

Technical Analysis for Long-term Investors

Long-term investors often shun technical analysis because it is thought to be a tool used solely for short-term speculation. In fact, a large part of the literature of technical analysis is devoted to short-term timing, which confirms this belief. Many individual investors have experimented with various charting techniques and have dropped the technical approach after a few “bad” experiences.

Professional long-term investors are often completely indoctrinated in the belief that the market is “efficient” and that technical analysis is of no practical value since the day-to-day fluctuations of stock prices are random. There can be little argument that the day-to-day movements of stock prices are random. And yet, the movements of individual stocks and the broad market demonstrate an uncanny ability to anticipate future fundamental developments and other factors that influence stock prices. Short-term randomness of stock prices does not seem to diminish the ability of the market to more-or-less consistently act as a long-term discounting mechanism.

The random nature of stock price movements has led to the development of a primarily academic theory called the Efficient Market Hypothesis. The EMH is highly critical of professional investment management and is often used to justify a passive indexed approach to portfolio management.

Most of the assumptions that make up the foundations of the efficient market hypothesis seem unrealistic to me – especially the ideas that new information is disseminated throughout the market instantly and that all investors interpret new information accurately and that stocks are always priced correctly. I have observed instances that are almost exactly opposite to this proposition so frequently as to represent a common occurrence.

And still, the conclusions of the efficient market hypothesis seem to be borne out by the almost universal inability of the majority of institutional investors to “beat” the market as measured by a popular market average such as the S&P 500. The academic community smugly points to the lack of performance as an almost direct proof of the efficient market hypothesis. That “proof” is almost totally damaging to the practice of technical analysis by long-term fundamental investors. The inability

of institutional investors to achieve performance goals is used to justify avoiding a most important performance-enhancing tool.

Basically the efficient market hypothesis says that you cannot predict the future of a stock price or the stock market by using technical analysis. The “strong” form says that you can’t predict stock prices with technical analysis, fundamental analysis or anything else – period!

The implied assumption in this argument is that investment success must be the result of superior predictive capability. It appears that investment success may in fact be the result of activities other than attempting to make more accurate predictions of the future and better market forecasts.

Adaptation vs Prediction

While the day-to-day movements of stocks prices are random, it can be shown conclusively that most stock prices, in essence, meander randomly around a dominant long-term trend. These long-term movements primarily reflect the financial performance of the companies they represent. These trends are also effected by many other factors including investor psychology, interest rates, consumer tastes, changing technology and competitive conditions, as well as government regulations and other circumstances such as market fads and bubbles that influence the supply-demand relationship for stocks. It appears to be nearly impossible to weigh these variables sufficiently correctly to reach a **reliable** prediction of future prices.

It should be noted that the stock market exists because of change. The prices of shares are constantly being re-evaluated by investors to account for the perceived changes in the variables that most effect stock prices. The stock markets and the economy represent a highly complex system, which can be explained and understood but not necessarily predicted – it is similar to evolution in nature. Investors must constantly adapt to changes that they can’t fully understand and whose consequences may stretch out over months or years - just as species in nature must adapt to changes in their environments - or perish.

Also it must be realized that all of these influences are constantly being evaluated by investors in the market as a part of the price discovery process. The constantly changing relative importance of these inputs can only be guessed at - but the result, price, is constantly there for all to see.

The successful solution to the problem of investment performance seems to be less a matter of prediction and more a function of an ability to measure and adapt to these trends in light of the objectives of the portfolio and the direction and durability of these movements. As the efficient market suggests, these stock price trends will be shaped by new information entering the marketplace but probably will not be felt instantaneously and maybe not even accurately. Trends will move strongly in one direction or another for an indeterminate period of time that probably can't be predicted but can be tracked and evaluated by an analysis of the price movement. At other times, prices will meander in a meaningless back and forth oscillation, which can by its pattern indicate that the supply/demand relationship is in balance and little opportunity for investment success is present in those shares.

Long-term Technical Analysis

The most important application of technical analysis is not to attempt to predict future prices but to evaluate the strength of ongoing trends and more particularly to help portfolio managers adapt to trends that are changing direction. In essence, we will use price movement to verify our fundamental predictions and validate our expectations regarding the future performance of the shares under study. Should the trend change direction we will need to critically reconsider our predictions and expectations regarding the future of the stock. In other words, "if this stock is so great, why is it performing so badly"?

It is well known that most predictions go awry not because of an incorrect analysis of the primary factors evaluated in the development of the forecast. The predictions fail, more often than not, because of variables that we didn't consider. We didn't take these items into account either because we thought they didn't matter or they occurred in a completely unpredictable manner. We also suffer from an inability to anticipate changes in the relationships that tie the independent variables together. One way or another our prediction may turn out to be wrong. The best evidence we

can get that alerts us to a deteriorating fundamental prediction is price action counter to our expectations.

Our egos usually become involved in our predictions and forecasts and we are often unable to reverse our commitments by admitting that we are wrong. This seems to be especially true for highly intelligent, hard working, well-educated individuals that seem to occupy most investment portfolio management positions. The ongoing under-performance by most institutional portfolio managers may be more of a testimony to our inability to “fess up” when we are wrong than it is evidence of market efficiency!

80/20 rules

The most important use for technical trend analysis is to verify our expectations about stocks we already own. **This indicates that technical analysis is critical to our thinking when considering a sell decision in the portfolio.** It is not surprising, therefore, that most fundamentally oriented portfolio managers confess difficulty with the sell decision. In my opinion, they have needlessly cut themselves off from a source of extremely valuable information through neglect of technical analysis. I believe portfolio managers should weight the buy decision about 80% fundamental and only about 20% technical. But the sell decision should reverse the weights of the two inputs, 80% technical and only 20% fundamental.

The proven ability of stocks to discount changing fundamentals suggests that stocks will experience a downturn in price before the bad news “comes out”. Very small negative divergences from consensus expectations can often have a devastating effect on the stock price. Therefore it seems appropriate to implement price analysis to anticipate bad news and therefore I suggest a heavy weighting of technical analysis when considering the sell decision in active portfolio management.

It's not what you don't own that hurts your performance – performance suffers because of the stocks that you hold because of a mistaken prediction - usually in

the face of directly contrary price action. The avoidance of just a few disasters can have a very big payoff in terms of improved portfolio performance.

Some Thoughts about the “Loser’s Game”

I have included one of the concluding paragraphs from the now famous article by Charles D. Ellis that originally appeared in the Financial Analysts Journal in 1975.

The Loser's Game 177

... concentrate on your defenses. Almost all of the information in the investment management business is oriented toward purchase decisions. The competition in making purchase decisions is too good. It's too hard to outperform the other fellow in buying. Concentrate on selling instead. In a Winner's Game, 90 percent of all research effort should be spent on making purchase decisions; in a Loser's Game, most researchers should spend most of their time making sell decisions. 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 Losers Game
By Charles D. Ellis

Charles D. Ellis with James R. Vertin
The Investors Anthology
John Wiley & Sons
1997
ISBN 0-471-17605-2
P 177

I believe the advice to concentrate on defenses and sell decisions can make the difference between good performance and no performance at all. This advice is

even more emphatic when the shortcomings of fundamental analysis in the sell decision are considered.

The attitude seems to pervade the investment community that if the buy decision is well considered then everything else will take care of itself. This belief does not seem to hold together in actual practice. In an economy and business environment of rapid change and innovation it seems that things don't stay the same for very long. There are winners and losers – all the time. The portfolio must be kept fresh and out ahead of the changes that are driving the economy and markets. Errors in analysis will occur and some predictions will not “pan out”. We need to be able to identify “next year's big trouble” that is already in our portfolios and sell it before the negative impact on portfolio performance becomes serious. This also has the not insignificant effect of freeing up a slot in the portfolio for a stock with better performance potential.

The sell decision must be well considered and applied with discipline or the process of successful adaptation will not be accomplished. The search for sells must be continuous and effective in order to keep pace with important changes in the economy and business conditions. In my opinion the best way to approach the sell decision is with disciplined long-term technical analysis. This seems to be the best hope for winning the “loser's game”. I believe the use of long-term relative strength charts in a point & figure format is a perfect tool to use for the sell decision.

Some Thoughts about Probabilities

In my opinion there is no “answer”- fundamental or technical or otherwise - that will allow accurate and reliable “risk-free’ predictions of future stock prices. We must continually deal in probabilities regarding the future. Human beings seem to have considerable difficulty in dealing effectively with probabilities. (See literature in the field of Behavioral Finance)

In the stock market, as professional investors we have to do the best we can to avoid biases in our decision-making and to limit self-destructive behaviors as well

as guard against a self-defensive policy of overly cautious do-nothing portfolio management.

We must take risks intelligently to capitalize on opportunities and yet provide an element of damage control.

In my experience the long-term, relative strength charts in a point & figure format provide an edge that suggests probabilities of success in the range of 65% to 75%. This is a totally subjective estimate of the probabilities drawn from my experience. It should be understood that these subjective probabilities of success are not constant but will vary up and down within and outside the estimated range of success depending on market conditions and the skill of the user.

It is a certainty that a user who will use the technique until the first failure will drop the approach shortly after the trial starts because between 1 out of 3 and 1 out of 4 of all decisions will be errors. Critics of the system will be able to readily find individual examples of failure of the system and this may result in the rejection of the approach because it is not a perfect predictor rather than its ability to achieve performance objectives.

Used in the proper context the relative strength P&F approach seems to assure the elimination of big losers from the portfolio and the retention of winners for as long as they perform adequately. The objective is to achieve adequate performance for the risks taken and this approach offers hope for achieving this goal.

Some Thoughts about Portfolio Turnover

Most fundamentally oriented portfolio managers point to increased portfolio turnover as a reason to reject technical analysis as a tool for portfolio management. Increased commissions and trading costs as well as price slippage are often cited as the increased costs associated with higher turnover and therefore a drag on performance. Higher taxes on short-term gains are also given as reasons to reject tools that might result in higher turnover.

The record seems to suggest otherwise! Trading commissions have probably never been lower. Price slippage and lack of liquidity are bona fide negative considerations and may act as a significant drag on the performance of large portfolios. Even so, long-term technical analysis should not be rejected as having no value because very important positive results may result.

Recent studies in the field of behavioral finance suggest other factors may create negative consequences for the portfolio. This research suggests a strong tendency for portfolio managers to sell winners prematurely and to retain losers in the portfolio. The desire for enhanced tax efficiency adds to the tendency to hold losers in the portfolio. This is what I call “negative turnover”.

This is turnover that directly hurts the performance of the portfolio and downgrades the potential for future appreciation. Negative turnover often results from a short-term emotional response to news or market rumors and it is a serious threat to performance where no long-term methods are “in place” to keep the portfolio manager “on course”.

Long-term technical analysis, when properly applied, provides a tool to help a portfolio manager retain winners and to identify losers for sale. “Positive turnover” is achieved whenever the portfolio manager can hold the winners and sell the losers. This should also enhance the tax efficiency of the portfolio as well as improve the performance of the portfolio. The key seems to reside in the orientation of the analysis to a long-term perspective. This is why the long-term bullish support lines incorporated in the relative strength point & figure analysis are so important in providing a method to retain the winners in the portfolio.

Care must be exercised when using long-term relative strength point & figure analysis to correctly categorize stocks into the proper classifications of major winners, major losers and stocks in trading ranges. This classification technique allows the portfolio manager to continually upgrade the appreciation potential of the portfolio and to adapt to important fundamental changes in a timely manner.

Any portfolio management approach that cannot consistently produce positive turnover should be rejected as damaging to portfolio performance. Positive turnover depends upon the reduction/ elimination of short-term market noise, as well as, a long-term market adjusted trend perspective. The long-term charts of

relative strength in a point & figure format were designed to provide just such a tool for portfolio management.

The Mystique of Point & Figure Charting

I believe that the 3-box, point & figure charting system is the best choice of technical inputs for long-term investors. The 3-box method acts like a filter to eliminate the noisy, random, minor, day-to-day price fluctuations from the analysis. I think this is why point & figure charting has survived the test of time.

Another advantage of the 3-box, point & figure method is the ability to include a long price history in a compact chart. Many charts in the Market Dynamics system are based on over four years of data. This perspective is appropriate for long-term portfolio managers.

A primary advantage of the 3-box, p&f charting technique is the use of more or less objective decision rules. The signals are hard to miss and support and resistance zones show up clearly. The charts are presented in a compressed format where Xs represent increases in price and Os represent declines. The unusual appearance of the charts has led to an air of mystique surrounding the approach. There is nothing mysterious about their construction and use but the unusual appearance of alternating columns of Xs and Os gives some new users a negative impression of an initially puzzling chart.

The most significant advantage of the 3-box, p&f approach is the fact that the charts do not track price vs time. They record price movement up and down on the y-axis relative to alternations of trend across the x-axis. It requires a significant movement in the direction opposite to the recently recorded trend to create a reversal along the x-axis on the chart. These reversals are a function of volatility (i.e. more volatility produces more reversals – less volatility fewer reversals). Since volatility is usually a proxy for risk these charts can be characterized as tracking price versus risk. Volatility changes as trends ebb and flow and the movements of price versus risk are critical to trend evaluation.

RELATIVE STRENGTH

The Market Dynamics charting system presents the relative strength of the stock in a 3-box P&F format. This makes these charts appropriate for the evaluation of trends relative to the market. The S&P 500 represents the market. The use of relative strength ratios removes the performance of the market from the presentation and what is left is the price action that is specific to the stock in question.

This presentation is particularly important for institutional investors whose objective is to “beat the market”. The relative strength presentation also incorporates the application of trendlines with predetermined slopes to evaluate the performance of the issue. The 45-degree bullish support lines and 45-degree bearish resistance lines are important tools in the trend evaluation techniques used by Market Dynamics. These trendlines and their application are thoroughly discussed in later chapters of the tutorial.

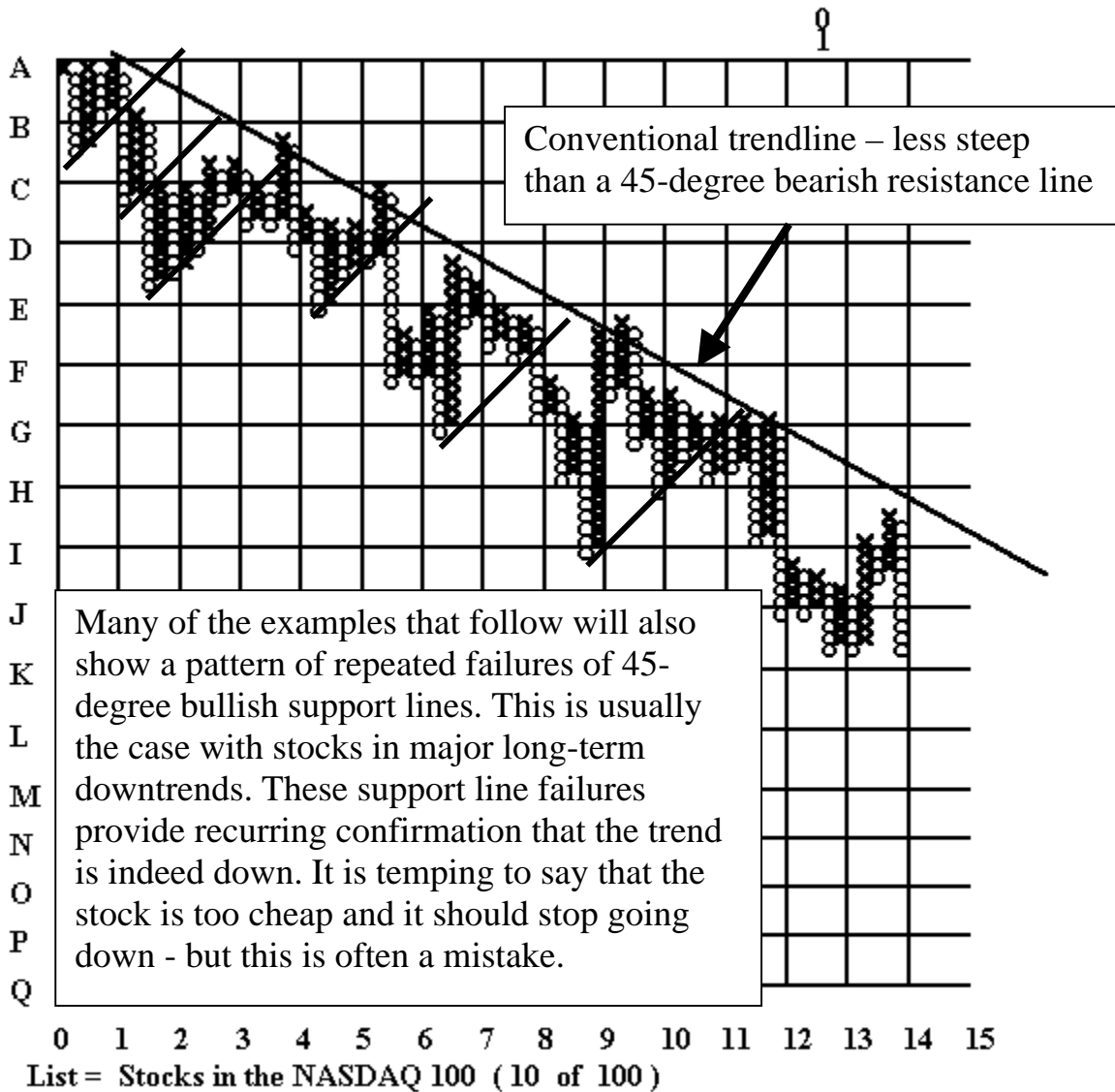
Relative Strength in Long-term Point & Figure Format

Several examples of major long-term trends follow. Since this section of the tutorial is focused on technical analysis for long-term investors and the application of relative strength in a point & figure format primarily to the sell decision – most of the examples that follow show stocks in major long-term downtrends. As the trend turns down it is impossible to estimate how far down the stock might fall but it is enough to know that the trend is down and the downside surprises investors by its severity more often than not! Many of these examples were drawn from stocks that comprise the NASDAQ 100 index.

Examples – Major Long-term Downtrends

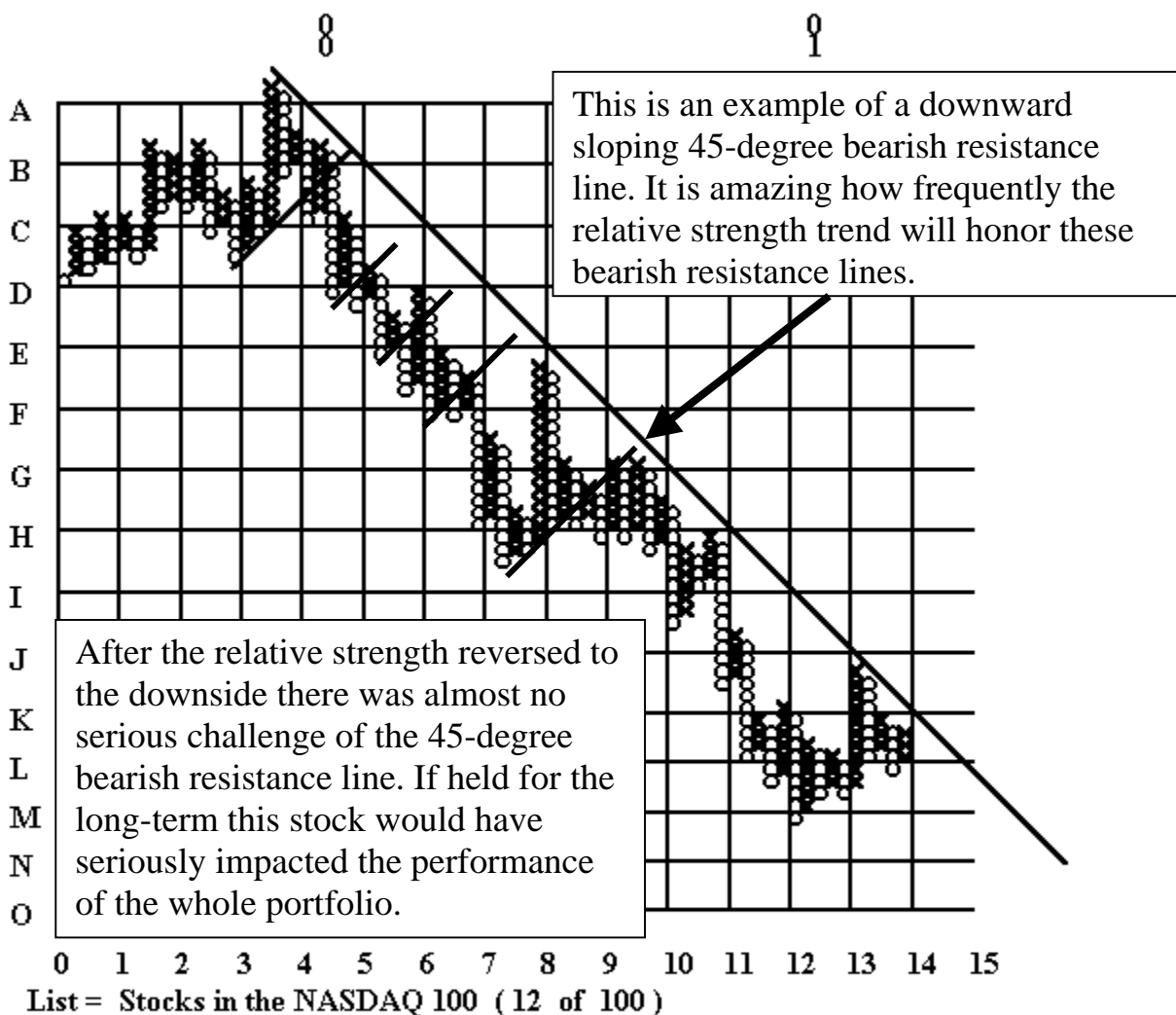
AMZN

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 AMAZON.COM INC 02/16/2001 13.69 AMZN



ATHM

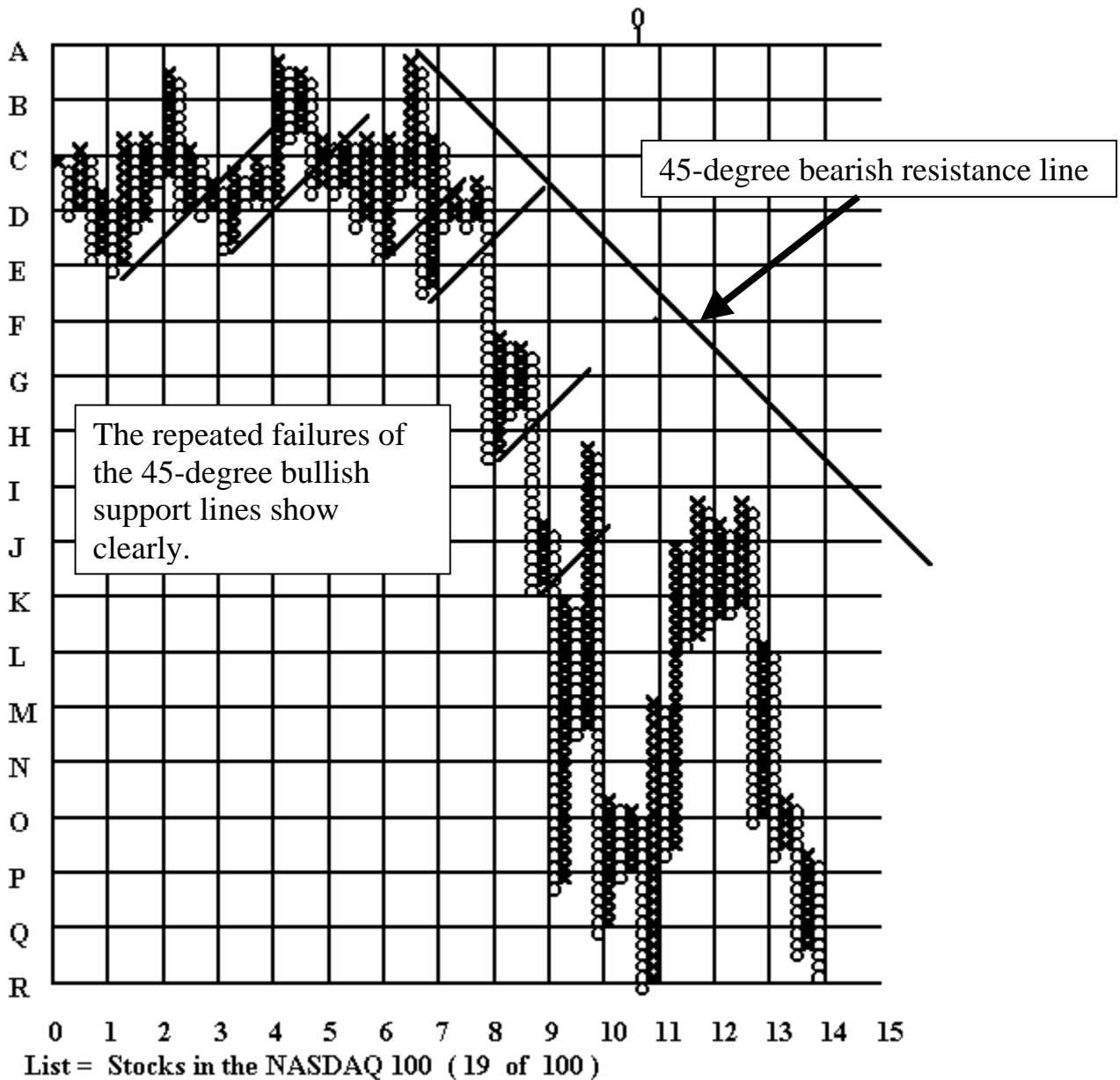
MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 AT HOME CORP SER A 02/16/2001 5.88 ATHM



Portfolio managers who must communicate with clients will find stocks like the example shown above to be a source of conflict with clients and may even cause such a loss of credibility that the account will be lost. Stocks that become major long-term losers can create an impression of the money manager as stubborn and perhaps even incompetent. It is far better to eliminate these stocks from the portfolio before they damage client relationships.

