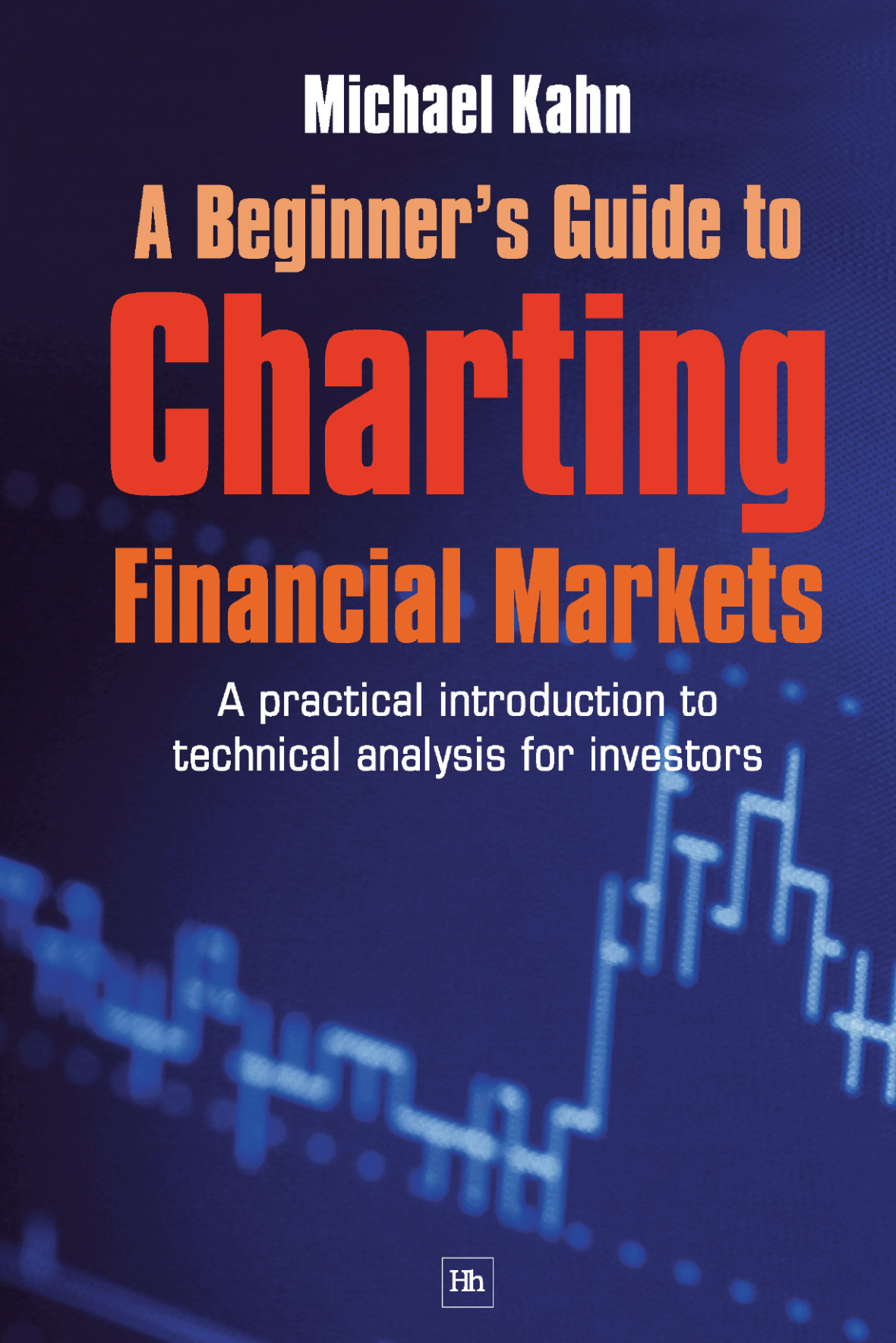
Michael Kahn

A Beginner's Guide to Charting Financial Markets

A practical introduction to technical analysis for investors



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A Beginner's Guide to Charting Financial Markets

A practical introduction to technical analysis for investors

by Michael Kahn

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This book is dedicated to small investors everywhere

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About the author

Michael N. Kahn currently writes the twice-weekly column "Getting Technical" for *Barron's Online*. He also produces a daily technical market newsletter, *Quick Takes Pro*, (www.QuickTakesPro.com).

Previously, he was chief technical analyst for BridgeNews, a division of Bridge Information Systems.

