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4th Edition

Technical Analysis

for
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of technical analysis

Improve your profits and
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Spot investment trends
and turning points

Barbara Rockefeller

Financial analyst, technical
analysis expert



Technical Analysis

4th Edition

by Barbara Rockefeller

for
dummies[®]
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Technical Analysis For Dummies®, 4th Edition

Published by: **John Wiley & Sons, Inc.**, 111 River Street, Hoboken, NJ 07030-5774, www.wiley.com

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Published simultaneously in Canada

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Library of Congress Control Number: 2019946701

ISBN: 978-1-119-59655-4

ISBN 978-1-119-59667-7 (ebk); ISBN 978-1-119-59670-7 (ebk)

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1

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Introduction

Timing can be everything.

Timing is critical in cooking, romance, music, politics, farming, and a hundred other aspects of life on this planet. Putting money into a securities market — and taking it out with a gain — is no different: You need good timing to get the best results.

Technical traders all over the world, amateur and professional alike, earn a living using technical analysis to time their trades in many different markets. And they're still standing after a market crash, unlike many so-called value investors. In this book, I try to explain how they do that and how you can do it, too.

About This Book

The technical analysis industry is expanding at an exponential pace. A few years ago, an Internet search for the term “technical analysis” returned 206 million responses. Now it returns *1.36 billion* responses. Even after weeding out duplicates and mismatches, it's still a huge amount of material. Don't be intimidated by the sheer size of the available material. In this fourth edition of *Technical Analysis For Dummies*, I cover the core concepts, most of which you could apply *today* with no further research. If you were to explore the most advanced entry in the 1.36 billion entries, most of it would be familiar to you from reading this book.

Technical ideas range from the super simple to the tremendously complex. I cover the core concepts that are the building blocks of all, or nearly all, of those tremendously complex systems. It's up to you to choose to stay with one of two simple ideas or forge onward to the complex. There is no single best technical idea or combination of ideas, for reasons I explain.

Technical analysis is not only a set of tools. It's also a mindset, a way of looking at securities prices and how they wag and what wags them. The first principle of the technical mindset is to throw conventional wisdom out the window and trade what you see on the chart. Technical analysis is an evidence-based method of

making trading decisions, which means you won't be consulting earning per share, cash flow, management quality, or any of the other fundamentals that lead to an assessment of value. Technical analysis isn't value investing. *Value investing* would have you continue to hold a high-value security despite a big drop in price. The technical analysis trader will sell it, knowing he can always come back after the price bottoms and starts recovering.

Try to think like a 10-year-old as you read this book. In fact, go find a 10-year-old, if you have one handy, and ask him, "Which is better to hang on to: a thing that has already let you down (losses) or a different thing that's delivering exactly what you wanted (profits)?" See?

That doesn't mean you may not prefer to keep only high-value names in your portfolio and winnow the portfolio for changing value. It does mean your focus is not on the intrinsic value of the securities you're holding, but rather on the gain you expect to make in each security.

Beating the system is fun and rewarding. The market doesn't know you, your age, gender, ethnicity, good looks or lack of them, singing talent, or anything else about you except whether you're a successful trader. The market is blind. In fact, the market is indifferent. It's the one place you can go to be judged solely on your merits. Use this book to help you find your way.

The good news is that *For Dummies* books are designed so that you can jump in anywhere and get the information you need. Don't feel that you have to read every chapter — or even the entire chapter. Take advantage of the table of contents and index to find what you're looking for, and check it out. Here are a few tidbits that may answer some questions before you jump in:

- » The point of technical analysis is to help you observe prices in a new way and to make trading decisions based on reasonable expectations about where the market is going to take the price.
- » Before you plunge into risking hard-earned cash on securities trading, you have to realize that it's not the security that counts; it's the trade. Each trade has two parts: the price analysis and you. Price analysis tools are called indicators, and you have to select the indicators that match your personality and preference for risk. But most people don't know their risk preference when they start out in securities trading (which changes over time, anyway), so you have a chicken-and-egg situation. By studying the kinds of profit-and-loss outcomes that each type of indicator delivers, you can figure out your risk preferences.