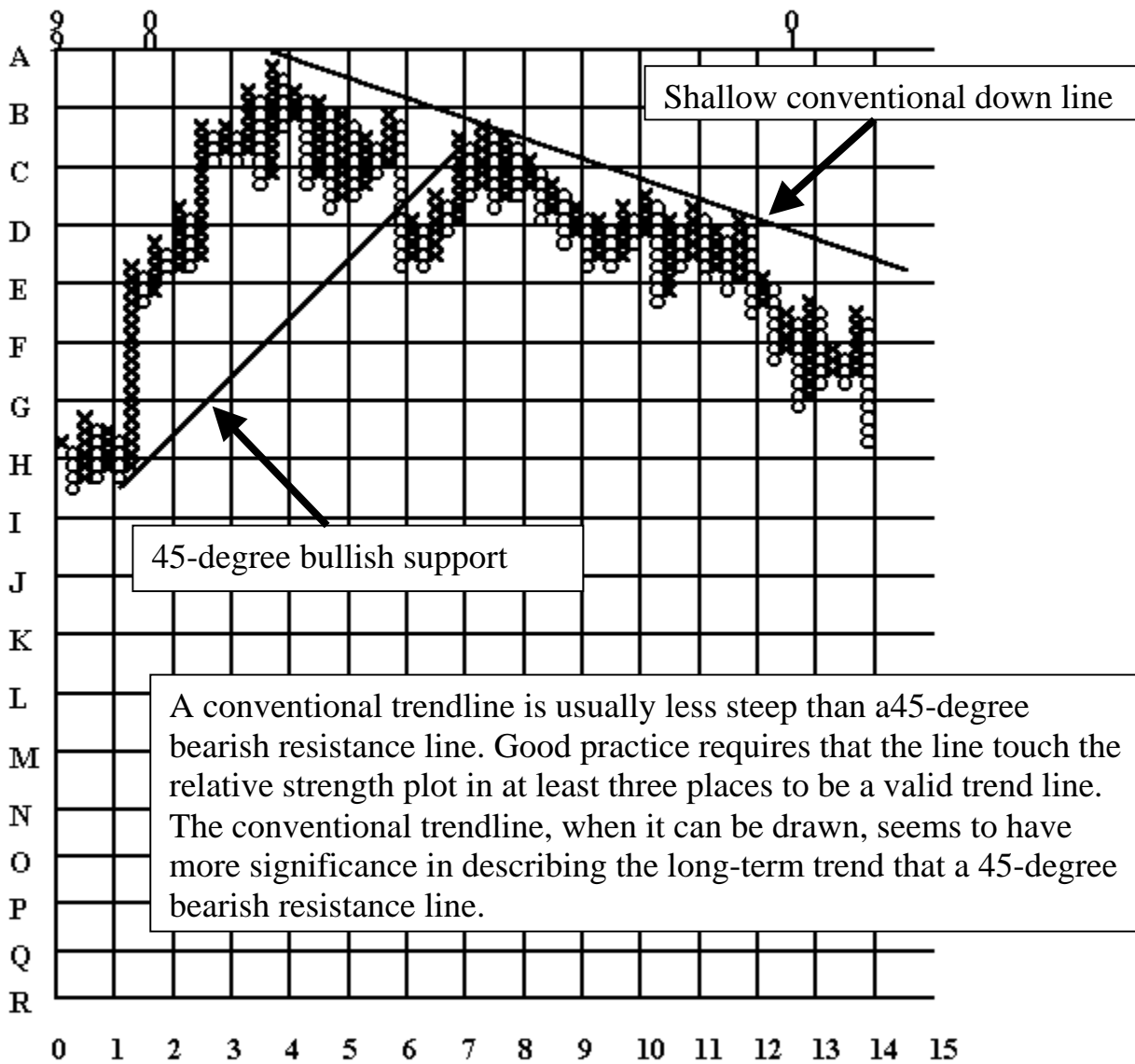
BRCM

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
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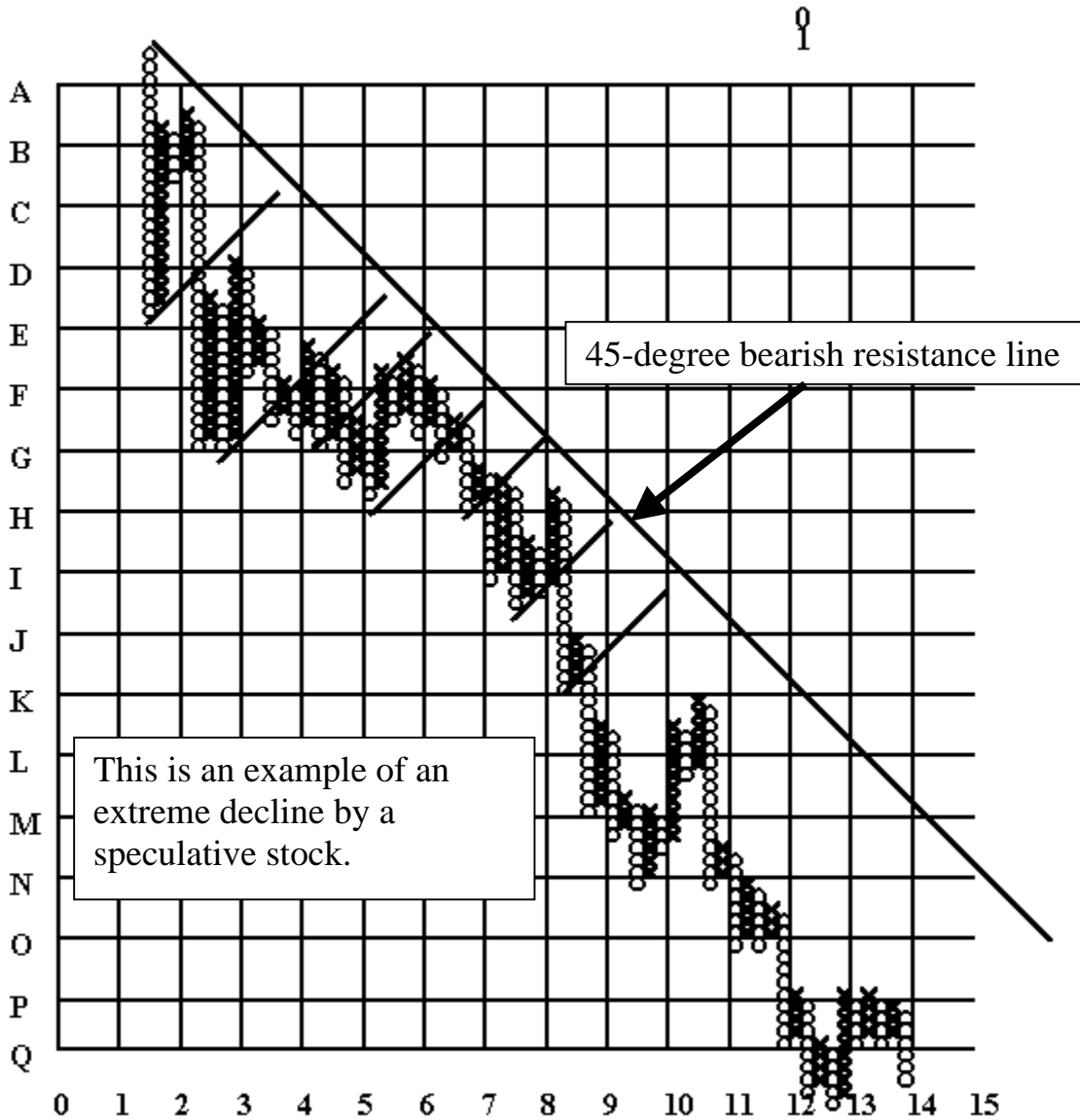
CSCO

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
CISCO SYSTEMS INC 02/16/2001 28.25 CSCO



CMGI

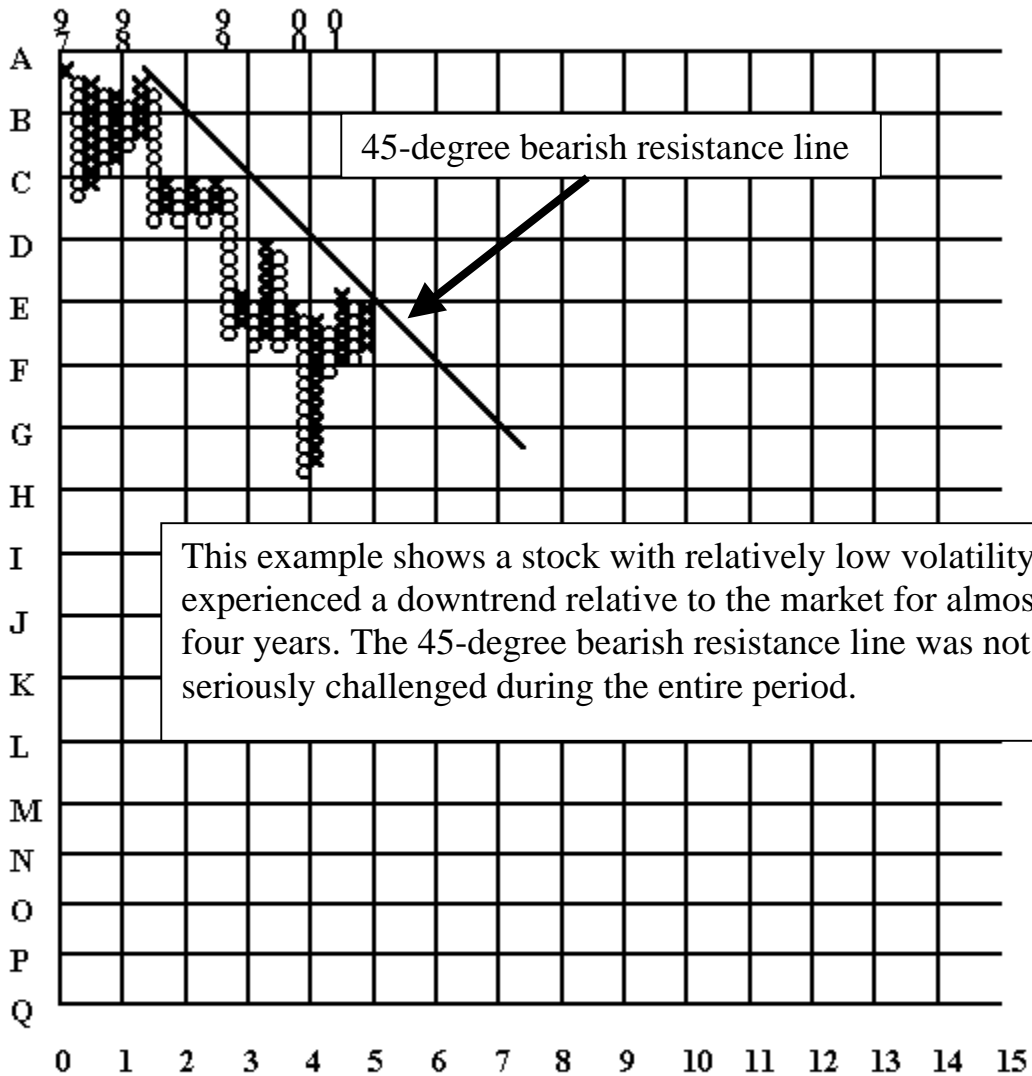
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CNA

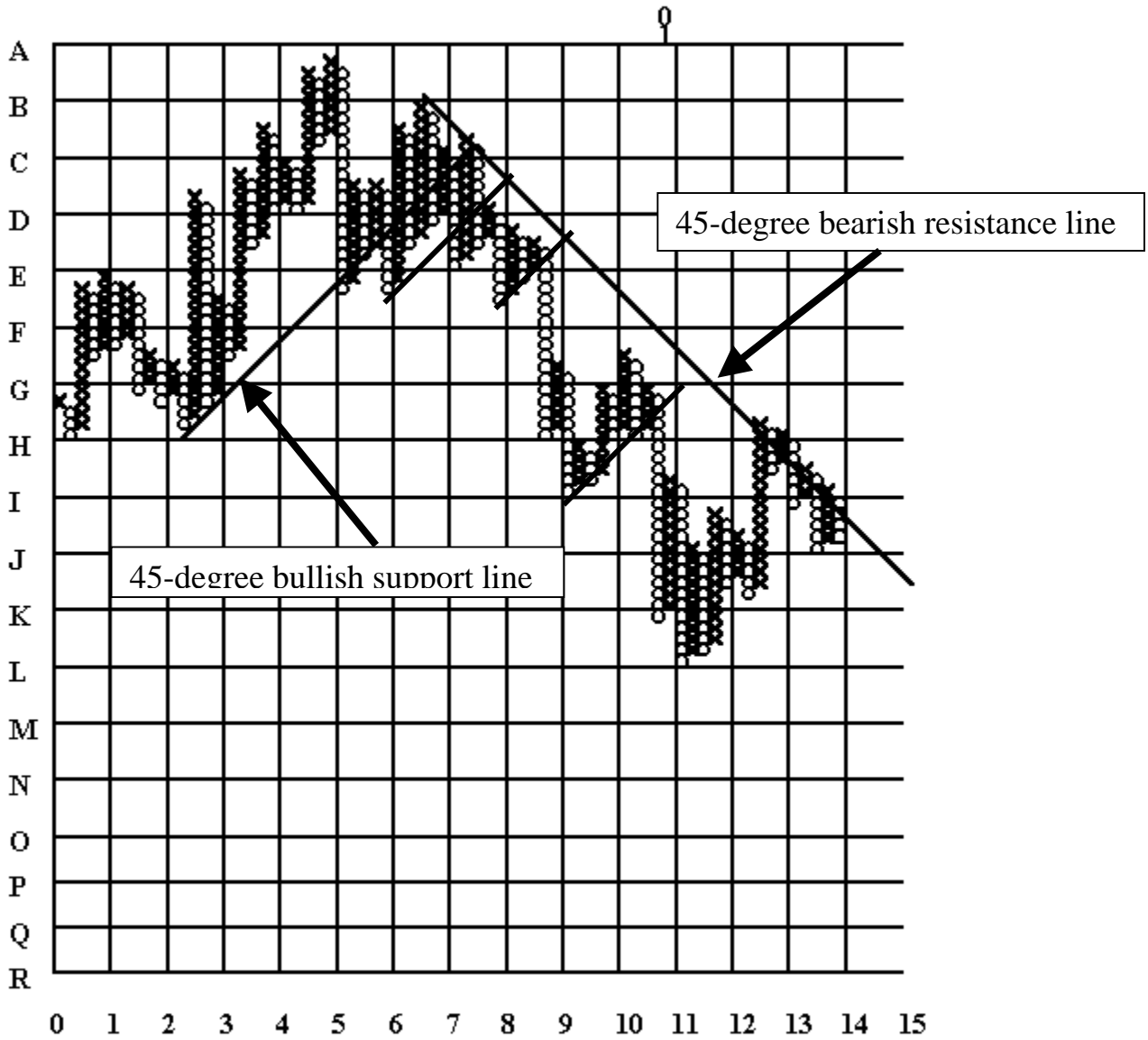
MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500

CNA FINANCIAL CORP 02/16/2001 37.53 CNA



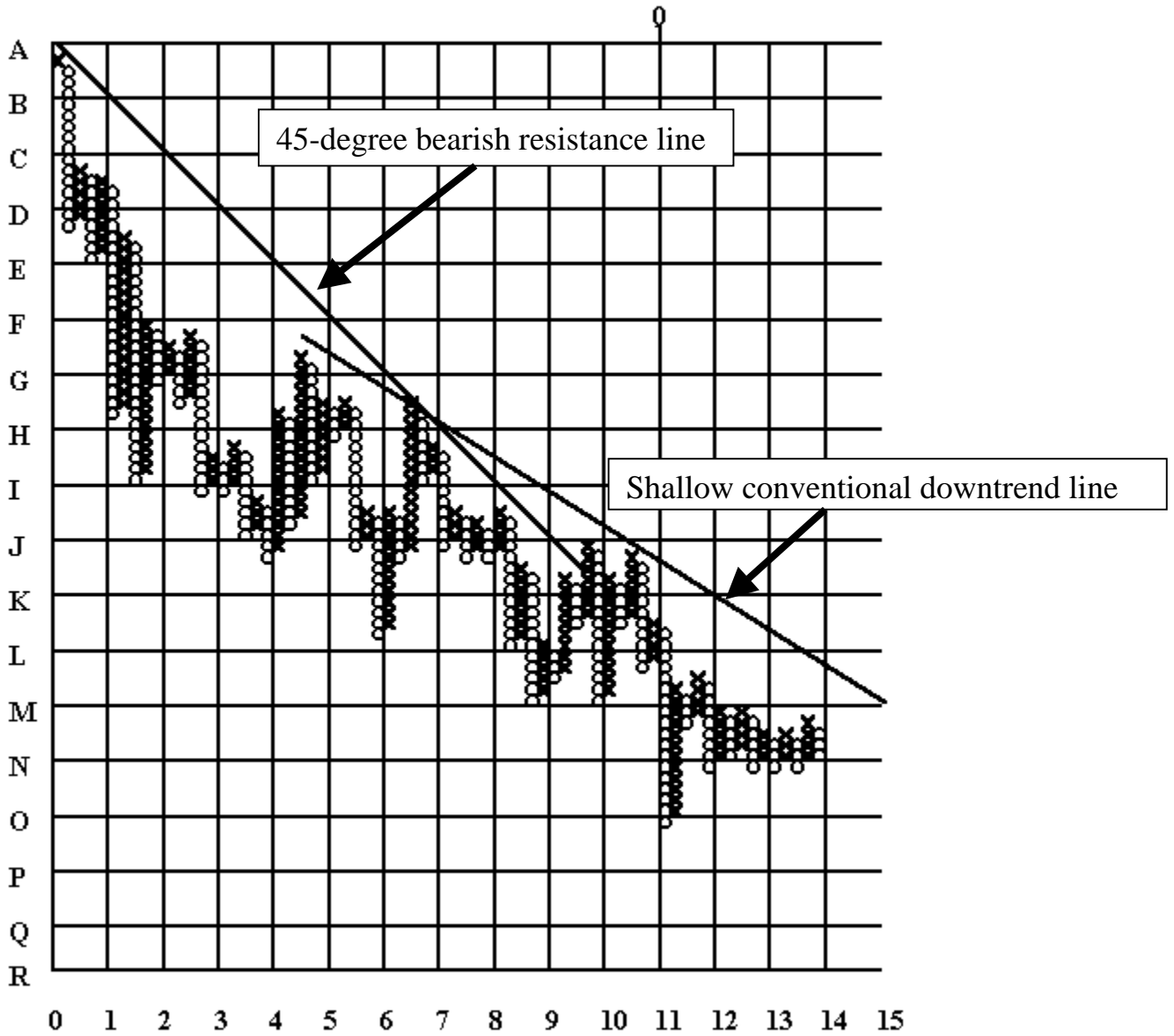
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MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
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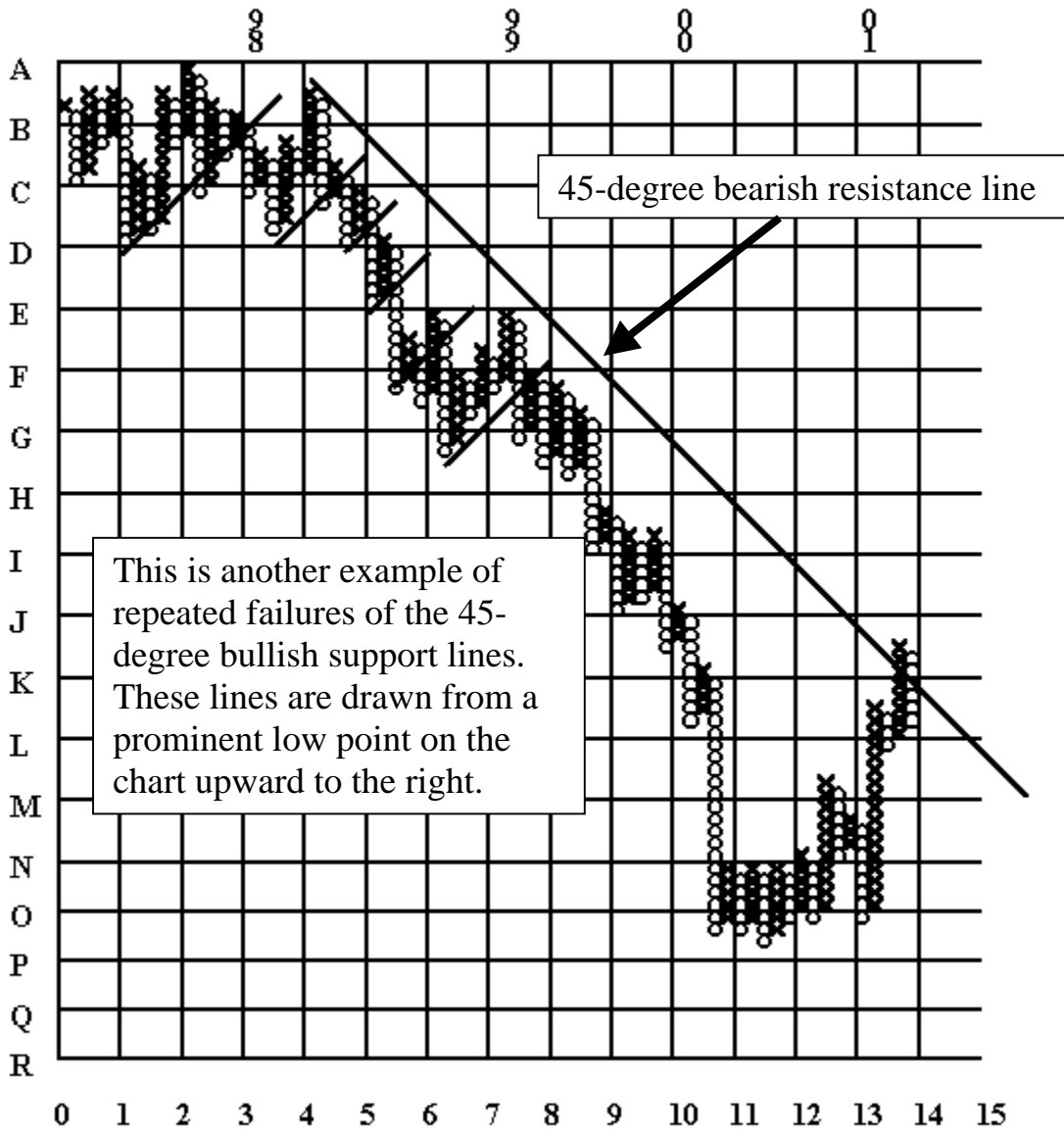
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MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
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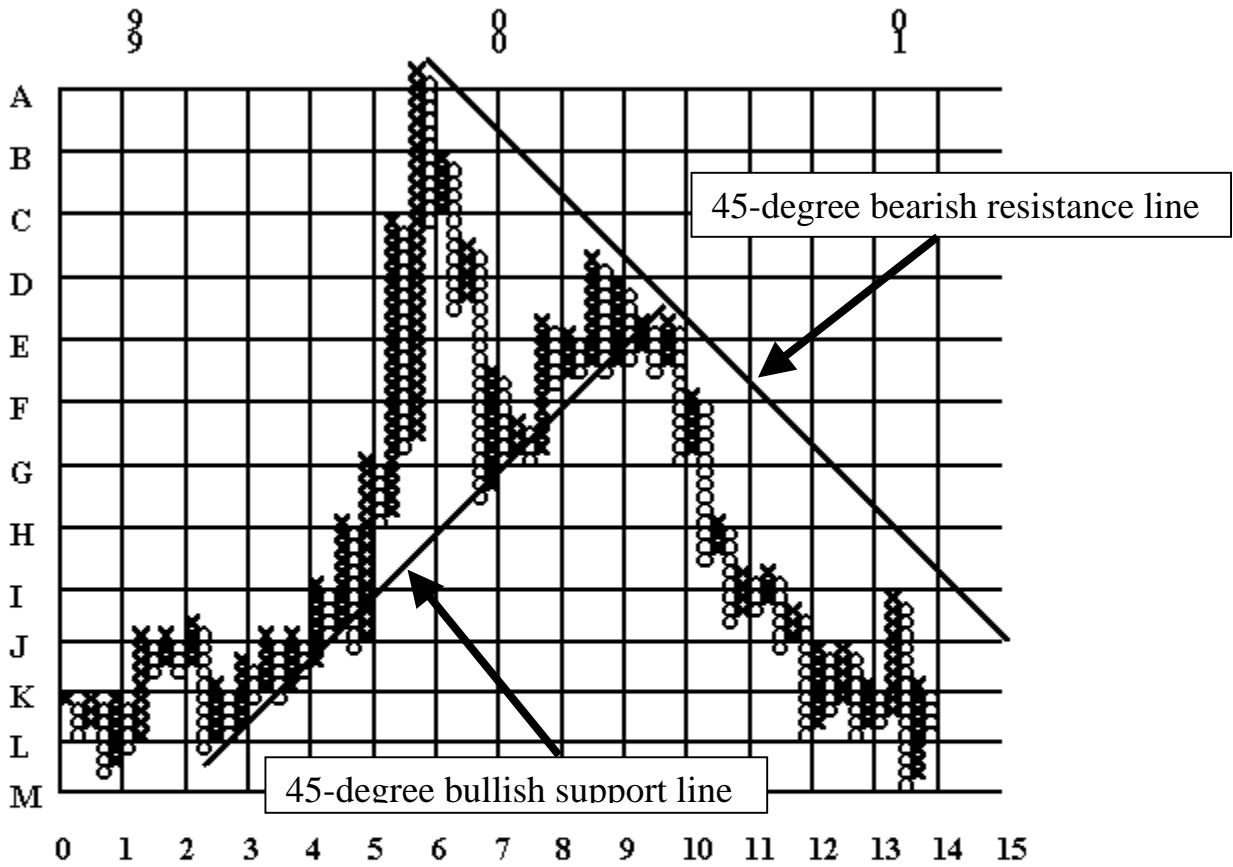
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MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
CONSECO INC 02/16/2001 13.9 CNC



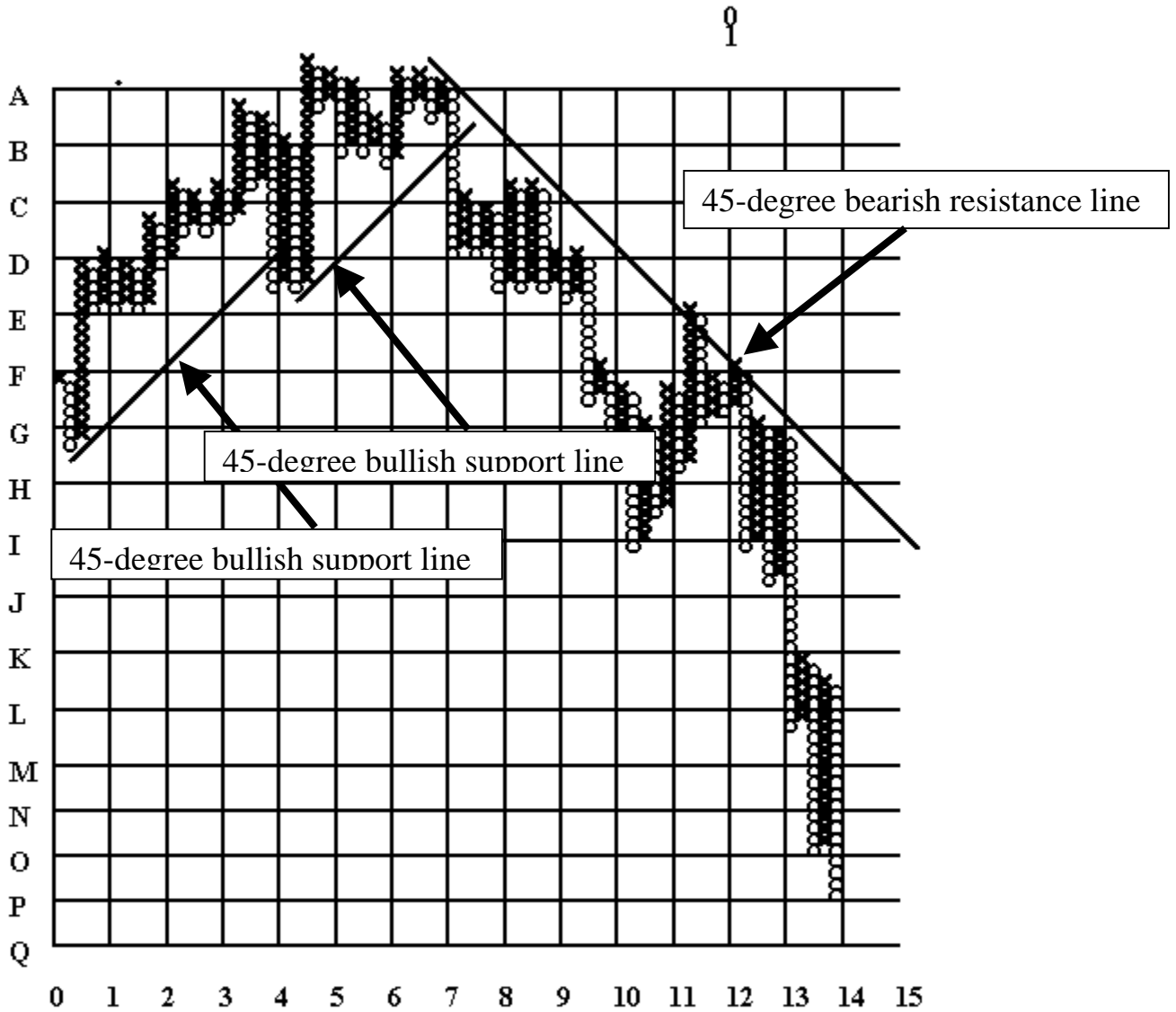
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MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
COREL CORP 02/16/2001 2.53 CORL