He has been a regular guest on the *Nightly Business Report* on PBS, has appeared on CNBC and was the editor of the Market Technicians Association newsletter *Technically Speaking*. His first book, *Real World Technical Analysis*, was published in January 1998, and his second, *Technical Analysis: Plain and Simple,* is now in its second edition (2006) and is published in several languages.

Prior to writing technical commentary, Mr. Kahn was a senior product manager for Knight-Ridder Financial before that company was merged into Bridge. He was responsible for the marketing design of several of the firm's charting software platforms and launched technical analysis coverage for Knight-Ridder Financial News. He was also a co-editor of the *Tradecenter Market Letter*.

Prior to joining Bridge/Knight-Ridder Financial in 1986, Mr. Kahn was a senior municipal bond specialist with Merrill Lynch. He also worked in the Financial Planning Department at Shearson Lehman American Express.

Mr. Kahn holds a Bachelor of Arts in Physics and Economics from Brandeis University and a Master of Business Administration from New York University. He is also working on his Chartered Market Technician professional designation.

Preface

Who this is for

If you've always wondered about charts and how they can help you make better investment decisions, then this book is for you. Without using any jargon or complicated formulas, we'll just focus on making the only decision there is to make when it comes to the markets – buy, sell or hold.

What the book contains

We're not focusing on squeezing that last nickel out of a stock. We're not paving a path towards becoming a professional trader or even a trader at all. All we want to do is take whatever analysis we have already done, whether it is based on earnings, demographic trends or interest rates, and make it better. We know what we think of a stock. Let's find out what the market thinks and that's where charts excel.

At the end of the day, if our analysis is sound and the charts agree, then we can be confident with our decisions. If the charts disagree, then perhaps we should move on to our second choice or even just stay away from the market altogether. In any case, we will gain a sense of confidence and that is worth a lot.

How the book is structured

This book is in two parts, the first laying the groundwork and the second putting that knowledge to the test. One theme the reader will notice is that we are searching for the spirit of the analysis and are not concerned with precision and picky details. After all, no matter how fancy the indicators and how complex the maths behind any investment system, the bottom line is answering the question: "Do we buy it or not?"

Introduction

This book is about arming investors with one simple tool that will enhance the investment decision-making process – the chart.

It is not the Holy Grail and even if applied exactly as offered there is no guarantee that the reader will be successful. But owning a high quality hammer is no guarantee that the user will build a beautiful house. The hammer is a tool and in most cases the user will still need other tools – and knowledge – to build that house.

Despite its enormous and still growing popularity, technical market analysis still gets a bad rap. Purveyors of this art have been called tealeaf readers, and many similar names, but that has nothing to do with what technical analysis is attempting to do. If we strip away all the fancy indicators and obtuse jargon, what is left is a time-tested method of finding investment opportunities and assessing their risk. There is no fortune-telling here; only figuring out what we can do about the market. And what we do is the only part of the markets that we can control.

What this book will do is give the reader the basics needed to look at a chart and get a feel for what the market or individual stock is doing. It will cover only the nuts and bolts of chart analysis, barely touching upon the next level concepts, and definitely leaving the whiz-bang stuff well alone.

It should be stressed that this book will not replace the reader's current methods of stock selection and investment strategies. What it can do, however, is add a new dimension to the analysis to confirm or refute what is already known. Basically, there is no need to give up other methods for selecting stocks, although by the end of the book the reader may be drawn to further learning and eventually discover that charts can, indeed, be the primary, if not sole, investment decision-making tools.

Some notes:

The terms *charting* and *technical analysis* are nearly interchangeable for the purposes of this book. The latter may bring connotations of more advanced concepts but don't let that worry you. This book is written for beginners.

The focus of the book is on the stock market with occasional references to others, such as bonds or commodities. Charts are completely comfortable operating in any market so everything covered here applies to the individual investor in any country where there are developed markets.

The reader will notice that chapters overlap each other and many concepts and analyses are introduced and reintroduced, sometimes several times. This is by design to hammer home certain points and allow each chapter to stand alone.

So let's get into it and discover a new world of investing tools that are sure to open a few eyes and make the process a little bit easier.

1

Introduction To Charting

There are many different types of charts but the simplest to comprehend at the beginner level are those that plot price action over time. For our purposes in this book we will only consider two main types of charts:

1. one summarizes a period's trading, called *bar charts*, and
2. one simply connects the close prices together to form a line, not surprisingly called *close charts* or *line charts*.

