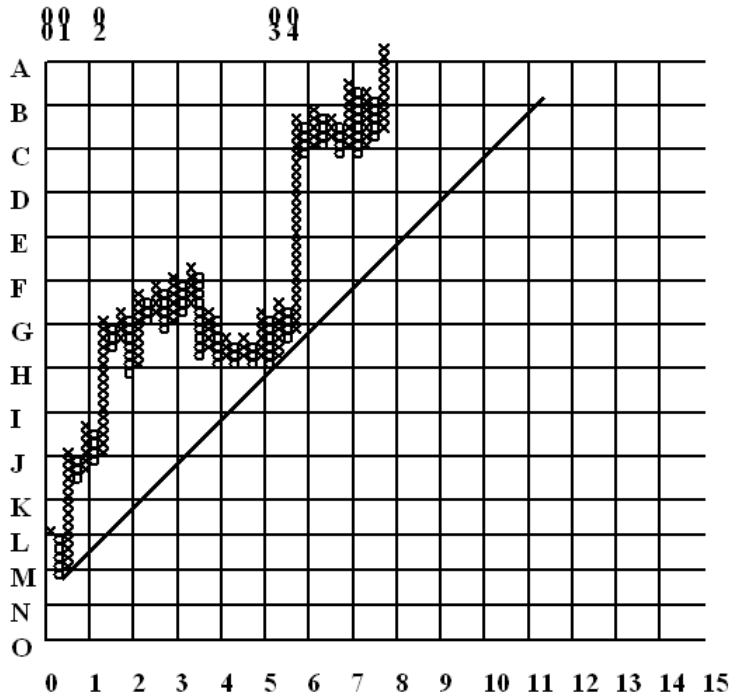
The fluctuation of the overall market is one of the most important sources of stock-price variation. The division by the market index, in effect, removes the market and what is left is the price movement that is specific to that stock. The removal of the noise and the removal of the market leave a series of transformed stock data that more accurately reflects the true performance of the company.

The construction of the chart is coded by using Xs for advances in relative strength and Os for declines. The chart becomes a record of the alternating columns of Xs and Os that show the ups and downs of relative strength. These alternating columns of Xs and Os are a direct function of the volatility of the stock. Volatility is usually thought of as a proxy for risk, so the movement shown by the chart across the X-axis in the horizontal direction is actually scaled in units of risk. If the volatility of the stock increases then more columns will be recorded and fewer columns recorded if the volatility decreases. This volatility adjustment is completely automatic.

The alternating flow of the columns of Xs and Os records the direction of the major trend. This movement up and down may be the result of emotional overreaction to news and fundamental performance, but it shows more clearly when the noise is removed and the influence of the market on the stock is eliminated. The long-term trends on these transformed charts seem to persist and long-term investors appear to have a better chance of staying with their winners and selling the losers. Major, long-term trends show up more clearly. Stocks

that have fallen into trading ranges stand out and the highs and lows of the trading ranges represent advantageous entry and exit points for the trading range.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
SANDERSON FARMS INC 05/28/2004 46 SAFM



Damp out the noise, then remove the influence of the market and the true long-term performance of the stock will show more clearly on the chart.

The N = New in CANSLIM

The letter N in the famous acronym CANSLIM by William O'Neil, of *Investor's Business Daily*, represents the fact that major stock market winners are almost always associated with something new. It could be new products, new markets, or new management, but it has to be something new.

The requirement that the company have a new dimension to its business raises an unforeseen difficulty for many investors. Most investors are seeking certainty rather than uncertainty. Something new increases uncertainty about the future of the business. Something new is, by definition, untried and different from things that have been done in the past. The new factor, that has been created recently, is probably not well understood even by the investors who are close to the company.

How does an investor evaluate the potential of new management, the future of a new product, or the opportunities presented by a totally new and untried market? The management of the company itself may not have a good handle on the potential for financial success represented by something that is completely new. Many times the management of a company will direct the company on a trial and error basis, usually hoping for the best, but completely in the dark as to the probability of success.

And yet, the requirement that some new factor must be present to qualify a stock as a future major winner is not disputed. How can the investor overcome the uncertainty of the outcome of some significant factor that is extremely new and different?

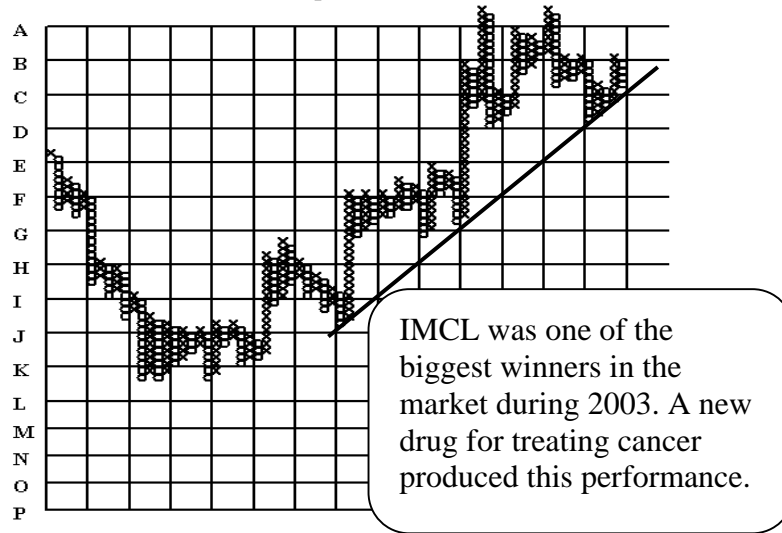
More often than not, he must rely on someone who is closer to the situation than himself and more qualified to study the business and evaluate the potential of the new direction of the business. In other words, he is forced to rely on the opinions of a stock analyst and probably this analyst is a total stranger. The investor may know little about the analyst's past opinions or his batting average. He may only know that the analyst is employed by a major financial firm and perhaps has earned a professional designation or advanced academic degree.

The investor may "feel" more certain about the future by following the opinions of an analyst with a major financial firm but is this enhanced feeling of certainty warranted? Experience shows that the translation of the new factor into improved financial performance for the company will be reflected in the trend of the stock price. Improving relative price performance in the market is close to proof that the new aspect of the business is being converted into improved financial performance for the company.

Likewise, a continuing downward trend in relative price performance is almost surely an indication that the business is not working out as hoped and that the financial performance is disappointing, or at least not producing the desired result. It must be remembered that analysts can and do make mistakes, and that often their opinions are just an educated guess. It seems very straightforward that the measurement of relative price performance can be a critical confirmation of the success or failure of the new factor in the CANSLIM formula for identifying potential major winners in the stock market.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
IMCLONE SYSTEMS INC 12/24/2003 40.07 IMCL

Q



Don't just buy a stock and hope for the best. Measure the relative price performance to confirm or reject the success or failure of the investment. No stock goes up forever and the investor needs to know when the upward trend reverses direction.

Creative Destruction

Economic progress comes at a price. Schumpeter called it “creative destruction.” The less productive or desirable activities are replaced by the usually newer, more productive or more desirable activities. There are always winners and, therefore, there must always be losers.

The losers show up in the stock market as issues that persistently do worse than the market. It is not only the fact that they underperform, it is the persistence of such underperformance that provides the clue that something is going very wrong for long-term holders. Long-term investors usually discount or ignore short-term underperformance. It is the persistence of underperformance that cannot be dismissed or ignored by the investor.

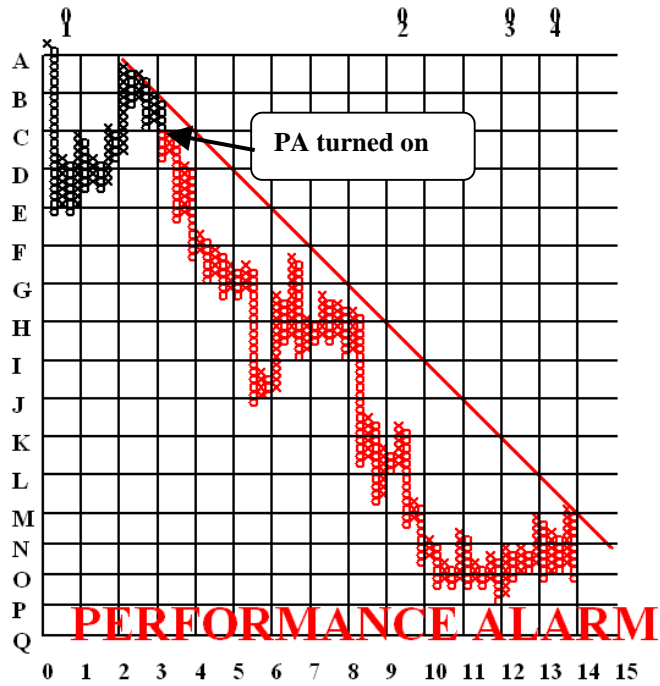
How sensitive should the performance measurement process be without producing unproductive turnover and false signals of underperformance? If the measurement system is too sensitive the investor will be jumping in and out of positions with higher commission costs and price slippage. On the other hand, damping down the signal too much can allow serious price declines to occur before a danger signal is raised. The tradeoff between sensitivity and confidence in the readings of the performance management system is critical to successful long-term portfolio management.

The relative strength, point-and-figure system uses a reversal of three boxes on the chart to damp out the noise. The effects of the pull and tug of the market are removed by calculating relative strength, compared to a major market index such as the S&P 500. The combination of these two properties represents a very effective method for measuring performance, without introducing excessive turnover or unnecessarily delaying the recognition of persistent underperformance.

Experience shows that the contrary-opinion oriented, value-conscious investor is attracted to stocks that have declined in price. They believe these stocks represent bargains. It seems that this desire to buy bargains often causes investors to buy into stocks with potentially serious problems. The persistent underperformance should be taken as a sign of fundamental problems that may be more completely understood by the investors who are casting their votes in the market against the stock.

As a contrary-opinion oriented investor, I have learned that it is far better to wait for the underperformance to subside and the stock to show extended sideways movement on the point-and-figure chart. This sideways basing movement is actual evidence that the stock has stopped going down and that the period of underperformance has been completed. Only at that point can the stock be considered a bargain that might be suitable for purchase, given that the fundamentals check out OK. A breakout above the 45-degree bearish resistance line gives further assurances that the downtrend is complete. After a major decline, it is not uncommon for a stock to base out for several years, so there is no reason to rush into any stock for fear of missing the bargain.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
JDS UNIPHASE CORP 05/14/2004 3.12 JDSU



**“When I buy or sell something, it unfolds day by day. If it’s still unfolding
in the right way, I’ll continue to own it.
If it isn’t, I sell.”**

Barron’s Roundtable

Jim Rogers

1-19-1998

Skewness: The Portrait of a Big Winner

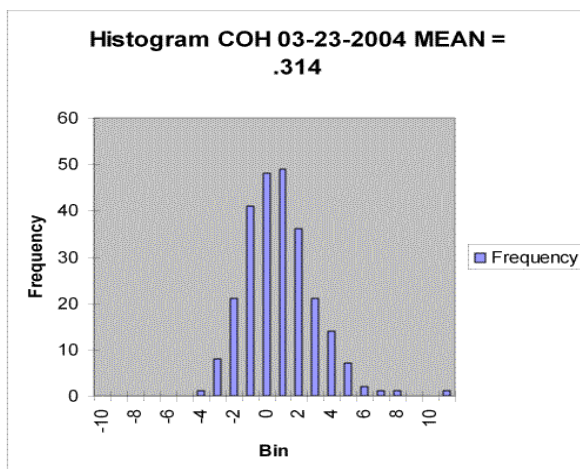
The histogram shown in the example is based on the daily, percent price changes over the past 250 days for one of the biggest winners in the stock market during that time. The average daily percent change was +0.314% per day, but the most important aspect of the record is the high degree of skewness exhibited by the distribution. The skewness turned out to be over five times the skewness of a purely normal distribution.

Not only did the stock produce a relatively strong tendency for each day to rise in price but also there were many days when the rise in price was much stronger than the average. The skewness also indicates that the down days were far fewer than would be expected from a purely normal, or bell-shaped, distribution. It seems, therefore, that the skewness of the distribution is the true portrait of a stock market winner. The effect of this skewness was to produce a pattern of higher highs and higher lows on the long-term, point-and-figure chart of price. The small arrows on the chart indicate the time period covered by the histogram.

There appears to be an element of hidden order in this stock that is masked by the random variation on a daily basis. The daily price changes tended to accumulate in a more or less steady rate of rise in the price. The bell-shaped curve of the histogram suggests that the daily price changes were random, but that the mean of those price changes was considerably different from zero. The frequency of price changes that was considerably greater than the mean also contributed to the steady accumulation of gains by the stock.

This more or less steady rate of increase could have been observed for most of the time period covered by this chart—almost four full years. The movement on the point-and-figure chart reflected the true supply/demand picture for the stock. The chart did not predict that the stock would outperform the vast majority of stocks during this period but as long as the pattern of higher highs and higher lows was in evidence, the trend of the stock could be judged to be attractive. As long as the steady rate of increase could be observed, the stock was acting well.

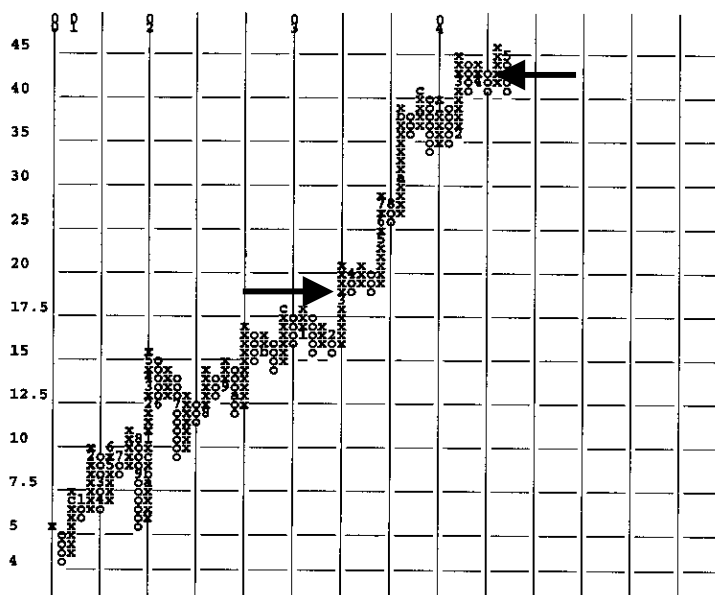
The lesson from all of this is that stock charts should not be used to predict the future performance but to measure the actual performance of each stock. The fact that the day-to-day movements are random says nothing about the chart's ability to effectively measure the performance of the stock. As long as the accumulation produces gains the stock should be held, and when the process of accumulation produces losses, the stock should be sold.



MARKET DYNAMICS
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coh Coach Inc 05/19/2004 40.77

AVERAGE DAILY CHANGE IN % = .259
 STANDARD DEVIATION OF DAILY % CHANGES = 2.007
 SKEWNESS OF DAILY % CHANGES = .4754356



There is a fundamental difference between predicting a stock's performance and the measurement of and the participation in the actual performance by that stock.

The Path of Least Resistance

Jesse Livermore was a famous speculator and stock manipulator who operated in Wall Street from about 1900 until his death in 1940. The stories of Livermore's campaigns in the market were always made a little hollow by the reports that he died flat broke. More recent facts indicate that his widow removed a large amount of cash (millions in fact) and jewels from their apartment on the day of his death. A fight with the IRS had led Livermore to conceal his assets from future taxation and evidently he died far from broke!

He used the phrase "the path of least resistance"(PLR) for his definition of the primary, long-term trend of a stock's price. He didn't use charts to analyze the PLR. He developed a special accounting paper to record the primary movements and the retracements against the primary trend.

An article by Jesse H. Thompson entitled, "The Livermore System," in a book published by the *Technical Analysis of Stocks and Commodities Magazine*, described his method. His approach was very similar to a 6-point reversal, point-and-figure chart. The tops of the intermediate uptrends and the bottoms of intermediate down trends were called pivot points. A pattern of the pivots that reflected higher highs and higher lows defined an uptrend and, conversely, lower lows and lower highs defined a downtrend. These primary trend movements were called "the path of least resistance."

It is revealing to note that Livermore did not deal in predictions of future stock prices. He was primarily concerned with the primary direction of movement. While he didn't engage in prediction, it is important to note that inherent to his system was the ability to recognize when the primary trend direction changed. He could trade with the primary trend until it changed direction and then he would change his position to accommodate the new trend.

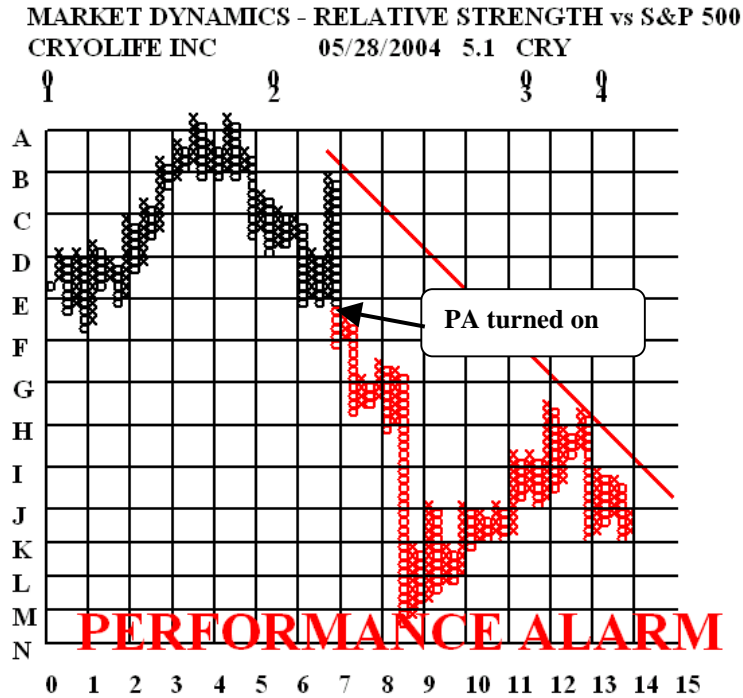
It is important to make this distinction between prediction and recognition of the changes in the primary trend. The primary objective of the successful investor/trader is to invest/trade with the primary long-term trend.

The primarily academic argument is that since stock price movements are random, historic price data cannot be used to predict future stock prices. This argument misses the point, entirely. The primary objective for an investor/trader is to participate profitably with the primary trend. The only prediction that the successful investor makes is the prediction that when the trend changes he will see the change and act accordingly.

The evidence from the market clearly shows that some stocks (about 20%) are in major long-term uptrends and others are in serious long-term downtrends (about 20%). The evidence also shows that most stocks (about 60%) are locked in trading ranges and they exhibit little net long-term trend movement. The only way a portfolio manager can determine whether there is a primary trend, and the direction of that trend, is by looking at historic price data. This is best accomplished by using charts and an approach that uses a filter to remove the noise, as Livermore did.

Investment management is not physics and there are no hard and fast mathematical relationships that can ensure success. Because we cannot accurately predict the future of stock prices does not mean that we cannot benefit from the ability to recognize changes in the direction of the major trend of a stock price. In Livermore's day of "dog eat dog" competition and stock market manipulation, and now, the use of charts or other historical data presentation was, and is, instrumental to an investor's success. The investors who used

charts to determine the primary trend did not get bagged in the many investment disasters of the bubble of 1997 to 2000. From my own experience, I did not predict the collapse of ENRON, but I certainly avoided it!



Over the past 35 years or so, I have successfully avoided many major investment disasters but I didn't predict a single one of them. The collapse of these stocks surprised me as much as anyone else but I was already safely clear before the problems surfaced. The primary trend on the long-term, point-and-figure charts told me that something was wrong and I acted defensively.

Statistical Myopia

Myopia is a defect of vision that results in a particularly narrow field of view. The application of statistical analysis has resulted in an extremely narrow view of the investment management process by the academic community. They have “proven” that stock price changes are normally distributed and probably random. Therefore, predictions of future stock price changes using stock price histories are impossible. They can confidently indoctrinate their students into the belief that using charts to predict the future in the stock market is worthless. In fact, their conclusion is that the use of charts for any purpose is worthless.

However, there is much more to the investment management process than prediction. Even their own theories rest on the belief that risk and return are related, not that returns are a function of successful predictions. It seems that the most important ideas in the theories of finance and investing rest on the management of risk in the production of investment returns.

Given the observations of Peter Drucker, who said, “You cannot manage what you do not measure,” how do we measure risk and return? We need to gather hard data about the interactions of risk and return. It seems that the movements of risk and return can be easily and effectively recorded using a chart of the price versus the variability of price. This describes the construction of a long-term, point-and-figure chart.

It is best to record price in terms of price movements relative to a major market index. Most institutional portfolio managers measure their success or failure relative to the S&P 500. The use of relative price movements is often defined as relative strength. These charts are not used to make predictions of future performance but to evaluate the performance that is actually being recorded. The three box, point-and-figure method minimizes the noise and the relative strength eliminates the influence of the overall market. The use of triple-top buy signals and triple-bottom sell signals provides a measure of long-term trends, even though the charts are based on daily data. The triple-top buy and the triple-bottom sell signals require the pattern to cover six columns on the chart and experience shows that a column on the three box, point-and-figure charts usually records a month or more of accumulated price fluctuations. Therefore, the basic signal patterns usually require at least six months of price fluctuations to be recorded and that places them into the long-term category. Trends that take place in a long-term time frame are usually much more important than short-term fluctuations and they tend to persist for long periods of time.

The X-axis on these charts measures the alternations of trend back and forth that are a function of the stock’s volatility. Therefore, in a sense, these charts record relative price movement along the vertical Y-axis and risk, or volatility, across the horizontal X-axis. The charts of relative strength in a point-and-figure format provide an effective way to track and to measure the performance of a stock relative to a major average.

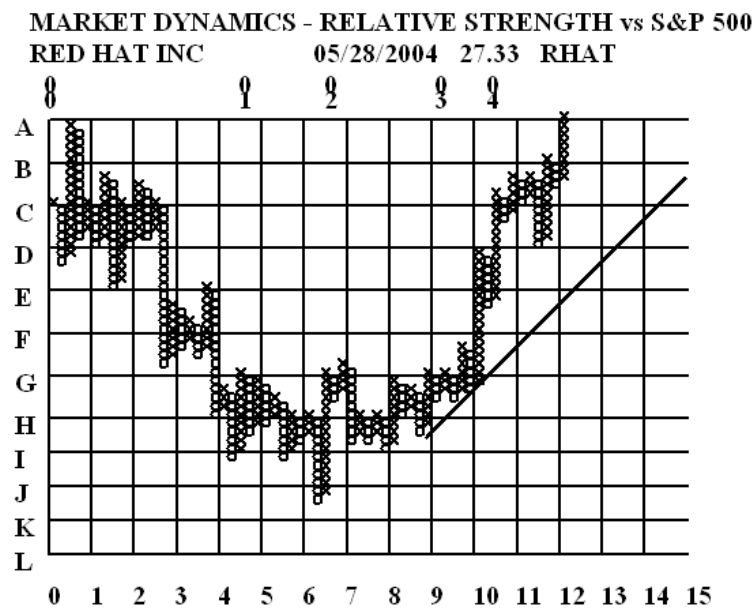
Unacceptable performance occurs for good reasons. Good performance also occurs for important reasons that usually tie back to the fundamental financial performance of the company. These trends provide a useful check on the investor’s expectations, and those expectations may be validated by the performance measurement process or those expectations may be rendered invalid.

The only prediction is that these long-term trends will probably continue into the indefinite future. The movements of relative strength reflect the collective votes in the market place either for or against the stock. Persistently negative votes should cause the investor to

sell and to avoid the stock, while persistently positive votes should lead to decisions to buy and to continue to hold.

Successful, long-term investors hardly ever prepare detailed predictions of how a stock might perform in the future but they know that the effective measurement of relative performance is an important component of successful portfolio management. The field of investment management is not like physics or the other “hard” sciences. We must accept our inability to make predictions with mathematical precision and do the best job we can.

We should use relative strength charts to check on our expectations regarding how a stock will perform. Not to track performance is to allow the performance of the portfolio to become truly random and this is often the result of the academic admonition against the use of charts for any purpose.



The random, day-to-day fluctuations of relative strength accumulate into long-term trends that reflect the true performance of the stock. The seesaw motions of the market usually show in the alignments of the extremes of these intermediate movements up and down and define the long-term trend. We cannot know in advance how long these trends may last but we will be able to see the change in the direction of the long-term trend when it occurs.

A Charting Apprenticeship

Because of a bad experience with a stock in the late '60s, I started experimenting with charts as a defense against faulty Wall Street research. In this situation, I had checked with five Wall Street analysts: Four were extremely bullish and only one was bearish. I decided to believe the majority and I recommended that we stay with the stock. The lone bear was right and the stock dropped precipitously. This was my "baptism of fire" with a collapsing stock.

I stumbled across point-and-figure charting when I attended a presentation by Alan Shaw in the Denver office of Harris Upham. To me, this was intriguing, and when I came across the three-box, point-and-figure method I learned that I could do it myself on a daily basis. I didn't have to wait for an out-dated chart service to arrive by mail. The three-box, point-and-figure charting technique compressed a long-term chart into a small space. The long-term perspective was very important because I was working for a bank trust department at that time, and we applied long-term investment methodologies.

I started posting a few dozen charts by hand on a daily basis and the management of the trust department tolerated my experiment in the hope that it might help improve our investment performance. Success with the charts came slowly at first, due to a lack of experience and reluctance to believe what the charts were telling me. I kept adding more and more charts to my daily posting routine and my batting average started to improve, but more importantly, I was gaining experience and confidence in the method.

I took a job with a go-go investment counseling firm in Century City, CA, and that's where I spent the bear-market of '69-'70. This bear-market was extremely bad for the OTC market and that's where my new firm's portfolios were concentrated. My previous experience with the downside implications of broad tops allowed my firm to side step quite a few serious disasters during that bear-market. These experiences with broad tops on the long-term, point-and-figure charts added to my confidence and my willingness to sell any stock that started to break down from a broadening top. This was truly a "warm up" for the major bear market of '73-'74.