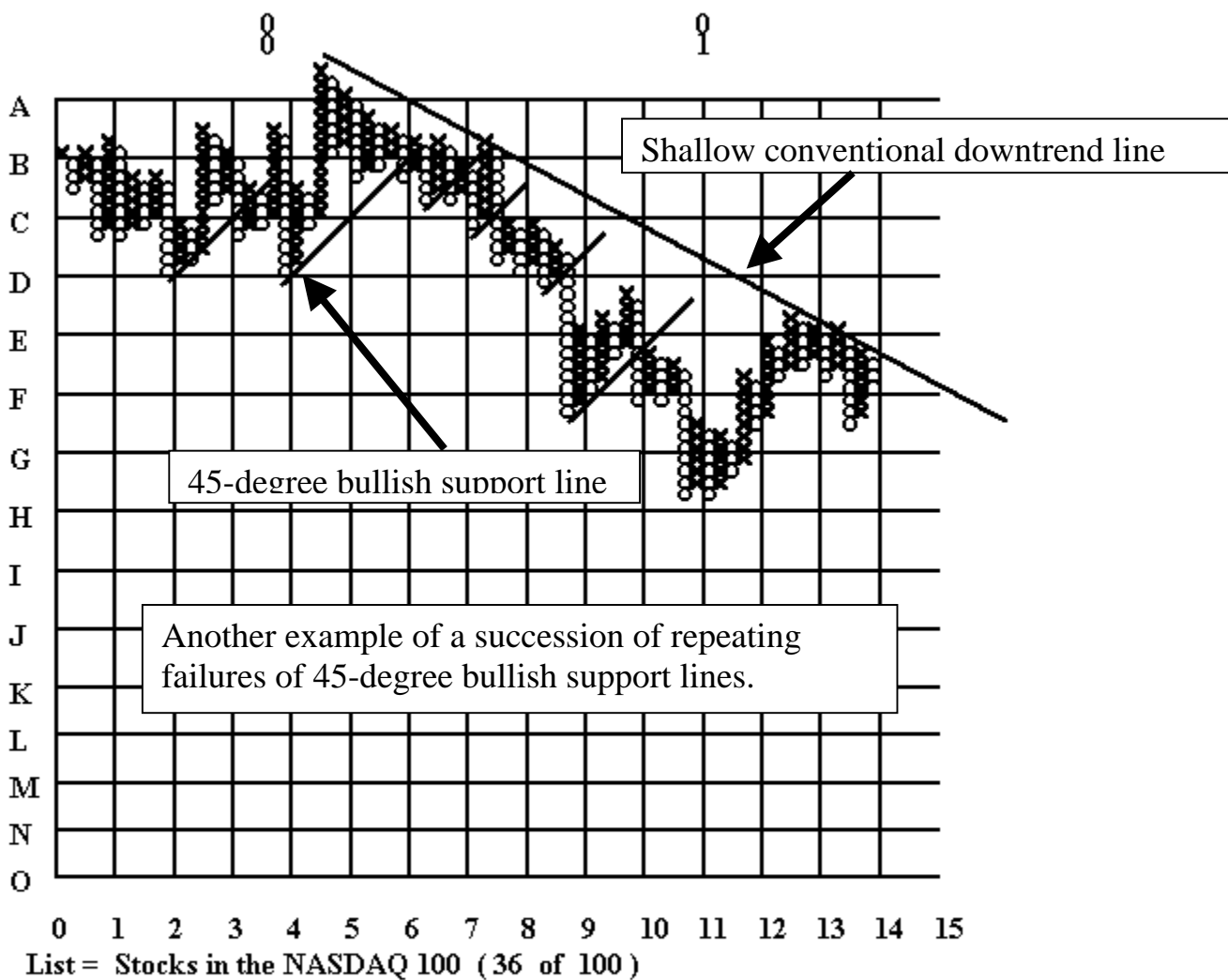
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MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
CRITICAL PATH INC 02/16/2001 3 CPTH



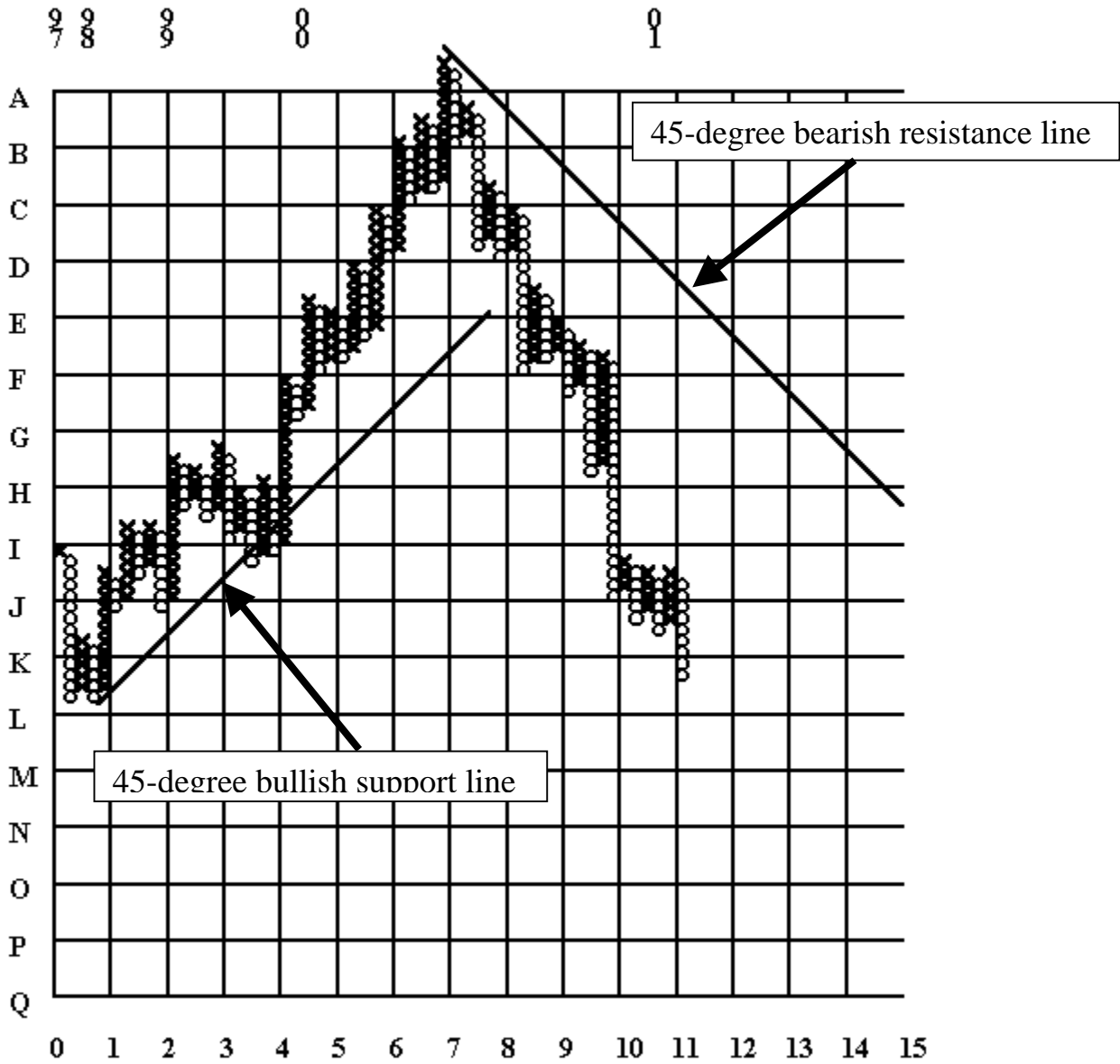
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MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
DELL COMPUTER CORP 02/16/2001 23.5 DELL



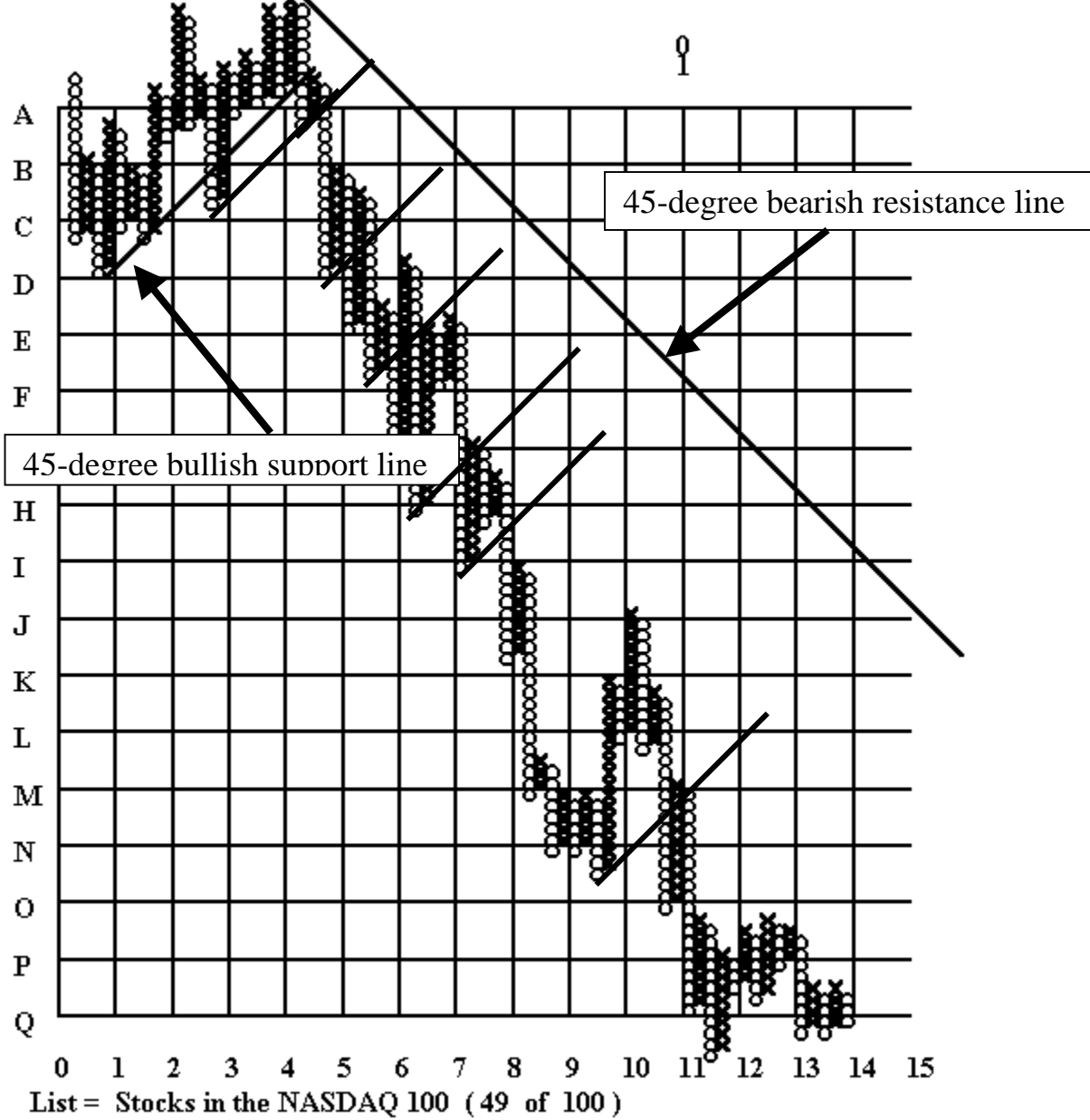
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MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
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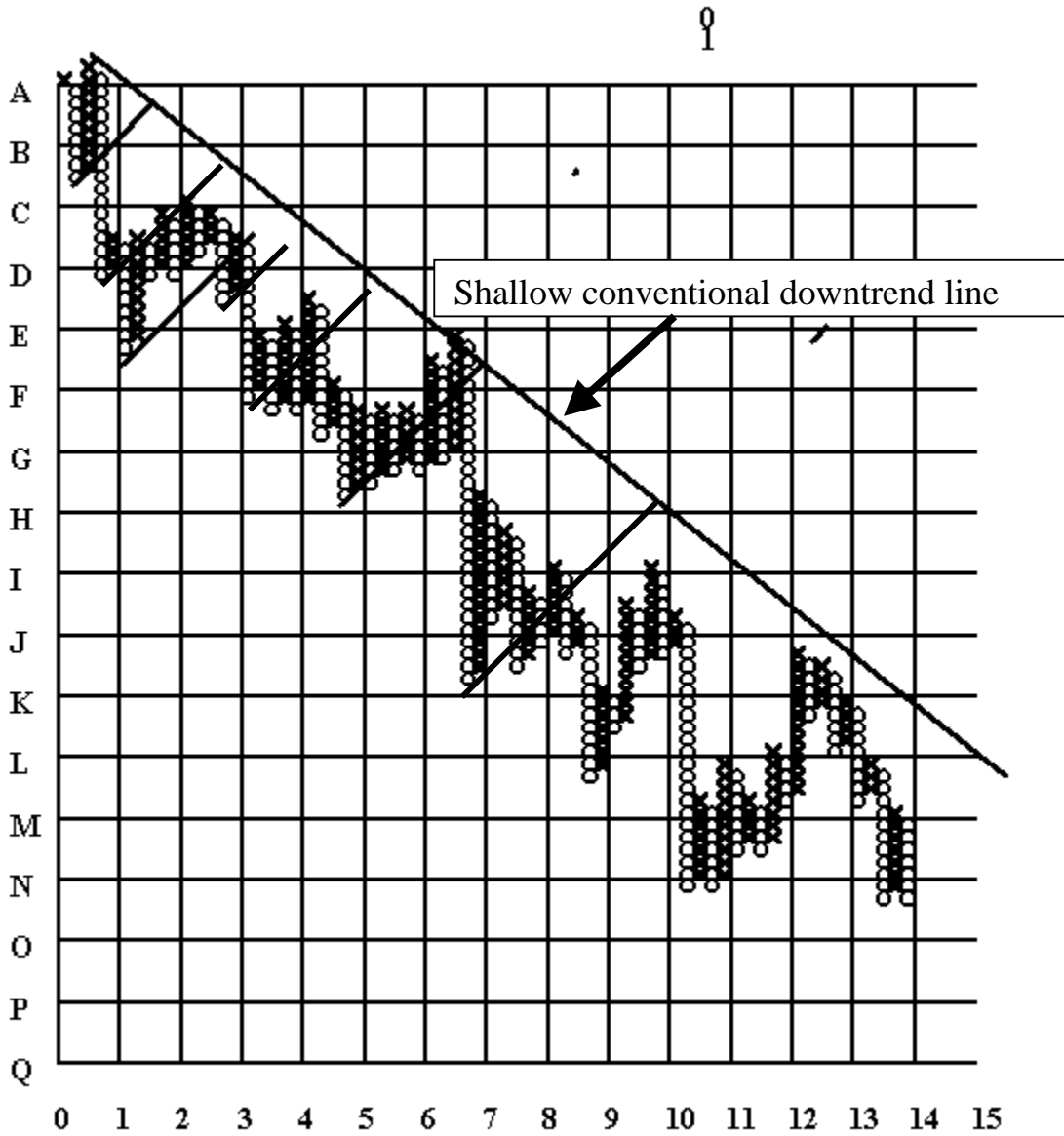
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MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
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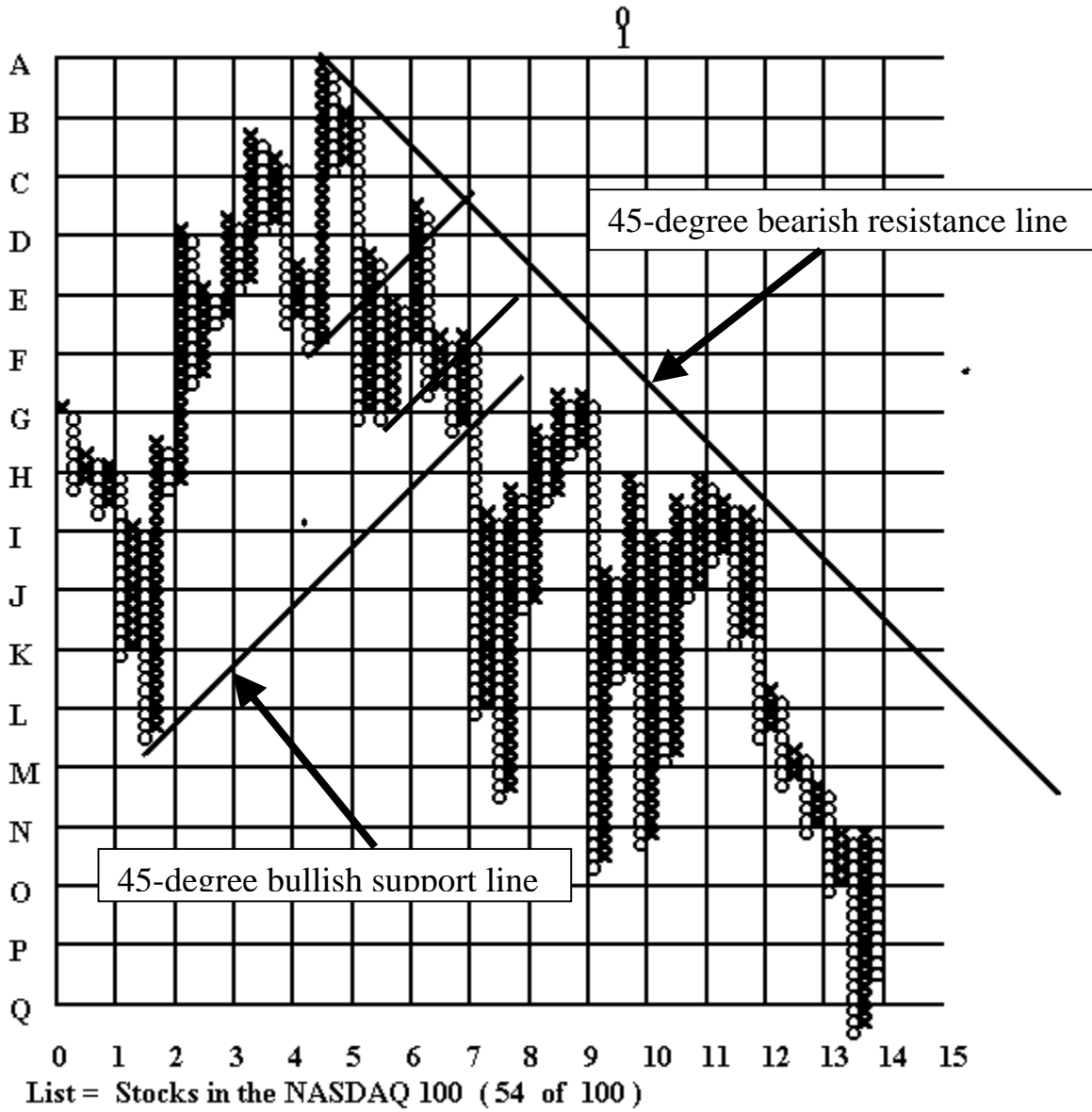
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MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
JDS UNIPHASE CORP 02/16/2001 35.81 JDSU



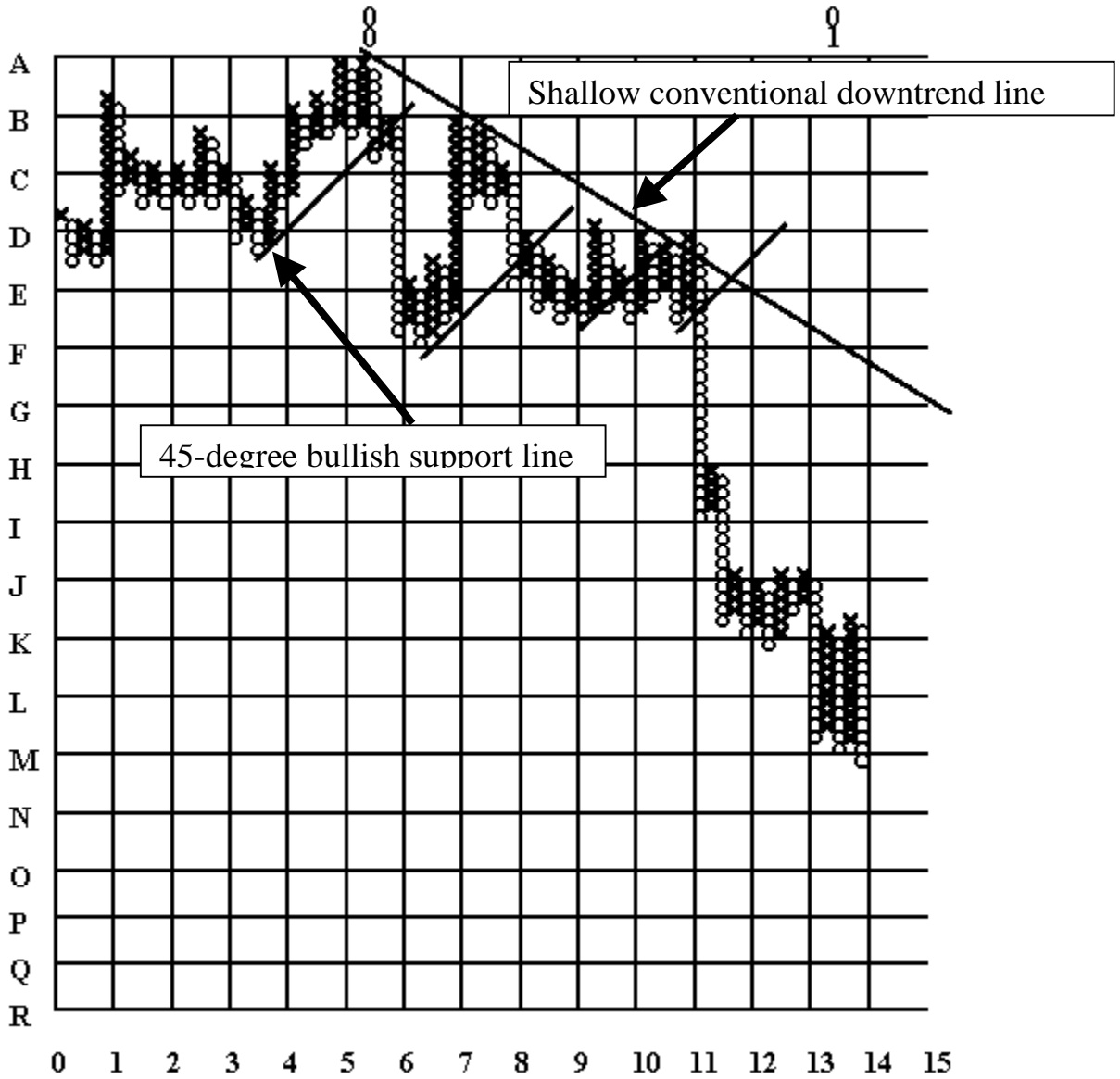
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JUNIPER NETWORKS 02/16/2001 80 JNPR



LU

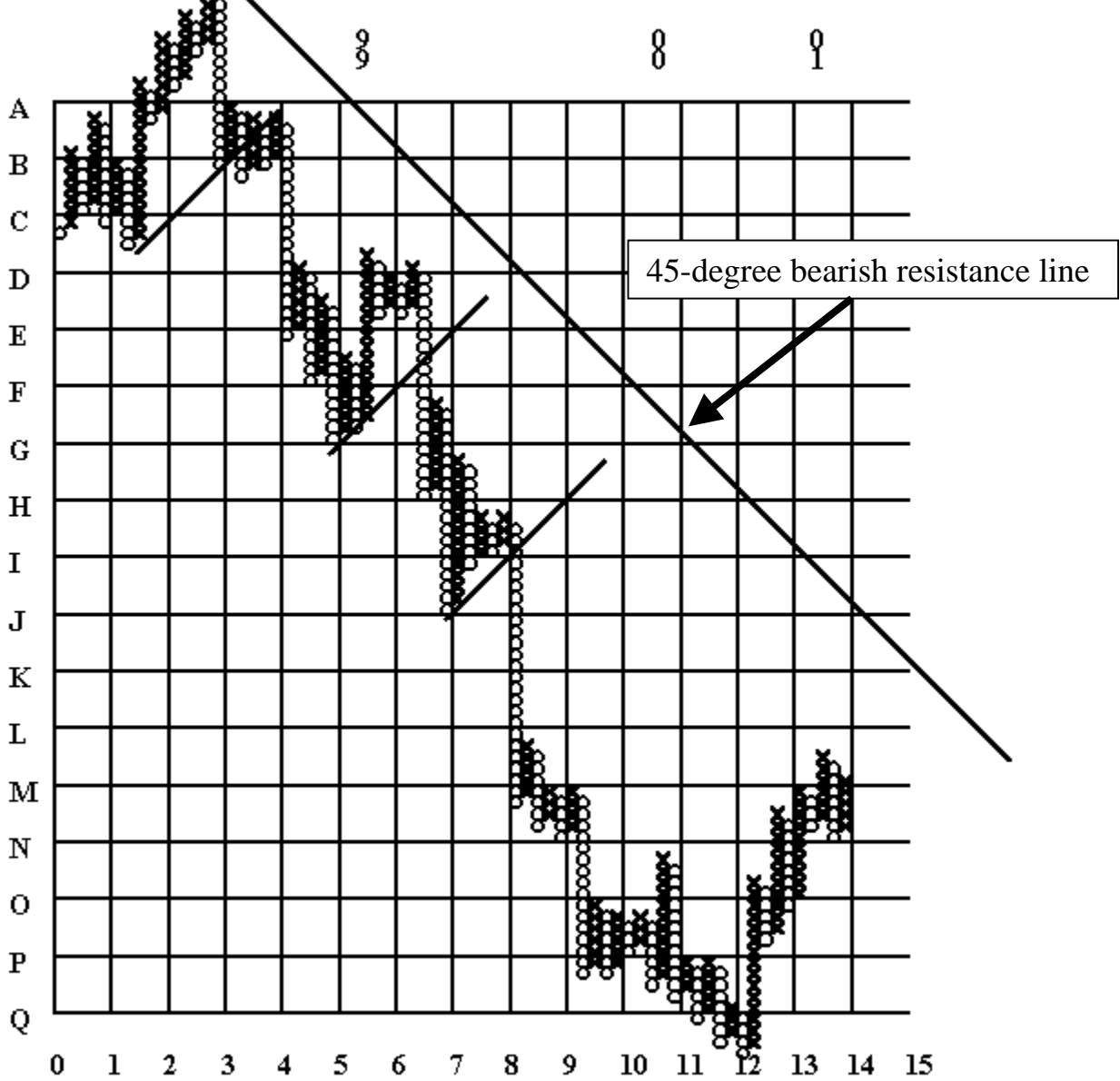
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MCK

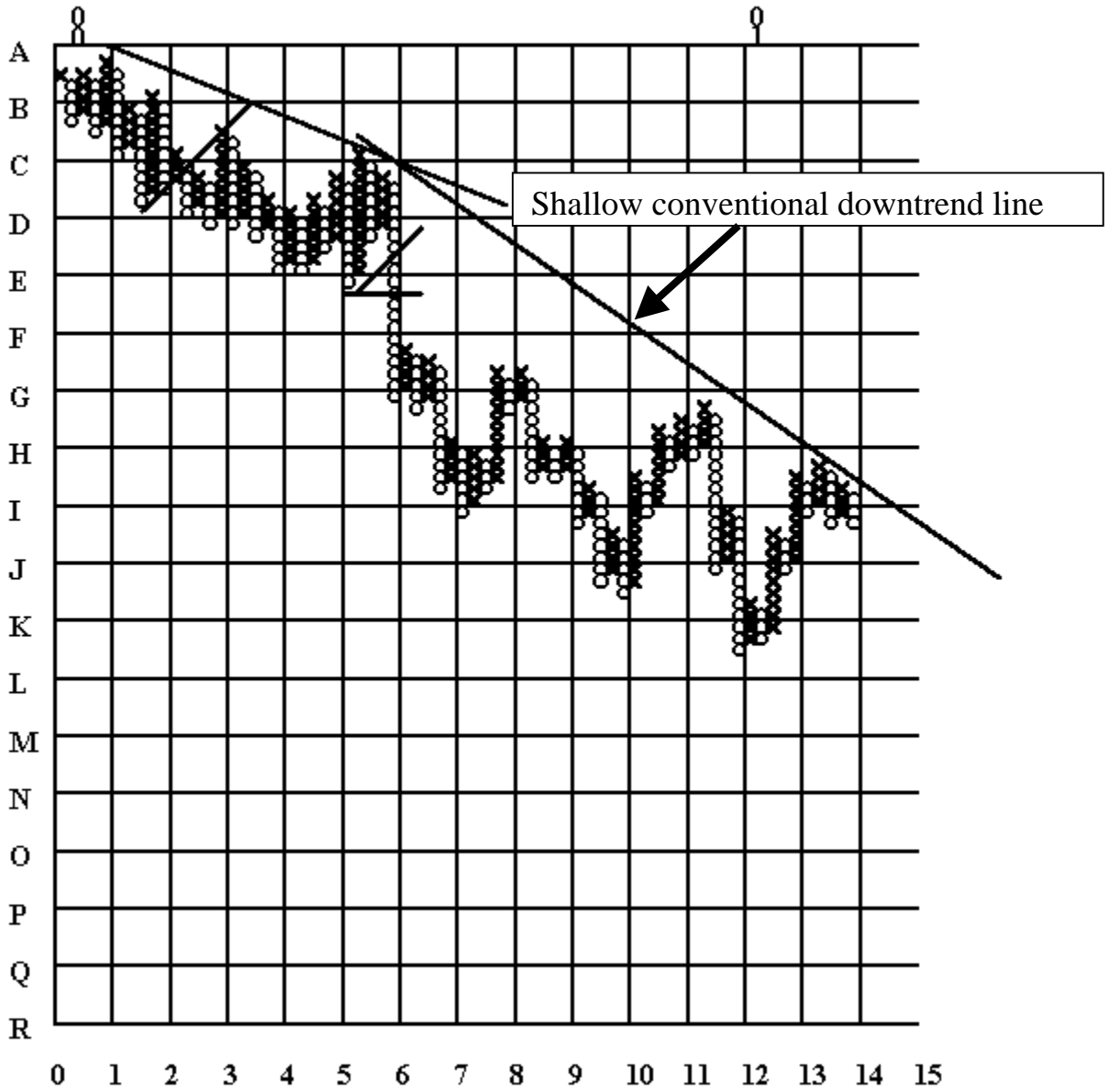
MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500