A period can be a single day, a week, a year, or a unit of 10 minutes. All of them are made in the same way and the only difference is the time horizon in which each operates. As beginners, let's keep to daily and weekly charts.

1. The Basics Of Chart Reading

What is a chart?

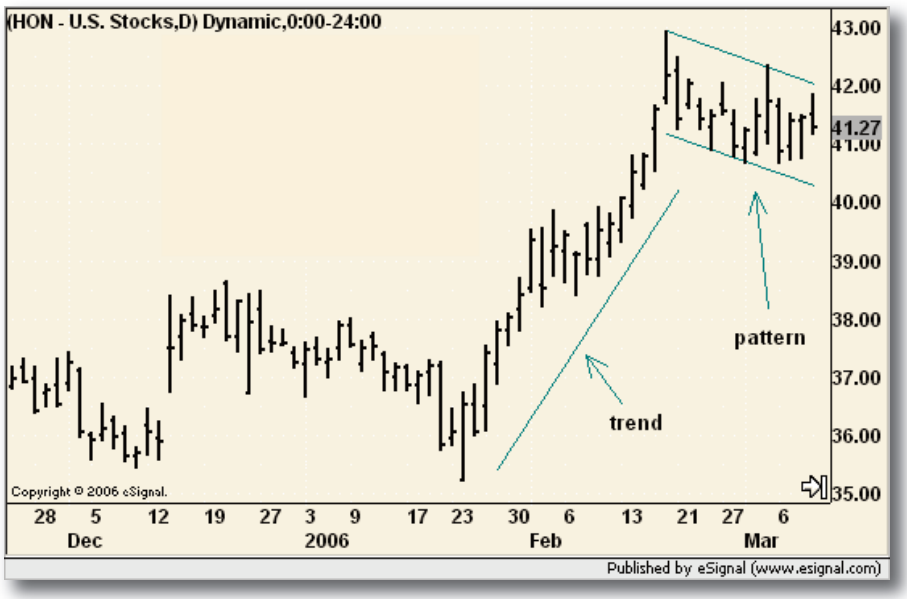
A chart is a tool both investors and traders use to help them determine whether to buy or sell a stock, a bond, commodity or a currency. In one neat package, a huge amount of data can be viewed and as they say:

A picture is worth a thousand words.

For investors, that picture can be worth a thousand days of data, or a thousand weeks of data with, if one chooses, as many indicators and formulas as one can fathom.

As mentioned, bar charts summarize all the trading for any given time period, such as a day or a week (see Chart 1.1). When all those summaries are plotted together, trends emerge and patterns form – all revealing where a stock is right now and how it got there. After all, knowing a stock is trading at a price of 50 is not of much help, but knowing it was at 45 last month and 40 the month before gives us a good idea that it has been in a bullish trend.

Chart 1.1



Some analysts look at a chart and simply draw an arrow on the actual data plot. If the arrow is pointing up, they know the trend is up. Conversely, if the arrow is pointing down, they know the trend is down.

Of course, sometimes the arrow points sideways and other times it is not clear where the arrow should go. That will be addressed later in this book, but suffice it to say there will be times when the charts don't help in making the decision to buy, sell or hold. That's fine. No tool can be applied on all projects. A hammer is a valuable tool for a carpenter but it cannot turn a screw or loosen a plumbing connection, and the same applies to any tool investors may choose to use.

A brief history of charting

Chart watching can trace its roots back more than 200 years to Japanese rice trading. Charles Dow, a forefather of modern technical analysis, and a co-founder of Dow Jones & Co., made his ground-breaking observations in the late nineteenth century.

Analysis was done with paper and pencil for decades until personal computers made their appearance, and with these the sophistication of the analysis blossomed.

Over the past 20 years or so, charting has spread from a few Wall Street analysts with access to price and volume data to the mainstream. With the explosion of trading activity by individuals in the 1990s, the markets became incredibly liquid and technical analysis was perfectly suited to take advantage of the activity. But as computer power became cheaper and websites offering free tools and cheap trade execution became prevalent, market volume – and volatility – soared.

Price movements that previously occurred over periods of months were occurring weekly and this required chart watchers to adapt their tools to the new market situation.

Whereas price patterns or ranges on the charts used to be small in relation to the stock price, such as a two-point range on a $25 stock (8%), these same ranges became much larger, such as a five-point range on that same stock (20%).

Breakouts still occurred but price movements following those moves were faster and stronger to create conditions where investors had to anticipate breakouts in order not to be left at the starting gate.