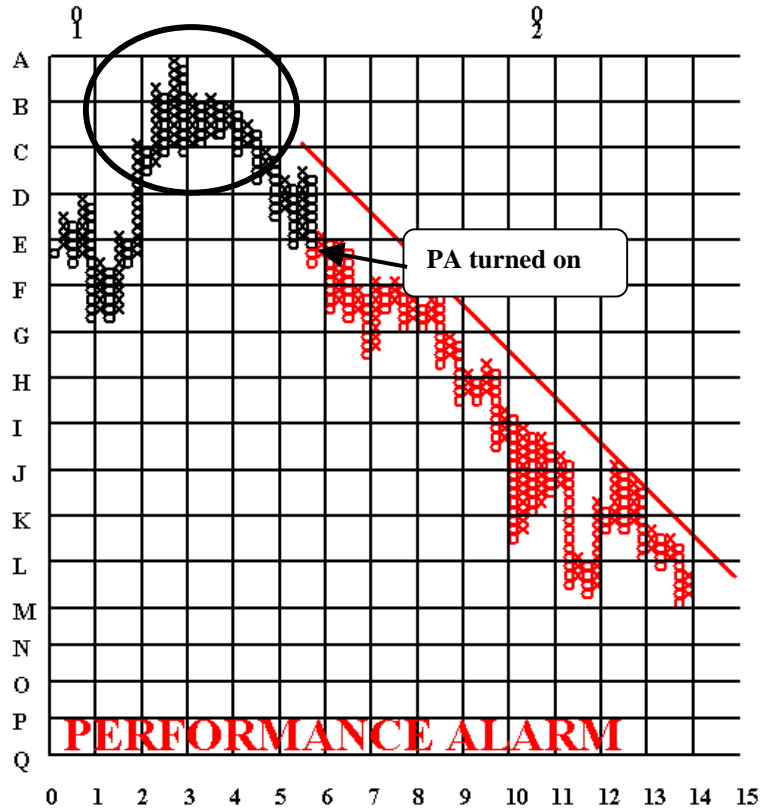
The overall stock market had entered a long-term trading range in '66 but we were almost totally unaware that we had entered a long-term trading range. This trading range persisted until 1982! As it turned out, the three-box, point-and-figure charting technique usually covered three to five years of history and long-term support and resistance showed up clearly on these charts. It was easy to spot the highs and lows of the trading ranges for individual stocks and to act accordingly.

A major bullish fad did develop in the early '70s, however, and it produced extremely high valuations for a group of stocks known as the Nifty-Fifty. The average PE for the Nifty-Fifty stocks at their peak was greater than 50 times earnings. At the same time, the average stock carried a PE of probably no more than 12, so the stage was being set for a serious correction in the group.

By late 1972, broad tops on the Nifty-Fifty charts were clearly evident. Some of these tops were over 40 columns wide and the downside implications were extreme. This was one of the most dramatic episodes of distribution that I have ever seen. There were many reasons for the bear market of '73-'74, but the excessive valuations in the Nifty-Fifty created a total collapse among these stocks. The message from the long-term, point-and-figure charts on the Nifty-Fifty was clear: Sell!

My apprenticeship, in terms of time and effort in the daily posting of the charts by hand, had proven to be well worth it. The bear market of '73-'74 made the case in spades.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
CALPINE CORP 06/28/2002 7.03 CPN



The process of distribution continues to produce broad tops on the long-term point-and-figure charts of big cap stocks. It seems to be an inherent part of the way the stock market works. Many times, the broad tops will appear long before the negative fundamentals become known.

Searching For Winners

A portfolio manager should search for new winners in the stock market on a continuous basis. The process of upgrading the performance potential of the portfolio depends upon a steady stream of new ideas that have a high probability of producing high excess returns. As the number of positions in the portfolio increases with portfolio size, this need for new ideas becomes critical.

In my experience, the relative strength charts, in a point-and-figure format, are an excellent way to conduct this search. Large numbers of patterns can be reviewed quickly using this system. The Market Dynamics System includes a pre-programmed screen to identify stocks that have recorded major bases on the point-and-figure charts.

The performance winners usually emerge from a broad base on the point-and-figure charts of relative strength. A major base usually follows a prolonged period of poor market performance that restores the stock to a favorable valuation level. Experience shows that it requires considerable time to pass while the base is being built. There is little reason to rush into the base until it is complete.

A major base is recorded by sideways movement, horizontally across the chart for 10 or more columns. This basing action confirms the balance between supply and demand and it proves that the stock has stopped going down. As long as the stock is oscillating back and forth within the base, its action should be monitored but buying the stock would be premature.

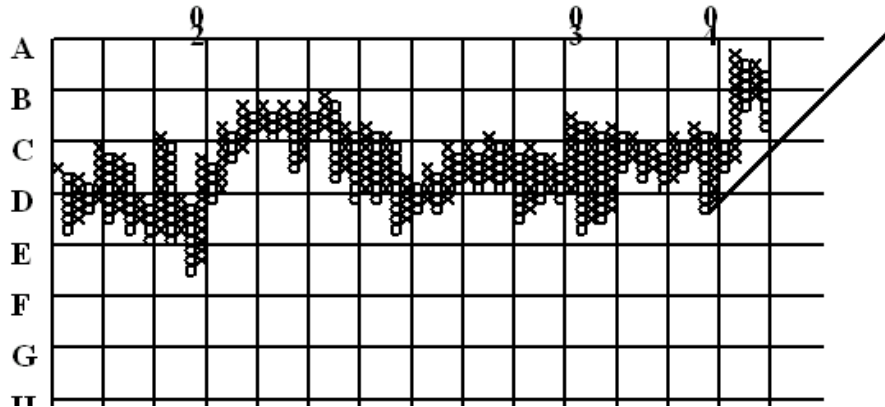
The period of basing is usually a time when investors with losing positions in the stock decide to accept their loss. The continued dullness exhausts the patience of most investors and they conclude that they will never recover their cost in the stock. This process is characterized by stock moving from weak hands into the stronger hands of long-term investors who are willing to look past the dullness because of their knowledge of the fundamental value of the stock.

The action that triggers the purchase of the stock is the upside breakout from the base. This confirms that the balance between supply and demand has now shifted to an excess of demand over supply, as measured by the rising relative strength. This is usually recorded by observing a triple-top buy signal on the chart. The width of the base has forecasting implications for the extent of the subsequent move up. The wider the base, the higher the stock can be expected to go.

In the past, I have often identified an attractive base on a stock. But when I would seek fundamental confirmation of the purchase, the fundamental analyst would not be current on the stock, or he might even express a mildly negative opinion on the stock. The dullness that characterizes the basing process seems to drive the fundamental analysts away from the stock or to color their opinions negatively. Many times the breakout from the base will occur at least two full calendar quarters before the improving fundamentals become known or appreciated.

The search for promising new investments should be continuous and these new ideas will help keep the portfolio fresh. This search for new investment ideas will help the portfolio manager to successfully adapt to changing fundamental and economic conditions and improve performance.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
SCHLUMBERGER LTD 05/14/2004 57.3 SLB



Stocks go up and down in an endlessly repetitive sequence. The period between the long-term downward move and the subsequent long-term upward move is a sideways, trendless movement on the chart that is usually referred to as a base. A very important process takes place during the basing period. The stock is transferred from the weak hands of investors with losses into the stronger hands of investors who establish their positions at a more favorable price.

The High Performance Support Line

When dealing in stocks with high-risk characteristics, it is advisable to use a High Performance Support Line (HPSL) on your charts. This is a support line that can be drawn directly on the Market Dynamics relative strength chart. It moves upward to the right just like a Bullish Support Line but the slope of the HPSL is 50% steeper than the 45-degree BSL. The slope of the HPSL is one and a half to one, which means that, if the relative strength remains above the HPSL, the investor will receive one and a half units of relative return for each unit along the X-axis.

Stocks that are moving up steeply relative to the market will remain above the HPSL for quite a while. Sooner or later the rate of relative gain will slow down and the HPSL will be broken. The break of the HPSL should be taken as a signal to sell the stock or at least move the stop up close to the current price. The HPSL demands a higher degree of performance from a stock with high-risk characteristics. Small-cap and mid-cap issues will often fit into this category.

Portfolio managers that are committed to a goal of very high portfolio performance can use the HPSL to manage the stocks in the portfolio but it should be understood that turnover will probably increase as a result. Stocks that are able to remain above the HPSL for an extended period of time are almost certainly in the positive right-hand tail of the distribution of investment returns. These stocks are performing better than 80% or more of all stocks.

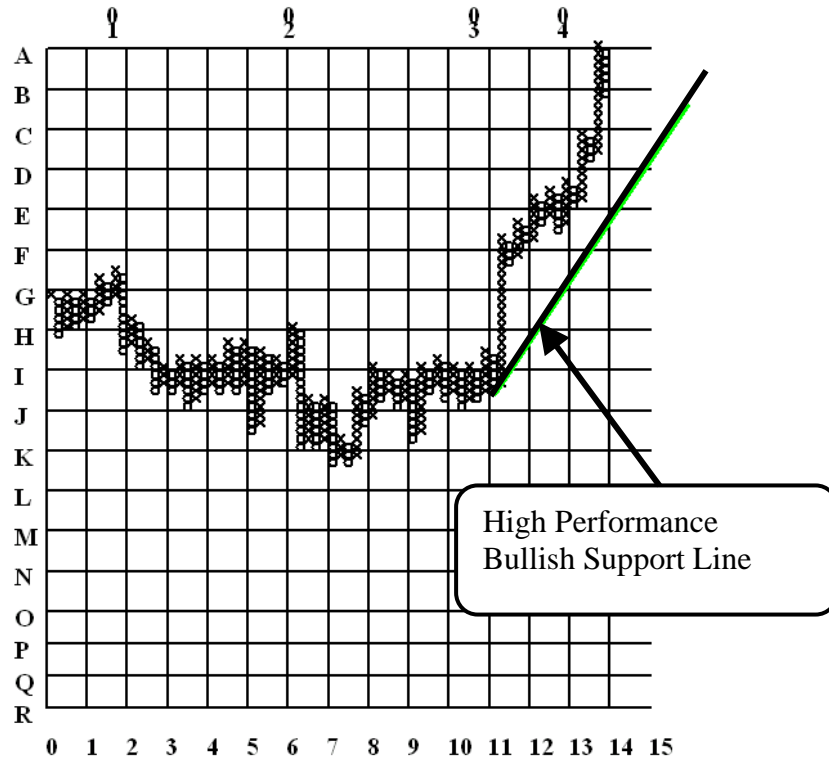
Many stocks that maintain a rate of gain that allows them to remain above the HPSL are highly popular but may also exhibit very high valuations of earnings. These are usually fad stocks and the HPSL provides a discipline for exiting these stocks when the momentum slows down. These stocks are often highly volatile and they can trace out major tops in a rapid sequence. The steepness of the HPSL assures that the stock will give a sell signal much closer to the top than the 45-degree, Bullish Support Line.

In actual experience, this type of stock will often terminate its up move with a blowoff. When the relative strength charts show a column of Xs that goes straight up from the HPSL by more than ten boxes, the investor can either just sell into strength or start moving a stop up close to the price as it rises and keep moving it up as the rise continues. This strategy assures that the stock will be sold before a sudden deep correction can develop.

The distance from the last X on the chart to the HPSL in the same column is a good estimate of how much relative downside must be recorded to generate a sell signal. When the risk becomes too great, the stock can be sold.

The HPSL on the chart is shown green as drawn by the Market Dynamics system. The fundamental idea behind the HPSL is that high-risk stocks should provide higher rates of return to compensate for the higher risk.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
GENENTECH INC 05/14/2004 61.09 DNA



“Whatever men attempt, they seem driven to overdo. When hopes are soaring, I always repeat to myself that two and two still make four.”

My Own Life

Bernard M. Baruch

Investor Psychology – Part 4

The More Things Change, The More They Stay The Same

Psychological Commitments Can Be Costly

I once worked with a fundamental analyst who had recommended investing in the shares of a major manufacturer of women's fashion apparel. The portfolios that I managed had large holdings of the stock with very nice profits. As I remember, the stock was trading about \$60 when it started to form a major top.

The charts that I used were long-term, point-and-figure charts, based on price, that I posted by hand on a daily basis. The top on the stock formed very slowly over a period of several months. The horizontal back and forth price action was very subtle but the pivot points clearly showed a sideways movement and then a downside breakout below the prior lows. This constituted a triple bottom sell signal and represented a clear indication of danger.

I reviewed the situation with the analyst and I expressed my concerns. He maintained that the fundamental situation was still OK and he publicly recommended adding to the stock at what appeared to him to be bargain prices. I don't remember whether I took his advice to buy more and average down but I remember that I was genuinely concerned about the persistent decline in the stock.

The institution that I worked for, at the time, was organized around an investment committee and I remember that the recommendation to add to the stock was made verbally, in front of the entire investment committee. I believe a written follow up report was also prepared.

I now understand that the public commitment to the recommendation to hold the stock and to buy more reinforced the analyst's psychological commitment to the stock. The act of writing the report would also have added to his psychological commitment to the stock. This commitment was being made in the face of considerable evidence from the price action in the market that something was going wrong, fundamentally, with the stock.

Finally, I decided that the point-and-figure chart was clearly showing too much downside pressure on the stock and asked permission from the investment committee to sell the stock. This produced an emotional response from the analyst in opposition to my request to sell the stock. I think it actually resulted in a vote but I received permission to sell the stock in accounts that I managed and I promptly sold the holding at a considerable discount from its peak.

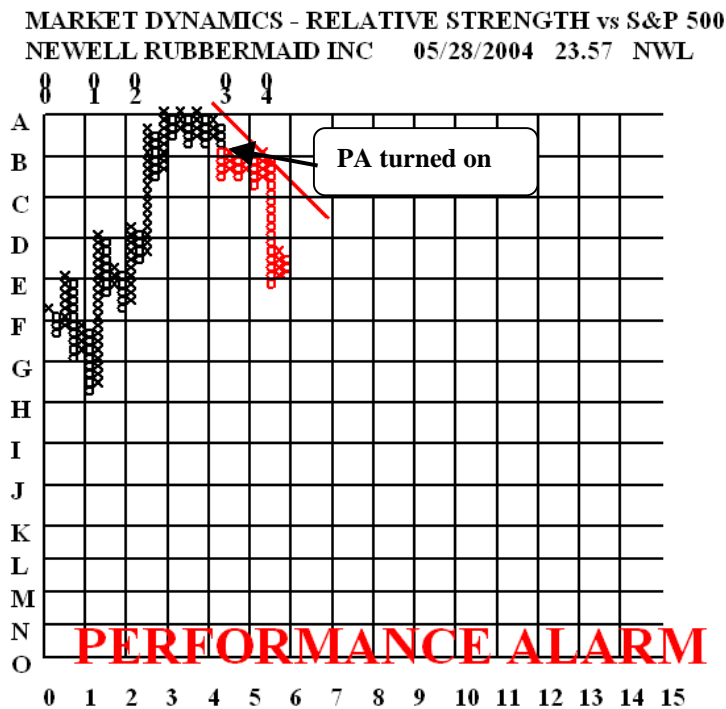
The stock continued to decline. As it passed 35, then 30, then 25, then 20, and then into the lower teens, the recommendation to average down was verbally repeated. This was a psychological behavior that was absolutely consistent with the prior psychological commitment to hold the stock and to buy more. The persistent decline in the stock did little to shake the analyst's consistent belief that we should buy more and that the market was wrong.

The analyst became quite upset with my decision to sell and several angry exchanges took place between the analyst and myself. His anger finally became so blatant that he opposed me at every turn in front of the investment committee. This was a very difficult time in the market but the investment committee agreed with me often enough that my performance was good, even in the face of such poor fundamental research.

When the stock finally hit \$6/share the analyst threw in the towel and recommended the sale of the stock for all other accounts. I was relieved that I had sold the stock months before for my clients, at much higher prices.

I now understand the dangers of even casual commitments to a stock and the tendency of that commitment to be reinforced by the act of writing it down or by making a public, verbal commitment to the recommendation. The analyst was literally trapped into behaviors that were consistent with such a psychological commitment. This aspect of commitment, and the guarantee of behaviors that are consistent with the prior commitment, is the cause of many major losses by investors, both individual and professional alike.

Beware the commitments that you make in the stock market. Stock brokers, portfolio managers, analysts and all investors need to be acutely aware of the dangers of even casual, psychological commitments to a stock or to a market forecast. These psychological commitments make it almost impossible to adapt to fundamental changes that disagree with the prior commitment.



See Influence: *The Psychology of Persuasion*

Dr. Robert Cialdini

Social Proof and Momentum Investing

Many times investors in the stock market herd together and they feel very comfortable doing what others are doing. This is a very natural behavior, especially in situations of considerable uncertainty. This is usually referred to as momentum investing and it rests on the principle of Social Proof. The principle of social proof is based on the idea that the greater the number of people exhibiting a behavior, the greater the proof that the behavior is correct.

Therefore, we need to use charts to track whether the herd continues to buy the stock or not. When the herd's behavior starts to change, we should know and respond to that change. The verification of the social proof that feeds our expectations is clearly shown on the charts.

This verification of social proof does not require a prediction of the future performance of the stock. It focuses instead on the change in the behaviors of other participants in the market for that stock. In other words, the charts provide an insight into a shifting of the social proof from an "OK to buy" behavior to an "OK to sell" behavior. As more and more investors embrace the changed behavior, the stronger the proof that the new behavior is now correct. It appears that social proof is one of the most important factors in shaping investor behavior and expectations.

The primary use of charts is to track the actual performance of stocks. Portfolio management requires that we develop expectations about the future performance of a stock as an investment. We need to evaluate the success or failure of those predictions on an ongoing basis.

Once an expectation has been formulated and the stock has been purchased, we all have a tendency to become overly committed to the expectation that the investment will be successful. Even casual commitments can then produce behaviors that are consistent with the previous commitment. The power of this commitment to produce consistent behaviors (i.e. bullish behaviors) is often underestimated.

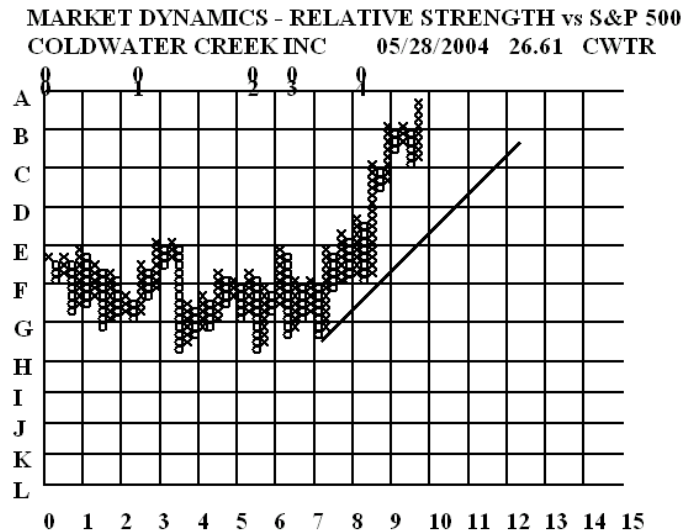
Portfolio managers will often defend their prior commitments in the face of direct evidence that disagrees with their prediction. We all need to collect evidence to verify or to refute our predictions. It does not matter how the prediction was formulated in the first place—it could have been based on the fundamentals, momentum, or any other factors—it doesn't matter. The verification of our predictions is the best use of stock market charts.

Charts should be used to evaluate the success or failure of our predictions. Our prediction was that the stock should perform in a certain way and the chart reflects on the accuracy of that prediction. When we purchase a stock, there is an inherent prediction that the stock will do better than the overall market or some other appropriate benchmark. The charts help answer the question: Is the stock performing as expected?

A very important factor in the movement of an individual stock is the movement of the overall market. Some studies indicate that the movement of the market may account for over 50% of the stock's price movement. Relative strength calculations remove the effects of the market and what is left is the price movement that is specific to that stock. This provides an even more important insight into the social proof that is driving the stock price.

The stocks in the tails of the distribution of returns are showing the highest price momentum and therefore are responding to the highest degree of social proof. These are the stocks where a shift in social proof can have a devastating impact on price.

Stocks in the middle of the distribution are not being driven by momentum to any meaningful degree and are probably moving within a long-term, trading range. Social proof suggests buying and selling at the extremes of these trading ranges.



“...quite frequently the crowd is mistaken because they are not acting on the basis of any superior information but are reacting, themselves, to the principle of social proof.”

Influence: The Psychology of Persuasion

Dr. Robert Cialdini

Buying Creates Its Own Commitment

Over the years I have observed many analysts and portfolio managers who have stubbornly ridden stocks down into disastrous losses while remaining committed to the idea that the prospects for the stock were still attractive and the outlook was bright. How did they come to such a commitment and why did their behavior remain consistent with that forecast well after things had changed? They had done their homework seriously and knew their stocks well. It seems that the act of recommending a stock produces a commitment to the stock that is unusual. Why? I have to admit that I have fallen victim to this unusual commitment on occasion and that experience makes me even more curious about the psychology of commitment.

Social psychology suggests that we should be very careful about even casual commitments. Seemingly innocent commitments that involve taking a stand can produce strong forces that will ensure that our behavior is consistent with the prior commitment (i.e. buying the stock). The more effort that is expended in making the commitment, the greater the pattern of consistency controlling our behavior.

Cialdini, in his excellent book, *Influence: The Psychology of Persuasion*, states that even the simple act of writing out the idea can lead to a strong commitment to that idea. A public commitment to an idea or a belief can greatly influence the power of that commitment to enforce consistent behaviors in the future.

Many times this consistency is automatic and unthinking. We all want to be consistent but we also want to appear to be consistent. This pull of consistency can be very strong, long after the commitment has been made and the conditions that prompted the commitment in the first place have totally changed.

What does this have to do with investing?

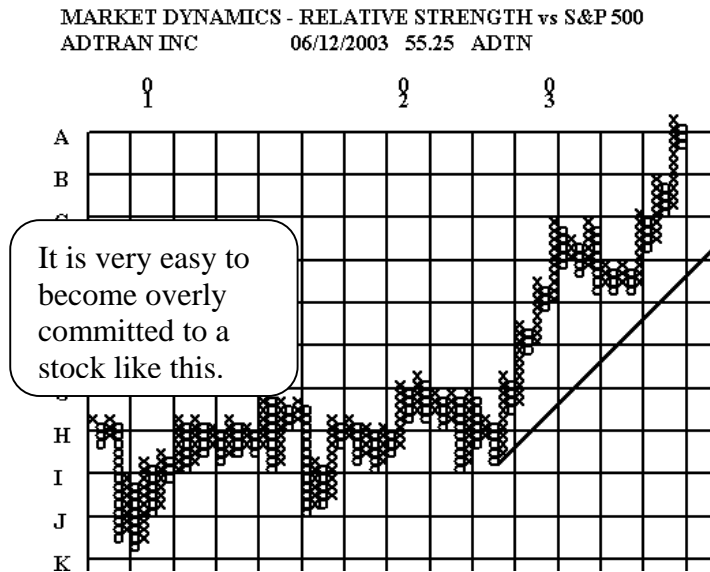
Reports are written recommending that a stock should be purchased. The report is made public and is circulated to associates, customers, and perhaps the media. Maybe a stand will be taken in a public interview (i.e. media, conference, etc.) that produces just such a commitment. A broker may take a public stand with all his clients recommending a stock as a strong purchase. The very act of buying the stock commits the customer, portfolio manager, analyst, advisor, and everyone involved to the idea that the stock will be a good investment. Usually the uncertainties are quite high so considerable effort and time is expended to investigate the fundamentals and this ensures an even greater level of commitment to the decision to buy the stock.

At this point, future behaviors for most buyers are now determined. If the stock goes down, the only behavior that is consistent with the prior commitment is to buy more and perhaps even to reiterate the recommendation. It is also consistent to spread the word among associates and acquaintances about the attractiveness of the stock that was just purchased. In essence a contribution to the buzz surrounding the stock.

To protect ourselves from a “foolish consistency” we should consciously limit our commitments to individual stocks. Our commitment should be to the goals of the whole portfolio. We should be very careful about what we write about individual stocks. We should be very careful about how much effort we expend in reaching a buy decision and how public our stance becomes. There is a very delicate balance that must be maintained between

behaviors that are conditioned by consistency and being too quick on the trigger to make a sale.

The primary risk is that we allow our commitment to the idea that the stock is a great buy, blind us to evidence to the contrary. The automatic behavior that is conditioned by consistency to the prior commitment makes us vulnerable to overlook, or disregard, data and evidence that might force us away from our prior commitment. This data and evidence is often drawn directly from the market itself and is usually presented in a long-term charting format.



**“A foolish consistency
is the hobgoblin of
little minds.”**

Ralph Waldo Emerson

Why Are Predictions So Destructive?

All we have to do to win in the stock market is to make accurate predictions of what the market will do in the future. A most famous prediction by a famous Ivy League economics professor was that the stock market had reached “a permanently high plateau.” That prediction was made shortly before the crash of 1929.

Experience shows that the stock market is influenced the most by factors that are almost impossible to predict. The factors that are known to be important and are visible to all are considered and their implications are impounded into stock prices quickly. However, it is the exogenous events that most investors did not consider at all, that influence stock prices the most. In other words, there are known unknowns and there are unknown unknowns.

Most predictions go wrong, not because of what was considered in the analysis but because of what was not even considered at all. This is usually true for forecasts and predictions about individual stocks and the financial markets overall. Therefore we can believe that there is a strong tendency for these predictions to be wide of the mark.

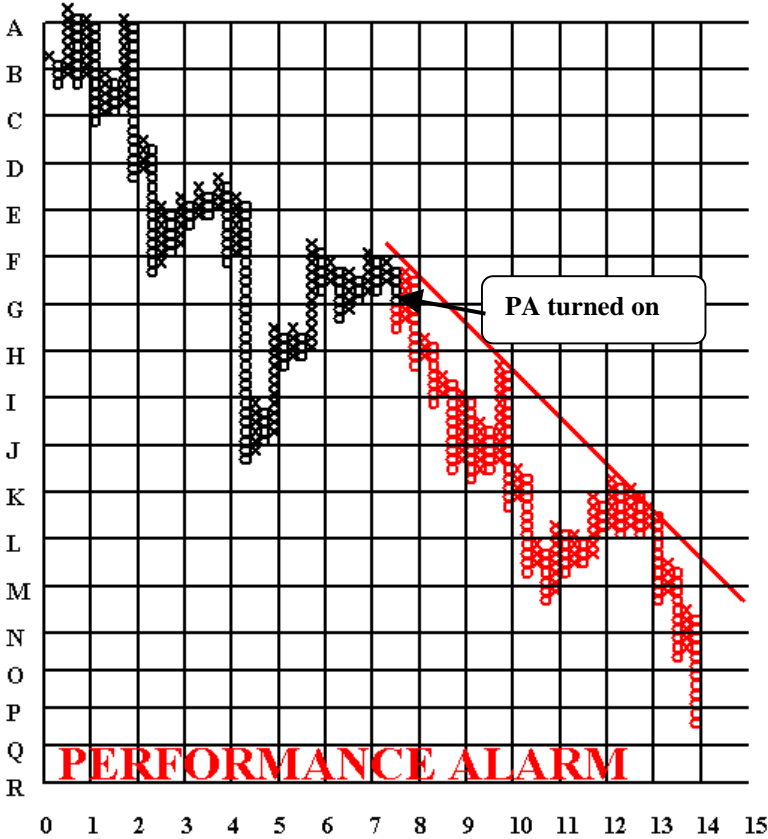
But there is something else that gives predictions the power to be financially destructive. The projection usually is written down, and then made public. These two activities produce a psychological commitment to the prediction that ensures that future behaviors will be consistent with the prediction. The greater the effort expended in the preparation of the forecast the greater the commitment to that forecast. The power of the commitment to produce consistent behaviors is very strong even for seemingly casual commitments (see Dr. Robert Cialdini’s book, *Influence: The Psychology of Persuasion*).