MCKESSON PHARM INC 02/16/2001 33.04 MCK



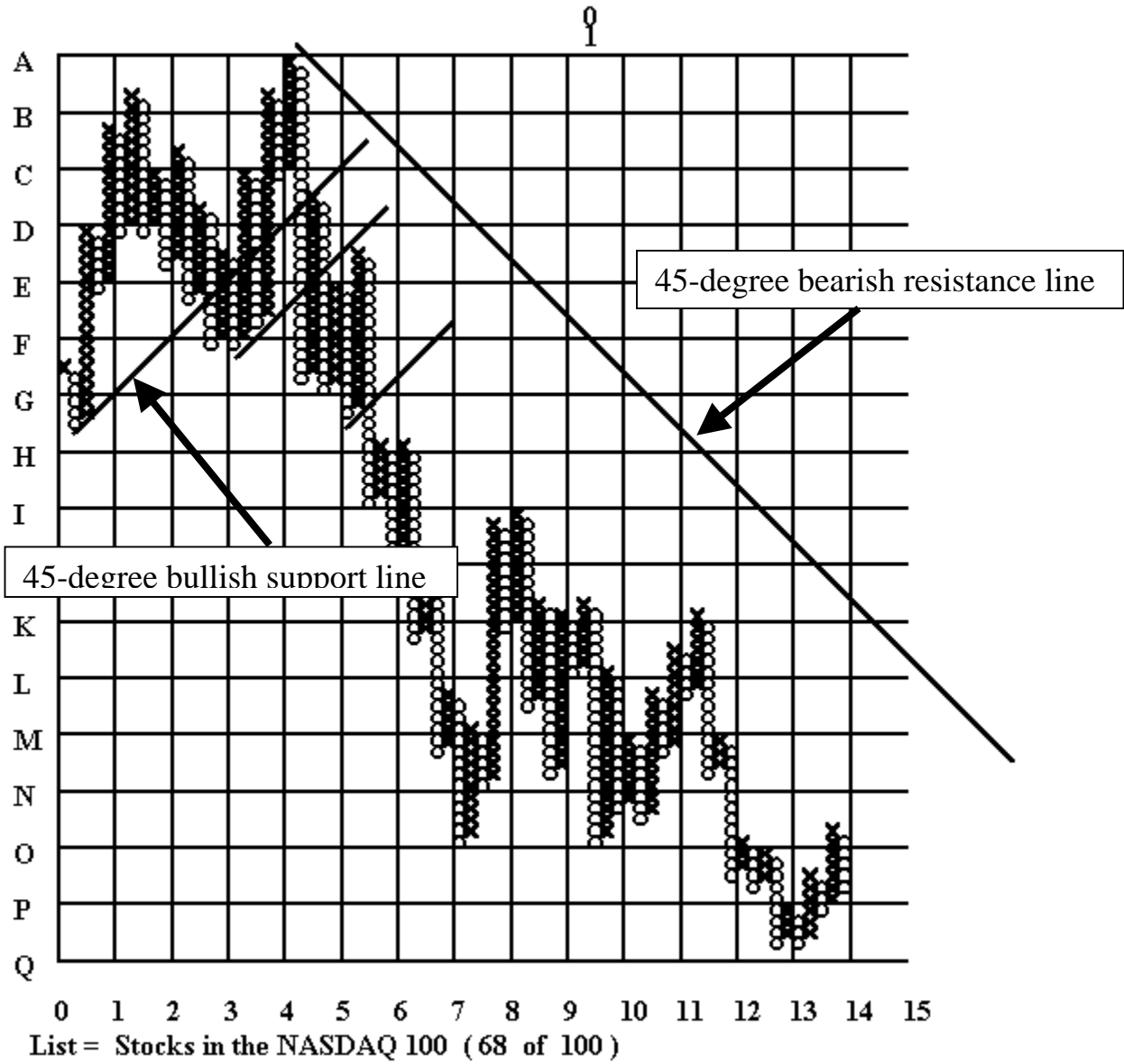
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MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
MICROSOFT CORP 02/16/2001 57.31 MSFT



NTAP

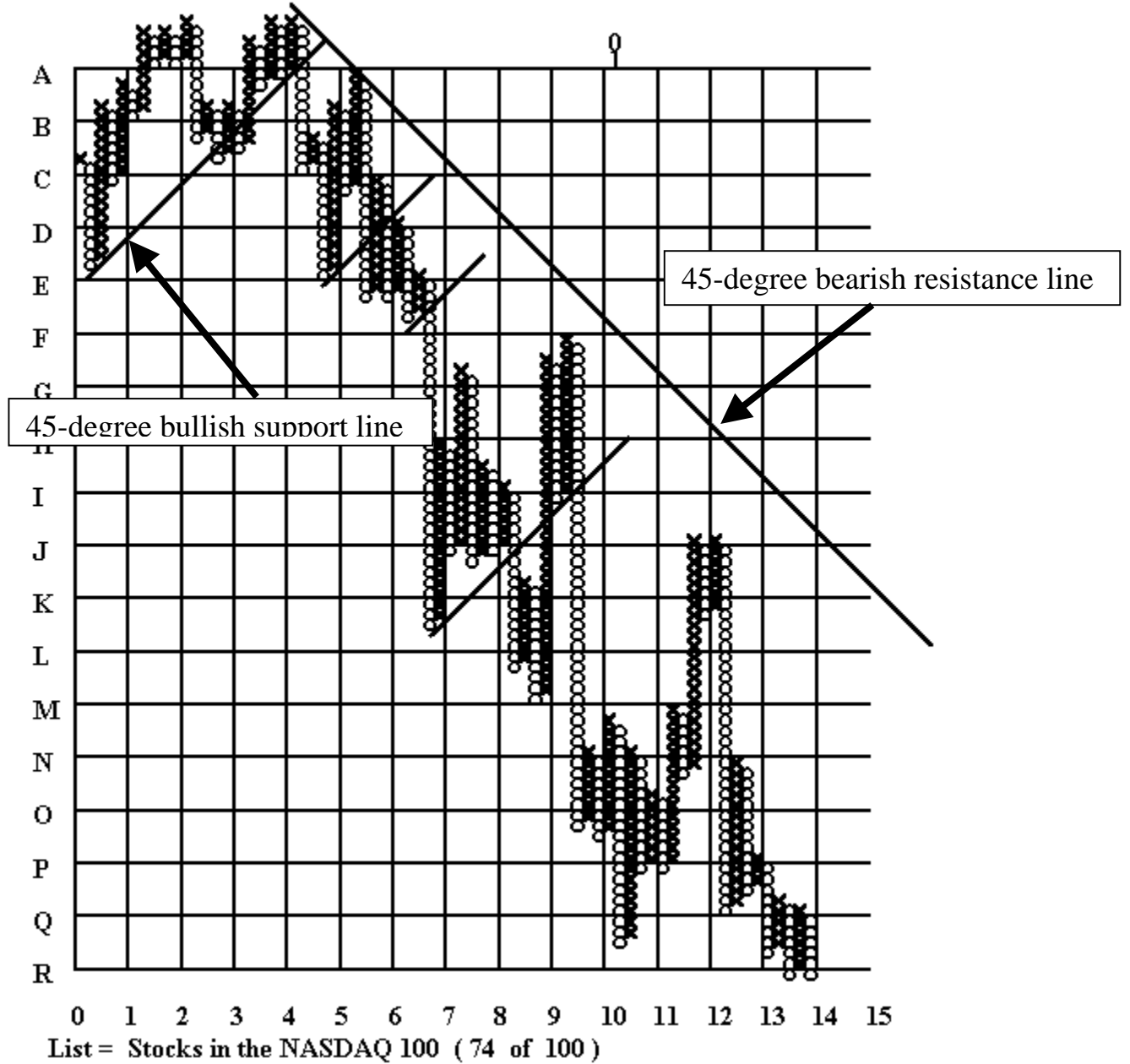
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NETWORK APPLIANCE INC 02/16/2001 40.38 NTAP



PMCS

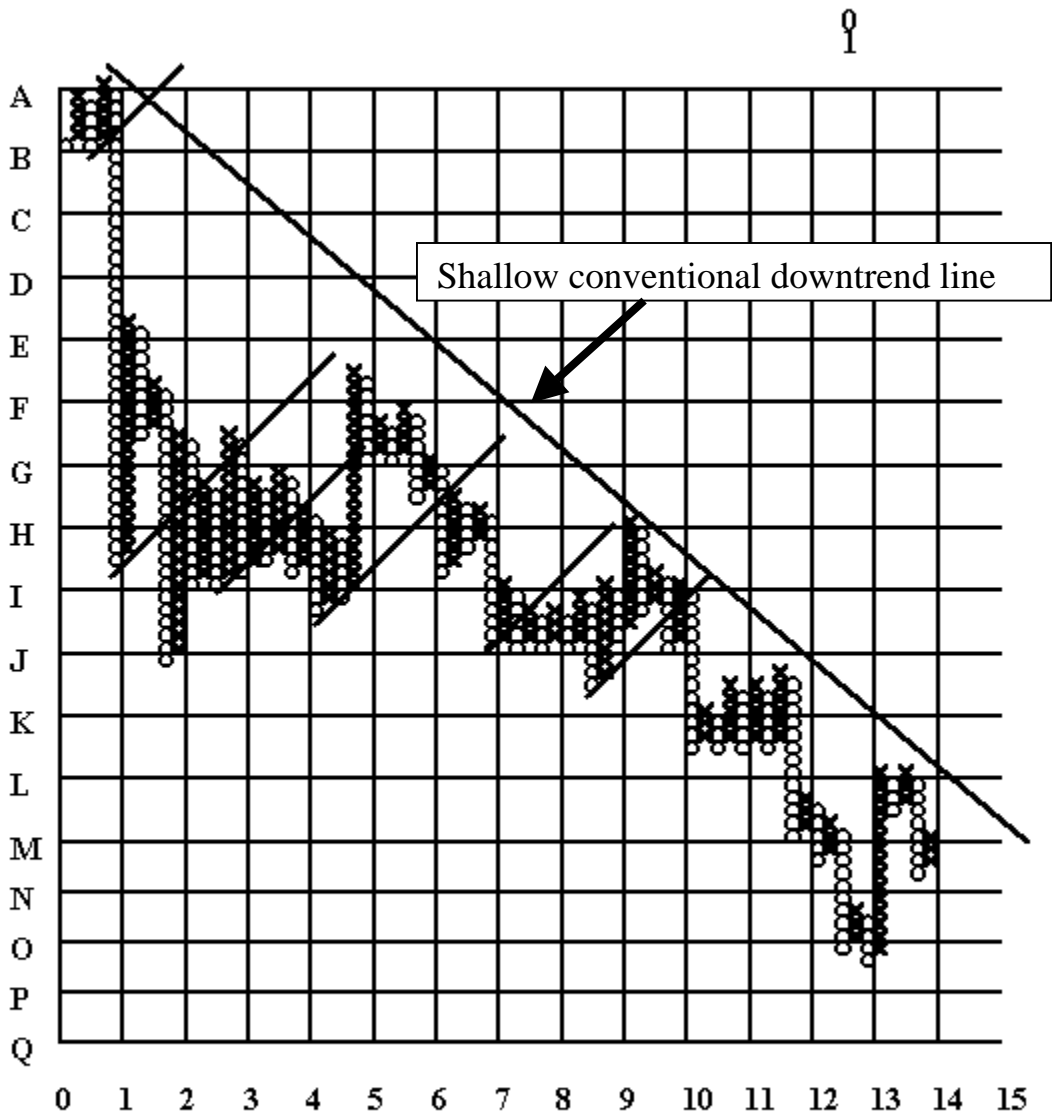
MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500

PMC-SIERRA INC 02/16/2001 52.5 PMCS



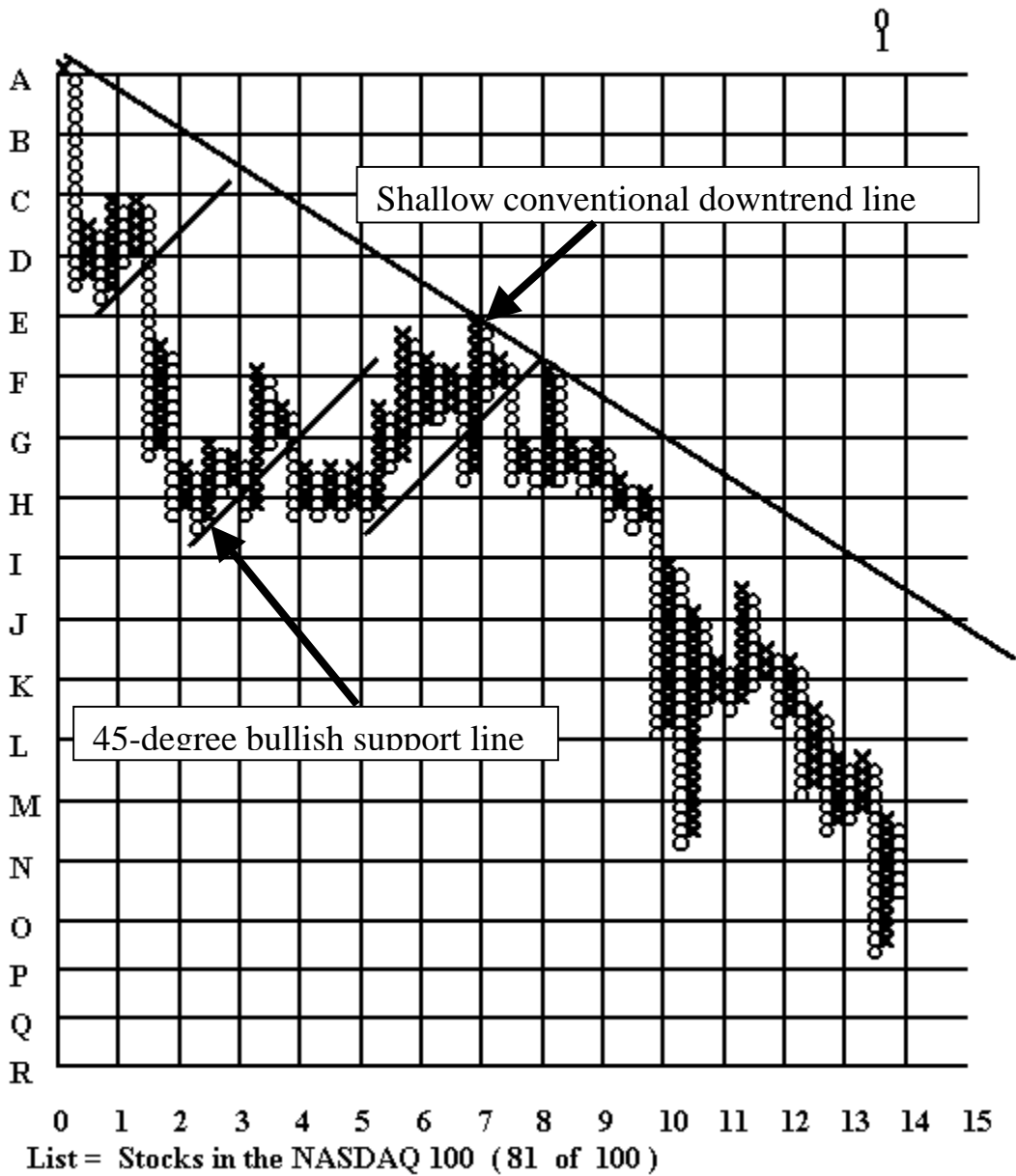
PUMA

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
PUMATECH INC 02/16/2001 6.69 PUMA



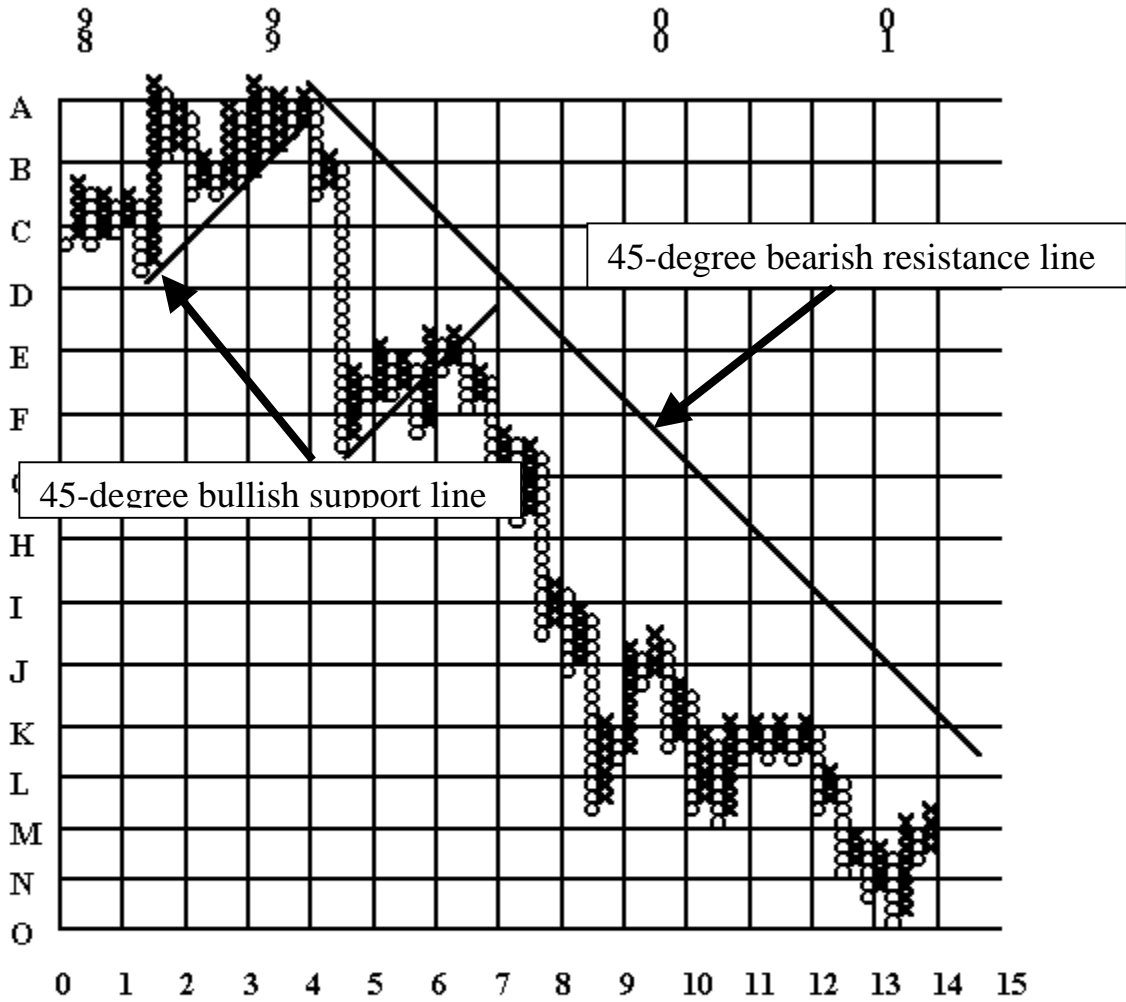
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MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
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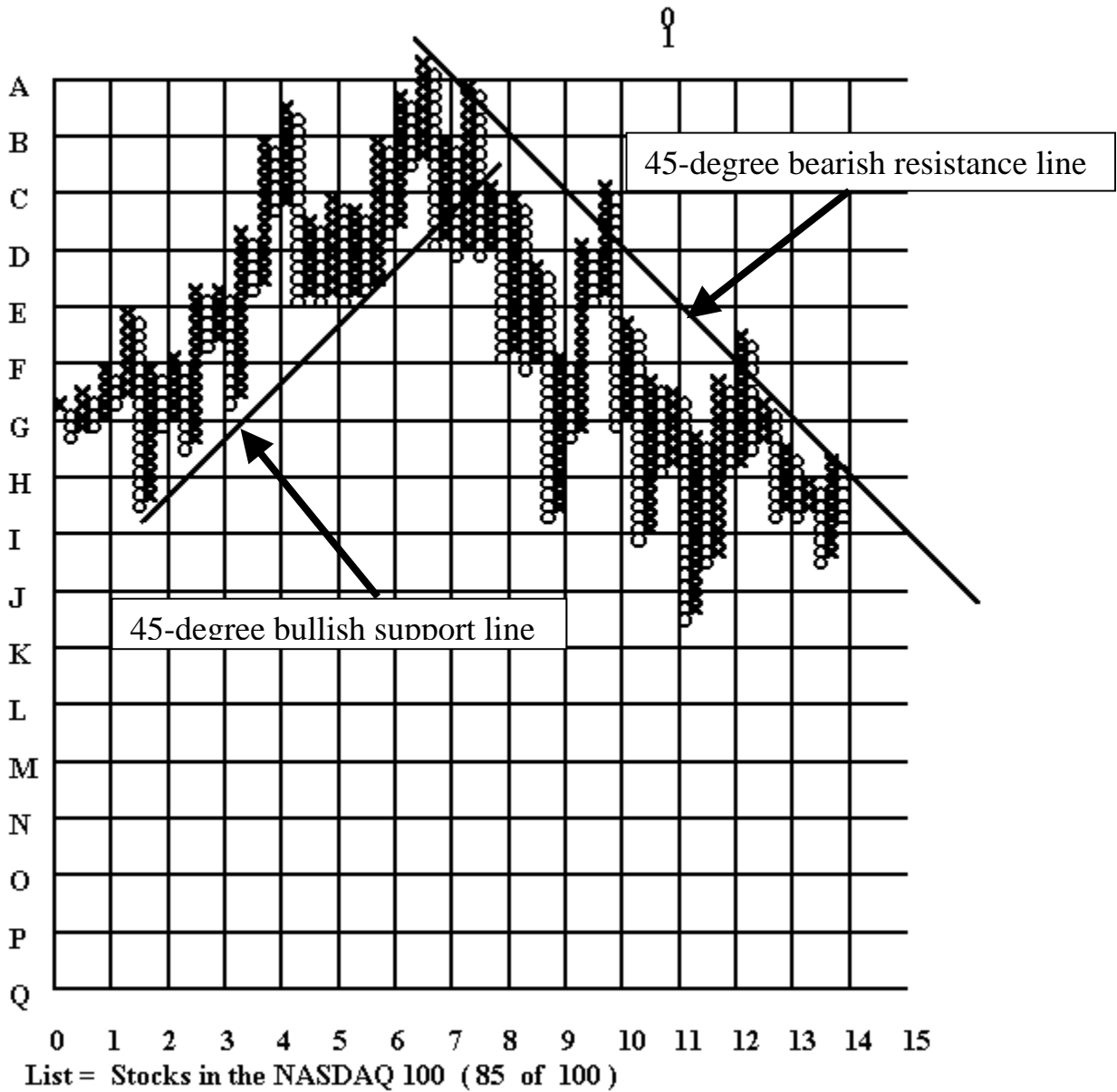
RAD

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
RITE AID CORP 02/16/2001 4.43 RAD



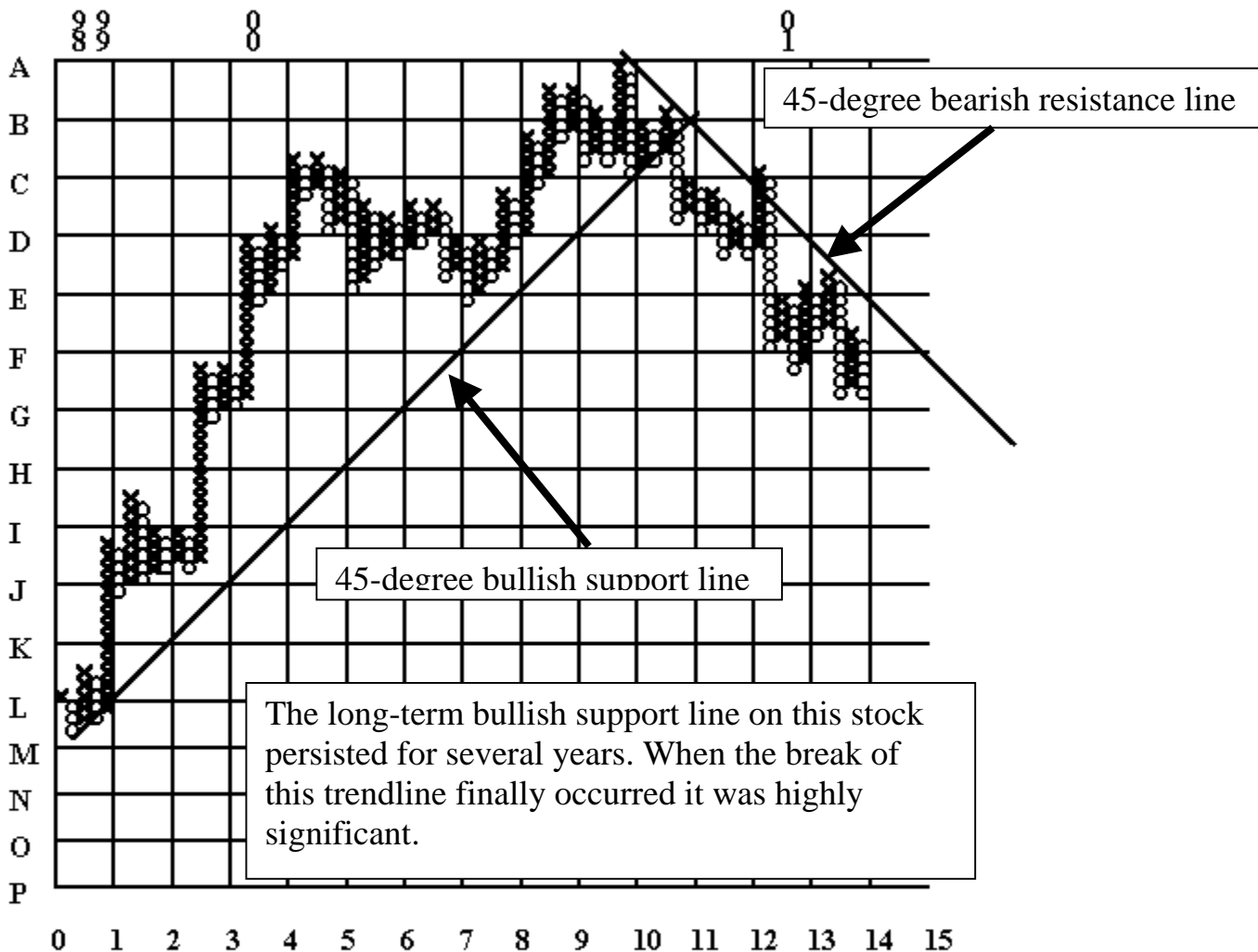
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MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
SIEBEL SYSTEMS INC 02/16/2001 62.31 SEBL