A good rule of thumb is to restrict technical analysis to stocks that trade at least 100,000 shares per day so that there is a liquid market for the stock.

With the proliferation of online trading, charting has fallen victim of its own success as investors are forced to break the rules of analysis to get the jump on others. Everyone knows about the adage, "Sell in May and go away" so they begin to sell in April to get a beat on the crowd. The so-called "Santa Claus rally" is used to describe the seasonal tendency for stocks to move higher at the end of the year, but this phenomenon has already started to occur a month sooner. The reasons are the same. It's just that investors are trying to be first in and first out so the whole process is played out earlier.

Because of this, it can be said that analysis of the market as a whole has changed drastically. However, there is a happy medium between the over-analysed market and highly risky penny stocks where individual investors can comfortably make money without resorting to guesswork.

A good rule of thumb is to restrict technical analysis to stocks that trade at least 100,000 shares per day so that there is a liquid market for the stock. Maintain a watch on the overall market to keep the overall trend in mind, because there are too many highly paid and highly skilled professionals

focusing on what the Standard & Poor's 500 is going to do. That reduces any advantage enjoyed by small investors in the past.

What is the market?

The market – any market – has been personified by both the media and by investors. "What did the market do?" a friend asks.

Investors, analysts and journalists treat the market as a living, breathing entity. "The market did not like the latest employment report," they might say. Or "the market was energized by Company X's positive reaction".

But just who, or what, is the market?

The market is simply the sum of the actions of everyone in it. There is no one, central brain controlling things, nor is there any agenda to move one way or the other.

Crowd psychology

There is, however, a collective consciousness as people in the market buy and sell in reaction to their own analysis and the actions of others as they, in turn, buy and sell. Many liken the market to a herd of animals, a flock of birds or a school of fish.

If a fish on the right side of a school sees a shark approaching, its action causes a ripple effect through the whole school; and fish all the way on the left side – despite not seeing the shark themselves – start to veer to the left. Information about the presence of the shark propagates through the school much the same as information about a company propagates through the market. The school and the market somehow start to move as a unit. For the market, that is a *trend*.

What charts can do

Charts merely display information in graphical form so that patterns and trends come alive on the screen and bring out the meaning in the market. They reveal actions of the crowd and they allow the user to quickly spot where the market may encounter problems or where it presents a good risk to take.

Think of it this way; an athlete can read a textbook and time his or her performance, but a video can break down each move and hone in on where improvements can be made. Technology is more sensitive, more accurate and much faster in terms of gathering data and rendering it into a useful form than human senses and brains. The latter two are critical for interpretation, but for sheer data gathering and number crunching power, charts are unparalleled.

Here is another analogy: the simple act of walking. You don't think about it, you just do it. Your mind and body have it all figured out and ready to use. Charts take market information, figure out the patterns and then give them to you to use.

What is a trend?

Patterns and trends have already been mentioned, so let's quickly talk about them so confusion does not set in.

In simplest terms:

- a *trend* is the market in motion, and
- a *pattern* is the market at rest, deciding if it wants to continue its trend or change course.

We'll talk more about patterns later, after we nail down some of the basic concepts of charting first.

A trend is really nothing more than a somewhat uniform change in price levels over time. For a rising, or bull trend, prices start low and through a series of fits and starts, advances and pullbacks, move to a higher level. Some trends are smooth and have small wiggles within. Others are choppy and are characterized by high volatility. Some are flat with little net gain over time, and others are steep with a sharp increase in relatively little time.

The basic point about all trends, however, is that they have inertia. Trends in motion tend to stay in motion until an outside force acts upon them. And how do they get inertia? It is from the imperfect flow of information.

According to the followers of the Random Walk theory (see page 12), everything that is known is priced into a stock and only when new information comes out can a stock move. Under that scenario, stock prices must move only in quantum leaps. Stock X is trading at 40 the day before positive earnings news and should then jump to 42, for example, after the news, where it should stay until the next bit of news becomes known.

We all know that this does not happen in the real world. Somebody knows something or thinks they know something and buys. The next person notices the buying and decides to buy as well. Information about both the company and trading in its stock spreads around the marketplace, where different people learn about and absorb the news at different rates. Prices gradually move from 40 to 42, and sometimes even to 43 as exuberance (greed) in the market takes it past presumed value.

Supply and demand

There are price levels on the chart that investors consider to be cheap or expensive. In chart lingo, that is *support* and *resistance*, respectively.