The tendency is for investors to remain faithful (i.e. consistent) to the prediction even after the situation has changed. So there seems to be a common situation in which predictions are inherently biased toward error. But there is also a built-in consistency of behavior that causes investors to remain committed to their predictions, even after they have gone wrong. This dual problem with predictions assures that the consequences of the erroneous prediction will usually be allowed to become quite serious before recognition occurs that the prediction is wrong. What can be done about this dual problem?

Investors should recognize that all stock market predictions are usually biased toward error. In addition, the unknown unknowns can, and should, be considered and analyzed continuously. Feedback should be gathered from the market to test the validity of all current predictions. The investor must be conscious of his own strong bias to behave in a manner consistent with the given prediction. In the case of predictions about individual stocks, the stock should be sold before the financial destruction becomes serious.

This dual problem with predictions argues for a mindset for investors that is flexible, adaptive, and constantly vigilant.

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**“What we anticipate seldom occurs;
What we least expected generally happens.”**

Benjamin Disraeli

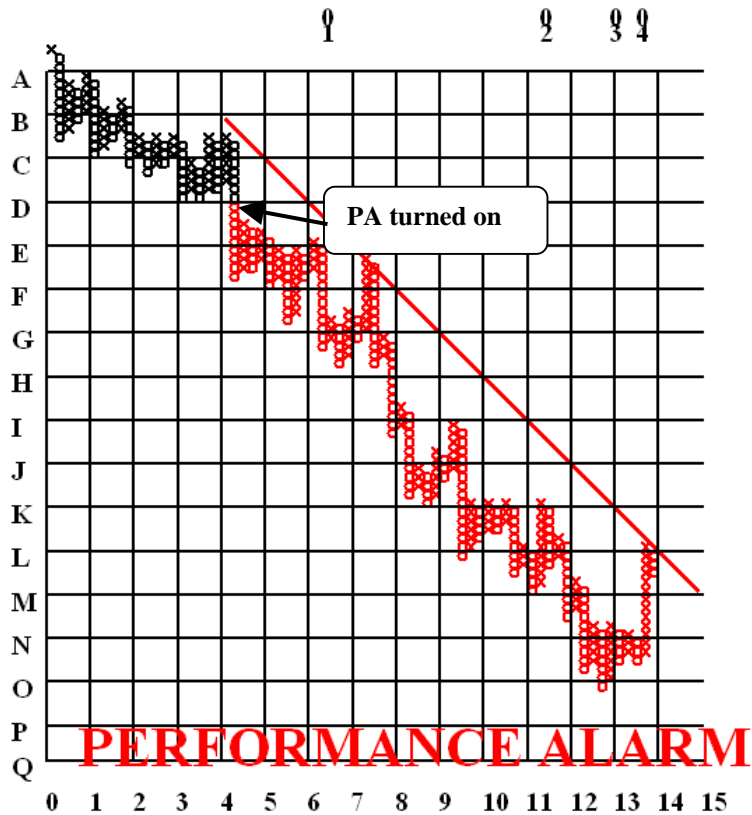
Musical Chairs

It seems that the music has stopped and investors are in an angry mood about investing and Wall Street. A search for the guilty now is in full swing in the aftermath of the ENRON scandals, the disclosures regarding misleading analyst's recommendations, further revelations of accounting irregularities along with excessive speculations by corporate managements, and widespread violations of trust by institutional investors. We must ask whether the excesses of the 90's bubble were something totally new and different or different primarily in degree?

The stock market unfortunately has a very long history of similar abuses by people in positions of trust. Periodically, the desire for quick and easy gains induces investors to embrace new ideas that cannot withstand the test of time. Caveat emptor has always been the best approach, and the recent bearish episode just confirms this wisdom once again.

Experience reaffirms the timeless wisdom of this advice. Many of these painful experiences have been burned into investor's memories. It will probably be quite a while before we see another bull market with similar excesses.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
BROADBAND HOLDERS TR ML 06/04/2004 15.75 BDH

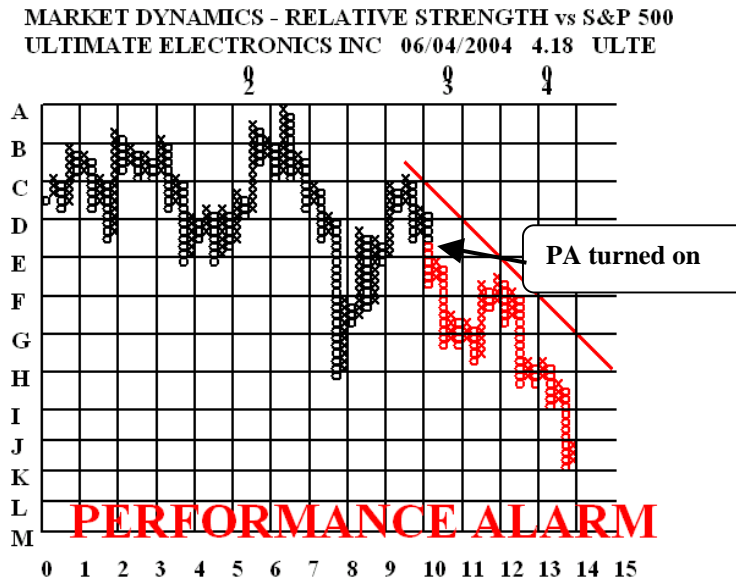


Looking in the rear view mirror

When we ponder the future we often find ourselves looking into a rear view mirror and projecting the recent past into our expectations regarding the future. In 1999-2000 mutual fund investors were projecting double-digit gains into the long-term future. Those ideas seem silly now.

It is equally silly to project the recent negative returns of 2000-2002 into the future now. The stock market will almost certainly continue to fluctuate in bull and bear waves, even within a long-term trading range. There will be major new opportunities and risks, and professional investment managers will need to become more adaptive if they are to benefit from these developments.

A new sense of discipline must be factored into the investment process to avoid being swept along by market psychology. Investment management may not be as much fun as in the days of the Great Bubble, but paying attention to tried and true principles should produce excellent relative returns. A whole generation has now been introduced, first hand, to the lessons and dangers of excessive speculation.



“These games can be played with zest and enjoyment, though all the players know that it is the Old Maid which is circulating, or that when the music stops some of the players will find themselves unseated.”

The General Theory of Employment, Interest and Money – Ch 12

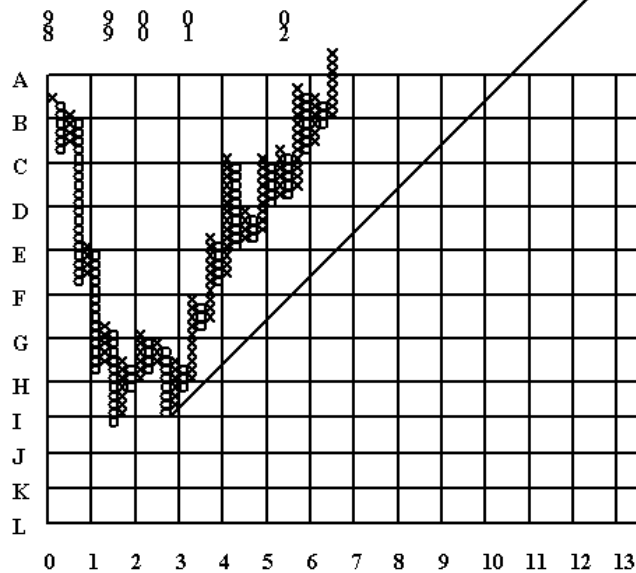
John M. Keynes

The “Buzz” Moves Stocks

Buzz is variously defined as the spreading of rumors and gossip, incessant talking in low tones, and excited interest or attention. It seems that stock market speculation runs on excitement and is therefore driven by the buzz surrounding a stock. Price changes demand explanations and these explanations tend to validate the buzz that is moving the stock. A whole industry has developed to facilitate these communications utilizing print, Internet, TV and telephone channels. When the fundamental news is good, the buzz seems to propagate through the ranks of investors and traders in an exponential chain reaction with each member of the chain often embellishing the story as it is passed along. Political propaganda seems to rely on a similar process that the more frequently a comment or opinion is voiced, the more believable it becomes.

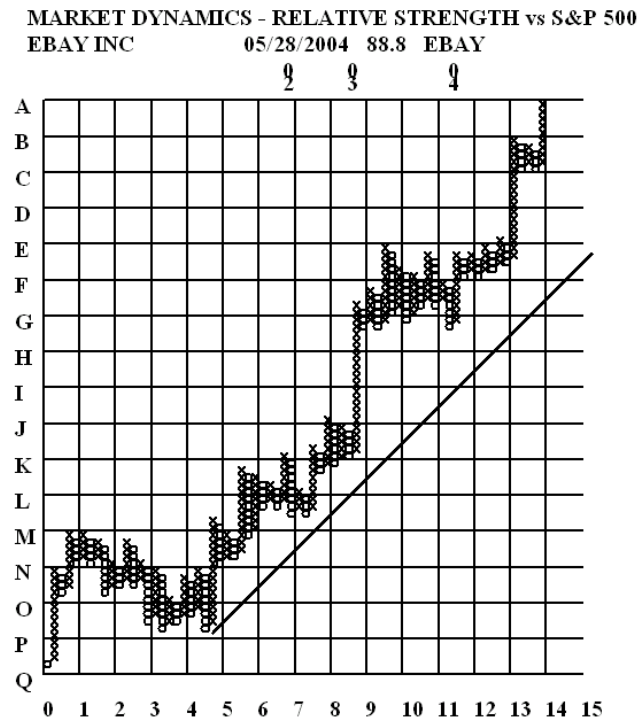
Bad news does not seem to have the same potential for an exponential chain reaction as good news. Some such similar process seems to be the explanation for the various fads that almost always seem to be present in the stock market.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 LANDRYS RESTAURANTS INC 05/09/2002 28.01 LNY



Fads, Fashions and Stocks

I had a good friend, now deceased, who owned a chain of retail stores that catered to fashion-conscious, young women. I asked him how long a certain look or fashion lasted and he replied, “That’s easy. Two seasons, sometimes three.” It seems that the life expectancy of a fad in the stock market is the same: Two years, sometimes three. Maybe it just takes that long for the participants to completely embrace the trend until there are no longer new converts available to join in the fad. The 1998-2000 experience with the boom in IPOs lasted about two and a half years, give or take. Fads in fashion clothing seem to collapse when a new look takes over and the same appears to happen with stocks.



“What registers in the stock market’s fluctuations are not the events themselves but the human reactions to these events.”

My Own Life

Bernard M. Baruch

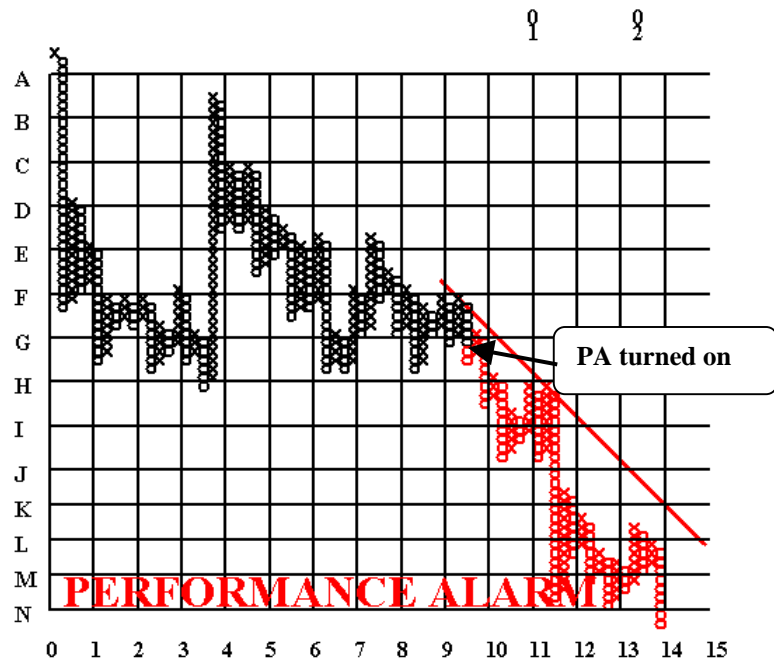
“Only The Jumpers Get Hurt”

The headline above is a direct quote from a famous radio news broadcaster from the year 2000. During the great bull-market bubble, there were many cheerleaders in the media that used their position to encourage the speculation in stocks, although no one called it speculation at the time. The upward spiral of stock prices called forth its own bullish explanations. Strategists for major Wall Street investment firms kept raising their projections as the market went higher and higher.

We can now look back with 20-20 hindsight and marvel at the ludicrous behavior of both institutional, as well as individual, investors. But does that do any good?

The current wave of highly emotional pessimism seems only to reflect the reverse of the previous highly emotional bullish optimism. Has the current pessimism reached levels that suggest that the bearishness has gone too far? Probably not, but it is a good bet that it will be equally dramatic on the downside as it was on the upside (These comments were prepared in July 2002. Just ahead of a major market low point).

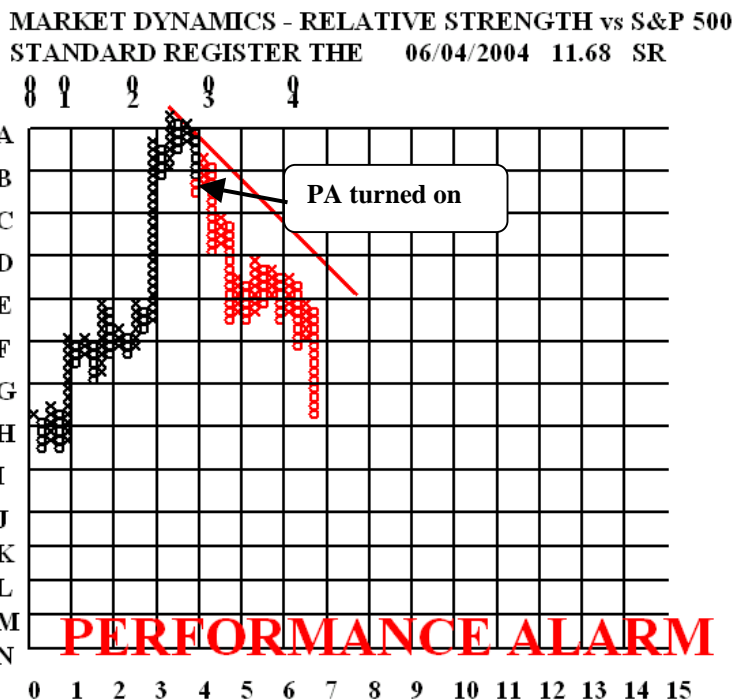
MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
MICROSTRATEGY INC 07/03/2002 .5 MSTR



The bear market proves the need for a sell discipline

The charts of individual stocks' relative strength that cover the past two to four years establish that investors need sell disciplines to avoid being swept along by the emotional swings in the market. The fact that stock prices are a leading indicator of future financial performance is not being questioned in any way.

The primary question seems to be: How can investors use this leading indicator to avoid the massive declines that can occur? The study of price movements allows investors to check up on the anticipated future financial performance of the stocks they own. During a bullish market, the need for a sell discipline is ignored as if the bull market will last forever and no sense can be made of the erratic behavior of stock prices. As Peter F. Drucker says, "no success lasts forever." We need to recognize when the past success starts to fade into tomorrow's failure. The ebb and flow of supply and demand in the market establishes these reversal points, which can be plainly seen. These studies of past price movements should damp out a large proportion of the speculative noise, and also remove the effects of the overall market movement. These charts should be constructed with simple decision rules in mind to gauge the price performance.



“Every great crisis reveals the excessive speculations of many houses which no one before suspected.”

Lombard Street

Walter Bagehot

Manage Your Own Luck

Too many investment managers entrust the investment performance of their portfolios to the vagaries of the market. This subjects the performance of the portfolio almost completely to elements of chance. It is more than just risk. It is almost complete uncertainty regarding the outcome of each individual investment.

It seems strange to say that luck can be managed, but that is exactly what good portfolio managers do. They do more than just position their portfolios somewhere in the continuum between total safety and foolhardy risk taking. Adequate diversification produces a hedge against a run of bad luck. But good portfolio managers do much more than that.

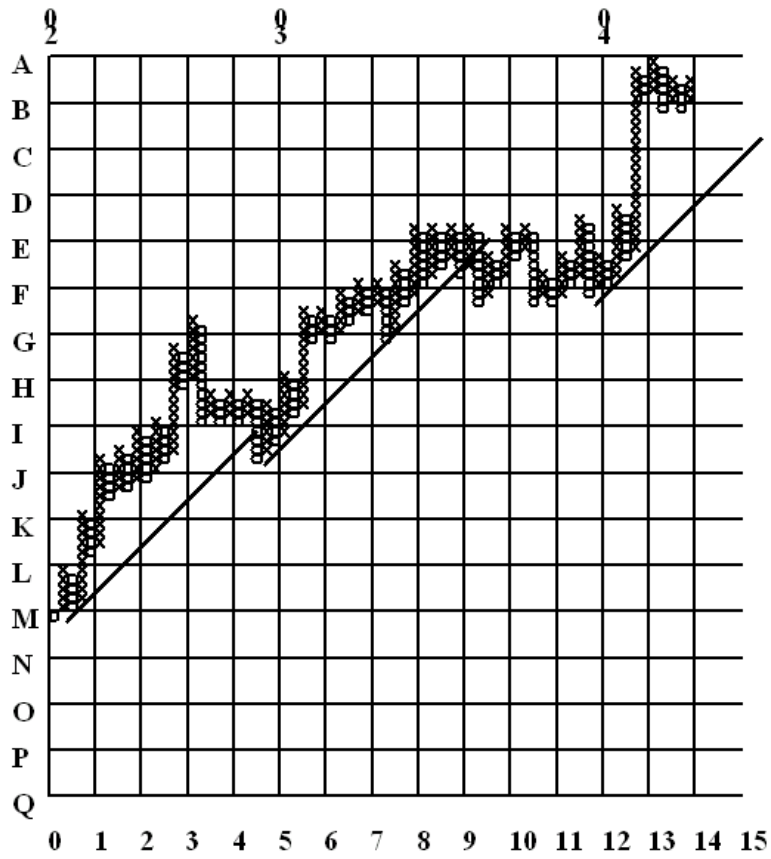
Good luck is followed up, and the exposure to good luck is allowed to increase its weighting in the portfolio by letting those stocks run. Bad luck, on the other hand, is actively suppressed and the proportion of the portfolio experiencing bad luck is systematically reduced by selling the appropriate stocks. The future is always uncertain and luck or chance is at work all the time. The successful portfolio manager knows this and he actively tries to manage the performance of the portfolio that is being influenced substantially by chance. The management of luck and uncertainty is not complicated. It only requires recognition of the true nature of the process.

Some portfolio managers believe that they can reduce, or even eliminate, uncertainty by an improved understanding of the facts of an investment situation and an in-depth knowledge of the dynamics of a business. As a practical matter, this in-depth knowledge of a business tends to increase the portfolio manager's confidence in the outcome without reducing the true uncertainty that surrounds the investment. This feeling of confidence leads to an inability to manage the effects of chance on the portfolio. True uncertainty means that we cannot even know what all the outcomes might be, much less their probabilities of occurrence.

The most important factor in the management of uncertainty is the requirement that the manager must act. Action requires decision-making under conditions of uncertainty and that is never easy and can become distorted by the way we frame questions. The uncertainty often leads to inaction and procrastination. There also seems to be a difference in the way we view our psychological feedback from certain actions. A decision to accept a profit is pleasing and a decision to accept a loss is unpleasant so we tend to reduce our exposure to good luck (i.e. sell profitable stocks) and let our exposure to bad luck increase (i.e. hold losing stocks). This is not an effective way to enhance our luck and successfully deal with uncertainty.

Feedback from the market is the best way to differentiate our good luck from our bad luck. For long-term investors, the feedback should be long-term in nature and the indications of success or failure should be clear and unambiguous.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
APOLLO GROUP INC CL A 05/28/2004 93.49 APOL



Investment performance is far too important to be left to chance.

Price Action Tells the Truth

The name of the stock shown in the following example has been removed so that I can speak freely about this investment disaster without naming names. The chart shows relative strength, but in terms of price, the chart records a decline from over \$60 to 0—into Chapter 11 bankruptcy. Institutional investors owned this telecommunications stock widely, almost all the way down.

The management lied, Wall Street analysts lied, the accountants lied and I believe investors lied to themselves when they bought this stock because it was too cheap. Individual investors can be excused, but it is far more difficult to excuse a Wall Street analyst who misrepresents a situation like this.

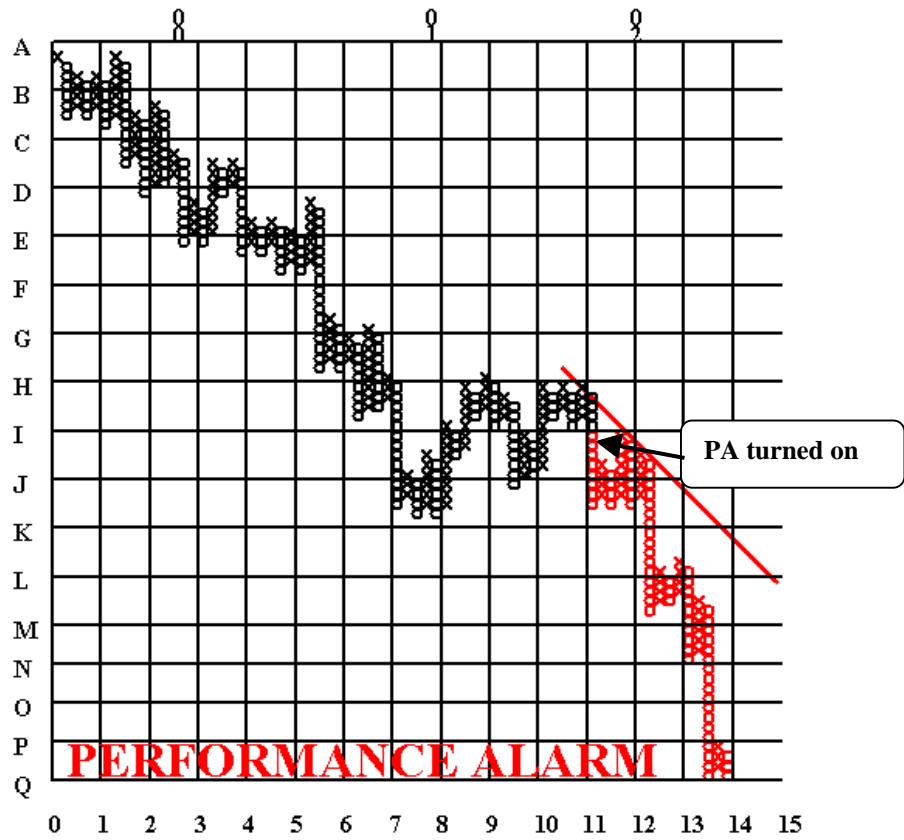
The saw tooth, back and forth action of the stock was without doubt partially random on a day-to-day basis. However, the persistent downtrend emphasizes that the price action was also communicating a signal, and that signal was clear in its meaning. Something was very wrong with this stock. The randomness of price movement did not offset the negative implications of the fundamental signals of impending difficulty. Almost everything about this stock was a fraud, except the price, which was plain for all to see. How can investors rationally believe that price is wrong and that they are right?

I was fortunate enough to see this relative price action early in the move and to advise my clients to sell. Some followed my advice readily and others waited for confirmation and then sold and some ignored my advice completely. One analyst became very disturbed by my opinion and recommendation and this analyst refused to attend meetings when I called on her institution. This case study raises an important question: Did I foresee the impending bankruptcy of this company? The answer is an emphatic, No. I was just as surprised as anyone when this company fell into bankruptcy. I was shocked by the revelations of massive accounting misrepresentations. I was also shocked by the criminal indictments of members of the senior management for fraud and misrepresentation. I was shocked, but my clients, those who would listen, had been out of the stock for a long time.

Over the years, I have drawn the ire and deep resentment of analysts whose pet stock picks received my negative opinions. In one case, on my recommendation in 1987, an analyst sold DEC at over \$175 only to have his superior order him to repurchase the stock at close to \$200 before a prolonged price decline into the teens. Even though retired from his duties at this pension fund, I understand that this individual still harbors resentment at my recommendation to sell Digital Equipment, even though I was right!

The lesson from all of this, price doesn't lie. Management lies, analysts lie, accountants lie, reporters lie, but price doesn't lie.

I once saw a very funny cartoon whose caption was, "If money can talk, then it can lie."



**“There are only two things on a balance sheet that are real,
cash and all the liabilities.”**

Biel’s Law

The headline for a column in *Forbes* in the ‘70s

Heinz Biel

Three Years of Boot Camp for Investors

Boot camp in the military is an abrupt and harsh transformation from the carefree freedom of civilian life to the rigors and discipline of military life. Basic skills and obedience to authority are beaten into the mind and body of even the most stubborn recruit during boot camp.

And so it has been with the experience of most investors over the 2000-2003 period. Many have been forced to learn, or relearn, the basic skills of investment management through this difficult period in the market. This learning process has been painful for most and has not been limited to the first-time players. Many professional portfolio managers have had to relearn these lessons as well.