- » The price bar and its placement on the chart deliver a ton of information about market sentiment. It doesn't take much practice to start reading the mind of the market by looking at bars and small patterns. The payoff is cold, hard cash, but you have to be patient, imaginative, and thoughtful.
- » Indicators are the workhorses of technical analysis. They help you identify whether your price is trending, the strength of the trend, and when the trend is at a reversal point. Applying these indicators carefully and consistently is the key to trading success.
- » You don't have to be math-competent to do excellent technical analysis and make lovely profits. Technical analysis is mostly visual — what you see on the chart and how you interpret it.
- » Technical analysis is a form of quantitative analysis. Behind every fancy, complicated hedge fund system run by *quants* are the very core concepts I present here. It's how the quants put these factors together into a system, usually with automated buy/sell execution, that gives the hedge funds their edge. But you can get the same edge without building a system.

Foolish Assumptions

Every author must make assumptions about her audience, and I make a few assumptions that may apply to you:

- » You've dabbled in securities trading but without much luck. You want to become successful and make some money.
- » You're reasonably well versed in the trading game, but you're looking for new tools to become a more effective trader and improve your profits.
- » You're tired of the buy-and-hold approach in which your returns seem unrelated to the supposed quality of the security you bought.
- » You want to find out how to sell. You know how to buy, but timing your sales ties you up in knots.
- » You've experienced some setbacks in the market, and you need an approach to make that money back.
- » You want to know whether technical analysis has any basis in reason and logic — or whether all technical analysts are crackpots.

If any of these descriptions fits the bill, then you've picked up the right book.

Icons Used in This Book

Icons are small pictures in the margins of this book that flag certain material for you. The following icons highlight information you want to pay special attention to.



REMEMBER

When you see this icon, you don't want to forget the accompanying info — pretty subtle, huh?



TIP

This icon clues you in on hands-on time- and hassle-saving advice that you can put into practice. In many cases, this icon tells you directly how to conduct a trade on a technical principle, usually an indicator crossing something, breaking something, or dancing a jig.



WARNING

Ignore this information at your own financial peril. I use this icon to warn you about mistakes, missteps, and traps that can sink even the best trading professional.



TECHNICAL
STUFF

This icon flags places where I get really technical about technical analysis. Although it's great info, you can skip it and not miss out on the subject at hand.

Where to Go from Here

If you're new to technical analysis, take a close look at Parts 1 and 2 for the scoop on the field. If you are already a good chart reader, what you probably need is help on managing the trade (Chapter 5). Applying indicators is better than willy-nilly trading decisions, but to get *The Traders' Edge*, you also need the discipline of a winner. How do you become a winner? The same way you get to Carnegie Hall — practice, practice, practice, and hanging out with other winners. Figuring out how to trade technically is a journey of self-discovery, corny as that sounds. Luckily, it's a journey with a lot of fellow travelers to keep you company. I hope you enjoy the road.

1 Getting Started with Technical Analysis

IN THIS PART . . .

Find out what technical analysis is and isn't. Technical analysis bypasses fundamentals to make trading decisions on indicators that reveal market sentiment.

Understand supply and demand. Securities trading deals with two forms of supply and demand, the old-fashioned kind and also auction-style. You want to join the trading crowd to take advantage of momentum but very carefully, without going overboard.

Appreciate that indicators work most of the time because of the law of large numbers, but not always, and that's because the market is made up of humans who behave irrationally sometimes.

Check out sentiment indicators and some useful measurement methods to get an overview of the trading environment, especially volume as an indicator of what the crowd is doing — as contrasted with what they might be saying.

Protect your capital from random moves and from manias and panics by managing the trade from entry to exit, including exits that mean you'll be taking a loss. All trading involves taking losses and the secret of success lies in controlling them.