Resistance slows or stops a trend. Support holds the market from falling further, at least temporarily. But in reality, it is supply and demand, respectively. Sellers, for example, become more aggressive when they think prices are high and they sell. That increases supply and prices will ease lower unless demand also increases.

For example, if a price of 50 for a stock brought out the sellers on one or two occasions in the recent past, this price level is considered to be *resistance*, where the supply of stock increases relative to the demand. People think it is expensive so they attempt to sell. Simple economic theory suggests that prices will stop going up, if not actually decline.

Perhaps the stock declines to 45, where buyers think it is cheap. Prices begin to edge higher and this process repeats until something changes the perception of the stock's value, either from inside the market (attitudes and outlooks of investors) or outside the market (earnings and politics). At that point, a price of 50 may suddenly look cheap and demand overwhelms supply. The stock then moves higher.

The spirit of the market

Any market, from stocks to bonds to groceries, is designed to match supply with demand and it does so by adjusting price. And it does so automatically, as each person acts to maximize his or her own value – selling for as much as possible or buying for as little as possible within tolerances for quality, risk and other intangibles.

When taken in this way, the market does seem to come alive, but it is no more alive than any other social system. It is, however, the sum of the actions of all investors and in that way it does seem to have a mind of its own.

Real values do not change 20% in a day, but perceptions of that value sure can.

If a stock appears more valuable because the company announced a new customer deal, then people will buy it until it no longer appears quite as valuable. Actual value, defined by any method we choose, rarely matches market value, if ever. Perceptions of stock prices swing from cheap to expensive. Attitudes in the market swing from extreme pessimism to extreme optimism.

How else can we explain a bubble? Or a crash? Real values do not change 20% in a day, but perceptions of that value sure can.

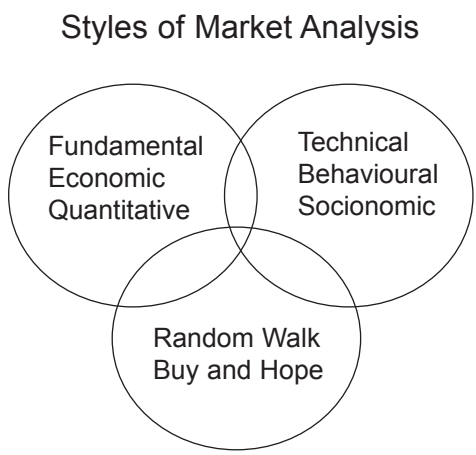
It is the best way to separate market value from market perception and note when the latter is changing. The former does not move prices. Only the latter does.

Charts detail the day-to-day, or even minute-to-minute, changes in what people think something is worth.

Styles of market analysis

There are several methods used by investors and professional money managers to construct their investment portfolios. It is also fair to say that most people do not employ one method exclusively, preferring to get a check from another discipline to verify their conclusions. The secret is to find where one's own style and comfort level lies within the diagram in Figure 1.1.

Figure 1.1



Fundamental analysis – the study of earnings, revenues, business pipelines and strategies – is the predominant method used to analyse stocks. The theory is that the analyst can find a valuation for the company and thereby determine if the shares are under- or overvalued. From there, the buy, sell or hold recommendation is made.

Some may also group economic and quantitative analysis together with fundamental analysis. In both economic and fundamental analysis there is a large degree of forecasting of the data used to create the stock forecast. In other words, next year's earnings and the current quarter's economic report are both best guesses. How many times do we see an economic report revised later – well after any investment decision based on it has been made?

Many individual investors are raised to believe that the stock market will always go up over time and that it is futile to time buys and sells. That is the

basis for the random walk theory and a book, *A Random Walk Down Wall Street*, by Burton Malkiel, first published in 1973. His conclusion was that investors couldn't time the market.

Another bit of faulty investor logic is the expected average annual return for stocks of 10% or more. What most people forget is that 10% is an average return. If the stock market was rising at 20% per year during the bubble years of the late 1990s, then there are going to be lean years where the return in the stock market is smaller – and some years when it will actually be negative.

If you followed a buy and hold strategy in early 2000, before the bear market began, then it took seven years for the stock market to return to break-even. That is a 0% return for seven years, and why some call the buy and hold strategy "buy and hope".

The final area of analysis, the one you are reading this book to learn, is technical analysis.

Technical analysis is based solely on data generated by the market and by the actions of people in the market. Data are never revised later. Analysts are not making guesses on the value of the data.