But lots of investors during this “boot camp” were forced to acquire these skills and ideas for the first time. For example, for the first time, investors now appreciate the conflict of interest that may influence the opinions of Wall Street analysts.

Investors, many for the first time, have come to understand that:

The main business of Wall Street is to distribute stock.

Investors were lied to by a corporate management.

Buying the dips doesn't always work.

Buying bargains can kill your portfolio.

This is what happens in a bubble.

Speculation always ends in the “good, old fashioned way.”

Yes, you can pay too much for a stock.

Financial genius is a rising market.

The charts really do matter.

Being a long-term investor doesn't always work.

“Where are the customer's yachts?” is a good question!

A hot, IPO market is usually a sure sign of a major top in the market.

Long-term investors did sustain major losses in the market.

You should “cut your losses short and let your profits run.”

This is what a stop-loss order is for.

You don't have to be fully invested all the time.

The trend creates its own news.

“The trend is your friend.”

“A gold rush ends ugly.” (Mark Twain)

“You should buy your stocks from investors who are bored and sell your stocks to investors who are excited.” (John Templeton)

“There are only two things on a balance sheet that are real—cash and all the liabilities.” (Biel's Law)

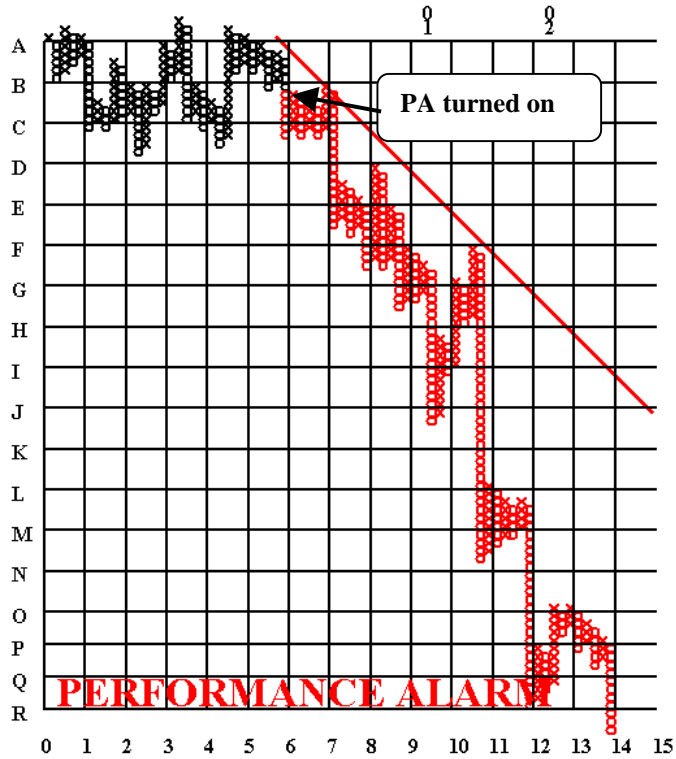
You can't believe stock market gurus.

“Wall Street has never been a very holy place.” (Editorial page writer for the Wall Street Journal in an interview on CNBC)

Fear is a much stronger emotion than greed.

“Portfolios heavy with underperforming stocks almost never outperform the market.”
(Ignat’s Law)
“He who panics first, panics best.”

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
GILAT SATELLITE NETWORKS 06/28/2002 1.1 GILTF



For the first time, most investors now understand that the long-term may not be long enough.

Risk-Free Investing

If we could predict the future, to any significant degree, we could enjoy high investment returns with little or no risk. The desire to reduce risk produces all sorts of schemes to make better predictions. The desire for accurate predictions of the future leads to the appeal of various superstitions, occult methods, and advanced mathematics, such as neural networks. The avoidance of risk is a universal objective, but to date, the ability to avoid risk through prediction is an elusive goal.

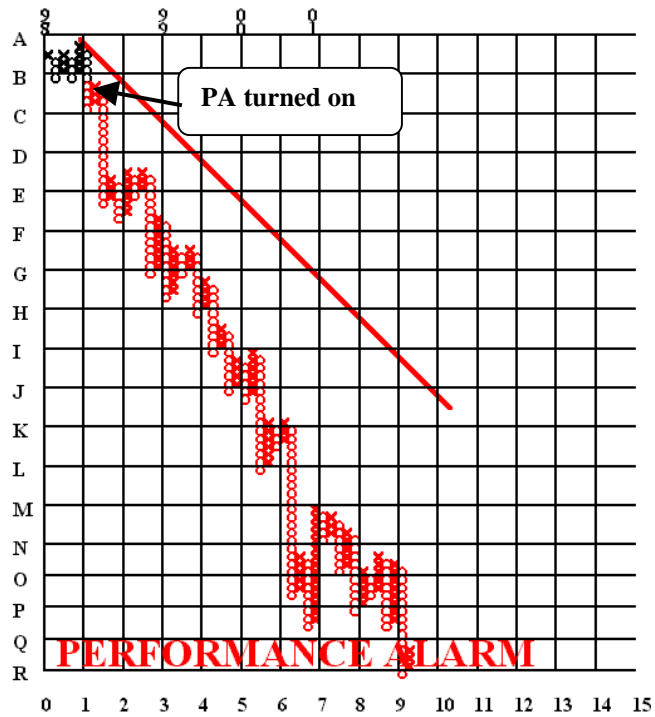
The process of developing predictions can distort the true risk in a situation. The fundamental factors surrounding an investment may lead to an almost unanimous conclusion among investors regarding the likely future outcome. The frequency of the repetition of such a prediction may create an elevated sense of confidence among investors regarding the attractiveness of the investment. This confidence can lead to a perception that the risk is lower, or that the expected return is higher, than it actually will be.

Prediction, by its very nature, takes into account the estimates of the independent variables that are known to matter in a given situation. These estimates may be used to produce a forecast using the established or known relationships that are considered to apply. The prediction therefore becomes vulnerable to the appearance of a new independent variable, or a change in the parameters that tie the variables together. This is usually considered to be a surprise or a shock. The prediction goes wrong because of what was left out of the analysis, rather than errors regarding what was factored-in as a known and relevant consideration.

It is also very difficult for investors to anticipate an event that lies totally outside their scope of experience. How can you anticipate an ENRON until you have experienced an ENRON type disaster in the market? How can you deal with a prolonged bubble in stock prices until you have participated in such a bubble? Since the movements of the markets continually produce new and novel experiences it should be considered likely that experience alone cannot completely protect against the unknown and unforeseen.

Risk is usually thought of as the potential for loss in an investment but it should, more correctly, be thought of as the more or less complete uncertainty regarding the future of an investment. The uncertainty seems to be present and changing all the time but the key question seems to be: Is the investor being adequately compensated for the uncertainty (i.e. risk)? The movements of risk and return can be recorded using a special type of chart called a point-and-figure chart. These charts provide direct feedback of information from the market that tells the investor whether he is being adequately compensated or not. Many times, the consensus prediction about a stock will be refuted or confirmed by the movements of risk and return on these charts. The correct prediction regarding a stock will be borne out over time, and the investor should protect himself from the unanimous and highly confident bullish prediction of the future performance of a stock that doesn't work out.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
CROWN CORK & SEAL INC 12/11/2001 1.65 CCK



“Nature has established patterns, originating in the return of events, but only for the most part.”

Against The Gods

Leibniz

Quoted by Peter Bernstein

Risk, Uncertainty and Fads

A recurring phenomenon on Wall Street is the appearance and excitement of investment fads. While fads usually involve different stocks and even different industries from market cycle to market cycle, these fads do share common characteristics. Invariably the individual investor is left holding the bag after a fad has run its course, because fad stocks usually collapse after they have peaked. Why are these fads recurring when the disastrous outcome is so clear?

There always seem to be two groups of market participants that interact in a way that allows fads to repeat. The first group is a group of risk takers that seek extremely high returns from their market activities and they are willing to take high risks to accomplish their objective. They seek out excitement and volatility, and are attracted to new developments in business that offer the potential for exceptional returns.

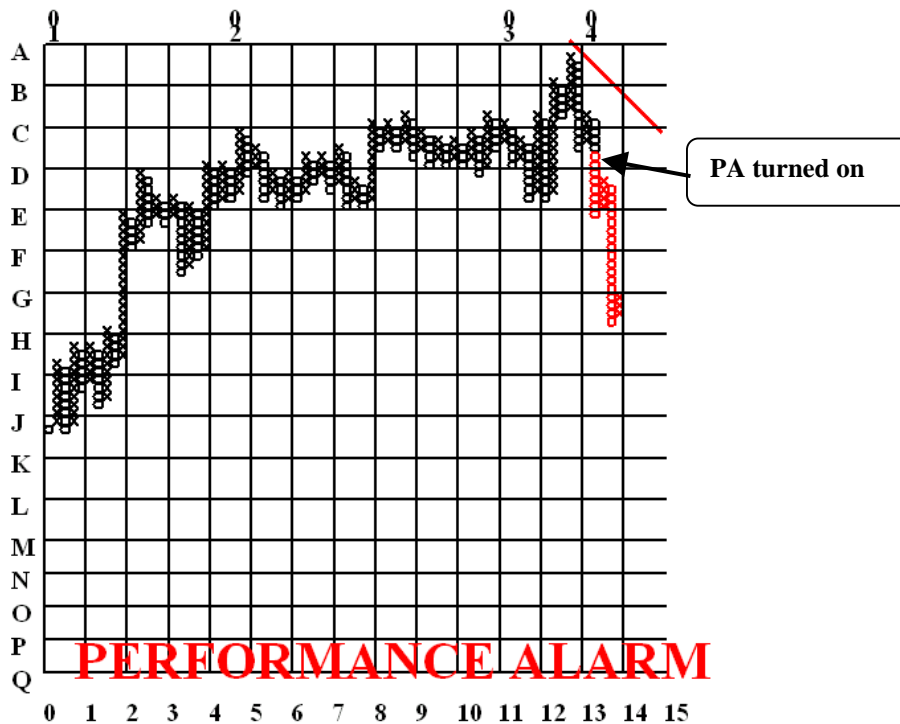
In the stock market, things are always more or less uncertain. Under conditions of high uncertainty, investors come under the influence of the principal of social proof (i.e. the more people engaged in a behavior, the greater the proof that the behavior is correct” —see Cialdini’s book *Influence: The Psychology of Persuasion*). There seems to be a tipping point at which the number of investors buying a stock reaches a critical point and the behavior becomes self-sustaining. The fad takes off.

The dominant factor is the continuously rising price of the stock. Traditional yardsticks of investment value take a backseat to the price action. A bubble is born in an individual stock. The word of mouth or buzz surrounding the stock is passed from investor to investor and the more frequently the story is heard the more believable it becomes, according to the principle of social proof. The news media are trying to provide explanations for the price rise and the rising price ensures that their stories and coverage are very positive. Wall Street analysts can be included in the classification as media, and they are probably pushing the stock for all it’s worth.

Fads usually last no more than three years and that is consistent with the four and a half year market cycle from low to low. Fads end when the overall market turns down. From experience, fads usually produce a multiple of the price, from the beginning of the fad to the end, of at least four to one. This implies a 4% per month compound rate of gain. A 7% per month rate of gain produces an 11 to one multiple of the ending price to the beginning price. These returns certainly qualify as exceptional.

After the fad has peaked, the beneficiaries of the exceptional price rise understand the true meaning of the reversal in trend and the selling begins in earnest. Enter the second group of market participants that are critical to the profitable liquidation of positions by the successful traders. This group is composed primarily of bargain hunters. They compare today’s price to the high prices a short time ago and conclude that the stock has gone down too much. The bargain hunters are the recipients of stock being distributed by the successful fad participants. The analysis of past fads explains what is necessary to capture the profits created by the fad, and it also explains the dangerous risks in bargain hunting among last year’s fad stocks.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 KRISPY KREME DOUGHNUTS 05/14/2004 20.76 KKD



Social Proof seems to be the primary cause of the herding together of stock market participants that manifests itself as a fad.

“As human beings, we are pretty good at predicting changes in the variables but pretty pathetic in predicting or even recognizing changes in the parameters.”

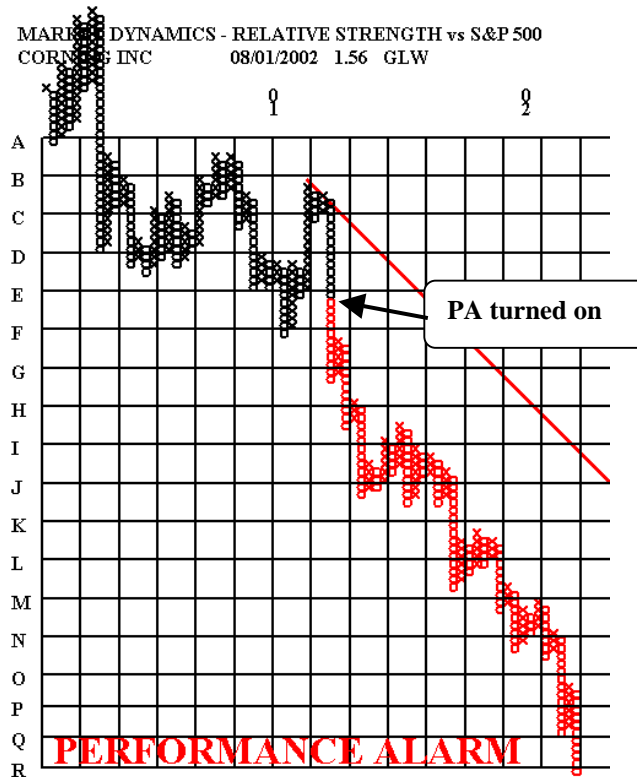
Peter L. Bernstein

In a speech in 1973

Investment Bankers take the Fifth

The *Investor's Business Daily* reported during the week of August 2, 2002 that two investment bankers from a leading Wall Street firm exercised their right to take the fifth amendment protection against self incrimination, rather than answer questions from senators about Enron and the bank's possible role in the questionable financing of the now bankrupt company. Investors now see almost daily news coverage of former corporate executives being led away in handcuffs. In an interview on CNBC, a *Wall Street Journal* editorial page writer remarked, "Wall Street has never been a very holy place." And so it seems.

The primary business of Wall Street is to distribute stocks and bonds to the public. The recent revelations of wrongdoing by those in positions of trust suggest that investors have been far too complacent in their dealings with investment banks. The portfolio manager actually has only one option when he starts to "smell a rat" and that is to sell the security before much damage is done. My suggestion is for investors to become better sellers.



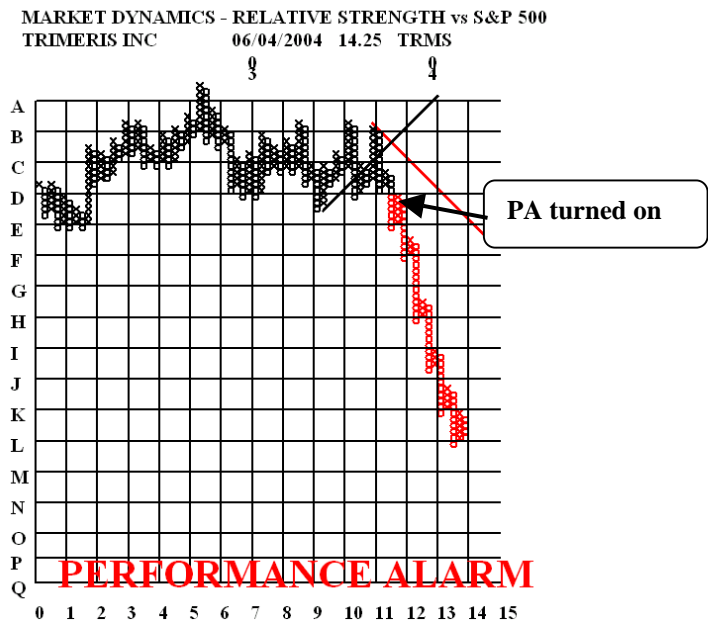
The Charts Don't Lie

An old saying on Wall Street that has withstood the test of time: The charts don't lie. Longer-term charts are usually more trustworthy. Steps can be taken to reduce the impact of the overall market fluctuation and filter out most of the noise. The charts used by Market Dynamics provide an additional visual effect by using color to highlight a negative pattern. After a negative pattern is recorded, the chart turns red (see the example of GLW on the preceding page). The color change is under program control and does not require any subjective analysis on the portfolio manager's part.

Portfolio managers should track the performance of every issue in their portfolio, searching for stocks that are performing poorly. Given the perspective that stocks move up and down for good reasons, the poor market performance is a key piece of evidence that suggests that something important has gone wrong with that company's fundamentals.

The chart does not predict the future so much as it provides evidence that something is amiss. These charts provide an extremely important feedback loop that can alert the portfolio manager to developing trouble.

Hedge fund managers are alert to short-selling opportunities so they are continuously searching for stocks that are performing poorly. The red charts just make it a little easier.



**“There comes a time when we must take the bull by the tail
And face the situation!”**

W. C. Fields

You Can't Make Money in a Stock by Yourself

It seems painfully obvious that when you buy a stock you will start to share the experience of others who are buying or have already bought the stock. It also seems sensible that an investigation into the experience of prior buyers will suggest whether their experience was good (i.e. profitable) or bad (i.e. losses). Some form of price analysis is usually used to determine whether the indication is good or bad. The review of the results of the other buyers of the stock is not to predict what will happen in the future so much as to decide whether the recent performance is good or bad.

Price changes usually accumulate in the stock market for good reasons. This is a belief that is shared by fundamentalists and technicians alike. Those reasons may be very emotional but they are not irrational. So if the experience of the other buyers is bad, the reasons for that bad experience will continue to affect the stock negatively. If the experience of the other buyers is good, then the reasons for the favorable price movement can be expected to continue to exert their positive influence in the future. At some point, the experience of the prior buyers may change from favorable to unfavorable, and when that change persists for a reasonable period of time, the evaluation of the trend of performance must change.

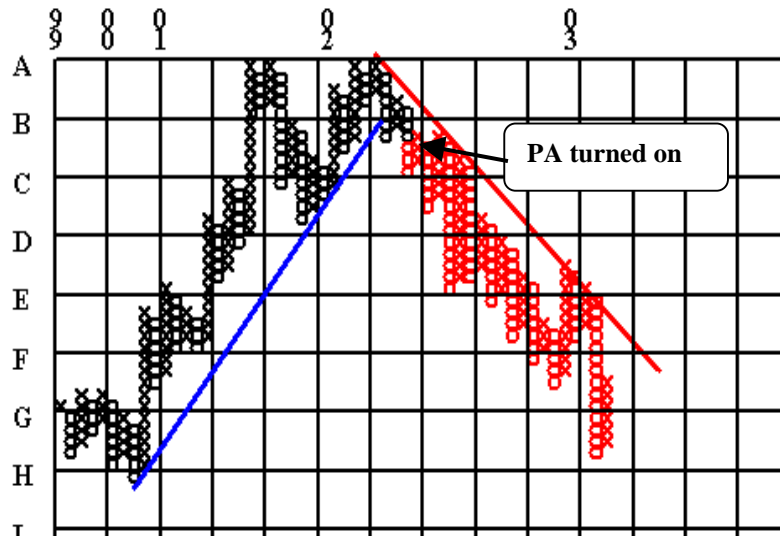
Mankind has often used magic and spells to try to predict or change the future. In ancient times, astrologers, numerologists, fortunetellers, witch doctors, medicine men, oracles, and other supposedly gifted people were consulted to anticipate the future, or perhaps even try to change it. The practice of some of these pseudo-sciences continues into modern times, even though the results are no better than in ancient times. In highly uncertain situations, it seems that even a bogus prediction is better than no prediction at all.

As the achievements of science and the scientific method accumulated, man's ability to anticipate the future increased dramatically even to the point of man's ability to influence the future. In many areas, however, man's ability to predict or even understand the process remains hidden and uncertain—long-term forecasts of the weather or the economy come to mind.

The first step in the scientific method is to gain an understanding of the system that is under study. Therefore a study of the procedure that produces price changes in the market is legitimate. The actual process that produces the price change is not revealed, and only the price changes can be studied. These price changes are often random and messy, and care must be taken to reduce the noise. It is nonsense to believe that these price changes follow a mathematical function with any precision.

The price changes accumulate over time in a very haphazard process but the results of this accumulation process are trends in stock prices. It is these trends that are the primary focus of technical analysis. There is no prediction involved other than the belief that real forces created these trends and that they will continue until they change. This seems to be a very modest claim. To avoid this field of study because it is messy (i.e. random) seems childish. After all, much of nature is random. To characterize this field of study as voodoo seems akin to calling Galileo a heretic.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
BAXTER INTERNATIONAL INC 06/05/2003 26.02 BAX



“You must be the keeper of the shrunken head.”

**A response to
W. Clay Allen CFA**

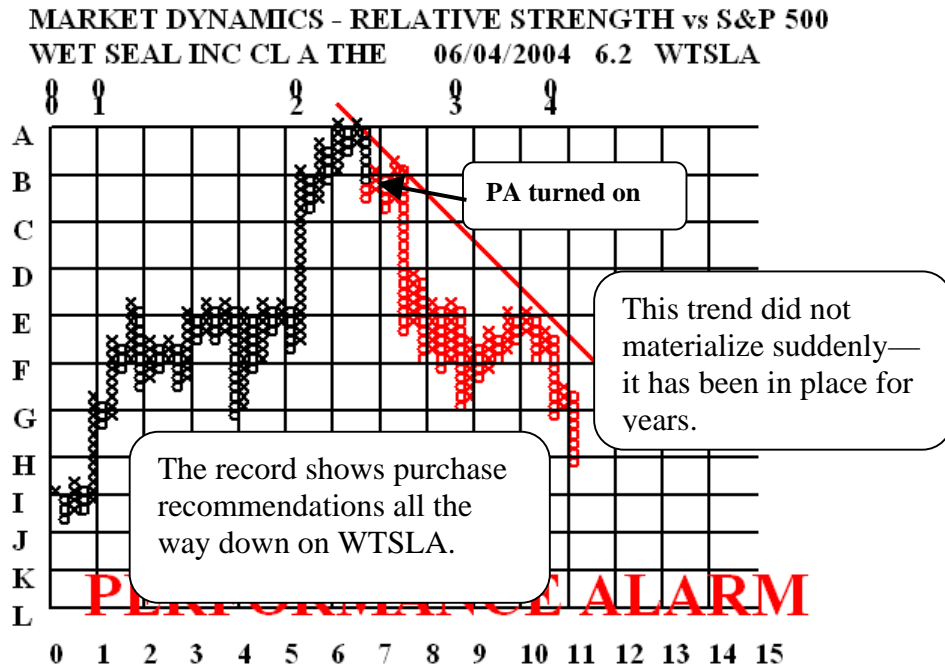
**A reference to voodoo from a young investment analyst in 1999, implying
that technical analysis is worthless.**

The Fallacy of Prediction

Success in the stock market requires an adaptive mind-set, but most investors fall prey to a loss producing inflexibility. The belief in the ability of others to predict the future seems to be the source of error.

Predictions often lead to a rigid state of mind resulting from strongly held convictions about the future that, more often than not, prove to be completely wrong. Experts and knowledgeable analysts are often relied upon to provide guidance about the future of the stock market. But their advice and predictions seem to be just as fallible, perhaps even more so, as anyone else's.

Stock market predictions seem to be even more dangerous because when we think we know something we are willing to take a risk.



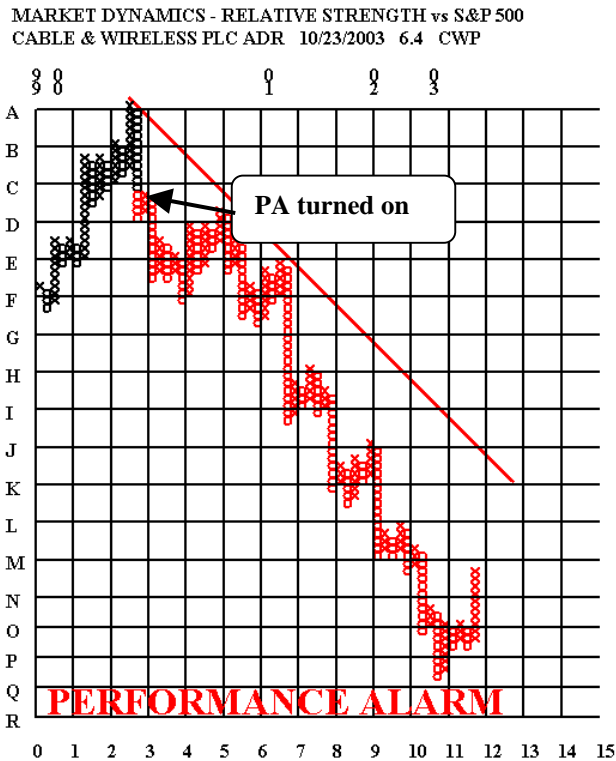
“The future does not already exist, it can only be predicted.”

The Common Sense of Science

Jacob Bronowski

Nobody makes mistakes like an expert

Most investors eventually learn to mistrust the opinions and predictions of experts, including corporate managements. We must develop expectations about the future but we cannot allow these expectations to become overly rigid or unduly fixed. It seems prudent to continuously test these expectations against the actual behavior of the market. If our expectations fail the test of verification by the market, we should remain flexible enough to amend our optimistic expectations and change our risk position to one that more closely reflects the direction of the market. We must be willing to sell. Successful portfolio managers learn through bitter experience to continuously test their expectations against the market.



“Stocks going the wrong way are the wrong stocks to be in.”