- » Knowing what certain words mean
- » Accepting the idea that the trend is your friend
- » Figuring out what can go wrong

Chapter **1**

Introducing Technical Analysis

Technical analysis is the study of price behavior in financial markets in order to forecast the next price movement and to trade on that forecast with cold, hard cash. Focusing on price behavior gives you a window into the mind of the market — what the majority of key players are thinking — and helps you make better trading decisions. Technical analysis seeks to identify and measure market sentiment, described as optimistic (bullish), pessimistic (bearish), or uncertain about future prices (sideways range-trading).

To become a technical analyst, you need to figure out how to draw lines on your security price chart and work up the courage to place the buy and sell order with your broker. Each type of line is named an indicator, and I cover every major type of indicator in this book. You need to figure out whether the line/indicator embodies a bullish or bearish outlook (price rising or falling). Many lines/indicators contain a handy built-in buy-and-sell signal, but following those probably won't match your risk appetite given the amount of capital you have. In practice, you'll use a computer program to draw the lines (and to do whatever math underlies the lines). You'll also have many books and websites to guide you in deciding which lines to draw.

Knowing how to draw lines is relatively easy. Placing the trades is hard. This is because your technical-based buy/sell decisions don't come packaged with how much to trade, how long to hold, how much risk to take, or even how much risk is involved.

FINDING THE ORIGINS OF TECHNICAL ANALYSIS

Technical analysis isn't some newfangled flash in the pan. Observing prices and shutting out other noise has been in development for more than a century. Charles Dow, one of the founders of *The Wall Street Journal*, observed around the turn of the 20th century that the price of a security neatly cuts through all the clutter of words and is the one piece of hard information you can trust, no matter what the other facts about a security and what people are saying about it.

Here are some basic observations underlying technical analysis that are attributed to Dow himself:

- Securities prices move in trends much of the time.
- Trends can be identified with patterns that you see repeatedly (which I cover in Chapter 9) and with support and resistance trendlines (see Chapter 10).
- Primary trends (lasting months or years) are punctuated by secondary movements (lasting weeks or months) in the opposite direction of the primary trend. Secondary trends, today called retracements, are the very devil to deal with as a trader. (See Chapter 2 for more on retracements.)
- Trends remain in place until some major event comes along to stop them.

These ideas are part of what is called *Dow theory*, although Charles Dow himself never called it that and many ideas are called Dow theory that would surprise Dow. An Internet search of the phrase *Dow theory* yields 23 million hits. A key point is that traders were using technical ideas long before the advent of electronic communication and software programs — technical analysis is hardly a gimmicky fad that will have a short shelf life.

Building on Dow theory were Robert D. Edwards and John Magee, whose *Technical Analysis of Stock Trends* (St. Lucie Press) was the first major book to use the term “technical analysis” in the title. It was published in 1948 and has been in print ever since. Edwards and Magee expanded on Dow's observations, covering many of the core concepts of technical analysis such as support and resistance, breakouts, retracements, many patterns, and more. Edwards and Magee noted the universal pattern of a primary upmove followed by a shallower secondary pullback and then another upmove. You'll see this configuration repeatedly as you explore technical analysis. Edwards and Magee were the first to introduce the tools still in use today to evaluate the pattern and to trade it profitably.

What's different from Dow's day and Edwards and Magee's day is the advent of computers that take drawing lines and calculating indicators away from paper and colored pencils to a screen and cursors. Something else that differs from Dow's day is the continuous incursion of the scientific method into everyday life. At the turn of the last century, the scientific method was confined to scientists. Regular people would take a homemade folk remedy for a malady because their grandmother swore by it. Today the average person wants to know if that remedy was scientifically tested in double-blind tests and the results peer-reviewed. The comparable development in technical analysis is to take an observation about market prices and volume and to test what percentage of the time the observation results in a correct deduction.

To help you start, this chapter provides an overview to this book and what you can expect. Consider it your jumping board into this book and the world of technical analysis.