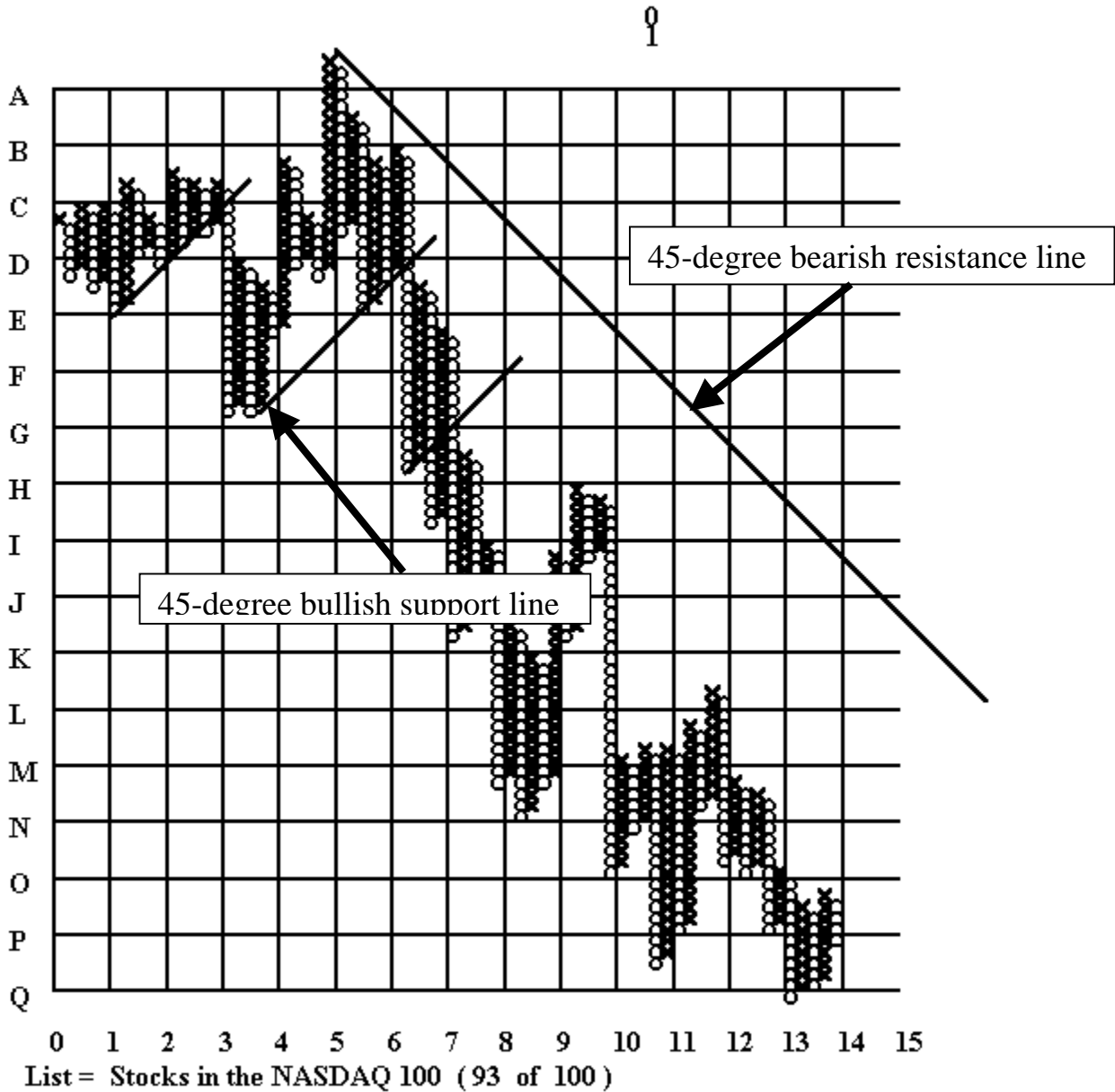
SUNW

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
SUN MICROSYSTEMS INC 02/16/2001 23.19 SUNW



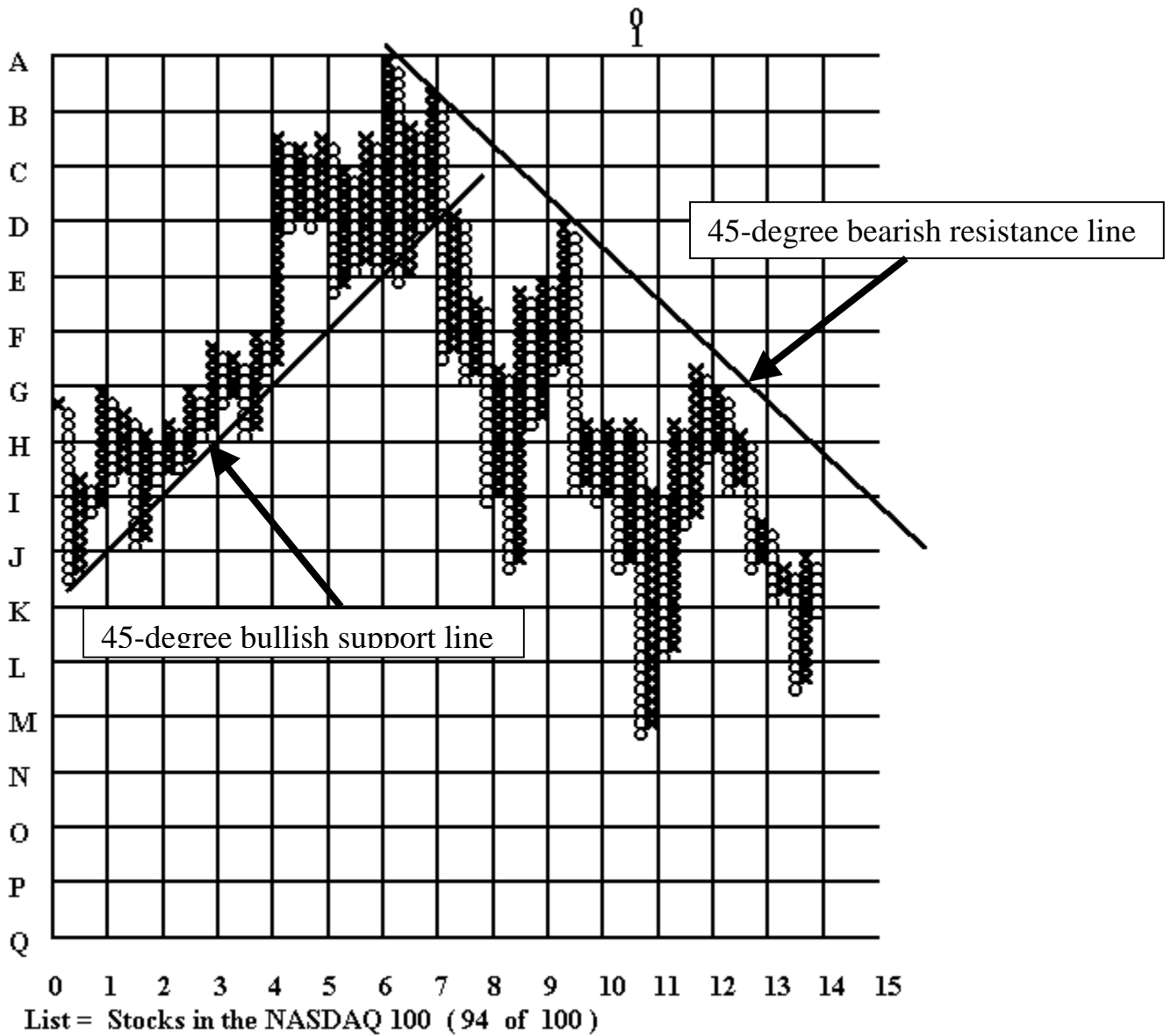
VRSN

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
VERISIGN INC 02/16/2001 59.75 VRSN



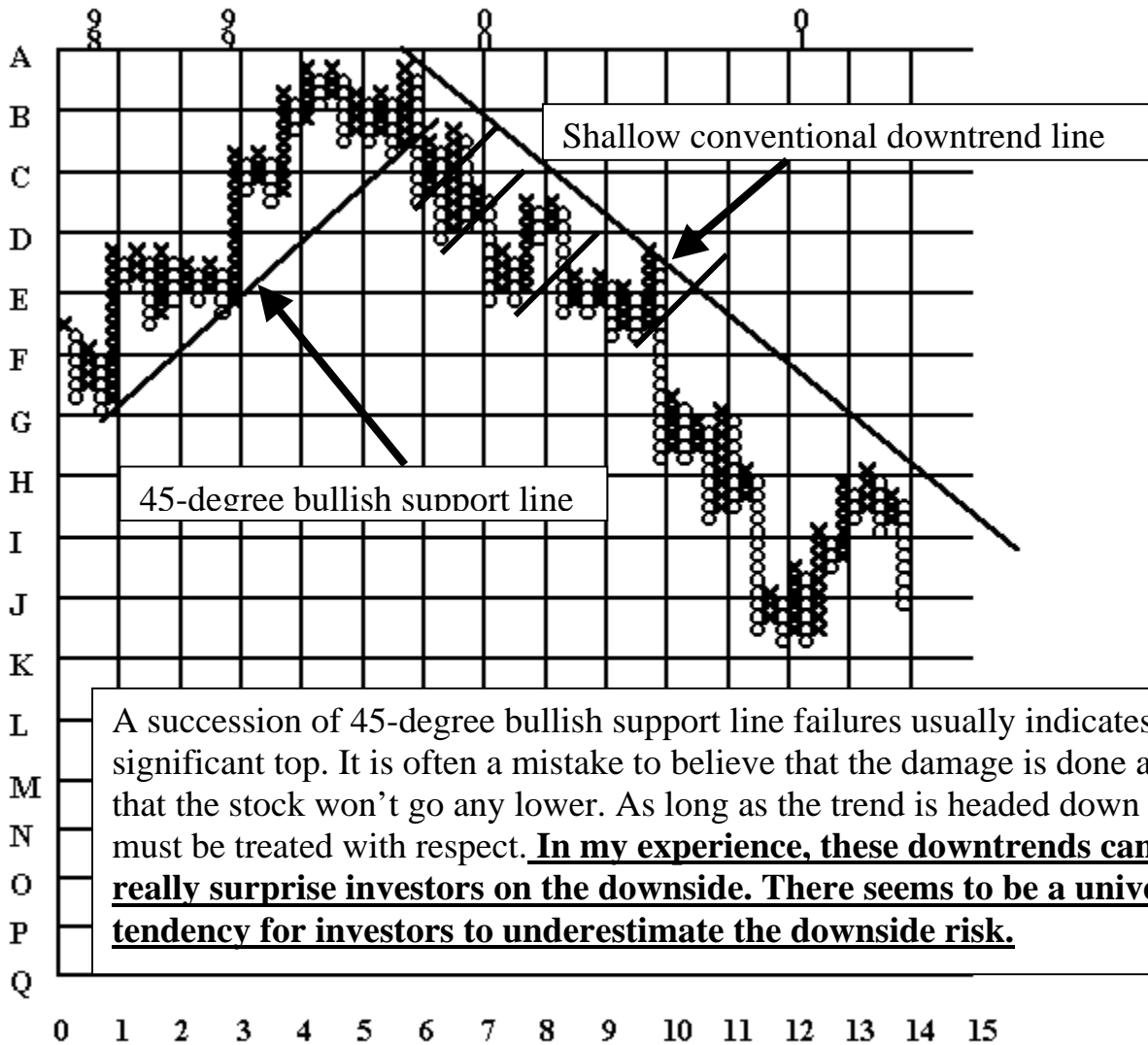
VRTS

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
VERITAS SOFTWARE CORP 02/16/2001 76.56 VRTS



WCOM

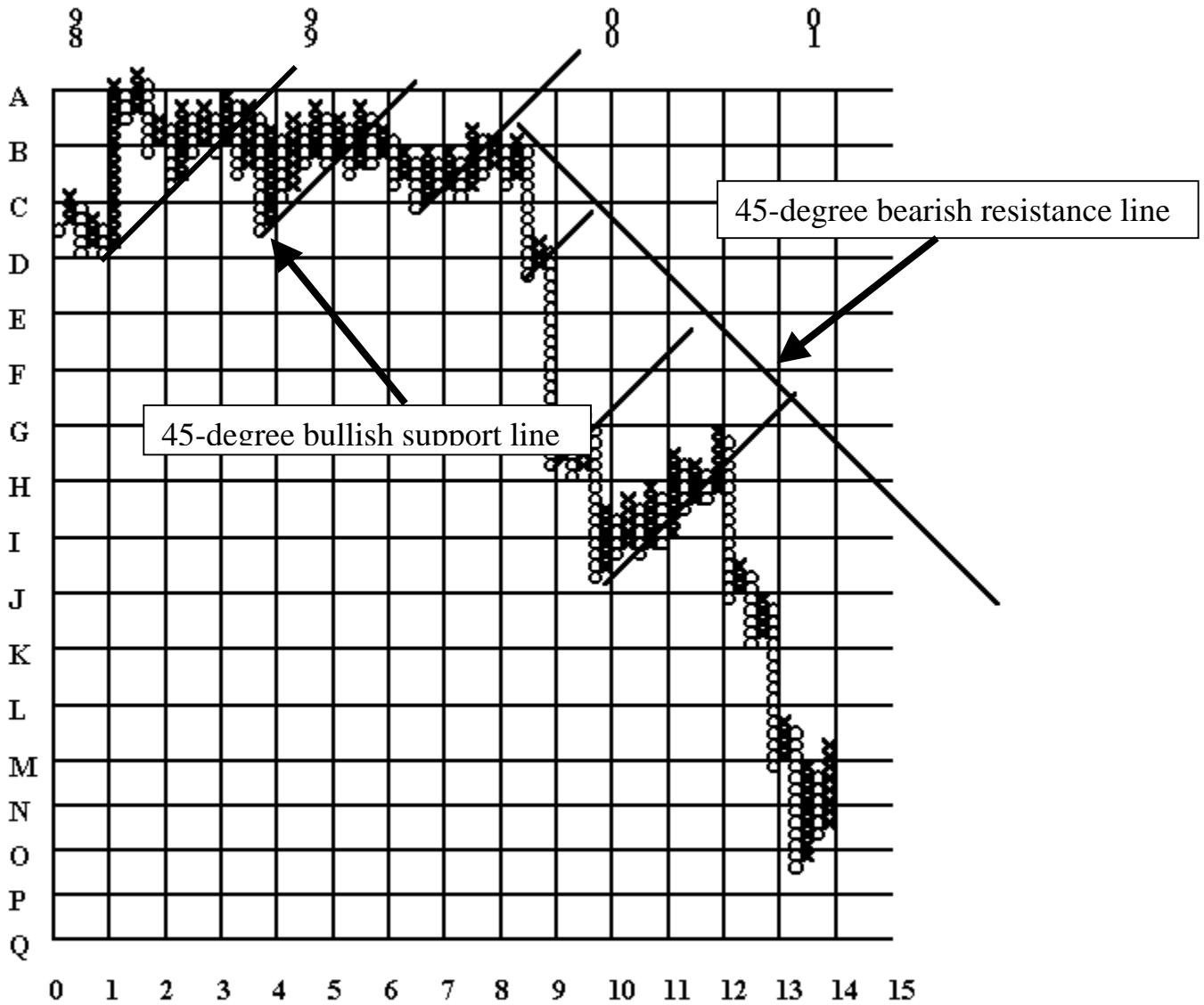
MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 WORLDCOM INC 02/16/2001 15.81 WCOM



A succession of 45-degree bullish support line failures usually indicates a significant top. It is often a mistake to believe that the damage is done and that the stock won't go any lower. As long as the trend is headed down it must be treated with respect. **In my experience, these downtrends can really surprise investors on the downside. There seems to be a universal tendency for investors to underestimate the downside risk.**

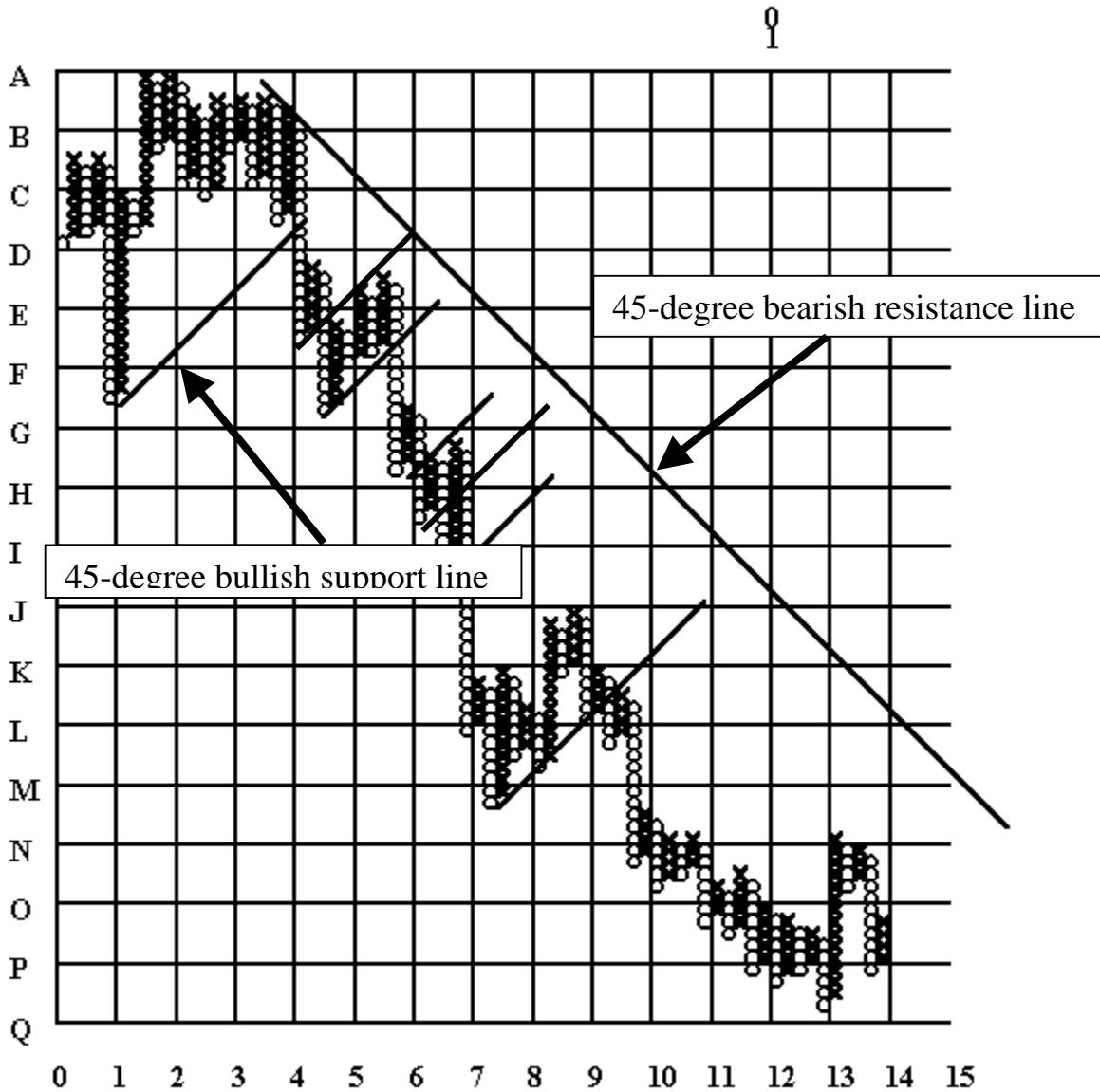
XRX

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
XEROX CORP 02/16/2001 7.15 XRX



YHOO

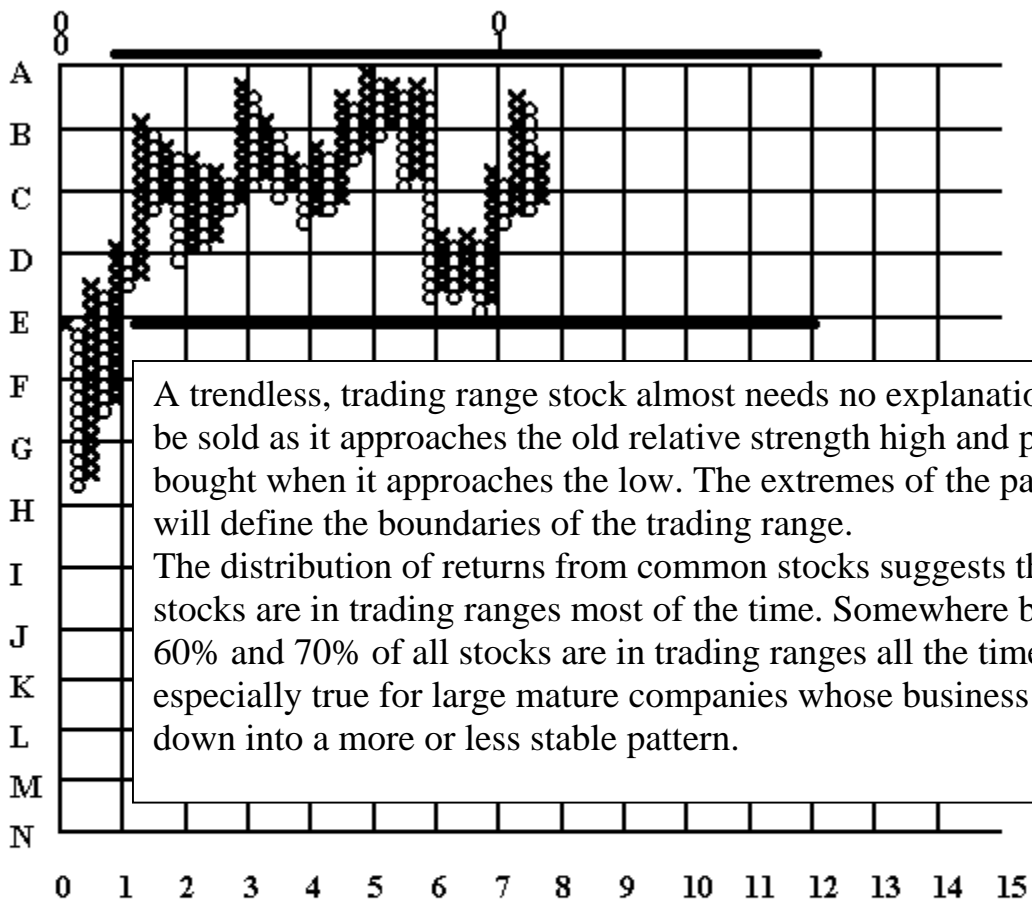
MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
YAHOO! INC 02/16/2001 28.19 YHOO



Examples – Trendless Patterns – Trading Ranges

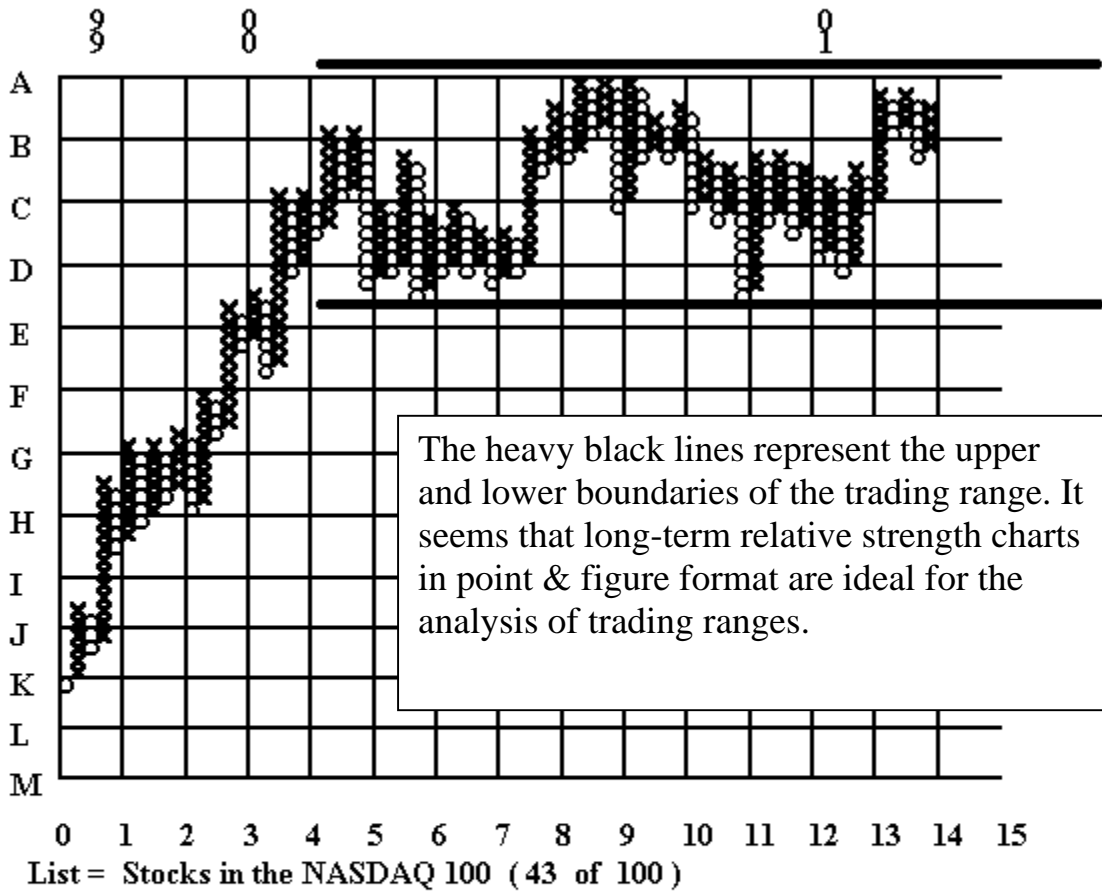
CRTK

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
COORSTEK INCORPORATED 02/16/2001 35.38 CRTK



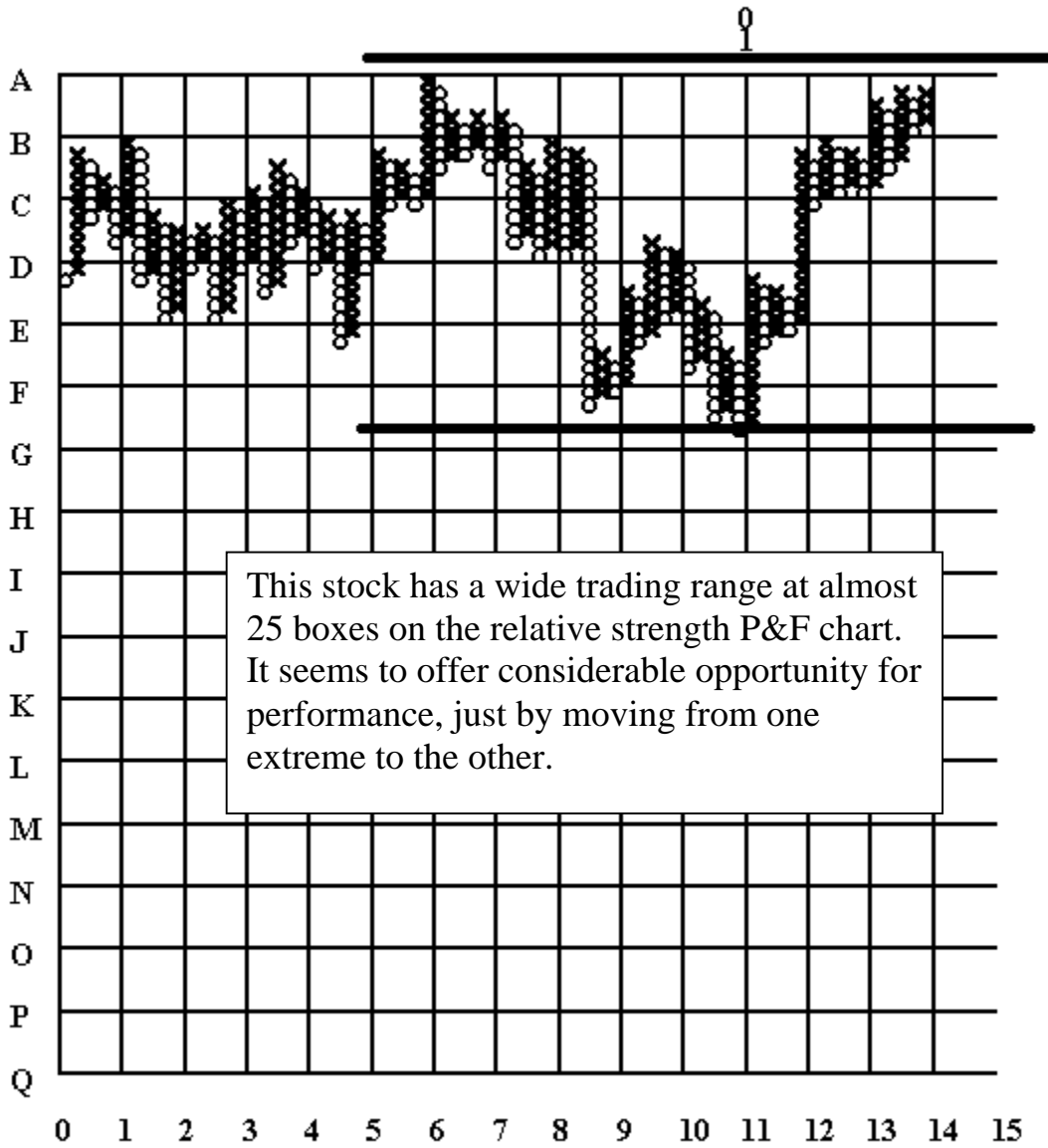
FLEX

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 FLEXTRONICS INTERNAT LTD 02/16/2001 33.69 FLEX