New York Times

Burton Crane

Long time financial editor

We See What We Believe

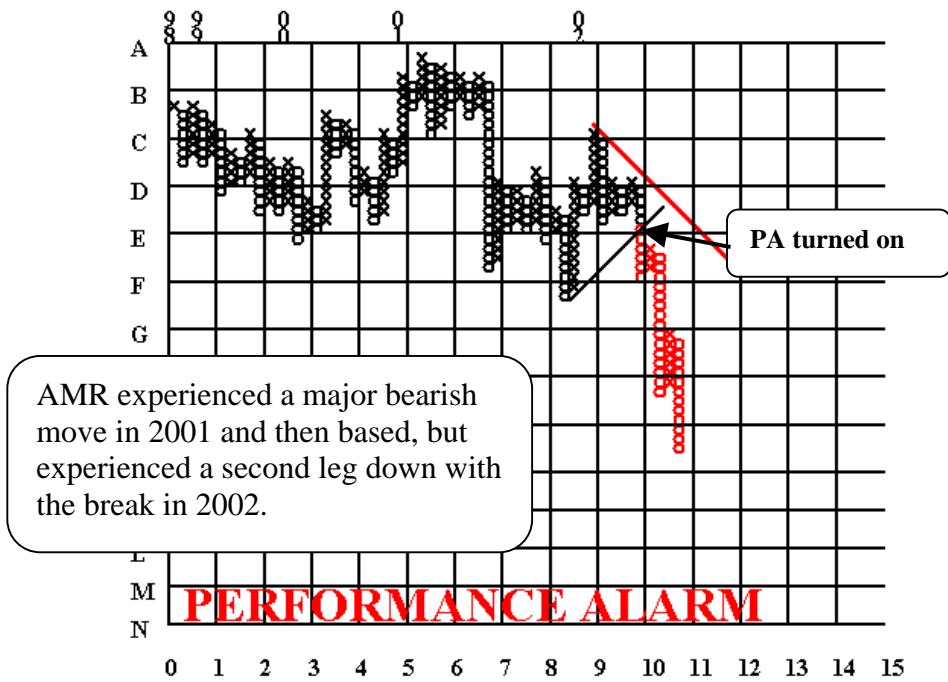
Theories help us develop our expectations and make predictions. Once these theoretical ideas become strongly held, information that disagrees with these expectations and predictions is almost automatically filtered out. Our observations become structured in such a way that we only look for confirmation. What we believe determines what we see. In this way, clues that may point to developing changes that are counter to our expectations are often completely overlooked. Why do we miss them?

Bennett Goodspeed in his wonderful little book, *The Tao Jones Averages*, points out that analysts are almost totally involved in logical, analytical, number crunching and management contacts that often exclude soft information that cannot be expressed in numbers but may provide important insights into significant changes at a company. He makes the case that the logical left hemisphere of the brain is usually in charge. The more intuitive, visual right hemisphere is not allowed to process and report on information that might challenge the left-brain's analytical and logical expectations regarding the future performance of the company. This certainly appears to be a plausible reason why significant changes are missed so often.

There is another explanation as well. Modern financial theories, that are backed up with complex mathematical justifications from the academic world, convince investors that certain types of observations should not be made at all. The theory says that observations of historic price action, using charts, are completely worthless and shouldn't be considered for any reason. As a result, large numbers of analysts and portfolio managers ignore just the type of soft inputs that often provide the clues that unseen changes are taking place. The value of technical analysis should not revolve only around considerations of predictive capacity but should instead be based on the ability of technical analysis to provide critical clues to change that are often missed by other methods.

It has been my experience over many years, and many market cycles that the sell decision can be enhanced greatly through the use of charts. This usually involves a question like this: If this stock is so great, why is it performing so poorly? When the fundamental developments at a company are good, then it is very easy to find out what needs to be known. When the fundamentals are turning bad, the ability to find out what is truly going on is often made very difficult by management's tendency to go quiet, or worse, to lie! The accounting cycle usually forces the truth to come out, sooner or later, but the damage may be done at that point. Persistently poor market performance is almost always a sure sign that something has gone wrong.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
AMR CORPORATION 09/19/2002 4.9 AMR



“Theory shapes the observation.”

Albert Einstein

Animal Spirits

In the classic, *General Theory of Employment, Interest and Money*, Keynes observed that if people were unwilling to take a chance, there might not be much investment as a result of purely cold calculation. He also discussed the “State of Confidence” as a very important factor in the movements of markets and the economy.

Anything that increases the uncertainty with which investors view the future will result in a lowering of the state of confidence and diminish the “animal spirits” of potential investors. Their willingness to take a chance will be diminished and, as a result, they will be less willing to buy assets with a more uncertain future benefit.

There are usually only a few reasons for an investor to buy a stock. The most important reason is that the investor believes the stock will go up in price. He could also buy the stock to receive the dividend or to gain control of the company, but these reasons usually take a backseat to the hopes of a future capital gain. The urgency to buy is therefore importantly influenced by the willingness to take a chance on an uncertain future benefit and that seems to be directly influenced by our feelings of uncertainty.

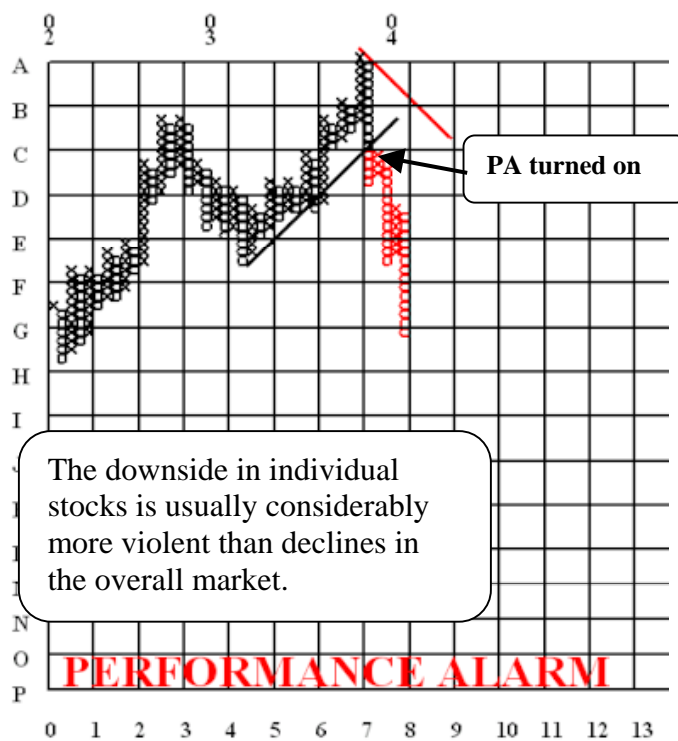
There seems to be an almost infinite number of reasons to sell a stock and many of those reasons may have nothing to do with our state of confidence or our feelings of uncertainty. The decision to sell a stock is often made to provide funds for some other purpose such as buying a home, starting a business, paying for college, and so on. Once the decision has been made to use the proceeds of the stock sale for some other purpose, the sale will probably go forward regardless of the behavior of the market.

This indicates that the sellers of stock are almost always present in the market. It is the urgent buyer that comes and goes in the market. Since the seller is always there, ready to sell, the feeling of urgency on the part of the buyer is critical to the ups and downs of the market.

Anything in the workings of the economy, corporate earnings, politics, wars, etc.- that can increase the feelings of uncertainty, will cause the buyer to postpone the purchase until the uncertainty is cleared up. The seller, on the other hand, will go forward with the sale since the need for the funds has already been generated and it is not a function of feelings of uncertainty or confidence. The seller will probably have to give up a discount in the price to affect the sale. This can result in a low volume decline in the price of stocks in general.

This gradual decline in price can persist for a long time and is usually the profile of a bear market. The bear market will usually proceed until the state of uncertainty produces a capitulation among investors to feelings of fear, and the sellers become more aggressive in their selling. This produces what is often called a “selling climax” as the decline accelerates and volume spikes. When the market is dominated by a short-term, speculative mentality the whole process can be accelerated dramatically.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
LEAPFROG ENTERPRISES INC 03/11/2004 19.6 LF



Uncertainty always makes the market go down.

Wall Street aphorism

Speculative Cycles in the Stock Market

It seems that the speculative movements in the prices of stocks often repeat their patterns. Also, speculative market cycles tend to be described in terms of mental illness, such as a mania, irrational exuberance, hysteria, frenzy, or madness. What could be the root cause of such repetitive, and often destructive, human behavior?

It seems that the workings of the stock market tend to produce behaviors that will, if left to their own, naturally result in psychological extremes that resemble madness. Graham and Dodd, the authors of the bible of fundamental securities analysis, said:

“It is a basic assumption of this book that the processes of the stock market are more psychological than arithmetical. This produces the well known tendency of stock prices as a whole to go to extremes in either direction, as optimism or pessimism holds sway.”

It is the tendency for the extremes of stock price movement to repeat that is so interesting.

In his famous book, *The Great Crash*, Dr. John K. Galbraith described the fact that during speculative market cycles, “the mad communicate their madness.” There does seem to be some method of communication at work in the stock market, almost as if it were an infectious disease. If we could more completely understand this mechanism of communication, we could avoid the more destructive aspects of the stock market cycle.

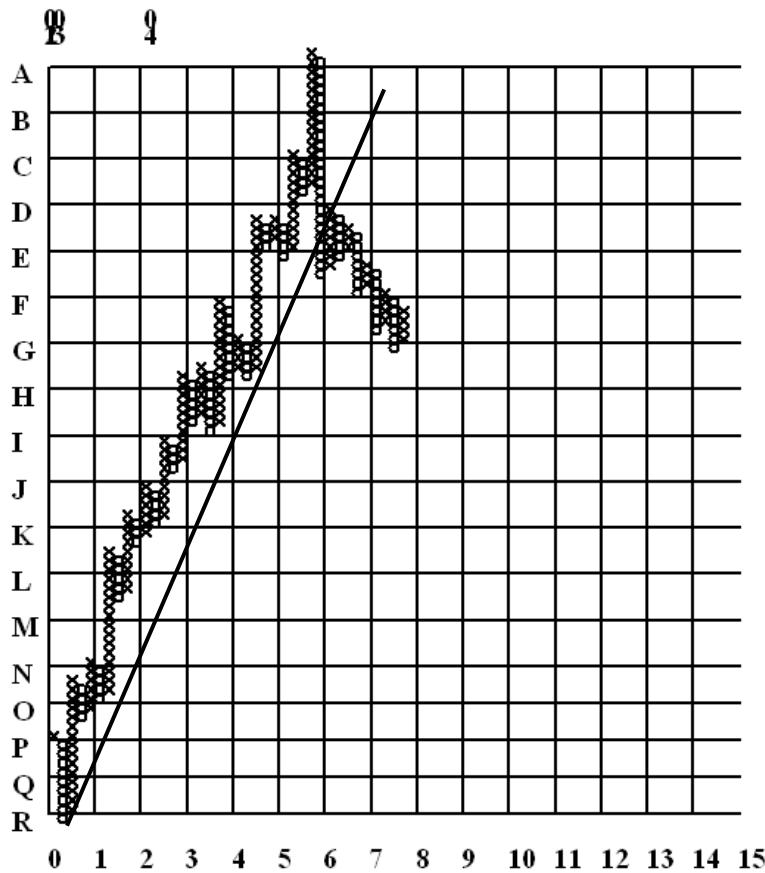
The psychological driving force of this communication system is called “social proof.” The principle of social proof states that the greater the number of people that are engaged in a behavior, the greater the social proof that that specific behavior is correct. In the stock market, the movements of price act as a proxy for the number of people engaged in the activity of buying or selling that stock. The correct behavior regarding that stock, or the market as a whole, is immediately and effectively communicated to the various participants. The investors also communicate their behaviors to others in their acquaintance, and the reasons they provide for why they acted as they did contribute to a buzz about that stock.

In this day and age of instantaneous news coverage, the explanations for the movements of price are synchronously supplied to investors by a willing media. The reasons that are supplied by the media are less important than the price movement itself. The media may often invent the reasons to explain the price movement. This is not a deliberate attempt to mislead the investing public so much as it is a response to the investors’ desire for immediate explanations. The reports of most Wall Street analysts can also be grouped into the category of explanations for why things (i.e. prices) have already happened.

The behavior of the stock market over the past five years or so has shown a tendency for the ability of social proof to polarize investors in both directions, and to more quickly drive the market to unusual extremes. A very high proportion (i.e. 65 % to 75%) of the daily trading on the New York Stock Exchange is now created for reasons that have little to do with long-term, investment fundamentals. This tends to reinforce the strength of social proof in determining price trends and movements. This also indicates that the psychology of the market can shift very rapidly for reasons that have little to do with the long-term fundamentals. Yet they can exert a very powerful force for changing prices. This is just another way of saying that the stock market now more closely resembles a commodity-like market environment.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500

TASER INTL 05/19/2004 29.82 TASR



“We know no way of judging the future but by the past.”

Patrick Henry

Irrational Pessimism

The stock market in 2002 seemed to be beset by a sort of irrational pessimism. Keynes' "animal spirits of spontaneous optimism" seem to have been dimmed by three years of a bad market and fears of the economic future. Concerns about terrorism, war, and other only imagined dangers contributed. We can all look back at the "irrational exuberance" of the stock market bubble and, with hindsight, understand just how irrational that episode of exuberance really was. (Written in late September of 2002)

Can we look at today's pessimism and equally understand that the market mood today is probably approaching a similar sort of irrationality in its pessimism? This assault on confidence is made worse by the revelations of management wrongdoing and doubts about the accounting reports that are the bedrock of sound investment decisions. Uncertainty and fear of real and imagined terrors have also contributed to the sense of unreasoning pessimism.

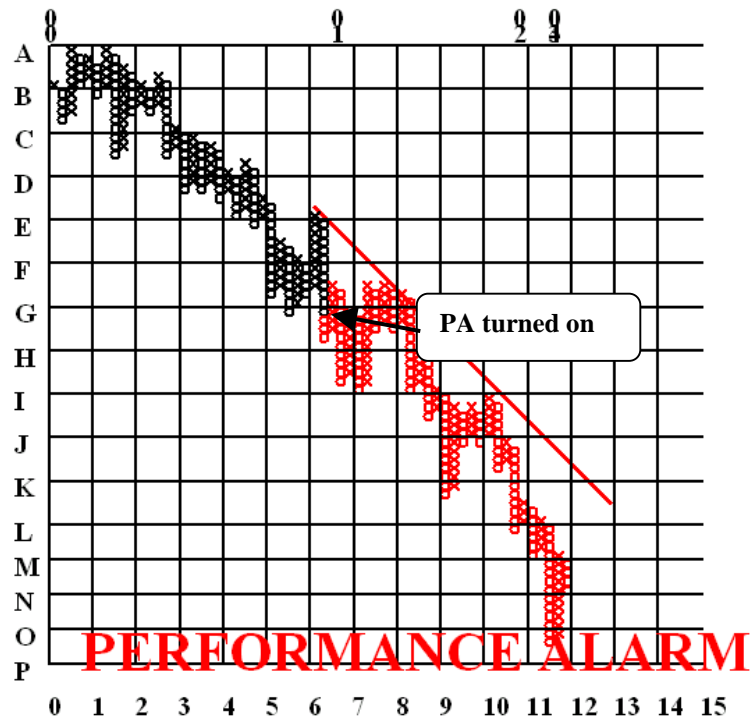
In times like these we should not blindly follow the lead of the pessimistic herd. Instead, we should look for fundamental factors that are being overlooked, or disregarded, that may make the outcome much less worse than expected and, perhaps, lead to a much more positive outcome. The gloom on Wall Street does not seem to have found its way to Main Street and it probably won't.

First of all, the American consumer is amazingly resilient and we should expect this behavior to continue. Technological innovation has not stopped, nor even slowed down. This is an important engine of future economic growth. Monetary policy has lowered interest rates to historically low levels and the MZM money supply continues to show rapid growth (yr over yr > 12%). The U.S. does not suffer, to the same degree, from the negative demographic trends that affect Western Europe and Japan. The trends toward continued expansion in free trade are also a precursor of future growth. Investors have been educated by the experience of the stock market bubble and will be wary of such excesses in the future. The abuses of Wall Street are now widely understood and will probably not offer the same potential for mischief any time soon. The general movement to free markets around the world, and the recognition of the need for the protections of human and property rights, are also long-term, positive trends. Those parts of the world that seem so dangerous, and that are trying to turn the clock back and retreat to a dead-end form of societal evolution, will become increasingly irrelevant in this future.

This is a time of increasingly rapid change and there will be winners and losers. Corporate managements have received a wake up call and business as usual will not constitute adequate corporate governance in the future. Investors are now alert to any lapse in the application of the principles of good corporate governance and it can be expected that the regulators will force more disclosure of the intimate details of business management.

As successful investors, we must not be swept along by the current wave of irrational pessimism. It is our responsibility and opportunity to find the winners and avoid the losers. Adaptability is the key to successful portfolio management in this sort of future. The primary lesson from all of this is to avoid being swept along by an irrational mob—in either direction.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
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“Thunder is impressive,
but it’s lightning that does the work.”

Mark Twain

Schooled by the Market - Part 5

Experience, Observations, Do's and Don'ts

Charts Are Worthless, Right?

The market, day to day, is random and therefore stock charts of any kind are worthless. Try to tell that to one of my West Coast customers who is a successful money manager and he will probably tell you the story of his experience in a stock called Elan (ELN).

Elan is an Irish drug company whose stock was very popular during the late 90's. It had a very exciting fundamental story about new pharmaceutical products in several promising fields. The stock was also well sponsored on Wall Street. My customer had large profits in the stock, as did many other investors, including a few of my individual customers.

My customer actually took a side trip to Dublin to interview the management of ELN while he was vacationing in Europe. He came away from the management interview just a little suspicious that he had received a generous helping of Irish "blarney." He was not alarmed, just suspicious. He has many years of experience in investment management and a little too much song and dance caused him to take notice.

The stock had been a big winner and he did not want to let a hunch cause him to liquidate the position too soon. But he did resolve to watch the relative-price action on the point-and-figure charts for any sign of developing trouble.

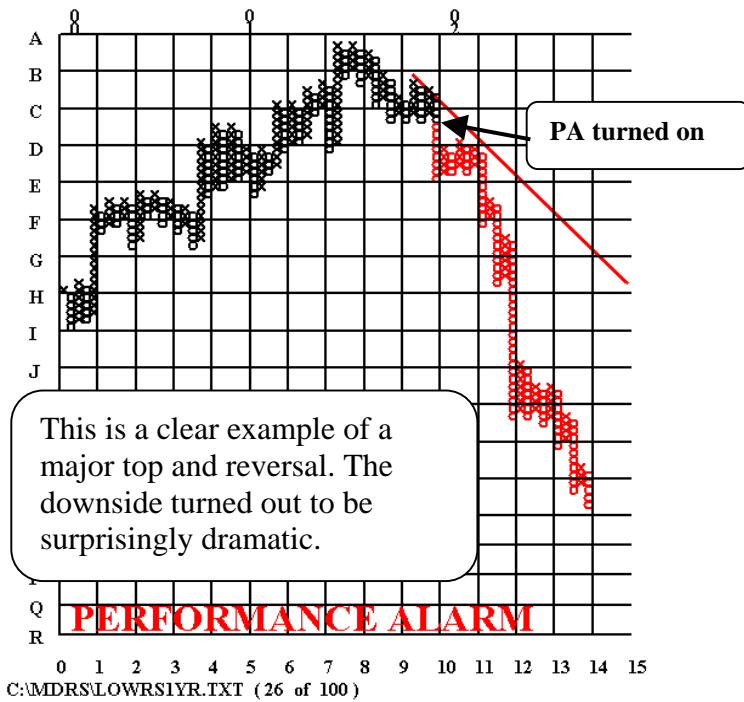
Some months after his trip the relative strength, point-and-figure chart started to display a significant change in the behavior of the stock. The chart had already started to move sideways across the page and a potential top was starting to form. This was an immediate tip-off that the risk-return relationship had changed. After a short period of time, the chart of relative strength in a point-and-figure format started to turn down. It was no longer time for observation—it was time to act—and he acted decisively by selling the stock in the middle 50's.

He did not make a prediction about how far the stock might drop. His decision was based on the change from ELN being a stock with an acceptable risk-return relationship to a position where the risk-return relationship was unfavorable. For some time, after the time of the sale, the stock fluctuated back and forth only slightly below the price of the sale. There was little indication in the fundamentals of the stock that suggested serious trouble ahead.

Many investors were very happy with the stock because of the big gains that had accrued and they were complacent about the sideways to slightly lower trend of the stock. Many believed this was just a healthy correction that would be followed by another leg up to new highs.

ELN's downtrend started to gain momentum and several trading halts were experienced. In just one month the stock fell from the high 30's to the middle teens. ELN was becoming a first-class, investment disaster that was plain for all to see. The stock's decline was cushioned by bargain hunters who were buying the stock because it had gone down "too much." They quickly regretted their bargain hunting as the stock fell below \$5.00.

I, too, sold stock at about \$55. The money manager and I still discuss how surprised we were at the collapse of ELN stock. We didn't predict the collapse, but we were able to avoid it.



In the stock market, the primary objective is not to predict disaster, but to avoid it.

“Overall, however, we've done better by avoiding dragons than by slaying them.”

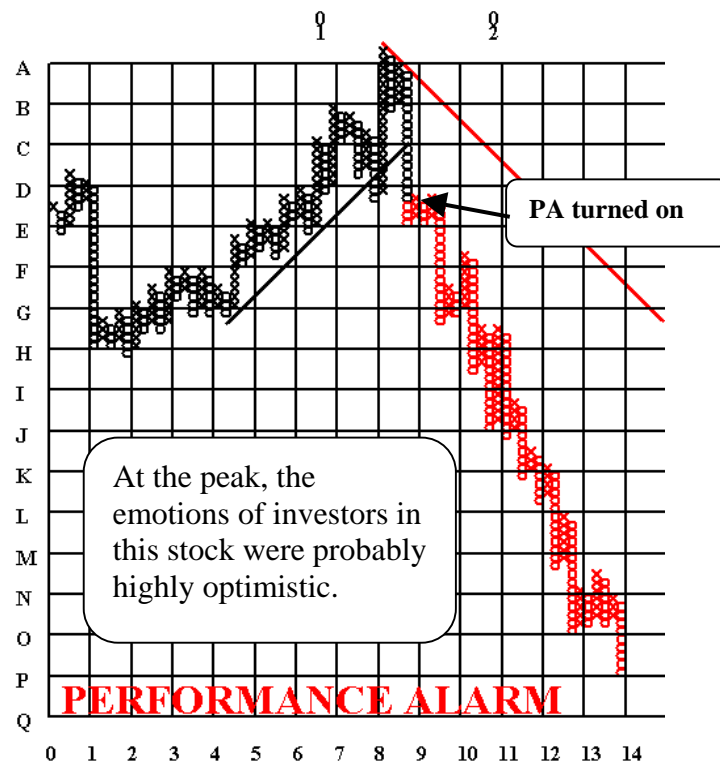
The Essays of Warren Buffett

Warren Buffett

“Alternating Waves of Optimism and Pessimism”

In Keynes' classic on economics, *The General Theory of Employment, Interest, and Money*, he described the stock market as being subject to alternating waves of optimism and pessimism. These were unreasoning, yet legitimate, when there was no sound calculation to hold the valuation steady. We can look back and point to an unreasonable wave of investor optimism that ended in 2000. Since the peak in 2000, the market has been subjected to a wave of increasing pessimism. The pessimism seems to have boiled over recently amid revelations of corporate frauds and criminal misdeeds by managements and others at the heart of Wall Street. At the present time the voting machine seems to be registering votes that are almost completely dominated by emotions, primarily fear. The current extremely negative sentiment may give way to a wave of optimism in the market and a short-term trend of rising prices. However, it is far from certain that the recent wave of pessimism is the last, or that a new bull market will start anytime soon.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
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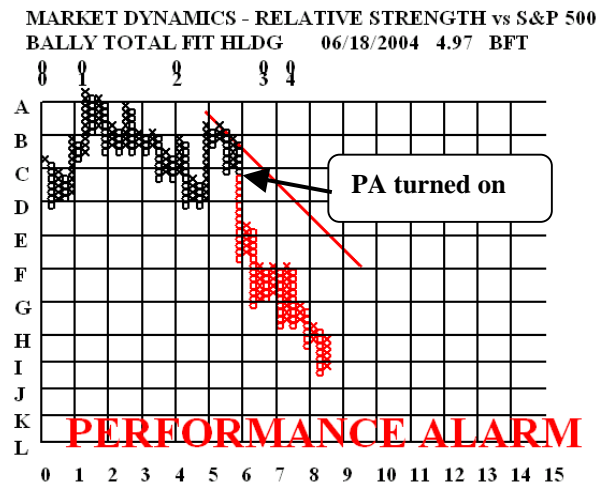


The sell decision should be based almost 100% on the charts

It is tempting to study the chart of a stock's price movement (see preceding example) and to feel confident that the major reversal in trend at (9,D) should have been obvious to all investors at the time. It is clear from the chart that most, or at least many investors didn't see the trend reversal at all. Why?

It seems that a majority of investors have been trained to believe that charts are meaningless and a waste of time because of the Efficient Market Hypothesis and the randomness of stock price changes. Another large group of investors may glance at chart histories on a casual basis but are not sufficiently experienced with chart behavior to believe what they see. Or they may hope that the movement is only temporary and that the bullish trend will be reestablished quickly.

A smaller group of investors will see and believe the trend reversal and their quiet and careful selling will tip the scales in favor of more selling. This smaller group probably has a large amount of shares in position that, if dumped on the market all at once, would break the price structure completely. This careful selling of large positions is, by definition, distribution. Those in a position to see the order flow do not need a chart to recognize the quiet distribution by large holders.



“Rather we should say that the market is a voting machine, whereon countless individuals register choices which are the product partly of reason and partly of emotion.”

Security Analysis

Graham and Dodd

Bottom-Fishing

Buying stocks that are suffering disastrous declines is often based on hope; hope that the market is wrong, hope that the problems really aren't that bad, hope that the market is over-reacting to the bad news, hope that the stock price will go back up. The authors of *BusinessThink* remarked that hope was not an appropriate method for solving business problems. Hope, by itself, is also not an appropriate method for buying stocks.

During the bull market, the strategy of buying the dips was rewarded handsomely but after the bull market ended, it became a loser. There seems to be a big difference between buying after a small dip and buying during a dramatic collapse in a stock's price.

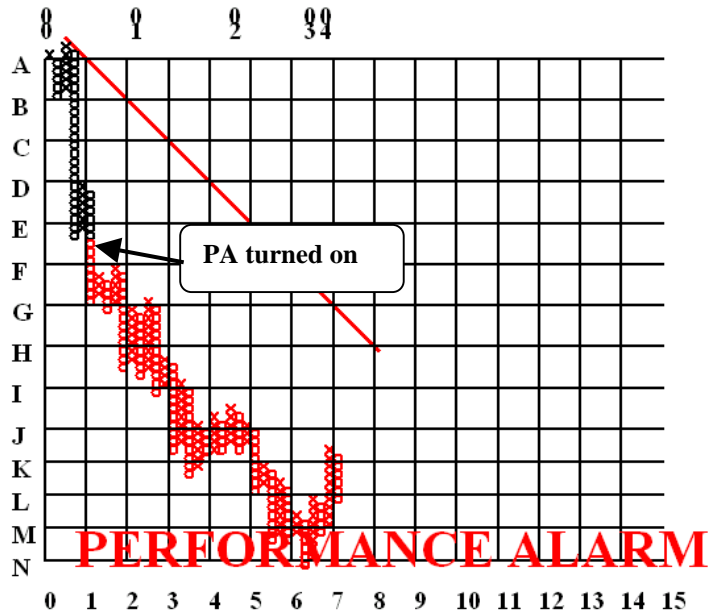
Livermore said in *Reminiscences of a Stock Operator*, "It is perfectly astonishing how much stock a man can get rid of on a decline". This thought indicates that, in Livermore's day, the big traders could count on large numbers of bargain hunters to buy and, therefore, support the stock they were distributing. The desire for buying bargains incorporates an element of getting something for nothing, which often leads to investment disaster. It is also the basis of most criminally fraudulent schemes.