Stepping Up to Science

It may be hard to consider drawing lines on a chart as “scientific” in any sense of the word, but it's through the scientific method that scientists can forecast outcomes in the physical world and through the scientific method that you can forecast price outcomes in financial markets. Technical analysis of securities prices follows the scientific method in that it entails systematic observation of the subject with standard measurement methods to form a hypothesis and then testing the hypothesis many, many times to validate the theory. But there's a problem. In a hard science like fluid dynamics, the thing being observed and measured is an object — in this case, water. In technical analysis, the thing being measured isn't hard — it's market sentiment generated by human beings, who have far more variability than physical objects. Even given human variability, market sentiment tends to move in repetitive and predictable ways. Technical analysis gives you the tools to identify which sentiment the market has on display at any one time.

Today's technical analysis has a wider understanding and appreciation of statistics and probability, and thus the value and pitfalls of forecasting. The theory of probability originated in the 16th and 17th centuries, but dealt mostly with the outcome of games and thus the best way to bet on games. Not until the 1920s and 1930s did statistics and probability enter the general public mainstream. Today even ordinary people routinely ask health questions of their doctors in probability terms, such as what percentage of small children without the measles vaccination does it take for the rest of the school class to risk a measles outbreak?

Throughout this book I use words like “highly likely” and “forecast.” I say, for example, technical analysts use lines and indicators to identify price moves that provide a fairly reliable forecast of upcoming future price moves. The word “forecast” makes everybody squeamish because everyone knows stories of catastrophically bad ones. History is full of them, like a top economist saying in 1929 that the stock market was in fine fettle — just before the crash.

But don’t be misled. Although the word is riddled with negative implications, everyone makes forecasts all the time. They just don’t think of them as forecasts. In fact, you make forecasts many times every day. You take this travel route over some other route because you forecast it will save time or aggravation. On a larger scale, when you move to a new city, take a new job, get married, have children, or buy a house, you’re making a forecast about the outcome. Every life decision you make is a forecast — a bet — almost always made on incomplete or hidden information. Technical analysis entails forecasting, but don’t let that scare you. You’ll have plenty of data in dozens of formats to help you, and I describe nearly all of them in this book.

Unpacking Lingo

To get you started, most of the vocabulary associated with technical analysis that you need to know you learned in grade school. Here is a list of some of the important lingo to know:

- » **Chart:** The workspace of technical analysis is a *chart*. Much of the time the chart will show time along the horizontal axis and price along the vertical axis, but not always. (Some charts are formed differently, as I discuss in Chapter 15).
- » **Bar:** The price information on the chart is presented in several different formats, but usually you’ll see each period’s price as a standard *bar* showing the price open, high, low, and close. (Refer to Chapter 6 for more about bars.) Bars, or a series of bars, can be used alone to detect patterns that reveal how participants in that market feel about the security and therefore what might happen next to the price. (Chapters 7, 8, and 9 discuss how technical analysts use bars to forecast prices.)
- » **Candlesticks:** Another method of showing the same information that the bar does is the *candlestick bar* (see Chapter 8).
- » **Lines:** Drawing *lines* on the chart helps forecast future prices. For example, you may draw a line connecting a series of price lows and name it “support,” meaning you expect the traders in this security will see the next low as a buying opportunity, raising the price again. (Chapters 10 and 11 provide more detail.)

» **Indicators:** You want to enhance the information in the price data by arithmetic manipulation, creating *indicators*. Indicators comes in all shapes and sizes. For example, you see a price chart where the price jumps all over the place. You have no idea whether to buy it or at what price. Now take an average of the closing price over the past 20 days to smooth out the price jumps. Does that line of averages point up or down? Aha! You may have identified a tradeable trend. I describe a wide range of indicators in Chapters 12, 13, and 14.

Buy-and-Hold Is Bunk

You may think that active trading is too much work and too uncertain to spend the time on. Why not just buy-and-hold? *Buy-and-hold* is a philosophy that says most equities are best left unattended for long periods of time in your portfolio. They'll rise more or less in sync with the overall economy so that avoiding turnover saves you transactions costs and taxes. Besides, who are you to suggest a security is over or undervalued?