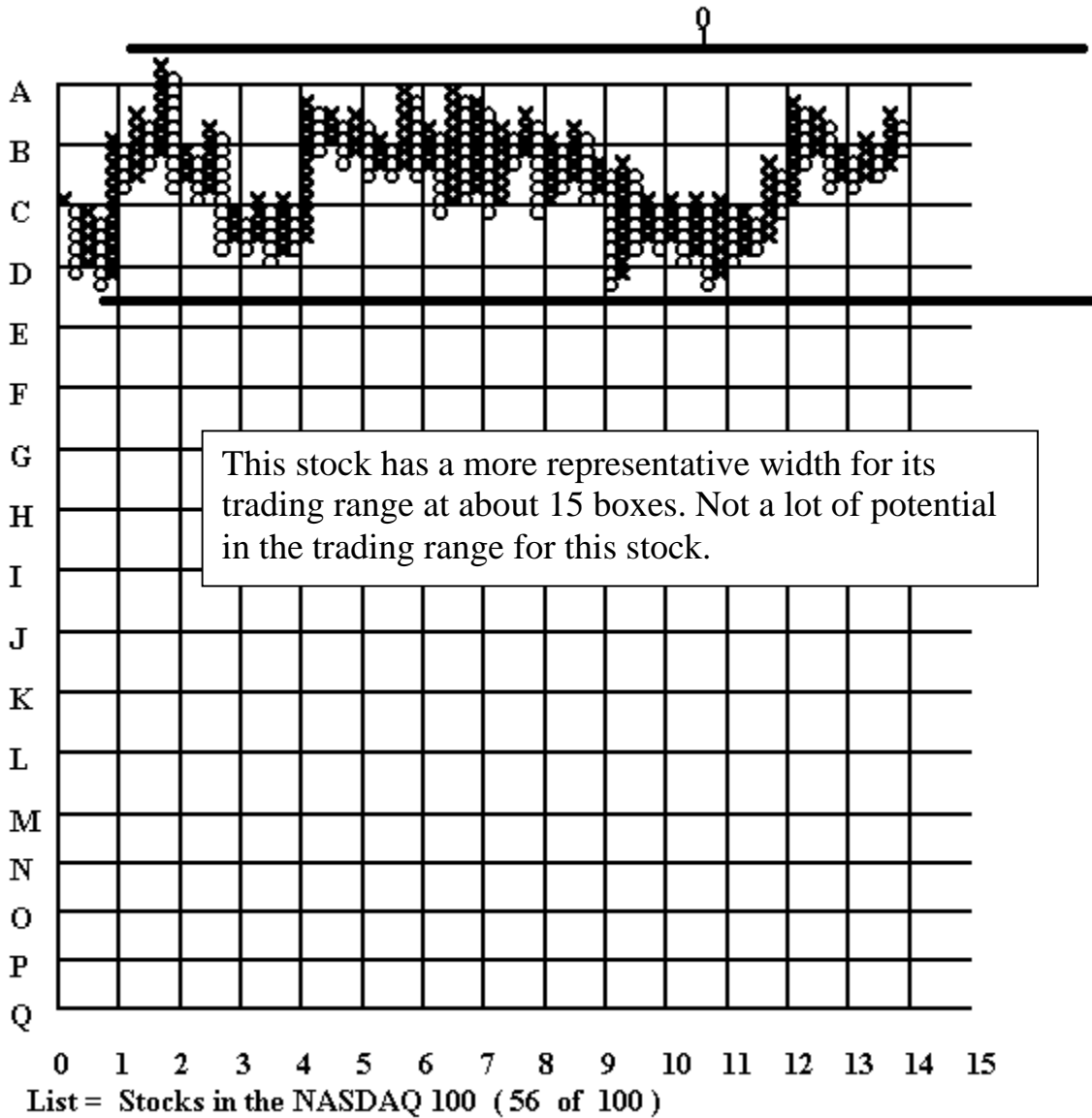
IBM

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
INTERNAT BUSINESS MACH 02/16/2001 115 IBM



LLTC

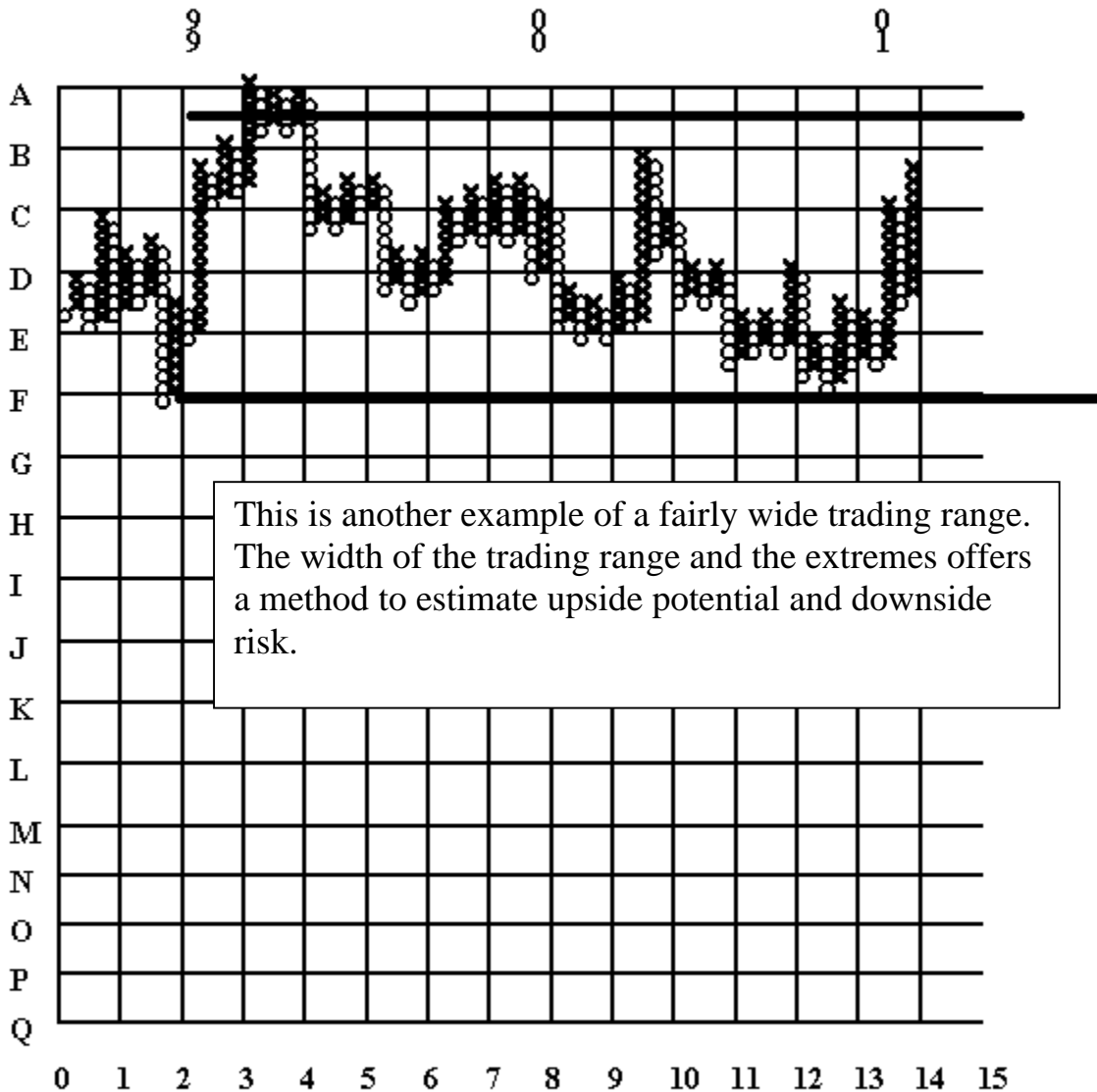
MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
LINEAR TECHNOLOGY CORP 02/16/2001 58.13 LLTC



LOW

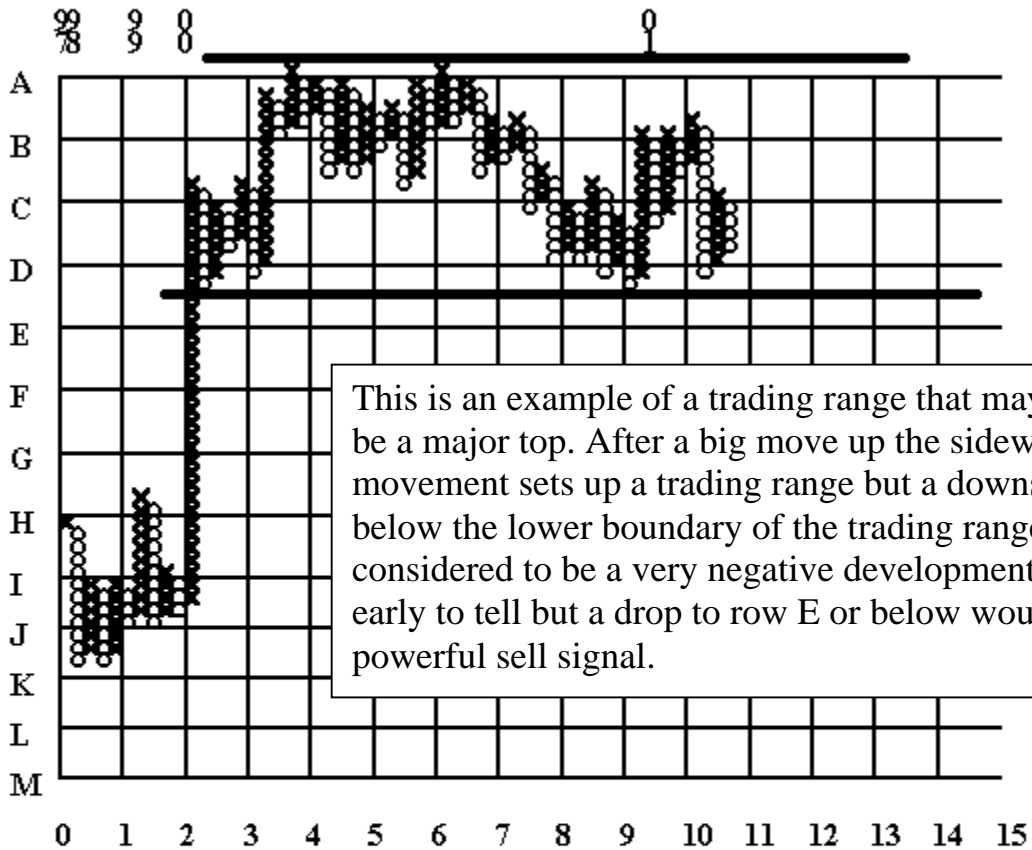
MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500

LOWE'S COMPANIES INC 02/16/2001 56.5 LOW



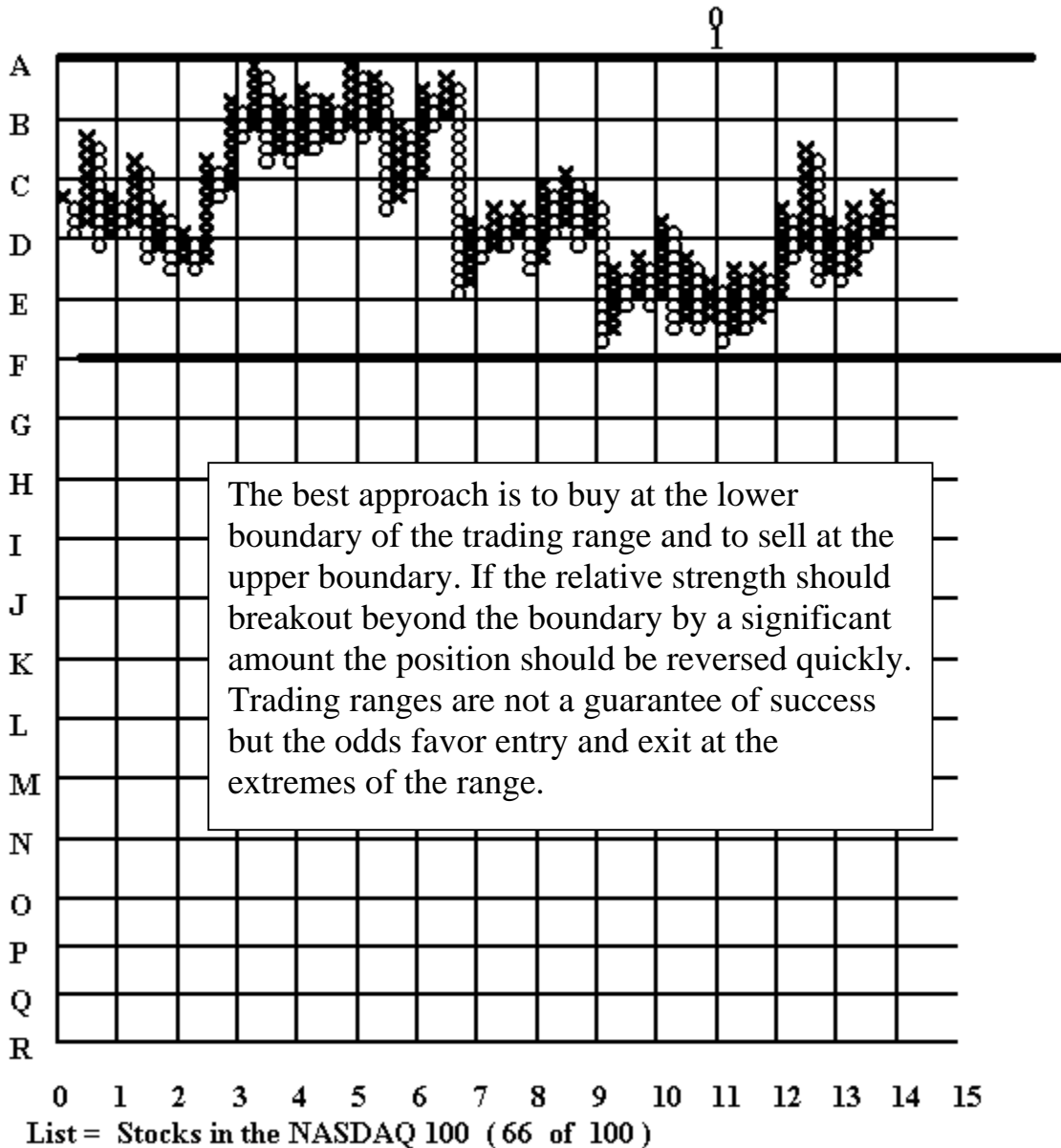
ORCL

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
ORACLE CORPORATION 02/16/2001 24 ORCL



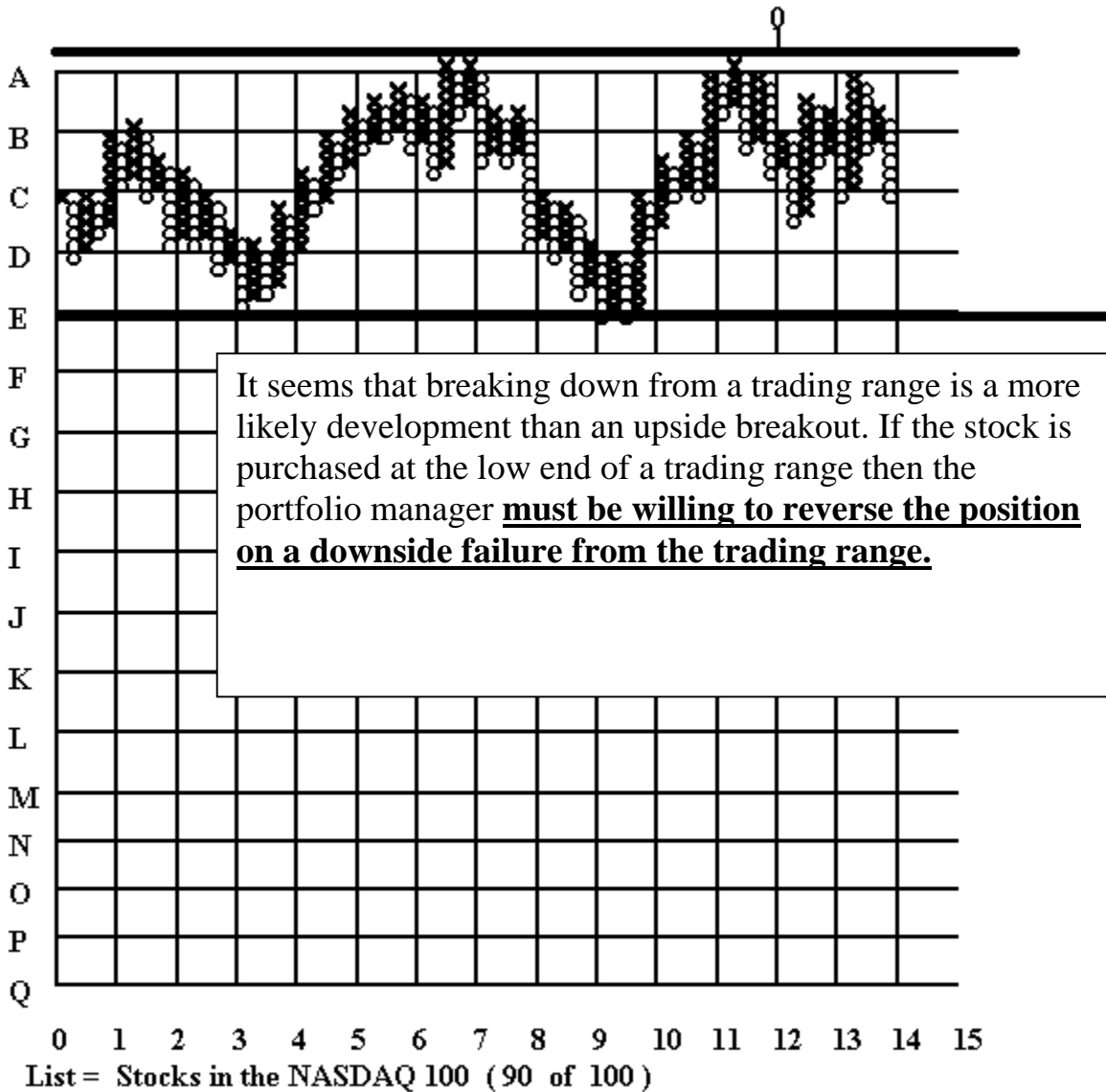
MXIM

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
MAXIM INTEGRATED PRODS 02/16/2001 60.19 MXIM



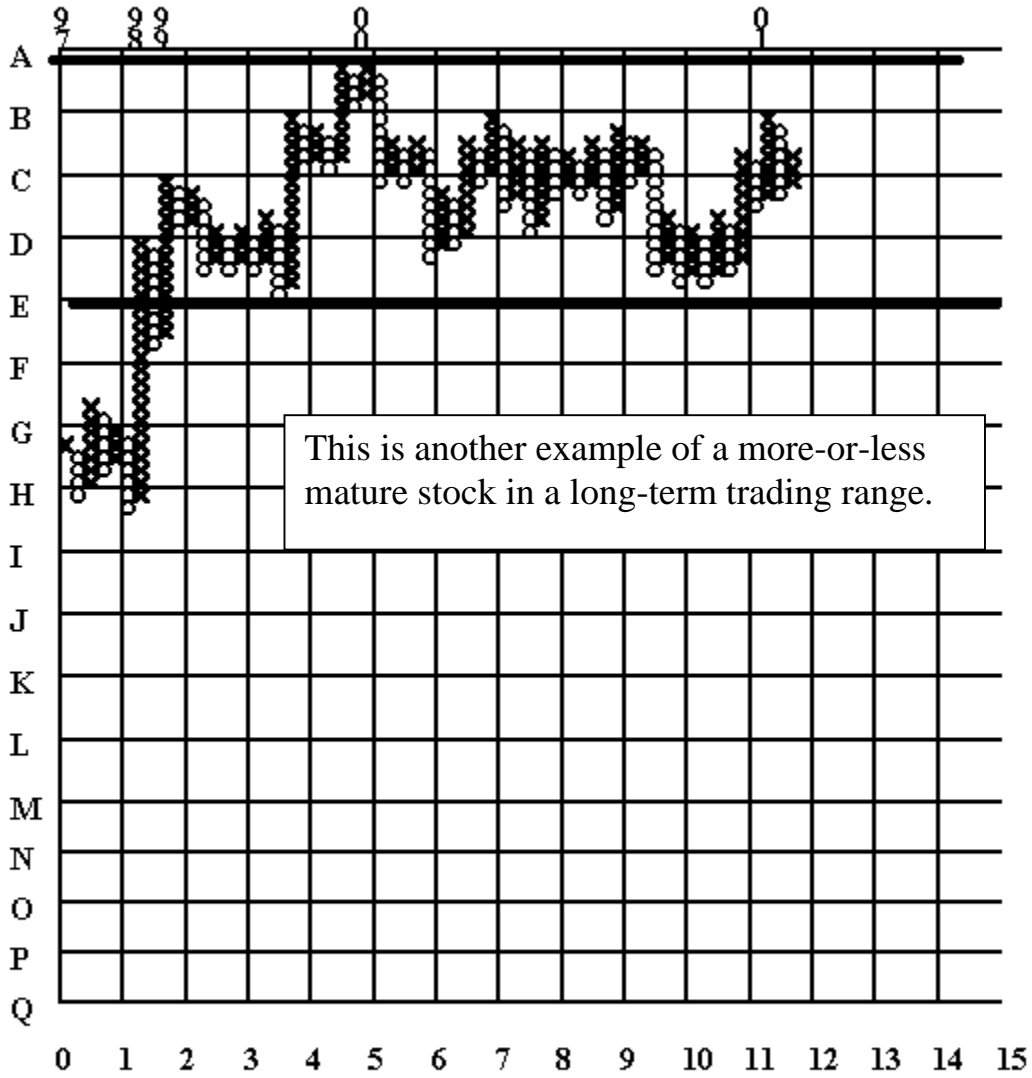
TLAB

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
TELLABS INC 02/16/2001 50.13 TLAB



WMT

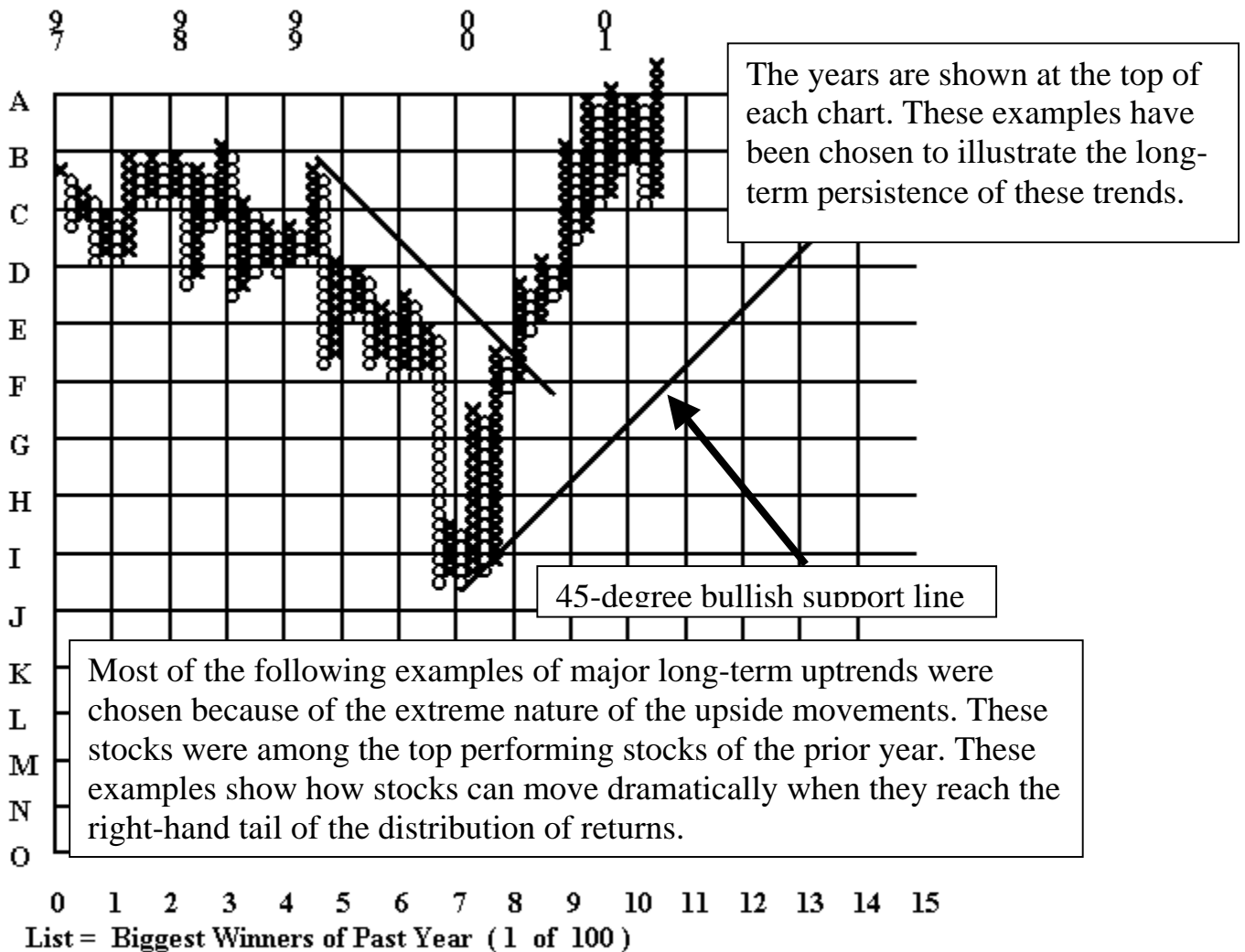
MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
WAL-MART STORES INC 02/16/2001 52.36 WMT