Technical analysis focuses on how stock prices are moving and how powerful those moves are. By analysing these two simple data sets – price and volume – it creates derivative measures, such as momentum, and all of it is used to ultimately measure supply and demand. These are the forces that really move markets and not analyst estimates or government reports. If nobody demands what is being supplied, no matter how great the fundamentals look, then prices are not going to go up.

These are not mysterious concepts and certainly not what some paint technical analysis to be. All we want to do is figure out where the market is going, hop on board for the ride and then hopefully recognize when the market is changing its mind in time for us to hop back off.

Supply and demand. These are the forces that really move markets and not analyst estimates or government reports.

In recent years, two related fields – behavioural analysis

and socionomics – have gained followings. Both analyse market action with quantifiable actions of people and add great insights.

- *Behavioural finance* studies how people act when money is at stake.
- *Socionomics* looks at the social mood in society and relates it back to what the stock market is doing.

However, this book will focus just on more traditional technical analysis and leave it to the reader to explore the others at a later date.

Why charts matter

Technical analysis is a bit of a misnomer since it's not that technical. Sure, there are some complex mathematical concepts tied to it but, at its core, technical analysis is simply a method of determining if a stock, or the market as a whole, is going up or going down. Once we identify these trends, and that is something we can do by simply looking at a chart, we are way ahead of the game with regard to assembling a winning portfolio.

Just why do charts work?

In order to understand how to invest in any market, it is important to understand what drives the market in the first place. Many cite fundamentals as the force behind moves in the stock market, and that is true to a degree. However, as mentioned earlier, it is not value that determines price, it is perception of value. And when does anything ever trade at fair value? If it did, then fundamental analysts would all be out of work, as the market would always tell us what a stock is worth.

This was mentioned earlier but it deserves a reprise: No matter what new products a company invents or how much it beat analyst earnings estimates, if nobody wants to buy its stock at the current price then its stock price will not go up. And what determines if an investor wants to buy anything? Perceptions.

If Joe Investor does not think that prices will move higher on the latest news, brokerage recommendation or because interest rates just went up, and there are enough Joe Investors of like mind, then prices will indeed *not* move higher. But, as can be inferred from this statement, there must be a critical mass of Joe Investors with the same perceptions. Any market is dependent on the crowd, for it is crowd psychology behind market perceptions (see page 8).

Sometimes one investor wants to buy a stock simply because everyone else has bought it. Where else would a rational person wait to buy something until it had a higher price? While we will see later in this book that this sort of thinking can lead to success, it cannot be employed without looking at the charts to see if there are any surprises waiting.

One look at the next chart illustrates this point. In April 2004, Microsoft announced very good earnings and the stock jumped up (see Chart 1.2). After all, the fundamentals were good and everyone else thought it was a good buy.

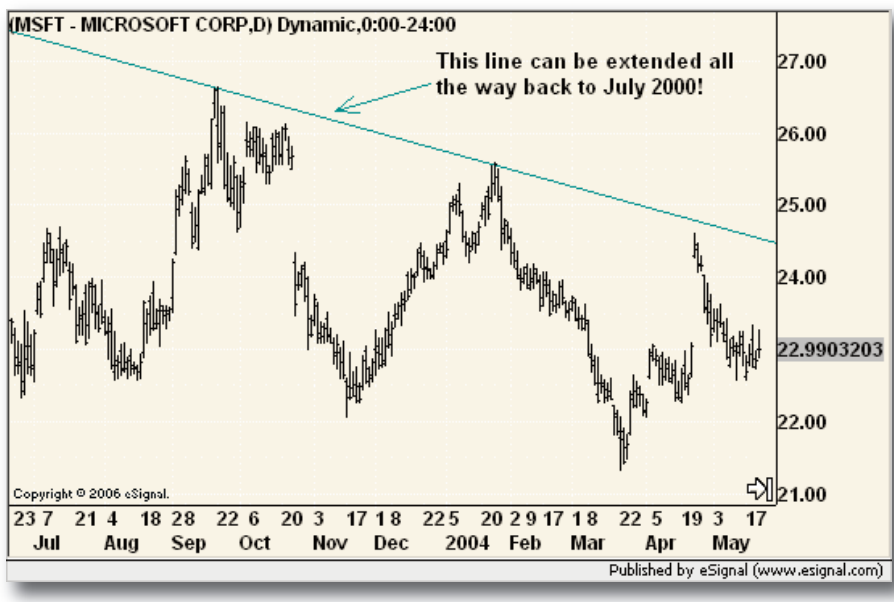
However, at the new price there were many investors waiting to unload shares they had from purchases made the last time the stock rallied in late 2003.