This approach is often dressed up as contrary opinion, which is intellectually very appealing but difficult and dangerous to apply. Since there is always a buyer for every seller, how do we know to which side we are actually contrary? The stock market has a long history of extreme price movement, but how do we know what is an extreme until subsequent price action proves that it actually was an extreme? Until we get the proof, we can only hope that it was an extreme. Hope seems to be a flimsy basis for risking capital in the stock market.

Many times, this bargain hunting mentality is encouraged by the idea of regression to the mean. The stock has dropped "too" much and it should recover to a more normal price. However, a statistician would argue that in the stock market, the tails of the distribution of returns are very fat. This means that a stock that is three sigmas below the mean could easily drop to four or five sigmas before recovering. In 1987, I was tracking a sample of 300 large-cap, active stocks that actually fell to seven sigmas below their relative strength mean in the crash. This was an event so rare as to be almost impossible, and yet it happened. In the war stories that came out after the crash of '87, there were several tales about professional traders who bought into the market the Friday before the crash, because it had declined too much and was oversold.

In fable, "hope" was the last of the creatures let out of Pandora's box.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
LUCENT TECHNOLOGIES INC 06/04/2004 3.4 LU



“A dead vogue is difficult to revive, at least until it has rested a long time.”

Lucien Hooper

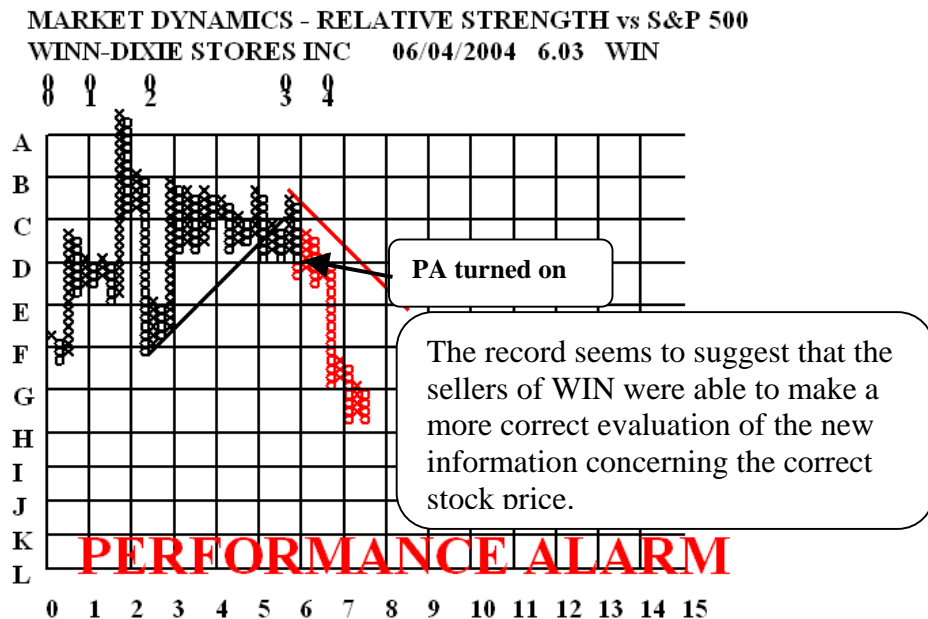
Writer for *Forbes Magazine*

Stocks Are Always Correctly Priced

Our friends in academia would have us believe that stocks are always correctly priced. New information is made available to all investors at the same time which is correctly evaluated by all and prices change appropriately. Or so the story goes.

It seems strange that new information always results in exactly the same number of shares sold as purchased. The movements of the market suggest that new information results in a difference of opinion regarding the correct price as opposed to universal agreement. Why does one side, either buyer or seller, feel a greater sense of urgency to make the trade as a result of the new information? There is no room for fear, greed or other emotions in this never-never land of market efficiency.

The manipulation of stock prices could never happen. Yet we know that it did happen, and probably still does.



“The market functions because of uncertainty, not in spite of it.”

The Intelligent Chartist

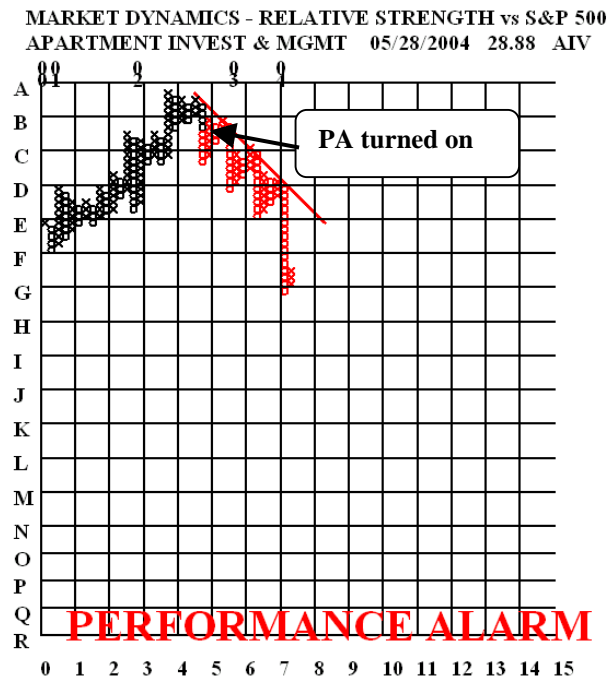
John W. Schulz

Price change and media explanations

Seasoned observers know that price changes in the market call forth their own explanations from the media. The media know that their readers and viewers not only want to know what happened, but they also want to know why these price changes occurred. A quick check is made of the buzz around the stock and these supposed reasons from expert sources are immediately repeated as the true explanation for the price change.

The true fact is that there was a significant imbalance between buyers and sellers that may have little or nothing to do with the explanations that are conjured up by the media. The reasons given to explain the price change may not be truly new information but simply an attempt to explain what has already happened.

The question seems to be whether new information causes stock prices to change, or whether stock prices change and the media then develops explanations. The reasons supplied by the media to explain the price change do not have to be correct, they only have to represent a plausible explanation for the price change.



“We can be absolutely certain only about things we do not understand.”

The True Believer

Eric Hoffer

Overboughts, Oversolds and Surprises

The stock market seems to always set itself up for a surprise. The surprise has to be an unlikely event in order to be a surprise. Although the event is unknown, the impact of the event on the market is in a way predictable and should not be totally unexpected.

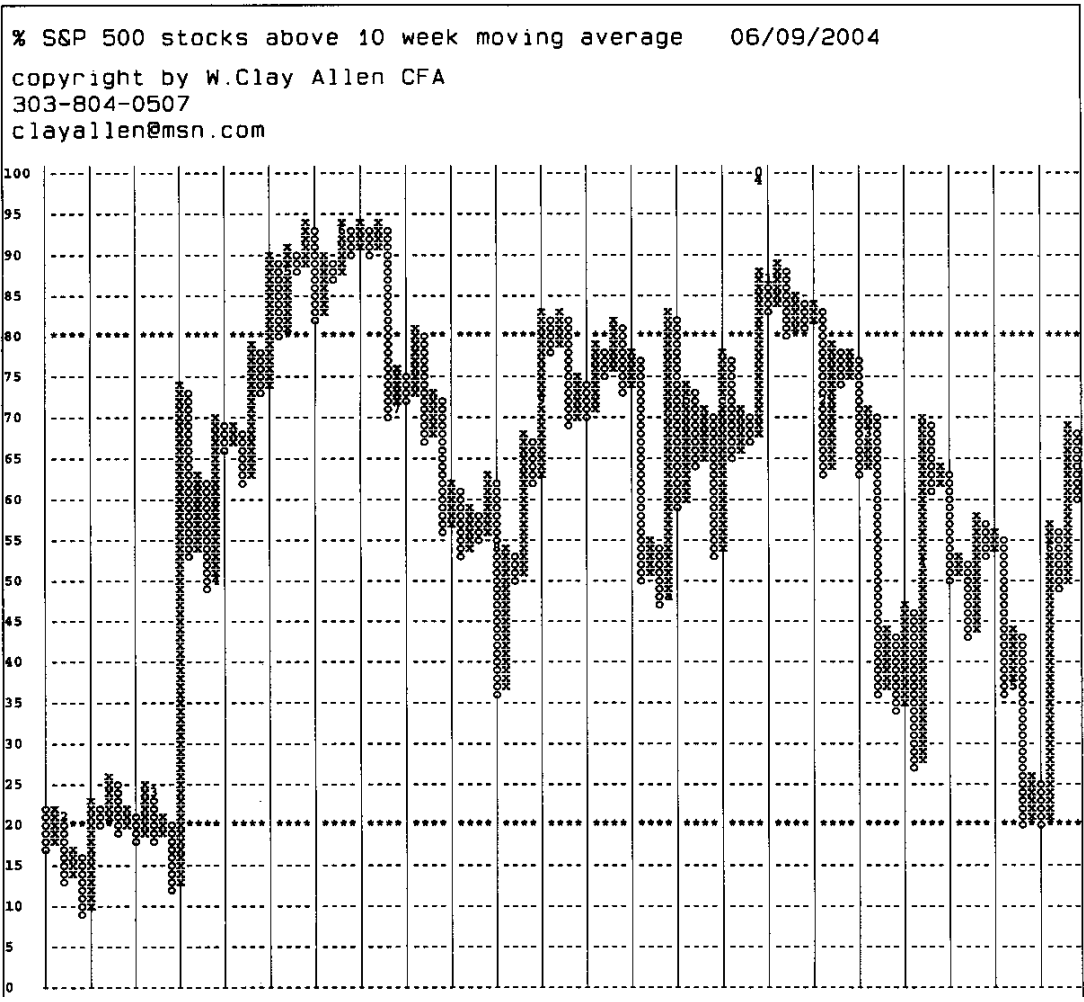
The stock market has a very long history of moving to extremes in both directions. These extremes are labeled overbought and oversold conditions and are usually measured using oscillators such as the stochastic, the Wilder relative strength index, percent departure away from a moving average, or breadth of market measurements.

In my studies of breadth, the percent of stocks above their ten-week moving average is totaled up for all the stocks in a sector (for example, the S&P 500). The number of stocks above the ten-week moving average may vary from 0% to 100%, with readings above 80% representing overbought and readings under 20% indicating an oversold condition. A chart of this indicator, covering the past couple of years, is shown on the next page. The overboughts and oversolds show up distinctly.

When the market reaches an extreme, it is in a position to respond to a surprise in the opposite direction. During an overbought condition, the market is susceptible to a negative surprise. The reverse is true for an oversold. This is where Per Bak's observation becomes important. There is a vast array of unlikely events that can occur, so it can confidently be predicted that some unknown and unlikely event will provide the surprise that will start the market moving to the opposite extreme. We cannot be confident of the timing of the unpredictable event. But the longer the market remains at the extreme, the closer the event becomes.

The professional money manager can take advantage of these swings without necessarily knowing, or predicting, the unlikely event that will serve as the generating event. Weak or poorly performing stocks should be eliminated from the portfolio during overboughts and strong emerging stocks should be added to the portfolio during deep oversolds.

An example. During the summer of '71 I had several stocks in the portfolio that I decided should be sold, but the overall market was in a deeply oversold condition. The investment committee approved my recommendation to sell the stocks with the proviso that I could wait until the market rallied up and away from the oversold condition. The very next week, President Nixon announced his now famous decision to float the Dollar, cut the tie to gold. He also imposed wage and price controls on the US economy. The stock market reacted to this unlikely event with the biggest, one-day rally in history. I was able to liquidate the stocks at prices considerably higher than during the oversold condition. This was an extreme example of an unlikely surprise, but it does indicate the potential in tracking the extremes in the market.



“An unlikely event is likely to happen because there are so many unlikely events that could happen.”

How Nature Works

Per Bak

Buy Every Rally and Sell Every Decline

The advice to buy every rally and sell every decline was given by a commodity trader as a method for dealing with his state of uncertainty in not knowing whether the rally or the decline would turn out to be substantial or not. If the move didn't amount to much, then little harm was done, but if it turned out to be a big move, then a significant profit was realized. The stock market seems to have been transformed into such a commodity-like market where this kind of behavior is common. Why?

In the past five years, the number of hedge funds has increased from 1200 to over 6000 in 2002 and the assets under management have grown in a commensurate manner. "Hedge funds trade three to four times as aggressively as traditional institutions," commented the renowned economist, David Hale. His report on hedge funds is from September 2002 and was downloaded from <http://www.davidhaleonline.com>.

Hale's report also indicated that turnover in the New York stock market had increased from 41% in 1995 to 91% in 2001, and the NASDAQ market had increased from 179% in 1995 to 301% in 2001. It is also apparent that mutual fund turnover of portfolios has increased dramatically. I have seen estimates of annual turnover at about 85% for the entire mutual fund industry, but I find it hard to believe that the fund industry has less turnover than the average for the NYSE.

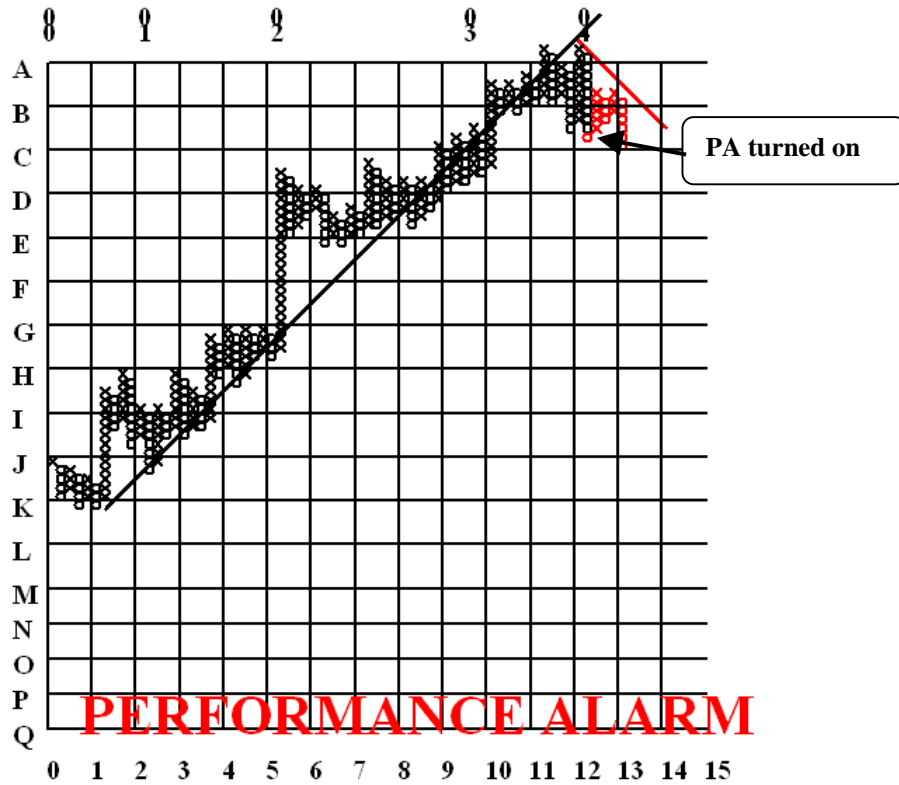
It should be noted that 30% to 40% of the daily share volume on the New York Stock Exchange is now directly tied to program trading. It can be reasonably estimated that another 20% to 30% of all NYSE trading is motivated by short-term, often technical, considerations that have little to do with the long-term fundamentals of the company. It is, therefore, easy to conclude that 50% to 70% of the daily share volume on the New York Stock Exchange has little to do with the long-term investment fundamentals.

The investment world has completely changed in the past 10 to 15 years. The dramatic, short-term swings of the market pendulum have gotten much stronger. Market moves that used to take years, now take months to complete. The speed of downside moves seems to have increased greatly, making the cost to those on the wrong side of the move down much more painful. This is probably the direct result of more traders and hedge funds actively pursuing the short side.

It also seems reasonable to conclude that the random noise and meaningless fluctuation in the market is much higher, indicating heightened risk. It should be added that some of the media buzz and hype in the market has been planted by those with a vested interest favoring one side of a market over the other (See Kurtz, *The Fortune Tellers*).

Long-term investors should recognize these changes for what they really are. Great care must be taken to avoid being swept along by the extremes of optimism and pessimism in the market and to filter the real signals out of the noisy price movements. It is easy to say that long-term fundamentals don't matter anymore but that is almost certainly wrong!

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
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“There is nothing so disastrous as a rational investment policy in an irrational world.”

The General Theory of Employment, Interest and Money

John M. Keynes

Why Excuse a Stock's Poor Performance?

I have often heard the excuse, "I know the stock is down but that's OK, because I am in it for the long-term." There are no guarantees that if a stock is held long-enough it will produce an adequate return. In fact, there is considerable evidence that points to the opposite outcome. Experience suggests that a poorly performing stock will probably continue to perform poorly.

My investment career began in the trust department of a large regional bank in Denver. In the sub-basement of that bank there was a storeroom where bales of worthless stock certificates were stored. I am sure that at some time in the past, these stocks were purchased with high hopes and expectations by the investor, whose portfolio later wound up in the trust department of the bank. Companies can, and do, go out of business. Holding for the long-term should not be used as an excuse to hold a stock that is performing poorly. Researching worthless stock certificates was one of my initial responsibilities as a junior analyst in the investment department. I think I learned a very valuable lesson from the experience.

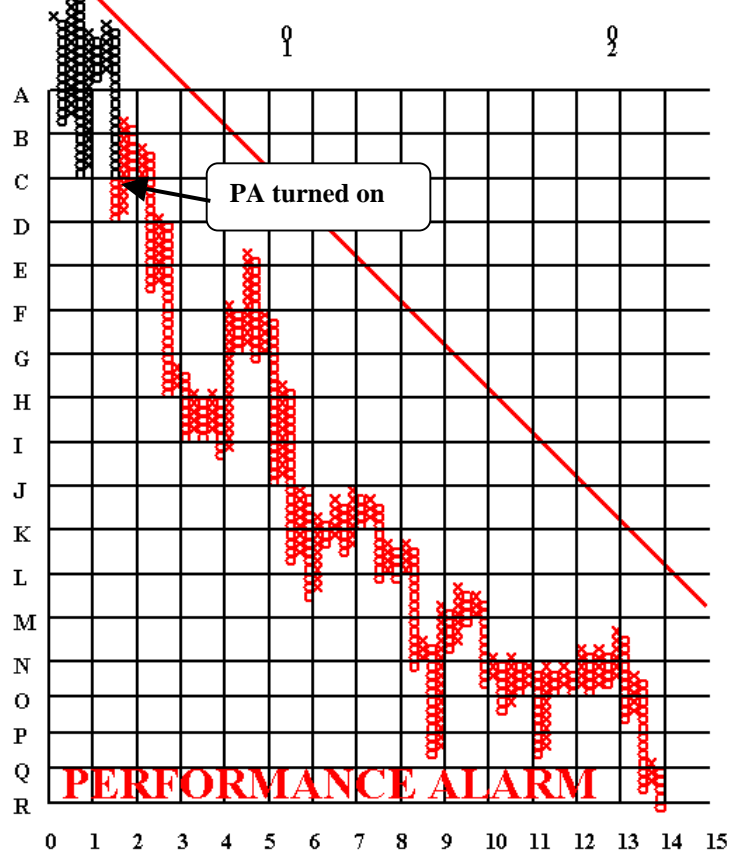
While in the brokerage business, a customer of mine gave me, somewhat sheepishly, a stock certificate for 100 shares of Equity Funding. Up until the time of ENRON, Equity Funding was one of the largest frauds ever perpetrated upon the investing public. The shares of Equity Funding fell from over \$50 to 0. I still have that certificate hanging on the wall. There are no guarantees that holding for the long-term is good for an investor's financial well-being.

A genuine long-term investor should measure the performance of the stocks in his portfolio; hold the stocks that are performing in an acceptable manner, and ruthlessly eliminate the stocks that are performing poorly. There are only so many slots in the portfolio, even a large portfolio, and the investor should not tolerate persistently poor performance from any stock. The key word here is persistently.

The performance measurement process should clearly differentiate between stocks that are showing good performance from the stocks that are showing poor performance. The first step is to eliminate the noise and then to compare the performance of the stock to a benchmark that actually could be chosen as an alternative investment. The comparison to the S&P 500 is legitimate because an investor can actually invest in an S&P 500 index fund at extremely low costs that will match the performance of the index almost exactly.

The measurement process works because of the belief that the poor performance is being caused by real reasons, both known and unknown, concerning the long-term financial performance of the company. Poor performance in the market should be taken as proof that the management of that company cannot produce sufficient economic value added, over and above the cost of capital to the firm. The stocks of companies that are economic winners do not perform poorly relative to other stocks of similar size and stature.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
INKI MI CORPORATION 06/28/2002 .88 INKT



“Where profit is, loss is hidden nearby.”

Japanese proverb

1000 Wolves—90 Million Sheep

The News Hour with Jim Lehrer recently included a lengthy and, to me shocking, interview with Eliot Spitzer, the attorney general of New York State. The interview was entitled “Street Cop.” He was questioned about his various investigations, settlements, criminal charges and indictments of Wall Street investment banks and institutional investors. He actually compared the state of the capital market to an ecosystem with 1000 wolves and 90 million sheep.

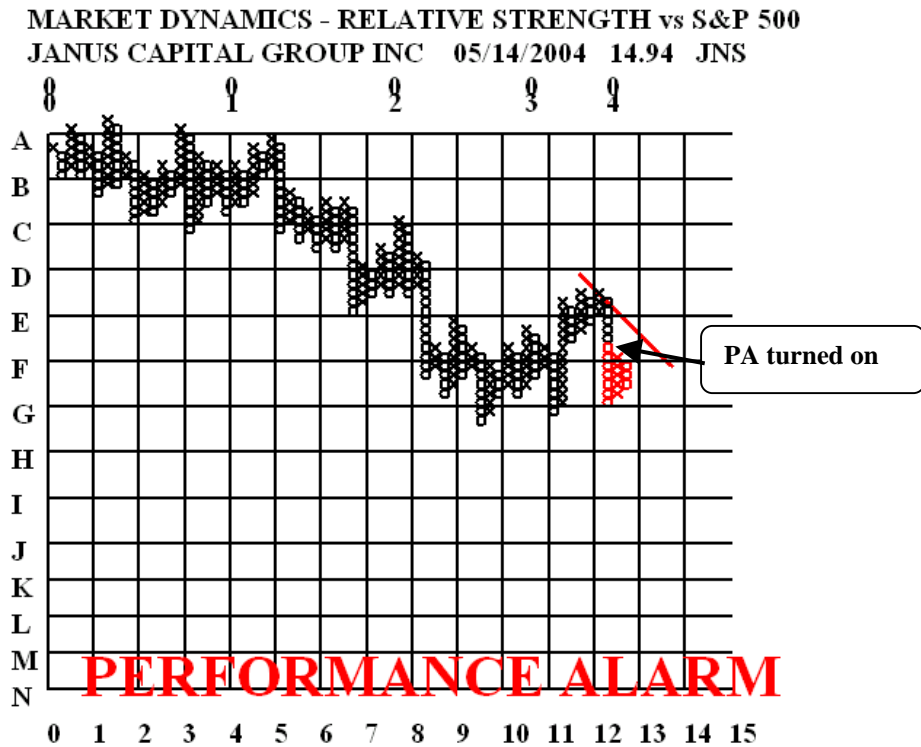
The first part of the interview covered his investigation into fraudulent stock research and how the investment banks sacrificed the welfare of their brokerage customers to protect their investment banking revenues. He was questioned about why no criminal charges were leveled at the investment banks. He answered that his decision was not to file criminal charges against the investment banks because he was sure that several major investment banks might be destroyed in the process and that would actually work to the detriment of the entire financial system. Several well-known investment banks were actually mentioned by name in that context. The impression was clearly made that they had engaged in criminal acts but their size and leadership position in the financial world made their prosecution and punishment impossible.

He maintained that his objective was to change the behavior of the investment banks with regard to stock research. It was almost as if he believed that the sheep were going to get sheared anyway but that if it were done according to an improved set of rules then it would be OK.

When it came to the recent abuses of their customers by the mutual fund industry, his tone seemed to change. He indicated that there were well-established rules that were broken by the mutual fund companies, and that criminal charges were appropriate and would be vigorously pursued. The damage to the confidence of mutual fund investors in the financial system was not discussed, but the potential for serious damage to confidence seems very real to me. I remember in the late ‘60s and throughout the ‘70s, during a prolonged period of poor performance, that mutual funds were actually hated by most investors. It seems to me that we better be very careful about what we wish for.

When asked why the SEC had not pursued these various investigations, he compared the activities of his office to that of guerilla fighters that go for big and immediate gains. He compared the SEC to a military campaign fought like WW I, with large resources committed to capture territory “ten feet at a time.”

During the '30's, figures from Wall Street were regularly called to testify before the Congress about their activities in the '20's, the Great Crash, and its aftermath. Their appearances, amid a sideshow atmosphere, did nothing to improve confidence in the workings of Wall Street. It seems that we may be at a similar point in history. The revelations of abuses of the "sheep" will allow the politicians in Washington to amass political capital by attacking the very investment institutions that were held in such high esteem, just a short time ago.



Joe Granville called the sheep "bag holders."

Caveat Emptor!

The Randomness of Fundamentals

There seems to be little doubt that chance and randomness often plays a major role in the developments that are usually referred to as a company's fundamentals. With hindsight we can say that most of the highly significant events that have had a dramatic effect on the evolution of a business were mostly unpredictable. We can also say that the pace of change seems to have recently accelerated greatly.