Examples – Major Long-term Uptrends

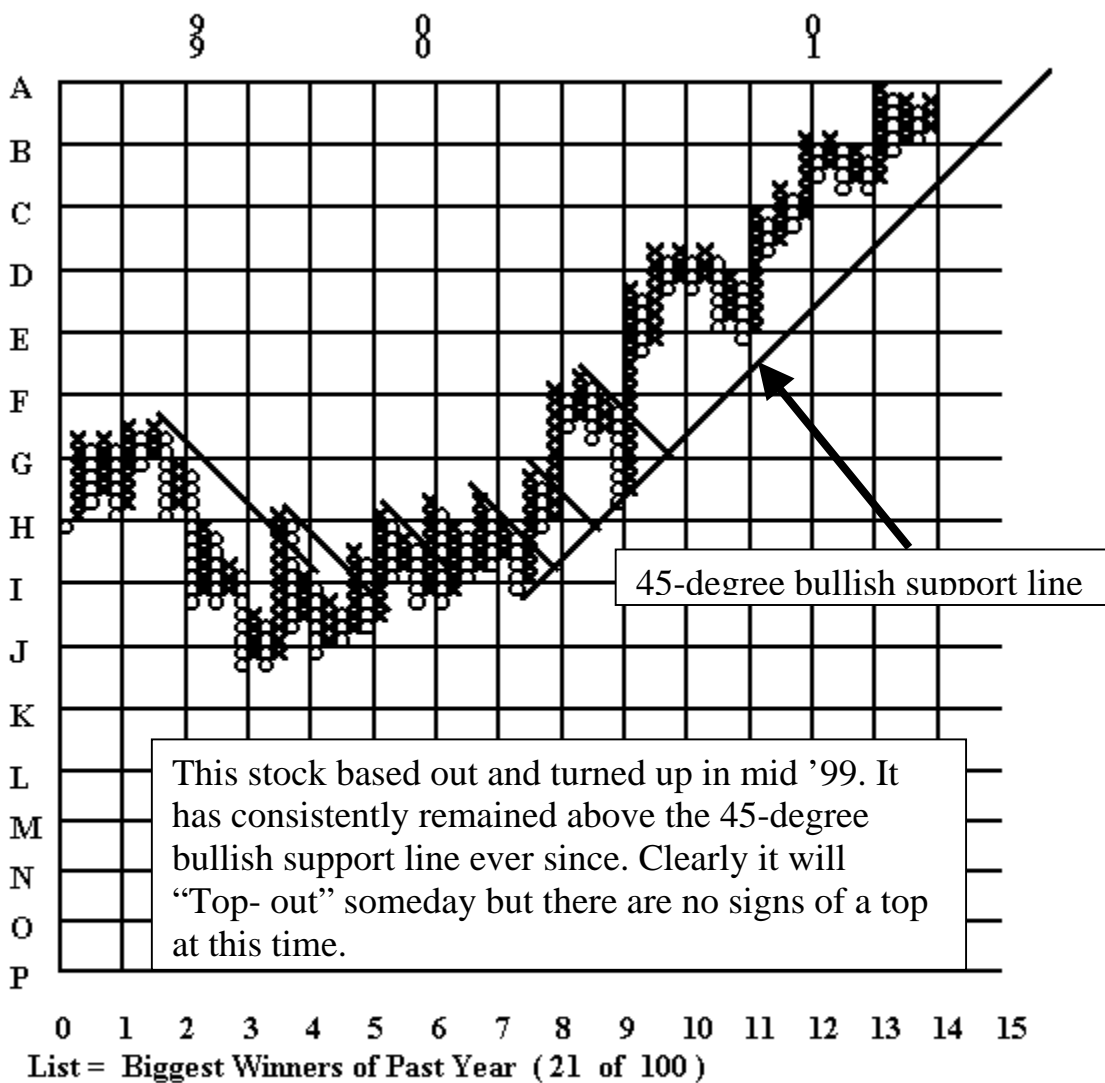
AAS

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 AMERISOURCE HEALTH CORP 02/16/2001 54.74 AAS



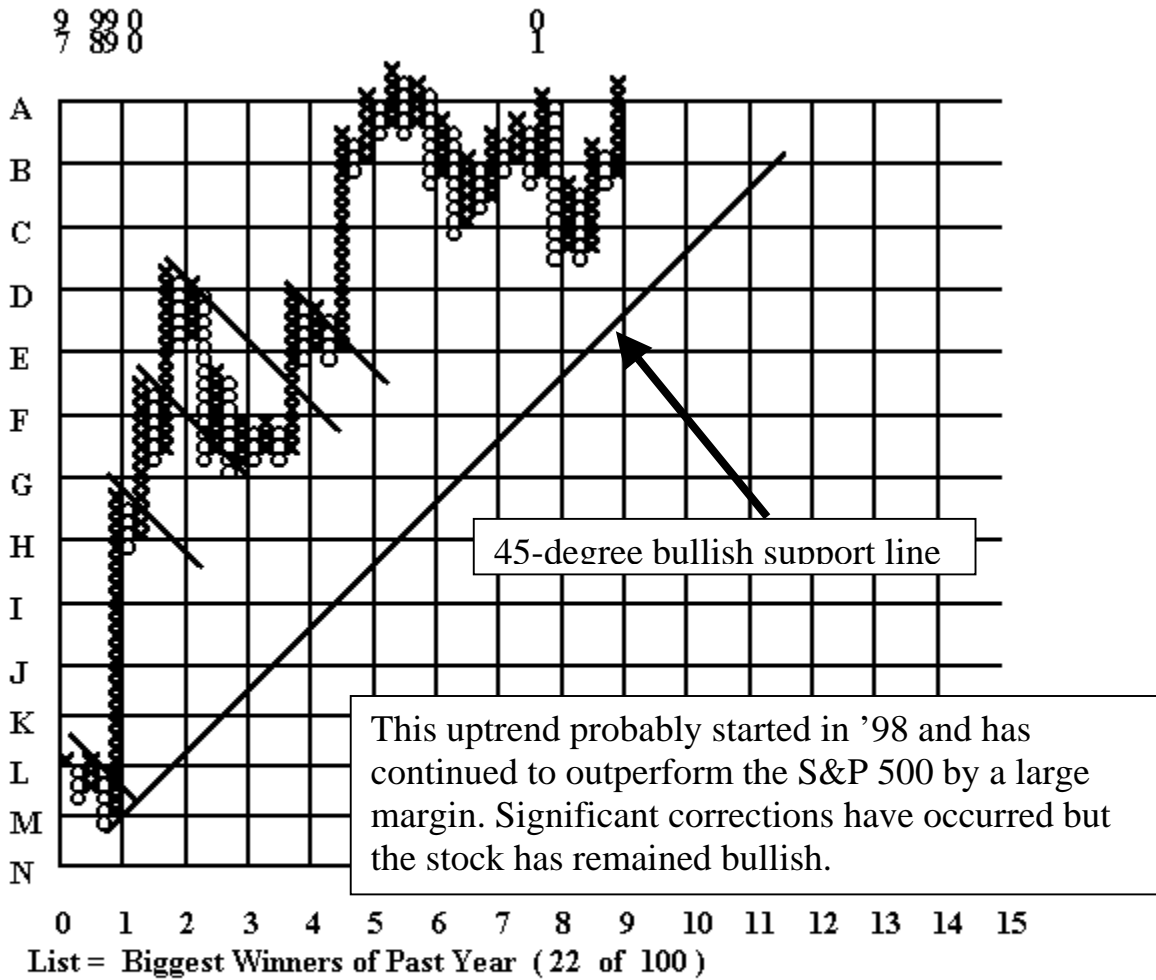
COLM

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 COLUMBIA SPORTSWEAR CO 02/16/2001 55.44 COLM



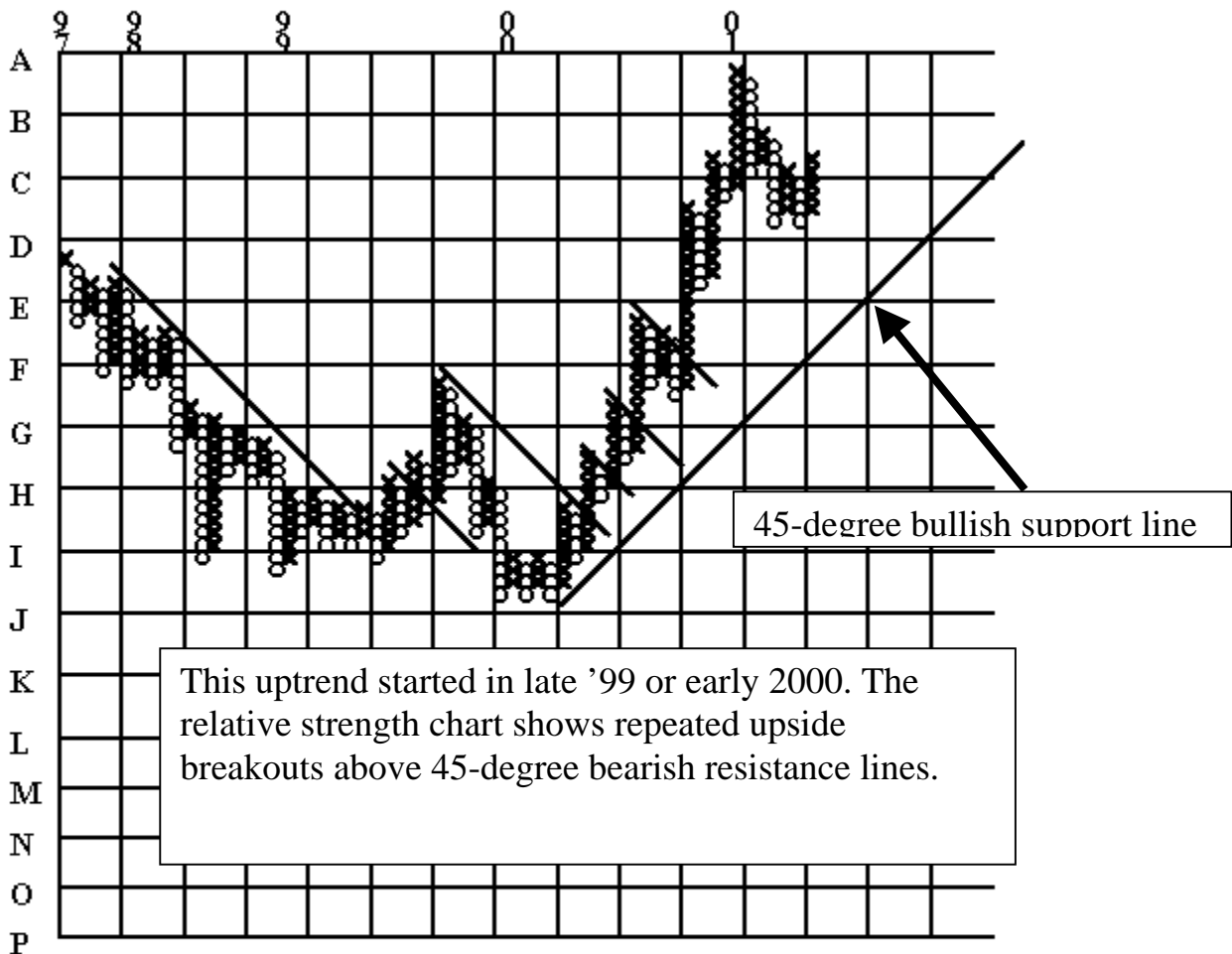
CPN

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 CALPINE CORP 02/16/2001 47.24 CPN



EOG

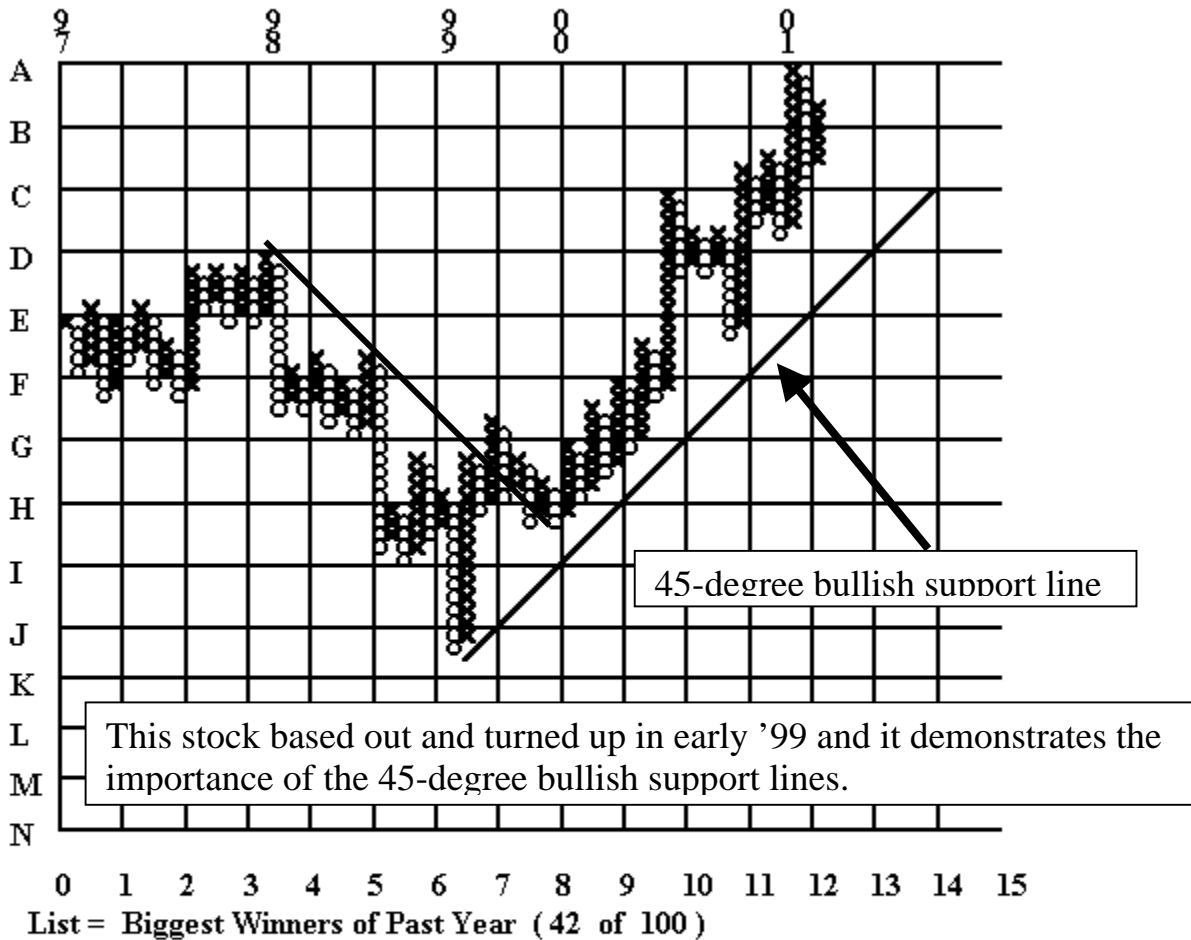
MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 EOG RESOURCES INC 02/16/2001 46.04 EOG



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
 List = Biggest Winners of Past Year (32 of 100)

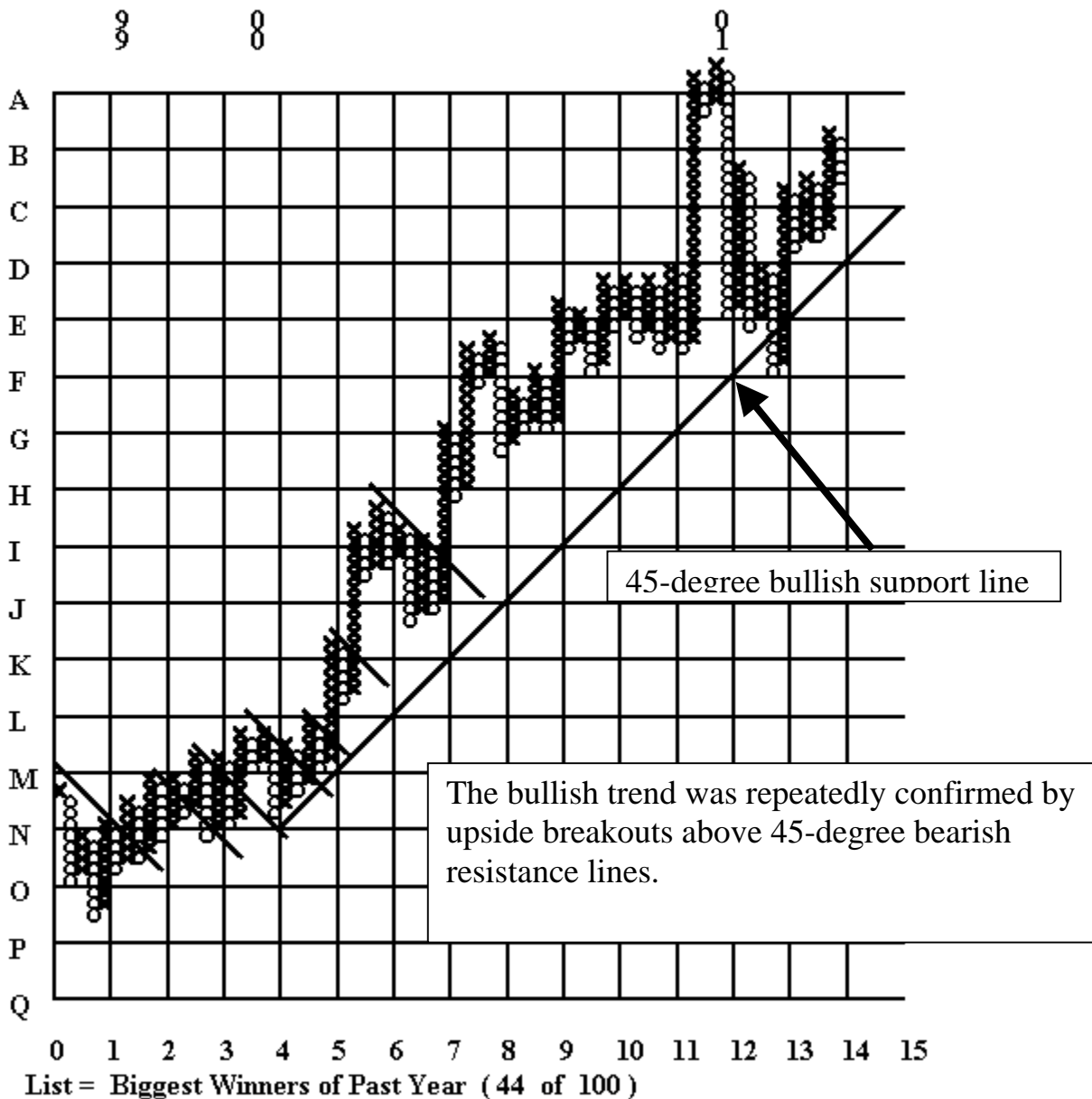
HSE

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 HS RESOURCES INC 02/16/2001 40.77 HSE



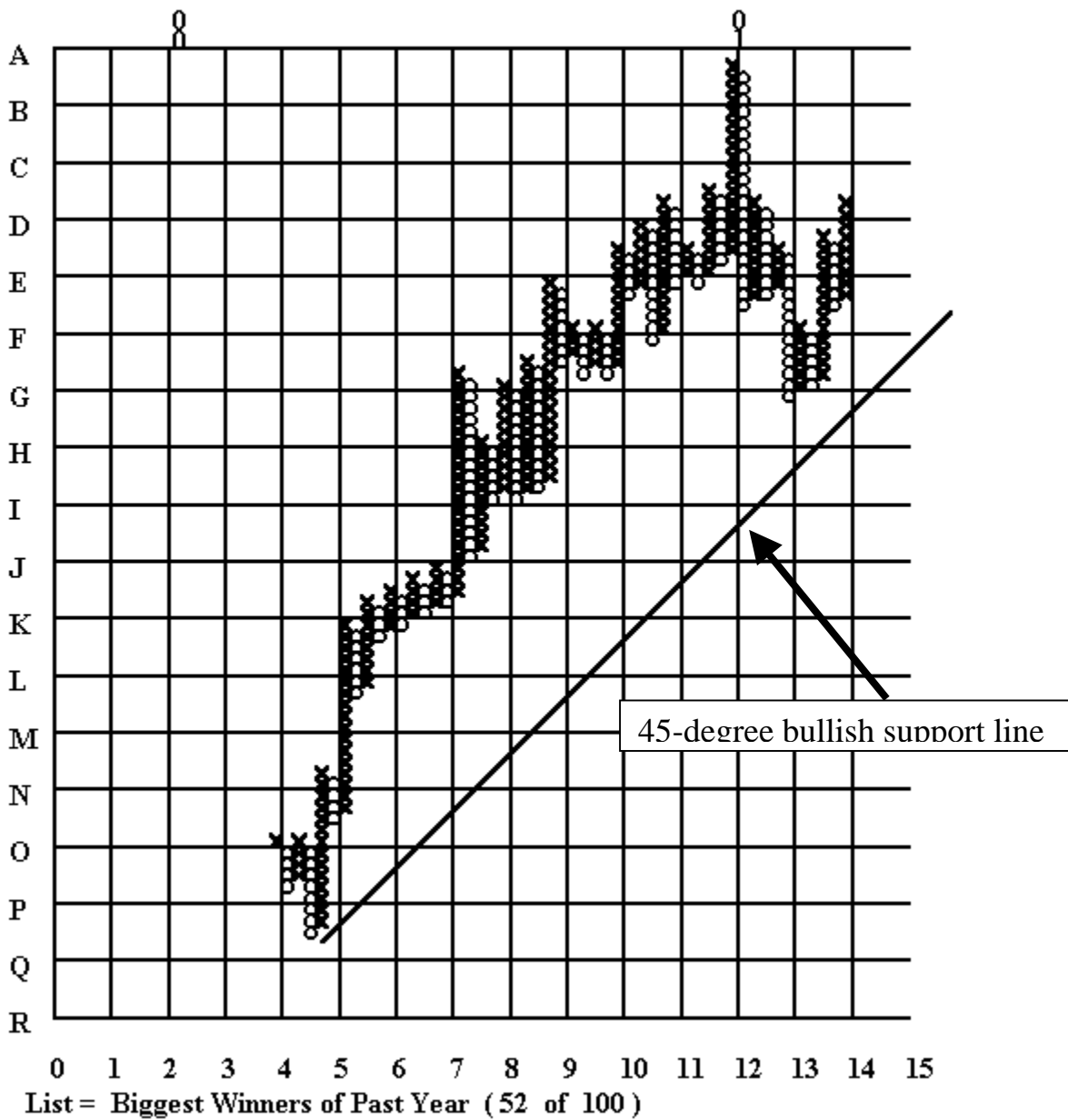
IFIN

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 INVESTORS FIN SVCS CP 02/16/2001 82 IFIN



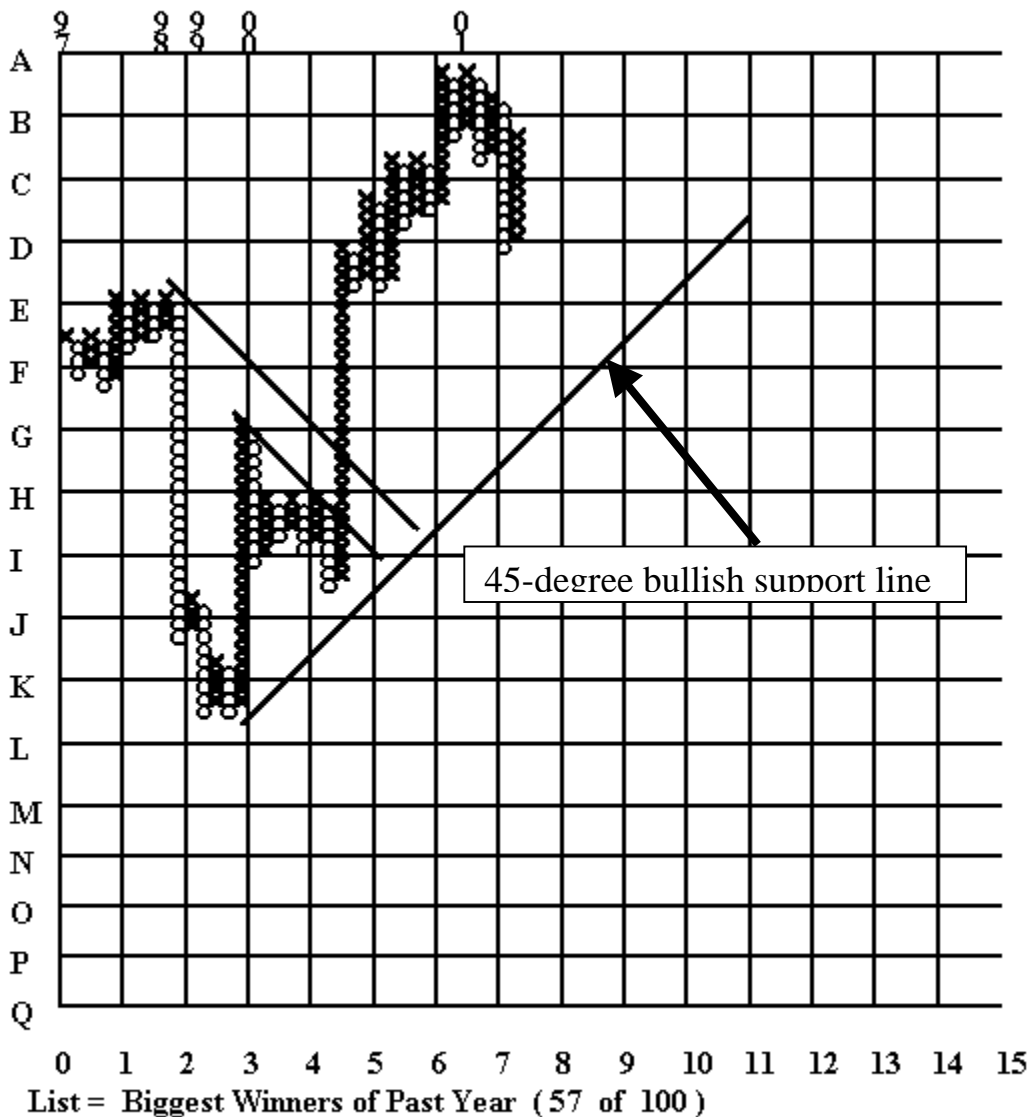
LH

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
LABORATORY CP AM HLDGS 02/16/2001 145.25 LH



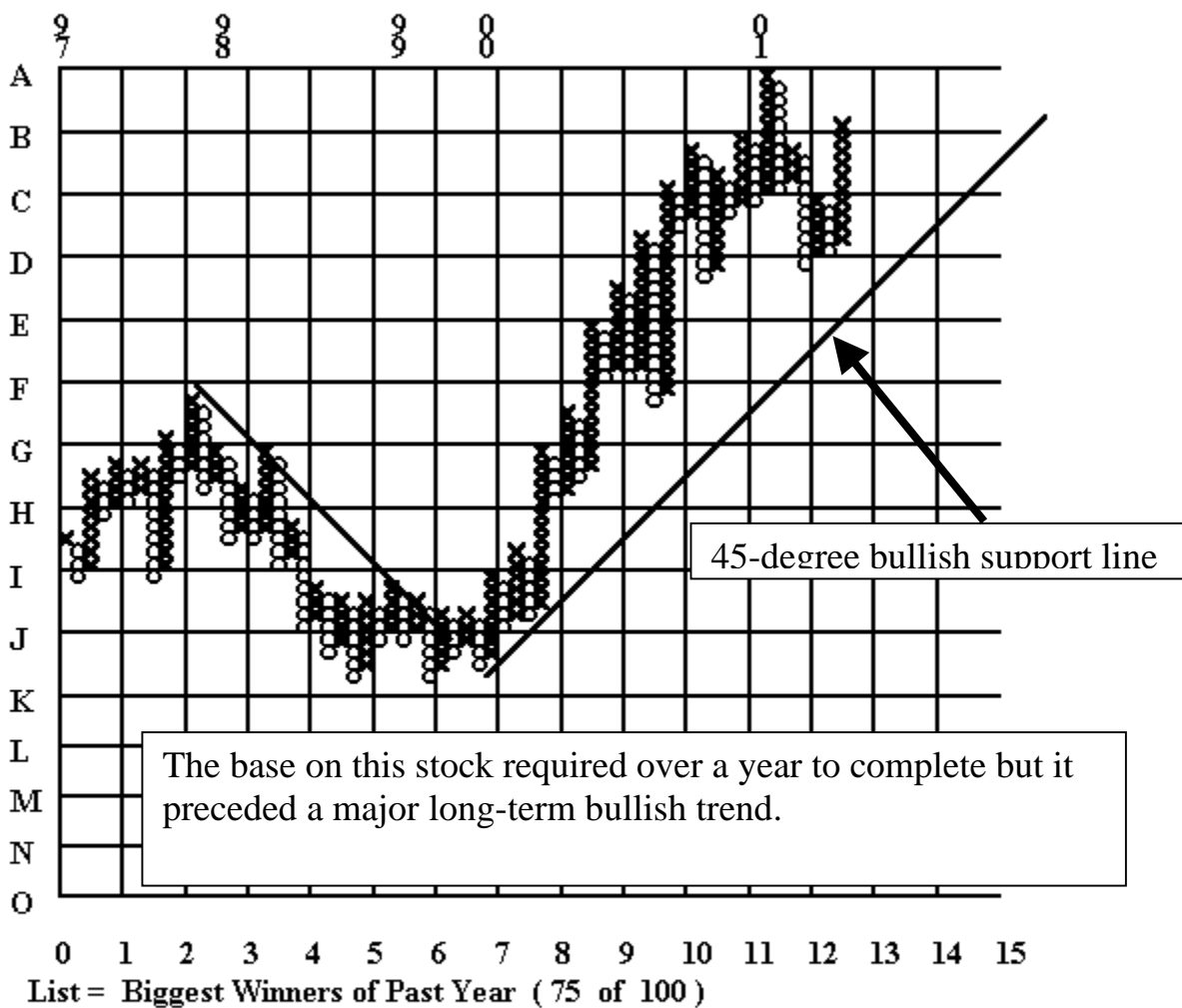
MND

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
MITCHELL ENERGY & DEV A 02/16/2001 56.9 MND