How do we know that?

The patterns on the chart tell us. Each time the stock tags the top of its pattern it falls, so it is a good bet that it will happen again.

So, despite the temporary euphoria surrounding the company, the perceived value of the stock did not change. As the air was let out of the balloon, investors sold more and prices sagged back to where they were before.

Chart 1.2



What are we really trying to do here?

All the mathematical calculations and computer programs used by professional traders are great tools – if you are moving huge amounts of money in and out of the market. What individual investors really need to know is whether they should be in the market, and if so what they should buy. It's that simple.

What we are really trying to do here is understand the mood of the market:

- Is it happy or not?
- Is one sector in favour over another?
- Are there any warnings signs we need to know?

Much of this is covered in more detail in Part II of this book, *Putting Charts To Work For You.*

But it all boils down to making a decision to buy, sell or hold. We'll look a bit more into this in the chapter: *Putting Stocks To The Technical Test.*

The focus is on action, not prediction. We cannot control where the market will go tomorrow or next year but we can control what we do to prepare for it – and includes knowing when we have made an incorrect assessment.

The focus is on action, not prediction.

So what is technical analysis?

- Crowd psychology
- The herd
- Probabillity
- Fear and greed
- Supply and demand

As mentioned earlier, technical analysis is based solely on data generated by the market and by the actions of people in the market. It is based on the premise that people will act in similar ways when faced with similar conditions.

But to be more pragmatic, it is a tool used to make investment decisions. It helps assess risk and reward. And it can assist investors in allocating their resources among stocks, sectors and asset classes. Wouldn't a tool to help decide what portion of a portfolio should be devoted to stocks, bonds, cash and a hard asset such as gold be quite valuable?

Charts are where perception meets reality. A stock may look cheap according to an analyst's calculations based on projected future earnings, but if there is no demand for the stock it is simply not going to go up. A stock is only worth what people think it is worth, not what it should be worth on paper.

And what about those projected earnings?

Again, as mentioned earlier, they are really only educated guessed about the future business success used to make educated guesses about price action in the future. That's two degrees of guesses – educated or not.

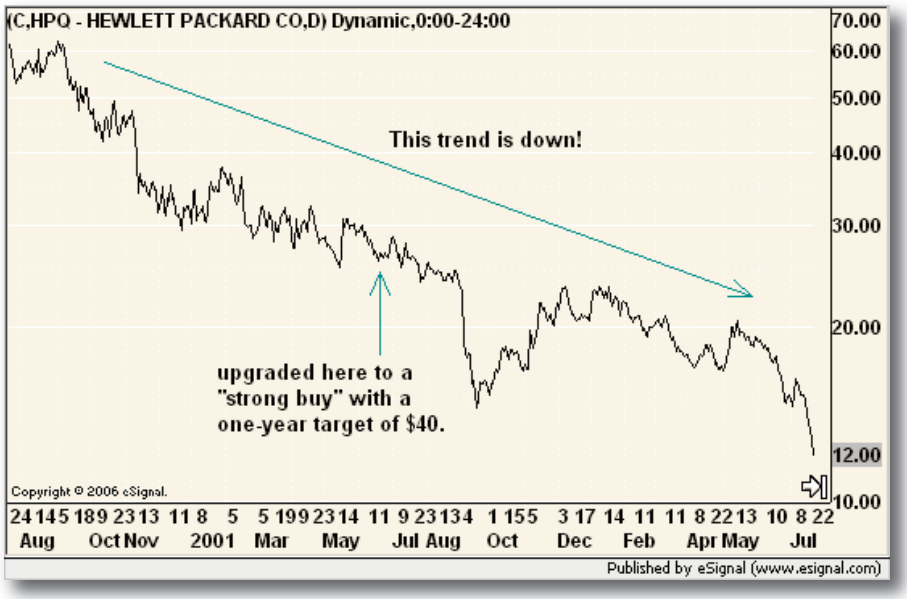
On the charts, we look at what is happening right now and how it came to be. From there we make educated guesses about the future; but the goal is not to predict where prices will be in a year. The real goal is to determine what we do about it right now. If we decide to buy based on a chart, we will already know what has to happen to prove us wrong and that helps us limit losses.

Charts are where perception meets reality.