Technological change and innovation, changes in competitive positions, governmental regulation and tax policy, changes in consumer taste and fads, climate and weather, international trade and tension, raw materials prices and availability, the business cycle, interest rates, rigidities and barriers to change such as unions and "technological lock-in", industry life cycles; these are all factors that can and do change, often and in unpredictable ways. The interaction of these forces can affect the fundamental financial performance of a company in a dramatic way, positively as well as negatively. These factors may remain relatively constant for long periods of time and then experience sudden change.

It is the responsibility of the management of an organization to anticipate these developments if possible. If anticipation proves to be impossible, then management's responsibility is to adapt to the changing conditions as successfully as possible. The ability to adapt to change is a source of chance and randomness, in and of itself. Some managements prove to be better adaptors than others. In other words, success in dealing with change is an iffy proposition at best. The history of business is littered with companies, even whole industries, that were unable to adapt to change in a successful way.

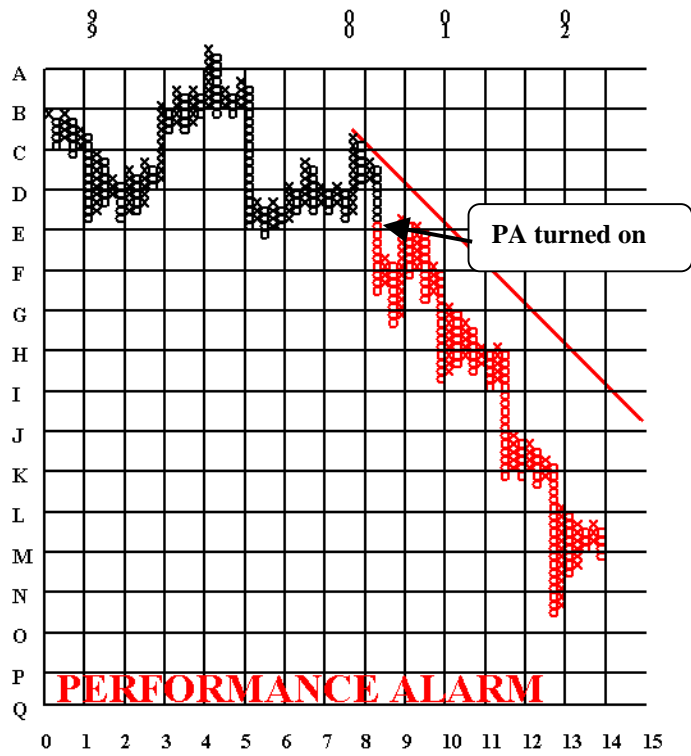
These pressures for change force investors to adapt also. If corporate managements have difficulty adapting to change, it's hardly a surprise that investors would also have difficulty adapting to change. Even professional security analysts and portfolio managers, who are close to the company's management and knowledgeable about the fundamentals, will have difficulty adapting to change successfully.

These forces of change, and the reaction to them by investors, produce price changes in the markets that may correctly discount future events. They may, on the other hand, reflect an insufficient appreciation of the long-term consequences of these changes. There will always be disagreement as to the proper price response to these changes. That is why the market exists in the first place.

There will always be an element of uncertainty in, not only the direction but also the magnitude of, the consequences of changes in the fundamentals of a business.

We should not fall into the trap of believing that the fundamentals of a business are predictable but the market reaction is not. The evolution of the fundamentals may move in long-term trends just as stock prices often do, but that does not make the outcome, of this process of evolution, reliably predictable.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
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**“It is, of course, not impossible to sail against the wind,
but it is swifter and surer to sail with it.”**

Stock Market Behavior

Harvey Krow

Complex Adaptive Systems

The stock market is almost certainly a Complex Adaptive System (CAS). The overlapping goals of the participants lead to a spontaneous self-organization without any sort of master plan or control. CAS are usually characterized by short-term randomness and a long-term structure. CAS are usually very messy. They change and adapt as conditions change, much like evolution in nature. For more on CAS see *Complexity*, by Waldrop.

The most interesting facet of the stock market is its long-term structure. The spontaneous self-organization results in a structure that is characterized by long-term trends. The distribution of returns generated by these long-term trends is the usual bell shaped curve but its shape is distorted by extremely high proportions of the population in the tails and a fairly narrow middle peak. This distorted shape has very serious implications for investors. It means that most stocks are in long-term trading ranges (i.e. in the middle of the distribution). But also, the “fat tails” indicate that the odds of participating in a major winner (i.e. right tail of the distribution) are five to ten times greater than the probabilities would indicate if the distribution followed a regular bell shaped curve. The same is true for major losers (i.e. left tail of the distribution).

As time passes and fundamental changes take place, the position of a stock in the distribution may change and the stock may migrate from the tails to the middle or from one tail to the other. A CAS is never in equilibrium; adaptation and change are the only constants.

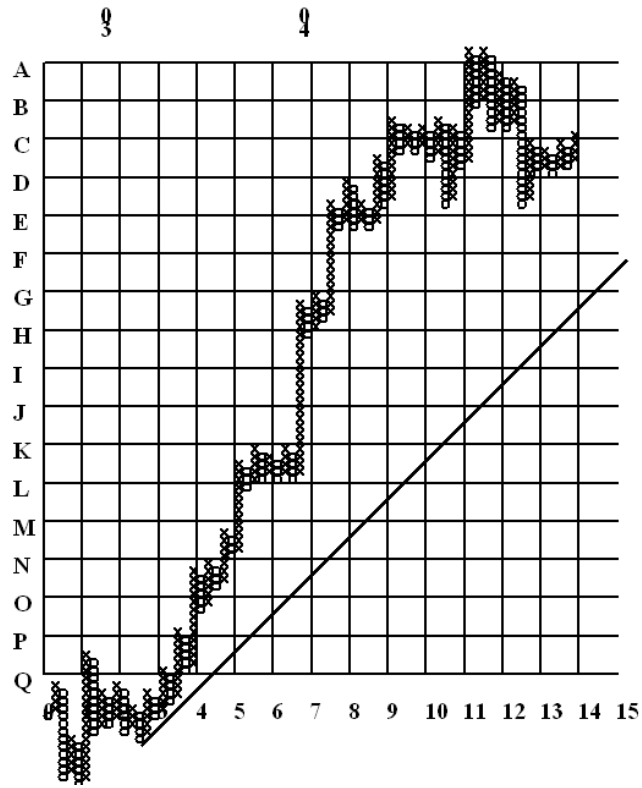
The short-term randomness of the stock market is well documented but the long-term structure is not well understood. The dynamics of the market, and the shifting positions of stocks within the long-term structure, should be key factors in portfolio management.

The concept of long-term investing seems to have developed as a method for dealing with the short-term randomness exhibited by stocks in the market. Investing for the long-term, however, makes investors vulnerable to shifts in the position of a stock within the long-term structure of the distribution of returns. Portfolio managers must be sensitive to the potential for a stock to move around within the long-term structure of the market.

In other words, a trading range stock today can be a major upside trending stock tomorrow and a major upside trending stock today can be a major downside trending stock in the future. The system is extremely dynamic; stability and equilibrium is a false hope.

The CAS can be used as an explanation for this dynamic behavior but, like evolution, it cannot be predicted other than in terms of its general structure. There is an order to the stock market that is spontaneous and does not depend upon a master plan or control. Long-term investors should develop tools that explain the movements within the long-term structure of the market even though they may not be able to predict these changes in advance.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
RESEARCH IN MOTION LTD 05/14/2004 92.61 RIMM



“There is nothing permanent except change.”

Heraclitus

Aggressive Accounting

There are several, sure-fire warning signs about the business practices of a company's management. These danger signals are often set-off by the choices of accounting treatments that accelerate the recognition of revenues and defer the recognition of expenses to inflate earnings in the short run. Another important danger signal is growth by acquisition that can create artificial earnings results depending upon the accounting treatment chosen to record the transaction. Historically, the accounting treatment chosen for handling goodwill, leases, stock options, pension liabilities, inventories, depreciation, and other matters are areas of fairly broad interpretation and have often resulted in abuse. This is nothing new.

Good security analysts should examine these areas and alert investors to these realities and the potential for negative impacts and restatements. However, when the speculative tempo in the market is so hot that an IPO with no revenues can come to market and go to a fantastic premium—who wants to hear about overly aggressive accounting treatments? It seems a little hollow to cry foul today because the attention of the analysts during the bubble was focused elsewhere. *Caveat Emptor!*

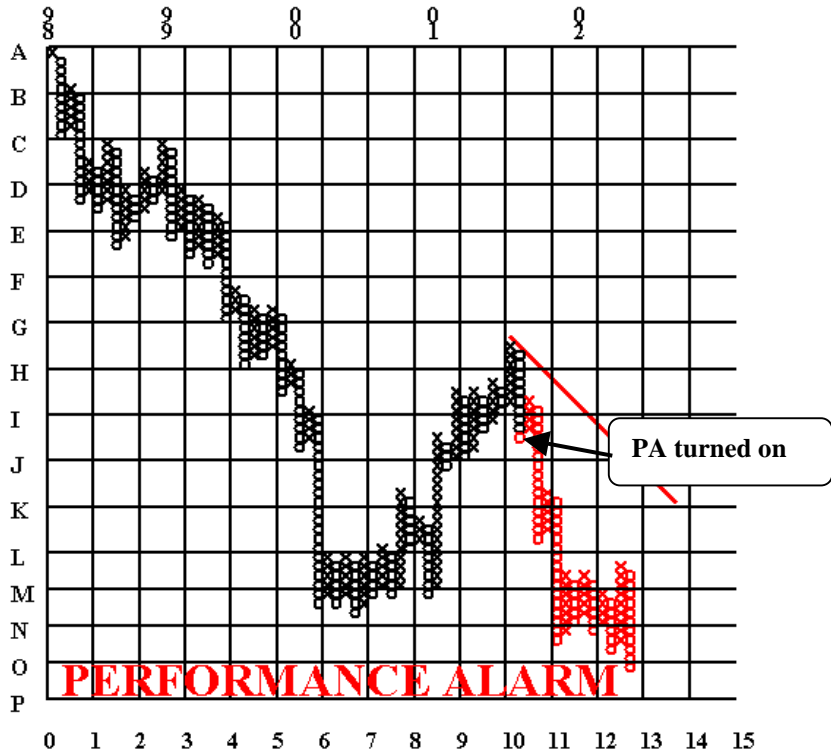
Case study—the original Memorex '70

In 1969 and 1970 I was working for a go-go money manager in Century City, California and one of my individual clients had a large holding in MRX. I was posting three-box point-and-figure charts by hand, daily, and I saw a major top develop on MRX over several months between \$150 and \$180 per share. This top must have been thirty columns wide and it was broad enough to alarm me about the future price action in MRX. What made matters worse was the fact that the overall market was in a bearish trend but MRX had been one of the few, highly popular, technology growth stocks that was able to buck the bear trend and move up dramatically. I advised my client of the dangerous situation that I thought was developing in the stock. He refused to sell because of tax considerations. As an alternative strategy, I suggested that he hedge the position with a short against the box, which he agreed to. The hedge was established. The stock was already trading down below the top and one day a trading suspension was announced and the stock didn't trade for about two days. It opened down 39 points and my client decided to cover, regular way, at about \$100. Within six months the company was in Chapter 11 and the stock was trading at about \$1.00. What happened?

The management was accused of falsifying the financial data in an SEC prospectus, covering a new issue of convertible bonds. This was an extremely serious charge and carried severe penalties. During the stock's decline, my remembrance is that several, well-known analysts were still rating this popular stock a buy.

Lesson: The major top and the implications of danger were there for all to see. But only those who bothered to look saw it.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
CONSECO INC 06/28/2002 2 CNC



**“We look at the future through a rear-view mirror.
We march backwards into the future.”**

The Medium is the Message

Marshal McLuhan

The Enron Mess

How do investors defend against this?

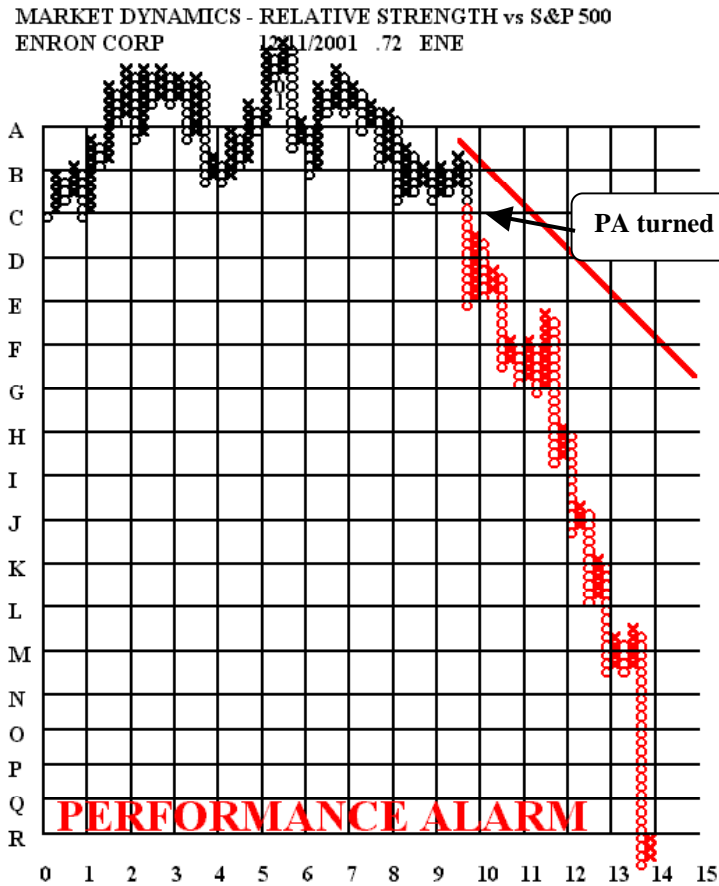
The collapse of Enron was one of the largest individual stock market disasters of all time. This has caused a loss of confidence among investors, large and small. Finger pointing and the search for the guilty have generated widespread doubts about the practice of fundamental security analysis, and even about the long-term viability of Wall Street.

ENE is certainly a wakeup call to all of us engaged in investment management. Structural weaknesses and conflicts of interest must be recognized and guarded against.

Should we scrap fundamental analysis because of this disaster? Hardly.

Should we stop investing in stocks because of this stock market train wreck? No!

Should we do things differently in the future? You bet.



Listen to the message from the market

The behavior of stock prices has a long history of reflecting serious problems long before the negative fundamentals are revealed. Bad news always seems to leak into the market. The stock market is widely considered to be a leading indicator and this is why.

The long-term relative strength charts suppress the noise in stock prices and relative strength removes the influence of the market.

Persistent downtrends should always be viewed with alarm.

The Market Dynamics System dramatically changes the color of the chart to red when the price movement falls below the established standards of acceptable performance. The Performance Alarm sounded in the case of ENRON months before the collapse.

Long-term relative strength, in a point-and-figure format, should provide an insight that will lead to the sale of a deteriorating problem stock long before things become a disaster. We must not assume that Enron is the last such disaster to bag investors.

Conditions that produce the performance alarm

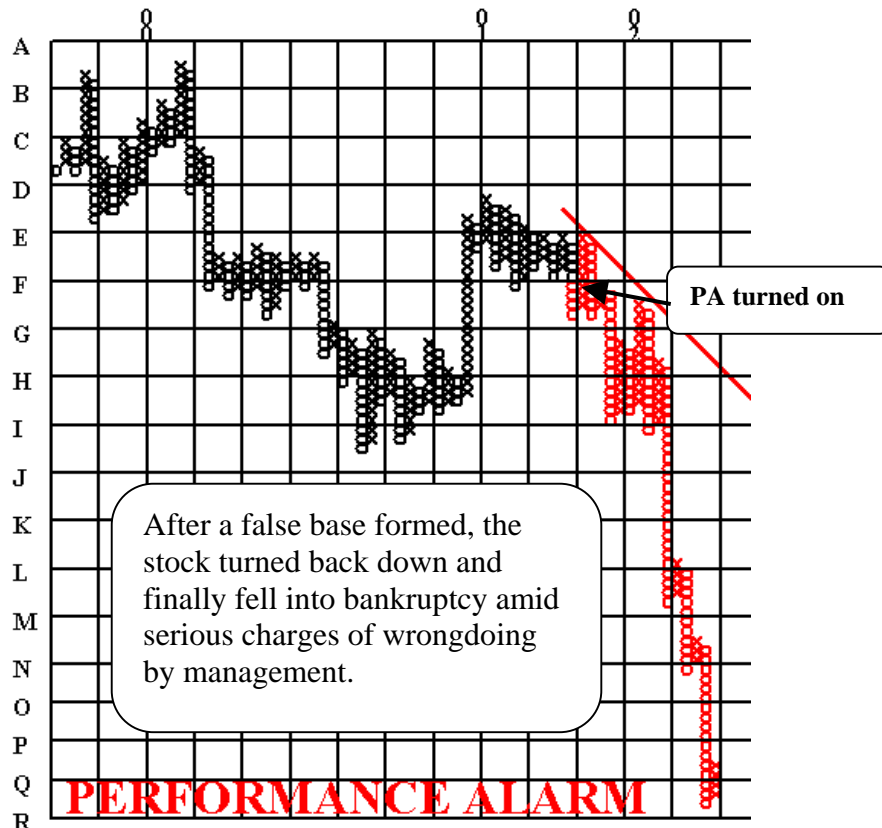
- A drop below a 45-degree bullish support line that slopes upward to the right.
- A triple bottom sell signal.
- The performance alarm remains on until a reversing buy signal is recorded.
- The performance alarm is completely built into the program and does not require interpretation by the investment manager.

Worse Than '74

The *Investor's Business Daily* carried a story that included the statistic that 1500 stocks had declined 90% or more from their peaks during the two and one half years after January 2000. Assuming these stocks were bought and held by individuals, and each company had a different group of 10,000 shareholders, this means that 15 million investors have lost their shirts in at least one stock. The more aggressive stock market participants have probably impaired their entire portfolios and the residue is miniscule relative to the peak amounts.

The number of individual investors is much higher today than in '74 and the damage in individual stocks seems to be far worse. In terms of individual pain resulting from stock market losses, the bust of 2000-2002 seems to be far worse than that of '74. It seems shocking that this debacle has not resulted in more cries of foul and finger pointing at the "bad guys" on Wall Street. The search for the guilty has started with the scandals and revelations of misdeeds that have surfaced recently, but it may have much further to go.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
ADELPHIA COMMUNICATION A 05/24/2002 2.77 ADLAE



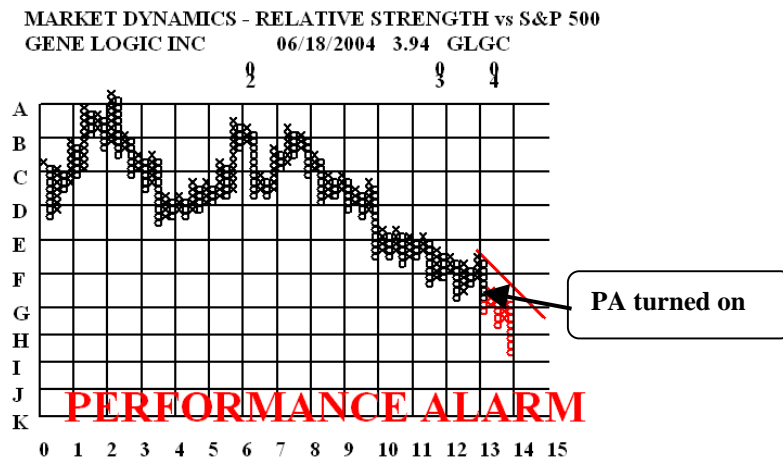
What is value anyway?

There is little agreement among security analysts about what constitutes value and this seems to be part of the problem facing investors. Value to Warren Buffett is one thing. To a young, aggressive, technology fund manager, the concept of value is something completely different. To a short-term, momentum-oriented fund manager, value doesn't seem to matter at all!

Value which is derived from a calculation that incorporates discounted cash flow, seems to be far stronger than estimates of value based on comparables. Values based on comparables seem to become whatever someone says it should be—that is the “buzz.” The form of discounted cash flow described as “Economic Value Added” seems to be the strongest measure of all, and the Return on Total Capital weeds out the stocks with low rates of profitability and little value added. During the second half of the '90s the concept of EVA was pooh-pooed as old economy thinking and out of step with the “new economy paradigm.”

For almost all the stocks surrounded by scandal and management misdeeds, the ROTC was below the average of the S&P 500. Among the wild IPOs of 1998 through the end of 2001 the ROTC was less than zero and there was no value added at all.

If investors want to grade a management, the Return on Total Capital captures the amount of EVA the management can achieve with the assets entrusted to their care by their shareholders. It is a very tough report card indeed!



“The traditional ‘return to value’ seems to recur whenever bull markets die.”

William X. Scheinman

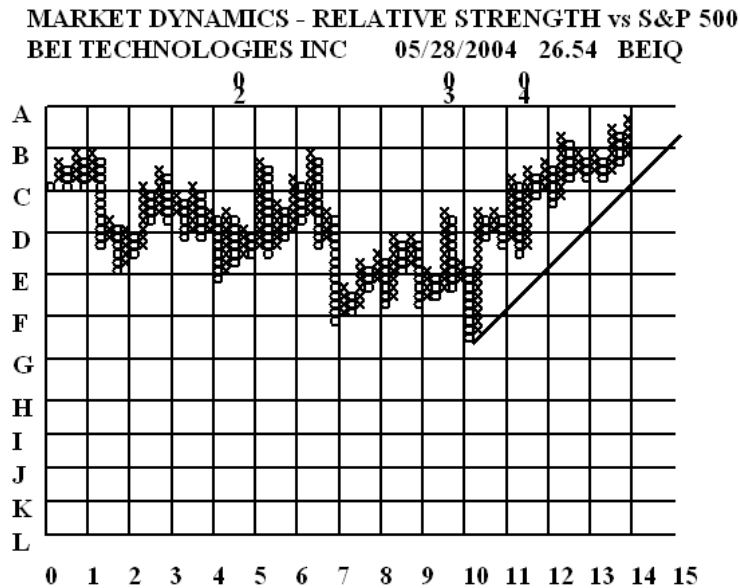
Barron's - August 24, 1970

The Four Year Cycle

There is considerable evidence that a four to four-and-a-half year cycle, low to low, controls the movements of the stock market (see Hurst, *Profit magic of Stock Transaction Timing*). Hurst's book was published in 1970 but the cycle record since then confirms his Fourier analysis of the four year cycle—sometimes three years - sometimes five years - but averaging out to four years. It appears that 2002 corresponds to the beat of the four-year cycle.

For the record, these are my estimates of the 4 year cycle lows back to the early 1920s; '22, '26, '29, '33, '37, '42, '46, '49, '53, '57, '62, '66, '70, '74, '78, '82, '87, '90, '94, '98, '02. This record seems to be far too regular to be the result of chance. Certainly the behavior of the major averages appear to be heading toward a major low in '02. After today's drop (written 07-19-2002), the decline from the peak is approaching 50% and it represents one of the worst bear markets in modern history.

The stage seems to be set for an unexpected positive surprise to appear.



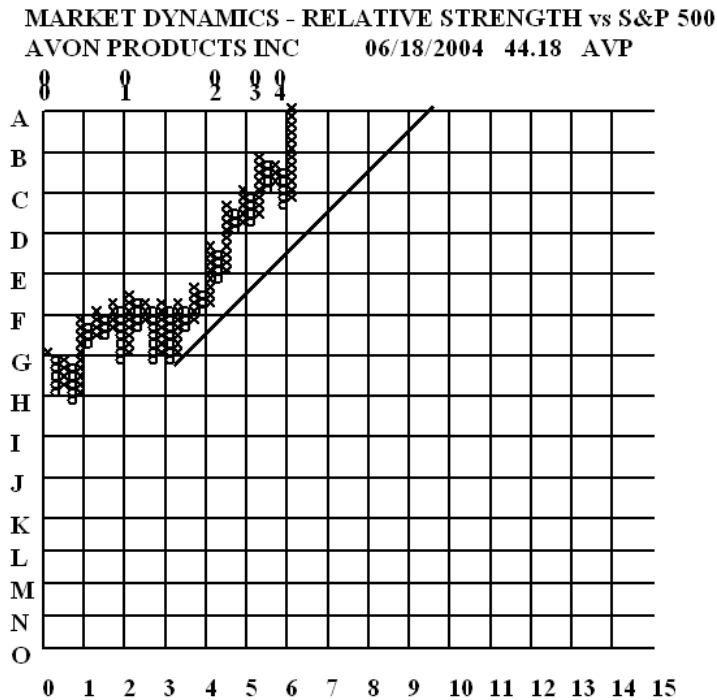
Why is sentiment so important?

The wildly optimistic consensus opinions registered in '99 and 2000 now look ridiculous. Today's pessimism will probably look just as ridiculous with hindsight.

The consensus opinion is usually expressed as a slogan to facilitate the word-of-mouth transmission of the idea. A slogan is a sound bite that carries a specific meaning and can be remembered easily. Today's slogan seems to be, "You can't trust 'em." You can't trust the auditors, management, Wall Street analysts, stockbrokers, mutual funds, investment bankers, or the stock market. Since long-term investing requires confidence and trust, you can't be a long-term investor if you don't trust 'em.

This provides a convenient excuse to do what investors want to do anyway, that is to sell stocks and funds that have betrayed the promises made to investors when they were purchased. Long-term investing requires a belief in the system and a willingness to stick to a long-term plan of accumulation. The dollar-averaging aspects of long-term investing should provide maximum benefits at times like these, when the popular market averages have lost almost 50% of their values from their peaks. Investors should not allow the current sound bite to disrupt their plans of investment accumulation.

It is very difficult to keep your head when everybody else seems to be losing theirs, but that is what the current situation calls for.



“ I always buy my straw hats in the fall.”

Bernard M. Baruch

Why Do We Have a Central Bank?

The creation of the Federal Reserve System as the central bank for the United States had its origin in the financial panic of 1907, and the depression that followed. The Federal Reserve Bank (FRB) started operations in 1913. The United States had been plagued with financial panics throughout the second half of the nineteenth century. These financial panics seemed to reflect some inherent weakness in the banking system that had evolved in the United States, although there was a long history of panics in Europe, as well.