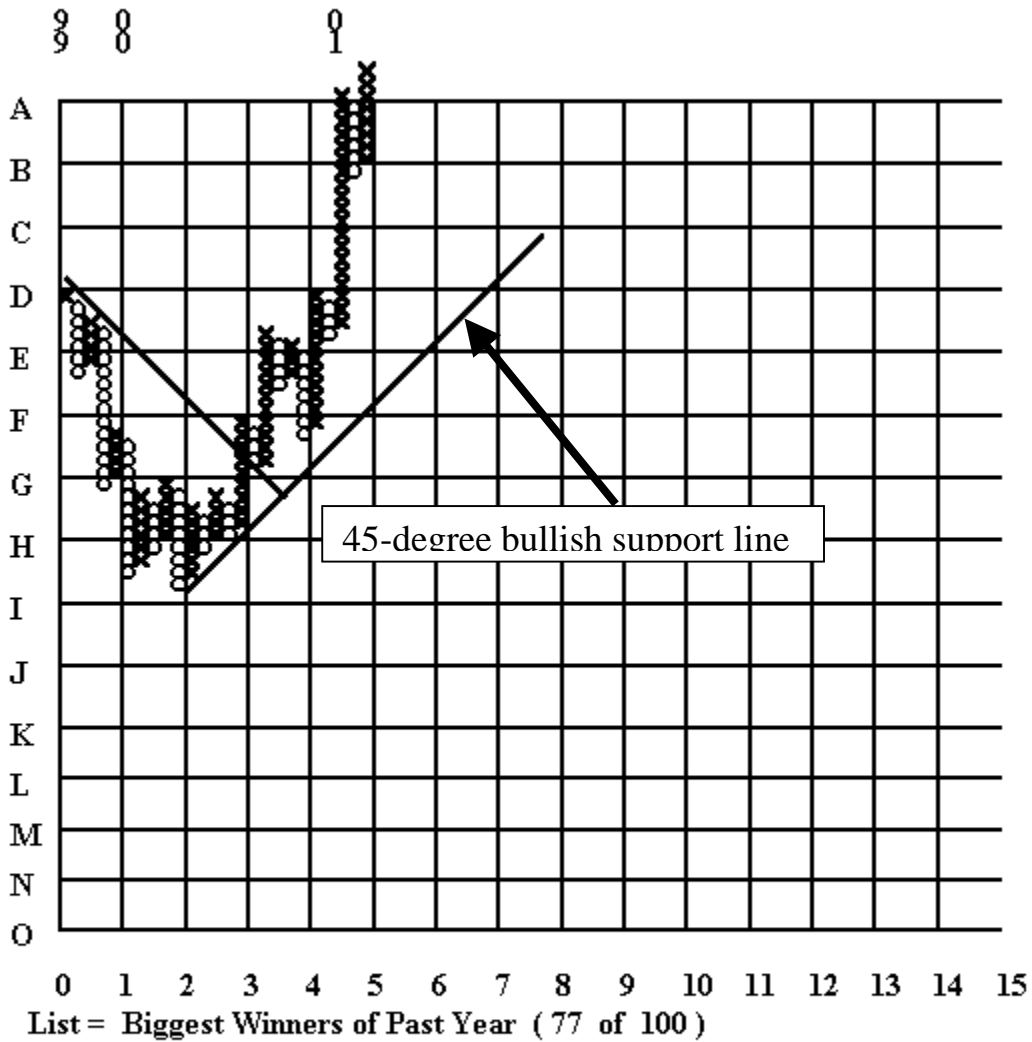
RHB

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 REHABCARE GROUP INC 02/16/2001 45.3 RHB



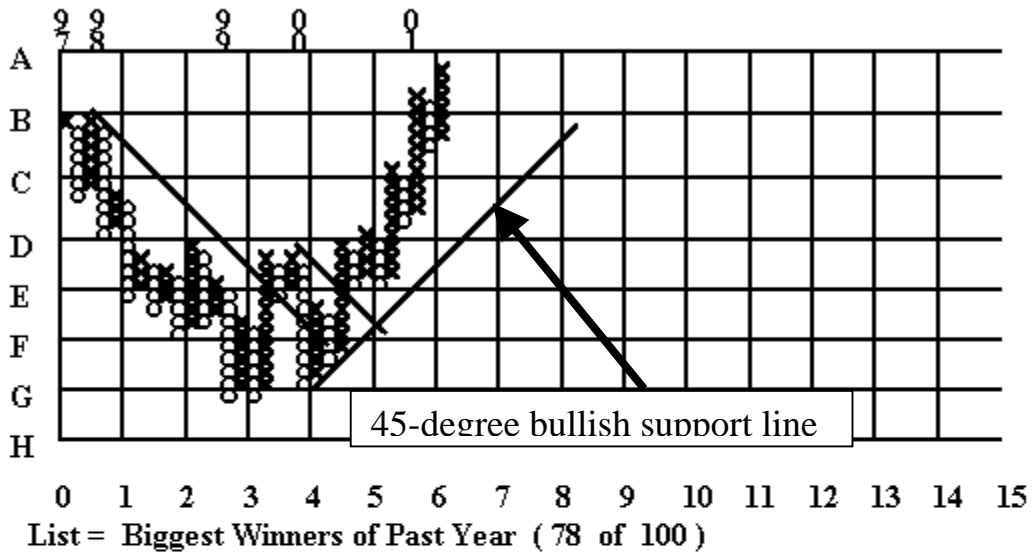
RJR

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 RJ REYNOLDS TOBACCO HLDG 02/16/2001 53.41 RJR



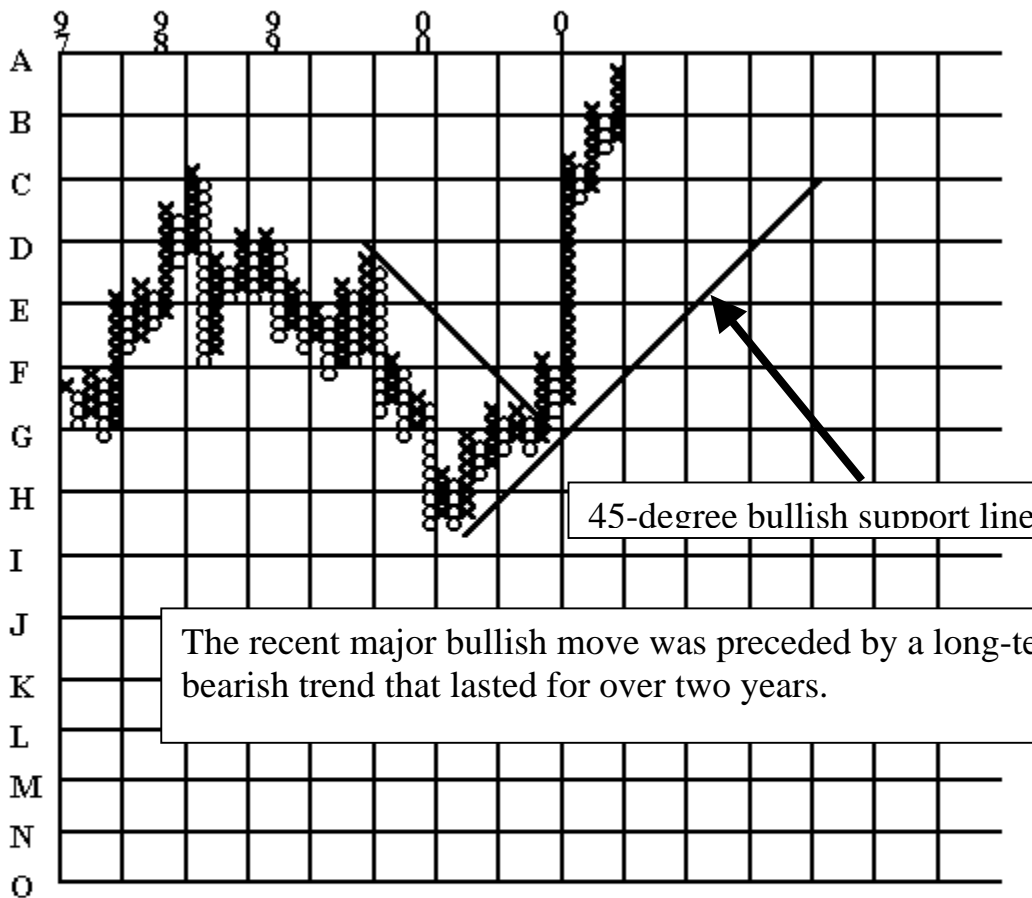
ROIL

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
REMINGTON OIL&GAS CORP B 02/16/2001 15.06 ROIL



RYL

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
RYLAND GROUP INC. THE 02/16/2001 48.01 RYL

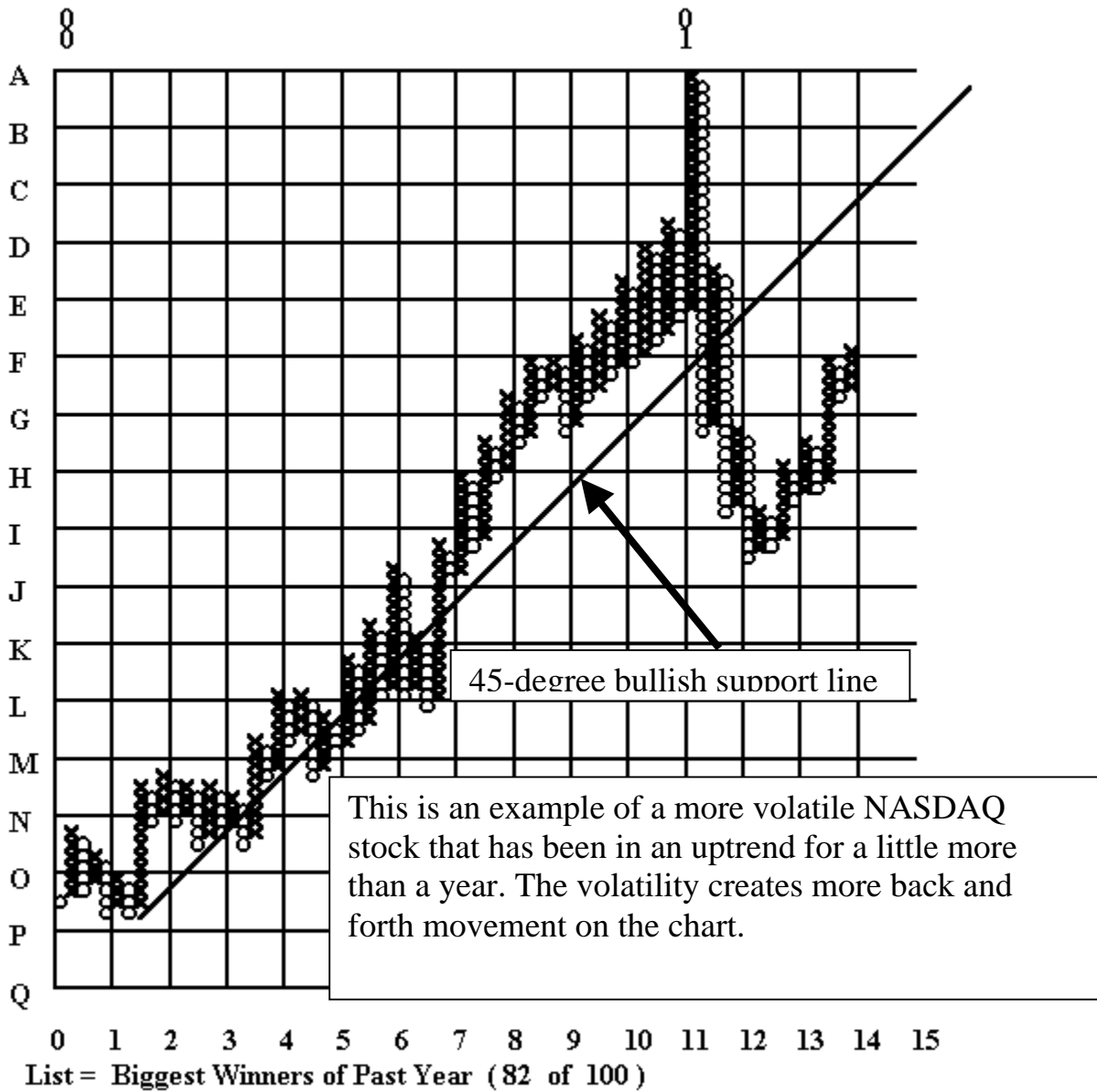


0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

List = Biggest Winners of Past Year (79 of 100)

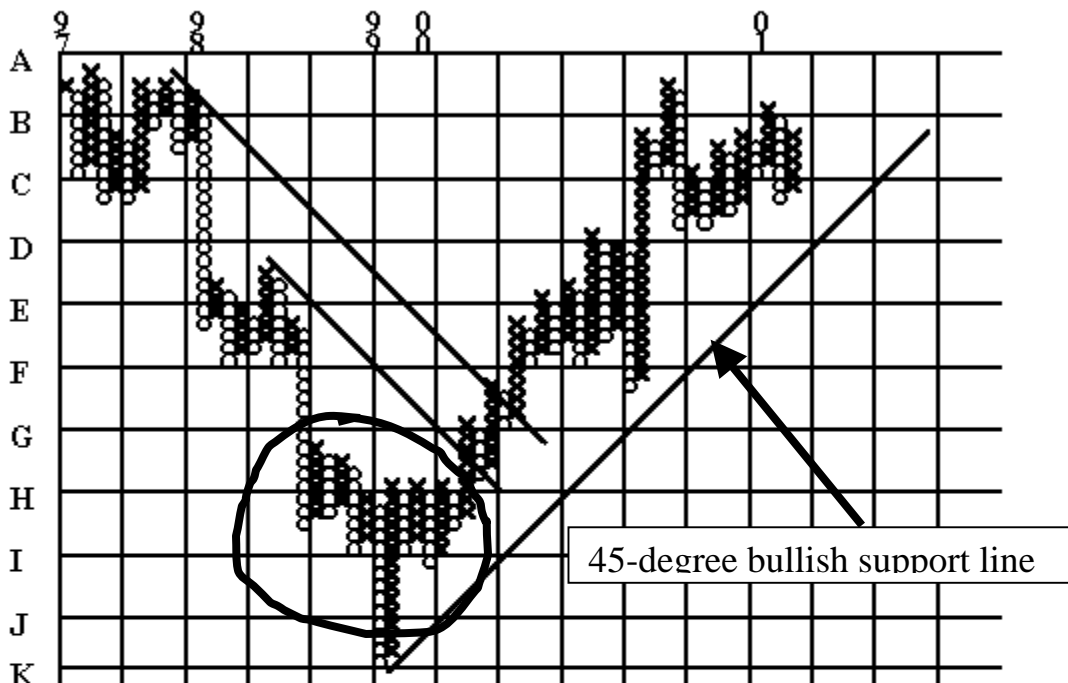
SEIC

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
SEI INVESTMENTS COMPANY 02/16/2001 91.75 SEIC



SFY

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 SWIFT ENERGY CO 02/16/2001 36.75 SFY



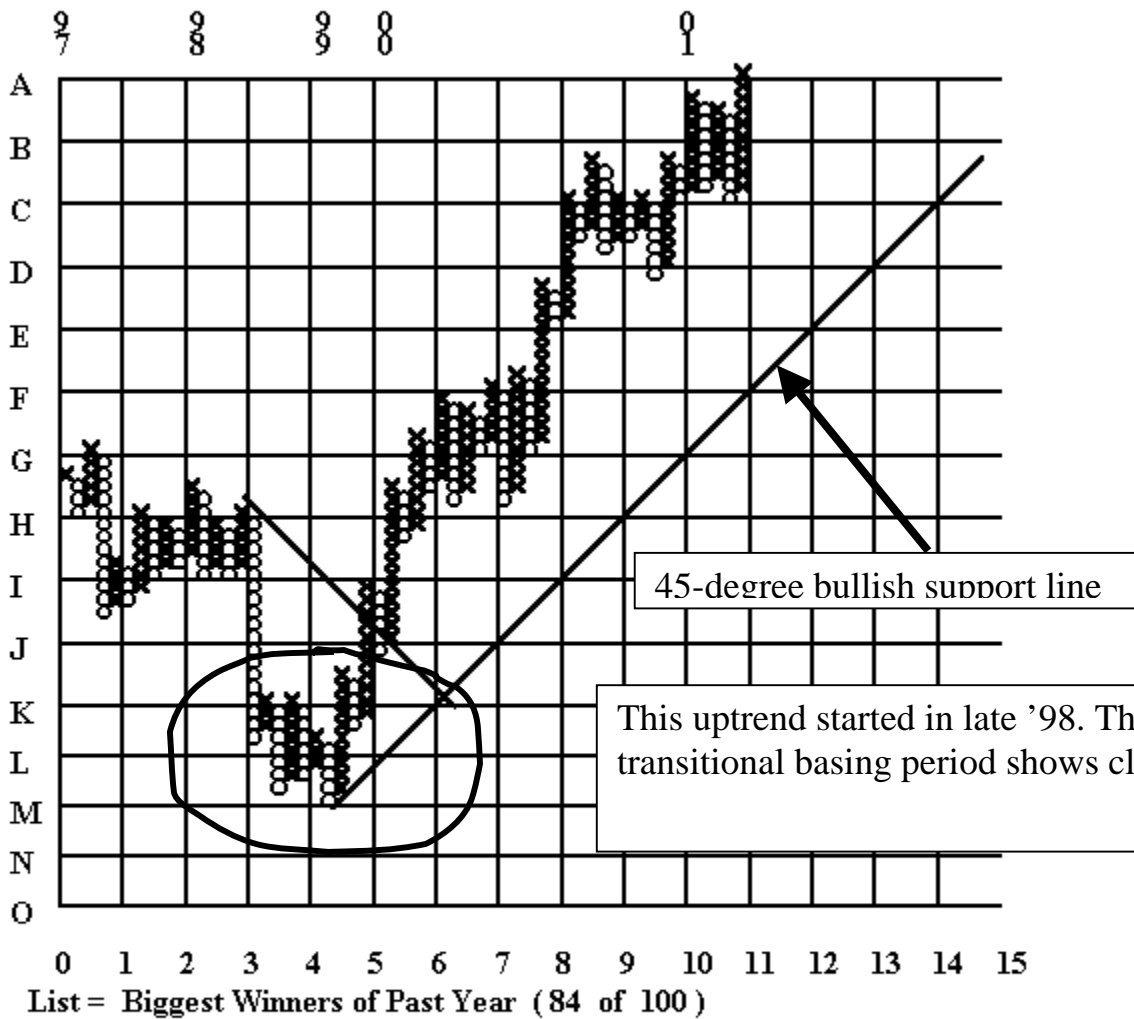
45-degree bullish support line

The transition from a long-term bearish trend to a long-term bullish trend usually requires an extended period of sideways movement, which is referred to as a base. Major bases may take as long as several years to complete.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
 List = Biggest Winners of Past Year (83 of 100)

SGR

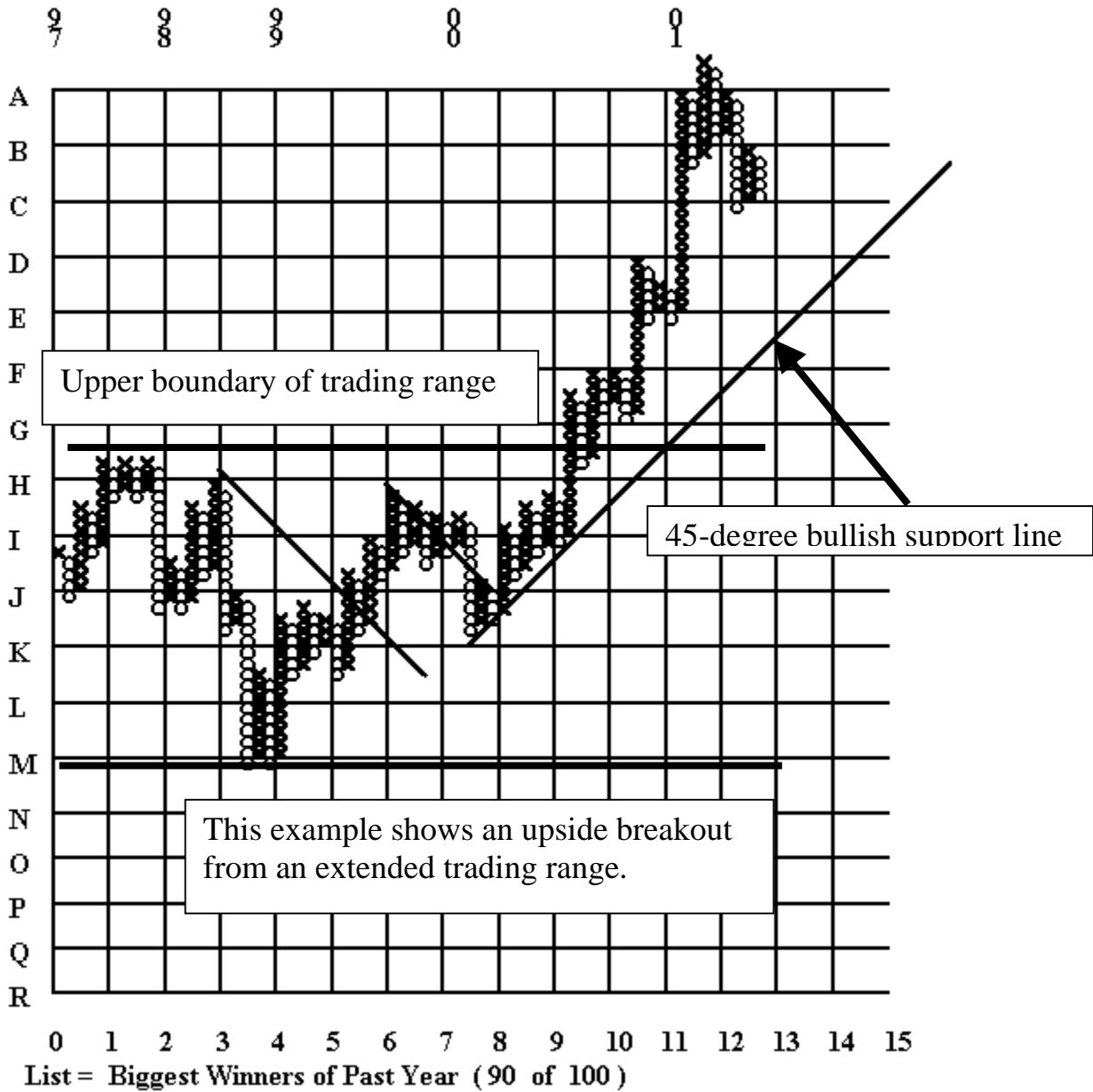
MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500
 SHAW GROUP INC (THE) 02/16/2001 52.04 SGR



TBL

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500

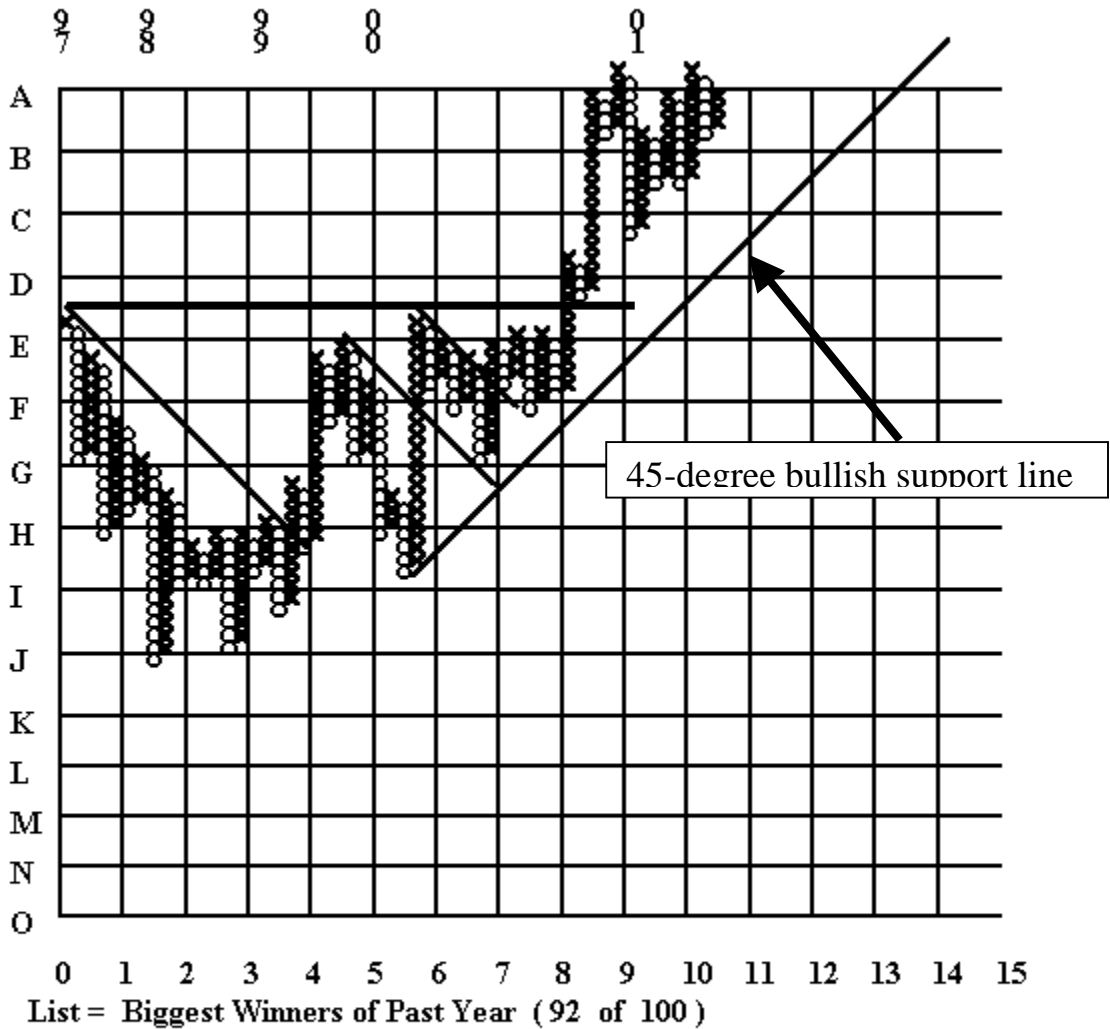
TIMBERLAND CO 02/16/2001 59.84 TBL



TLB

MARKET DYNAMICS - RELATIVE STRENGTH vs S&P 500

TALBOTS INC 02/16/2001 50.69 TLB



Summary and Conclusions

This section of the tutorial was constructed to demonstrate the usefulness of long-term technical analysis to managers of long-term investment portfolios. The long-term relative strength in point and figure format helps the portfolio manager achieve positive turnover by holding winners and identifying and selling losers. The emphasis should be on the sell decision, which is primarily a technical analysis function. The buy decision should remain primarily a fundamental analysis function. The users of the Market Dynamics System will benefit from the clarity and simplicity of the presentation that damps out noise and meaningless price variation and lets the more important long-term trends show through. This approach facilitates adaptation to changing conditions and reduces the performance costs of prediction errors. It provides a method to successfully implement the recommendations of The Loser's Game.

W. Clay Allen CFA

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