As prices fell during the bear market of the early 2000s, stocks that were undervalued based on the fundamentals got even more undervalued, at least initially before the declining market took its toll on the economy. Technical analysts recognized the declining trend early and took their losses right away, making it difficult to find competent chart readers that rode stocks all the way down. They recognized a bear market as it was happening and not after businesses suffered enough to change earnings estimates.

For example, an analyst upgraded the stock of Hewlett-Packard to a *strong buy* with a one-year price target of $40 in June of 2001 (see Chart 1.3). But it continued to fall for months simply because the trend – the bear market, in this case – was down. The market was speaking!

Chart 1.3



Note that all technical analysts did during the bear market was look at one simple portion of the chart – price action. Despite what we think about a stock or a market, what we see is what counts. For Hewlett-Packard, we see a bear market and in three month's time the stock was down over 40%. While this is obviously a dramatic example, it is not unusual at all. And we did not use any fancy indicators or formulas to analyse it, either.

With that said, this is not an admonishment of fundamental analysis, which is a valuable part of the investment decision-making process in terms of finding quality companies and avoiding those that are in trouble. But that does not tell us what the market is thinking and that is where technical analysis shines.

What technical analysis is not

Some detractors liken technical analysis to voodoo or tealeaf reading, which might be true if the absolute goal is to predict the future. But nobody and no method can do that. What technical analysis tries to do is assess the probability of prices moving one way or the other so we can take action. We may be wrong but, over time, playing probabilities will pan out as a good strategy.

Briefly, technical analysis is not predicting the future or an endorsement or criticism of any company. There is an element of prediction as it attempts to find the probability of future action. There is an element of judgement about a company but it is its stock – not the company itself – that is under scrutiny. Sometimes the stock of a most excellent company can be priced so high as to make it a poor investment.

Why use it?

A logical question is:

What does technical analysis do for me?

The answer is that the ability to recognize when a stock has reached a support or resistance level, or a shift in perceptions takes place, can help investors know whether to use the:

- *buy low, sell high* approach, or
- *buy high, sell higher* approach, or
- whether to buy the stock at all.

The ability to apply this one aspect of chart reading will reveal the market to investors with the same impact as understanding the colours of a traffic light. Once you know that green means go and red means stop, you will know when it is safe to buy or not.

We've touched upon some of the reasons to use technical analysis, such as the lack of data revisions, estimates and subjectivity in its inputs. But as important as it is to know when to buy a stock it is equally, if not more, important to know when not to buy a stock, or when to sell a stock already held. Technical analysis is the only investment decision-making discipline that lets you know when you are wrong sooner, rather than later, to minimize losses.

When not to use it?

Since technical analysis is based on crowd psychology and actions of the masses, it works best when there is a crowd to analyse. That means the best analysis occurs on liquid stocks where there are plenty of bulls and bears at

work and a critical mass of money value changes hands each day. What constitutes critical mass is subjective, but many investors use a rule of thumb of stock price above $20 and average daily trading volume above 100,000 shares. Certainly we can tinker with these parameters as we gain experience.

Technical analysis also needs relatively normal market conditions. War, terrorism, takeovers, legislation and litigation trump support and resistance, although it does help during these unusual conditions to know where investors found value in the past.

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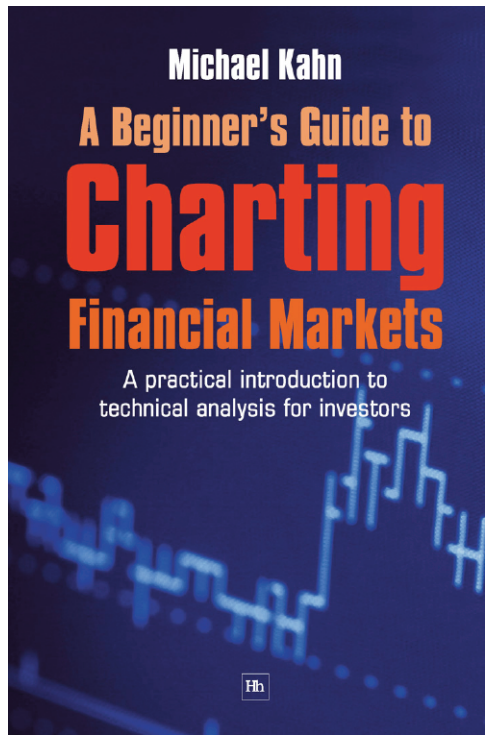

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