One of the common features of these recurring financial panics was that they almost always occurred in the month of October. Various explanations were developed for these financial panics, including factors such as the marketing of agricultural crops that produced tightness in the money markets and the banking system. If there was insufficient liquidity to meet the demand, a liquidity panic would follow, since there was no lender of last resort to provide liquidity. This liquidity panic would cause interest rates to rise to prohibitive levels. The Federal Reserve System was created to be just such a lender of last resort that could avert financial panics before the damage became serious and the nation suffered large losses through bank failures. No FDIC in those days!

Another direct consequence of these financial panics was a severe bear market in stocks. This more or less proves the point that abundant and cheap liquidity is important to the health of the stock market. Restrain the availability of liquidity and the record shows that the stock market goes down. The availability of liquidity is usually measured by the level and trend of interest rates.

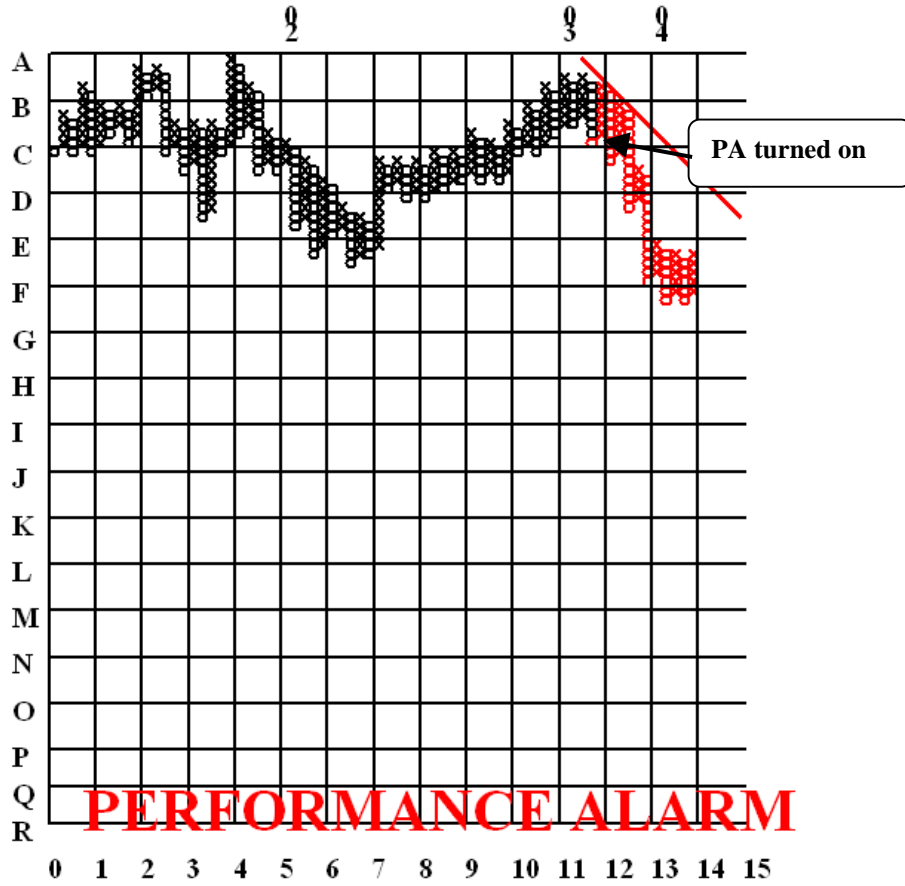
So why did the U.S. experience a financial panic in 1929 and fall into depression during the '30s? The record shows that the call money market rate was at 15% by March of '29. This confirms a lack of liquidity available to support stocks. But the bull market continued until September, when seasonal forces tightened the money market even further. The Crash of '29 ensued, which bottomed in October. Several knowledgeable traders and investors (Livermore, Baruch, and W. C. Durant) were able to use their understanding of the financial system to either sidestep the Crash of '29, or to make enormous profits by selling short. The lender of last resort, the FRB, did not respond with sufficient liquidity and fully a third of the nation's banks failed over the next several years. The great depression followed.

The FRB made a similar mistake in '37 by doubling the reserve requirements of the banking system. This put pressure on the liquidity of the banking system with the result that the stock market suffered a bad break—surprise—in October!

Fast-forward to the bear markets of '62, '66, '70 and the big one in '74—all were the result of tight money policies by the FRB. The bear markets in stocks usually ended in October. The bear markets in October of '78 and '79 were called “October Massacres” and were particularly severe. Should we be surprised that the Crash of '87 occurred in October? The market experienced a bear-market low in October of '90, before the first Gulf War.

The six years ending in 2002 have seen deeply oversold markets in October of each year, although '99 was relatively mild. For example, '97, '98, 2001 and 2002 were all very severe and deep oversolds. To the superstitious, the market is beset by goblins in October as Halloween approaches. A more realistic explanation is that the stock market is often knocked down by a lack of liquidity that seems to reoccur every fall—usually in October. It is not superstitious to look to October for good buying opportunities.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
MERCK & CO 05/24/2004 46.25 MRK



The stock market always seems to be very sensitive to liquidity flows in the financial system—particularly in October.

Lunch with Scarsdale Fats

One of the characters described in *The Money Game*, the late 60's best seller about the stock market, was an investor named Scarsdale Fats. His method for finding good stocks was to invite aggressive and successful portfolio managers to a gourmet lunch at his place in Scarsdale, New York. After lunch, he would involve them in a discussion of their favorite stocks and why they were buying. After a time, it became an honor and a mark of distinction to have been invited to lunch with Scarsdale Fats.

It must have been 1972 and I had read *The Money Game*, at least a couple of times, so I was well aware of Scarsdale Fats and his famous lunches. I was completely taken by surprise when I was invited to lunch with Scarsdale Fats at the University Club of Denver by the late William M. B. Berger, the founder of the Berger Funds. I didn't know what to expect other than I would have to talk about my favorite stock.

At that time, I worked as an analyst and portfolio manager for the Colorado National Bank of Denver's trust department—the third largest trust department in Denver. Their investment philosophy was a genuine contrary opinion, value-oriented, low-PE, long-term approach to stock investments. Because of an extremely unpleasant experience with a stock that collapsed a few years earlier, I had taken up point-and-figure charting as a defense against faulty Wall Street research. In those days, I had to post my charts by hand from the *Wall Street Journal* but it was a productive discipline and I developed a clear perspective about what was going on in the market and how to find the good stocks and avoid the bad stocks.

Back to the lunch with Scarsdale Fats. Most of the big guns from the Denver investment management community, about 20 people, were at the luncheon. I was by far the most junior and least experienced portfolio manager at the table. After lunch the discussion of which stocks to buy started around the table in a direction opposite to where I was sitting, so I knew that I would be the last to present my buy recommendation. The lunch started to drag out as these guys, only men at the University Club in those days, droned on and on about their reasons for buying— mainly the Nifty-Fifty stocks like Avon, Burroughs, Simplicity Pattern, IBM, Eastman Kodak, Schlumberger, Polaroid, XEROX, Merck, and so on. These stocks had enjoyed several years of extreme popularity in the market and most sold at PE's greater than fifty times earnings.

I was amazed at their willingness to recommend those stocks at that time because I knew that my charts of those stocks looked very negative. The Nifty-Fifty stocks were all starting to show massive tops on the point-and-figure charts and were in the initial stages of downside breakouts. It seemed clear at the time that the size of the tops suggested big downside risks. Hindsight is always 20/20 but that is honestly how the charts looked at that time.

It must have been getting on toward 3:00 PM and a few people started to leave. I was hoping that they would never get to me and I wouldn't have to talk. About that time, Scarsdale Fats interrupted the meeting and asked that, in order to save time, we only give the name of our buy recommendation, its ticker symbol and to briefly describe the company's line of business.

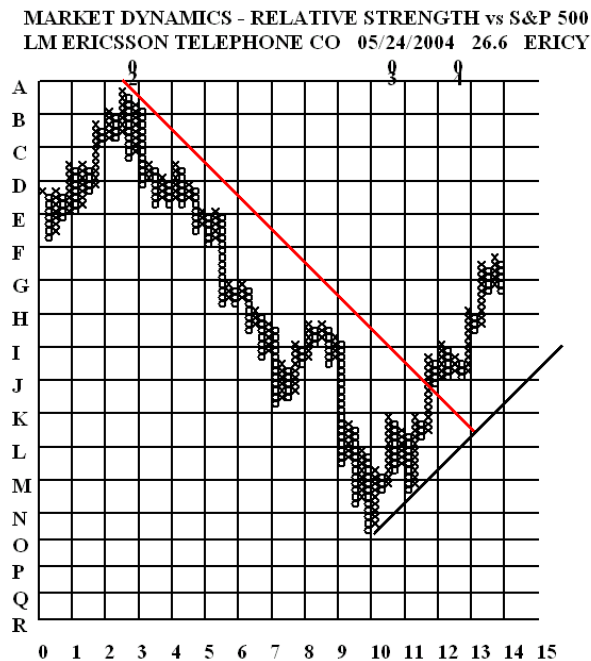
When they got to me, I announced that my buy recommendation was Carpenter Technology, ticker symbol CRS and the primary nature of the business was producing

specialty steel. I knew that the chart showed a major base and an upside emergence from that base. The fundamentals were very strong because of the demand for specialty steel from aerospace, defense, and technology users. At that time, I could only post point-and-figure charts based on price but I am sure that the point-and-figure charts based on relative strength would have been even more impressive.

A steel stock was pretty dull compared to the excitement of the Nifty-Fifty. At first a few of the guys still at the table snickered and then the whole group burst into uproarious laughter. Naturally my pride was hurt but the deed was done and I couldn't call it back.

During the 1973-1974 bear market, the Nifty-fifty stocks crashed along with most of the rest of the market and several of the big guns at the lunch lost their jobs in the aftermath. The episode of the bubble in the Nifty-Fifty stocks still stands as a testament to the extremes of stock market groupthink. This was my first dramatic experience with a stock market bubble but there have been many since.

CRS more than doubled in the bear market of '73-'74. That painful luncheon experience reinforced my belief that the charts don't lie and that following the crowd can be very dangerous.



**“If you really know what’s going on,
you don’t have to know what’s going on,
to know what’s going on.”**

The Money Game

Adam Smith

“That’s Conjecture”

Nineteen ninety-four was a tough year for investors. The Fed had raised interest rates several times and the stock market developed a bearish tone. By the fall of ‘94 I had programmed the computer to produce long-term, point-and-figure charts and that relieved me of the drudgery of hand posting the charts. I was working as a broker at the time and I was using the point-and-figure analysis to advise my brokerage clients, both individuals and institutions.

One of my good friends on the West Coast had suggested that I contact a hedge fund manager that he knew. He believed I could be of service to this manager. I had never worked with a hedge fund before so I didn’t know what to expect.

Over the course of several conversations, I came to understand that this manager was short several of the high-PE technology stocks that were popular at that time. The overall market became deeply oversold in early December of ‘94 but my point-and-figure work indicated that most of the high-technology stocks were starting to emerge from major bases and were breaking out to the upside.

I had been doing point-and-figure for so long that looking for bases was just second nature to me. I also understood the significance of stocks that were able to breakout to the upside from major bases while the market experienced a deep oversold. These stocks were setting up to be the future leaders when the market turned up.

Since my hedge fund client was short these very stocks, I made a special call to him to explain my observations and to suggest that his short position was becoming untenable. I made two points: First, the market was deeply oversold and second, the high technology stocks were breaking out to the upside from major bases.

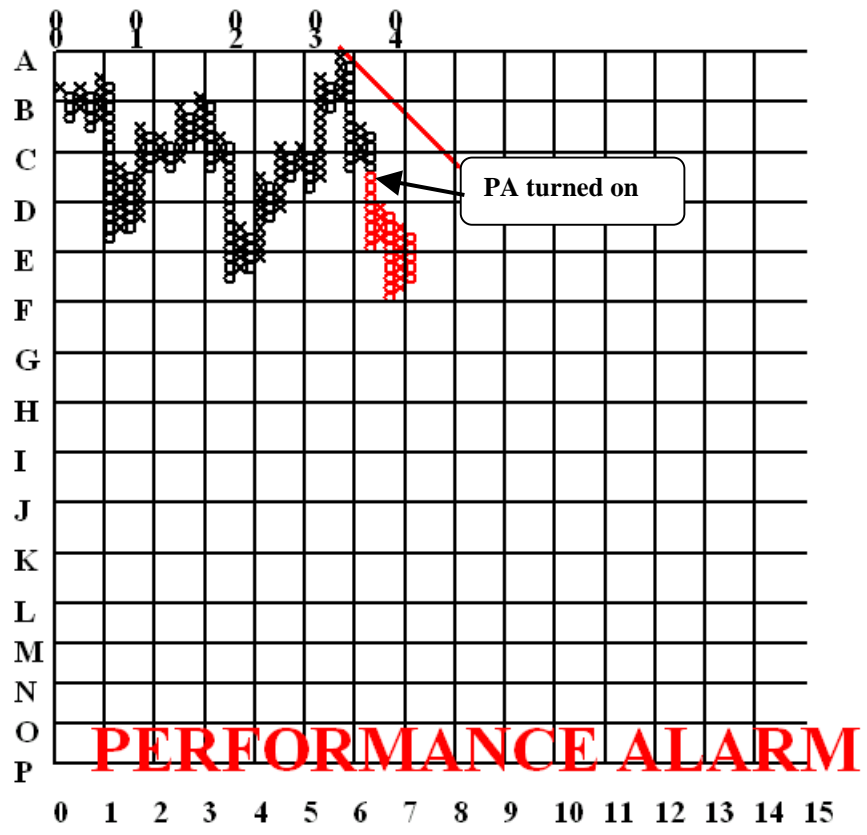
“That’s conjecture,” he snapped, and the conversation was abruptly terminated.

That was just one more experience for me that confirmed that portfolio managers did not want to hear opinions that contradicted their own position. He didn’t realize, or maybe appreciate, that my opinion was based on careful observations of the market and that those patterns had significance for the future. Since we had not been in contact long enough for him to appreciate my analysis, he treated me and my opinions with the disdain portfolio managers usually reserve for stockbrokers and other sales people. I don’t think I ever talked to this portfolio manager again due to his refusal to accept my calls.

The Mexican Peso crisis developed close to year-end ‘94 and the Federal Reserve Bank flooded the financial system with liquidity to ease the crisis. The stock market soared. Of course the leaders of the market in ‘95 were the same technology stocks that were emerging from major bases on my point-and-figure charts in the fall of ‘94. Many of these stocks continued to lead the market for several more years.

Looking back on this experience, I believe that relative strength in a point-and-figure format would have made an even more convincing case about the potential upside for these stocks. There is never a sure thing in the stock market, but a stock breaking out to the upside from a major base, while the overall market is deeply oversold, is about as good as it gets.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
EASTMAN KODAK CO 05/24/2004 26.02 EK



“The nature of bad news,
he said,
infects the teller.”

Shakespeare

The Making of a Point-and-figure Chartist

I took up charting in the middle 60's because I needed a defense against bad judgment and poor fundamental research from Wall Street. My baptism of fire occurred when a stock I covered collapsed—dropping from almost \$100 to under \$20 in less than six months. The senior members of the investment committee took over and sold the stock at about \$70 on the way down. Thank goodness!

What made the experience so meaningful was that I had consulted five, senior, Wall Street analysts regarding the financial performance of the company and their opinion of the stock as a long-term investment. Four out of the five reported almost the same projections of earnings and gave me a strong buy rating on the stock. The lone dissenter reported a completely different fundamental story and rated the stock an immediate sell.

I fell victim to the principle of Social Proof and I accepted the opinion of the majority, who happened to be dead wrong. I didn't completely lose my faith in fundamental analysis but I learned that experts and fundamental analysts could be completely off base. Although my faith was shaken, I went on to get my CFA four years later.

The experience taught me that I needed to develop a better approach to tracking the movements of stocks, especially with an eye toward stocks that should be sold. Stock price charts seemed to offer a method of managing the portfolio without being at the mercy of the mistakes and misinformation of Wall Street analysts.

Bar charts proved to be too time consuming to update on a daily basis and they required highly subjective interpretations. I stumbled on to three-box, point-and-figure charting. These charts could be easily maintained on a daily basis and seemed to offer the possibility of clear, unambiguous signals to sell.

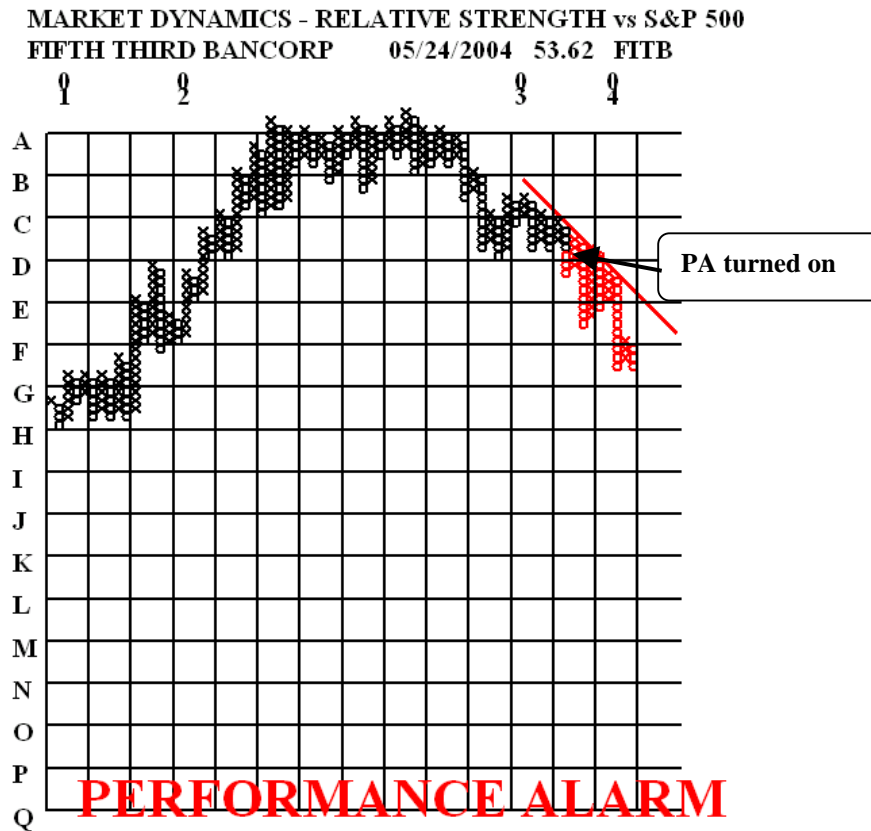
A collection of charts was assembled and the daily posting began. The daily posting was a very important, although unexpected, learning experience. I started the daily posting routine because the monthly chart book was so quickly out of date. Most stocks moved quite a bit slower in those days than they do now, but the breakouts and reversals stood out clearly and I started to develop a feel for the movements of individual stocks.

Without even knowing it, I had made a commitment to chart analysis and my behavior started to conform consistently to that commitment. As I gained experience in the use of the point-and-figure charts, my investment results steadily improved and several investment disasters were avoided. The charts seemed to fill a gap on the sell side of portfolio management that was proving to be very significant. Soon I was posting hundreds of stock charts on a daily basis.

I quickly learned that most of my associates and customers were confused by the strange patterns of Xs and Os on the point-and-figure charts. The best policy was to keep the charts in the background and to build fundamental arguments around the conclusions drawn from the charts. The initial objective of developing a defensive tool for selling was proving to be a successful application of point-and-figure charting and the daily posting of the charts provided a feel for the market that was unmatched by any other methods.

After a couple of years, I found myself working for a go-go investment counseling firm in Century City, California during the bear market of '69-'70. Those portfolios were positioned very aggressively and the sell decisions drawn from the charts proved to be my first major successes. I cleaned out most of the losers from my portfolios but I was stunned

by the disastrous drops in the prices of most of the stocks that were sold. In many ways, that experience prepared me for the horrible, bear market that occurred three years later, in '73-'74.



Investors, both professional and private, give far too little consideration to the methods and systems for the sell decision.

A New Tool For Portfolio Managers

Successful portfolio managers often develop a keen sense of market awareness and they can almost feel the onset of a bearish trend in one of their stocks. This is often expressed as, “That stock doesn’t feel right to me,” or “That stock doesn’t act right.”

It may take years to develop this intuitive power. Some managers may never be able to develop this talent to the desired capacity. I prefer not to trust my portfolio completely to my intuitive senses and this has resulted in the development of the Performance Alarm.

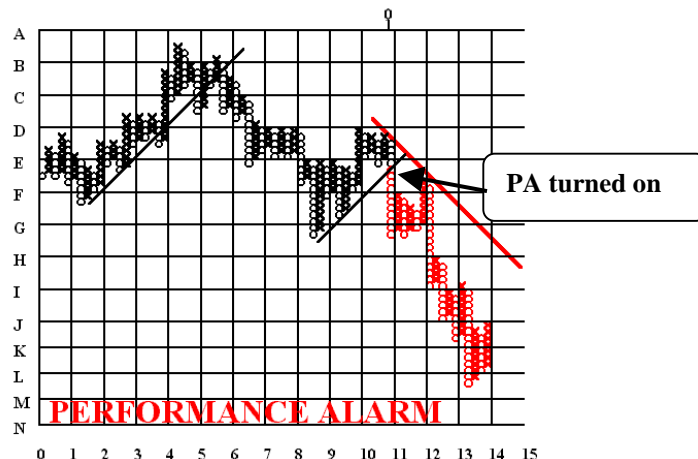
The first step was to formulate standards that defined good performance for a stock. When the good performance rules are violated the computer program displays a Performance Alarm such as appears on the example chart. The program turns the chart to red to emphasize the danger in that stock.

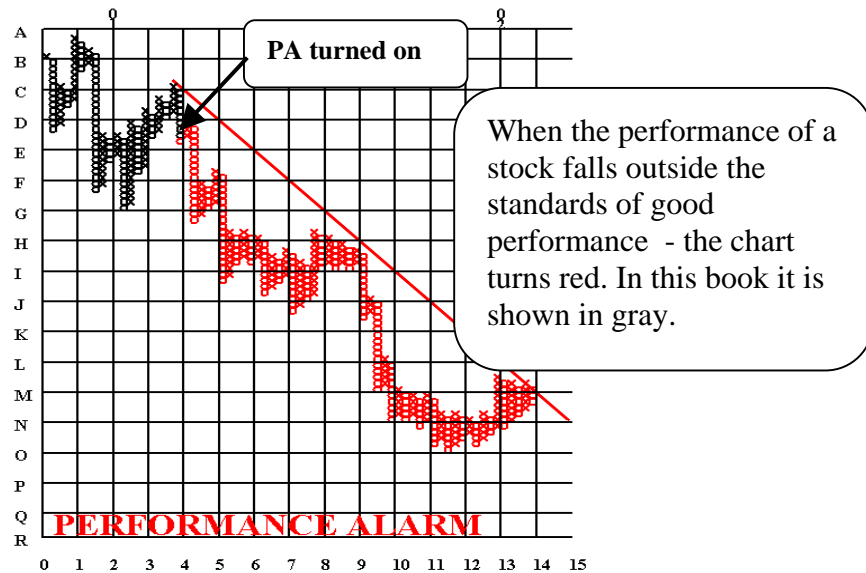
Prolonged periods of unacceptable performance appear on the chart of EMC. The red color persists for as long as the performance is substandard. It acts like a constant reminder to the portfolio manager that something is wrong and it only goes away when the performance improves enough to turn the alarm off.

Knowing which stocks to sell, and when to sell them, should not be left to chance. The positions in the portfolio should be monitored on a continuous basis to identify stocks that are detracting from the performance of the portfolio. This is not to make a prediction of future performance, but to expressly recognize that persistently poor performance is the result of serious fundamental forces at work and these forces will probably continue into the future.

Experience shows that most of the really big problems in a portfolio are stocks that underperform for long periods of time. The red chart is clear proof that most investors in the stock are suffering a losing performance.

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
ADC TELECOMMUNICATIONS 12/11/2001 5.45 ADCT





Conditions that produce the performance alarm

- A drop below a 45-degree bullish support line that slopes upward to the right.
- A triple bottom sell signal.
- The performance alarm remains on until a reversing buy signal is recorded.
- The performance alarm is completely built into the program and does not require interpretation by the investment manager.
-

A portfolio manager who will regularly review all the stocks in his portfolio and respond to the stocks showing a Performance Alarm will side step most of the disasters in the portfolio. The big losers will be eliminated and the winners will be retained.

This is very close to “pulling the weeds,” as Peter Lynch would say.

Market Dynamics Service Description

W. Clay Allen CFA developed the Market Dynamics investment advisory and software service. All of the relative strength, point-and-figure charts shown in this book were prepared with the Market Dynamics service. The author has extensive experience in portfolio management, investment research, and particularly the use and application of long-term, point-and-figure charting techniques. This background has been integrated into the Market Dynamics service for long-term investors.

The service consists of a software package on CD and daily data updates. The updates include screens of the database for stocks with attractive buy patterns on the long-term charts. A central feature of the system is the Performance Alarm, which is used to identify stocks that are showing unacceptable performance patterns. The use of the system is easy and the charts are very fast. Portfolio managers can setup portfolios as ticker symbol lists for quick and effective portfolio monitoring.

There is an extensive web site at www.clayallen.com. This site is primarily educational and a complete tutorial on the use of relative strength, point-and-figure charting is available for free download. Numerous examples are shown on the web site. The web site incorporates much of the philosophy of portfolio management that has been included in this book.

An introductory subscription to the service is available that includes the software, chart data updates, newsletters, special reports and weekly stock purchase highlights. This subscription does not include personalized investment advice and questions about the service or software are strictly limited to e-mail contacts only. The details of the introductory subscription are available on the web site at <http://www.clayallen.com/>.

The author is actively engaged in ongoing research in the use and application of relative strength, point-and-figure charting to portfolio management. As new applications are developed these are shared with the Market Dynamics users. The Market Dynamics system is currently being used effectively by institutional portfolio managers as well as long-term individual investors.

In order to manage and improve portfolio performance you must measure the performance of the investments in the portfolio and that is the purpose and objective of the Market Dynamics Performance Measurement System.

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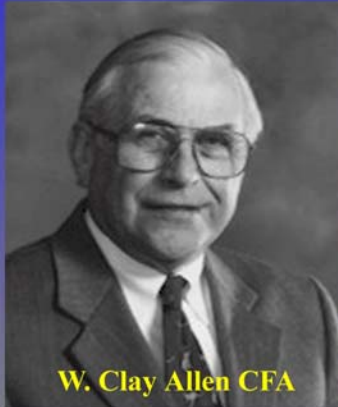
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