One reason to distrust buy-and-hold is that over really long periods, returns aren't very good at all. Stocks from 1950 to 2018 returned 11.1 percent annually. Bonds returned 5.8 percent. If you had a 50/50 stock and bond portfolio, you averaged 8.8 percent. The average return on the S&P 500 over the past 30 years is only about 8 percent. In order to get higher returns, you had to pick one of the periods when market was in a bull market phase. In the United States, from 1927 to 2018, the Standard & Poor's equity index has been in 25 bull market phases, meaning it rose more than 20 percent. Each one averaged about three years, and the average return of each of the bull markets was 127.36 percent. But the S&P also fell 20 percent or more, defined as a bear market, 25 times over that same period. Timing counts.

In other words, to buy and hold securities for a long period of time is a well-documented path to accumulating capital, but *only if you got in at the best time*. Otherwise, buy-and-hold is a path to the poorhouse. Consider the following:

- » If you had bought U.S. stocks at the price peak just ahead of the 1929 crash, it would've taken you more than 20 years to recover your initial capital.
- » Since the end of World War II, the Dow Jones Industrial Average has fallen by more than 20 percent on 14 occasions.
- » From January 2000 to October 2002, the S&P 500 fell by 50 percent. If you owned all the stocks in the S&P 500 and held them throughout the entire

period, you lost 50 percent of your stake, which means you'd now need to make a gain equivalent to 100 percent of your remaining capital to get your money back. Ask yourself how often anyone makes a 100 percent return on investment.

- » During the Crash of 2018, the S&P fell 6.2 percent and the Dow 5.6 percent, the worst performance in a decade — during a year that saw the highest economic growth in a decade.

That covers the factual aspect of buy-and-hold — you need to get lucky in your entry. Now consider the underlying assumption that all information is already incorporated into the price, the so-called *efficient markets hypothesis*. Even in the “weak” form of the argument, the assumption is patently untrue.

For one thing, if markets were actually efficient, you shouldn't get bubbles and crashes, and yet undeniably they happen. Behavioral economists have found that prices are influenced by all kinds of bias, including overconfidence, wishful thinking, and the whole panoply of possible errors in both reasoning and in evaluating information that's not always unambiguous.

Can you beat the market using timing over buy-and-hold? Yes. *Timer Digest* has tracked dozens of timers in gold, bonds, and equities who publish newsletters over the past 35 years (www.timerdigest.com). In 2018 alone, the S&P ex-dividends fell 6.24 percent. The top ten timers had gains ranging from 12.86 percent to 40.32 percent. Over the past ten years, the S&P rose a cumulative 177 percent. The top timer had a return of 249 percent. The timers aren't getting one-time lucky. You see the same names over and over again.



REMEMBER

The emphasis in technical analysis is to make profits from trading, not to consider owning a security as some kind of savings vehicle. In buy-and-hold investing, you hardly ever sell, sometimes waiting until you have a catastrophic loss. In technical trading, when you sell is just as important as when you buy.

Before diving into technical analysis, first you have to appreciate that it's the chart that determines the trading decision, not the underlying fundamentals of the security. You don't have to follow earnings, management style, new inventions and designs, or any other qualitative aspect of an equity security. In commodities, that might be the weather in Brazil or Chinese demand for rare metals. In foreign exchange, you can ignore inflation, GDP, and central bank forward guidance.

You can still use fundamentals if you want to. Although technical analysis is the central factor in the trading decision, it doesn't have to be the *only* factor. Many technical analysts use programs to winnow out the best candidates in a list of securities based on fundamentals like earnings, dominance in its sector, sales

forecasts, dividends, and so on, and then apply technical analysis to the select few that remain.

Fundamental analysis and technical analysis aren't enemies. They can be combined to complement one another.

Recognizing Who Uses Technical Analysis

Both traders and investors use technical analysis. So what's the difference between a trader and an investor? Most people consider that a *trader* is someone who holds securities for only a short period of time, anywhere from a minute to a year. An *investor* is someone who holds securities from many months to forever. You may also think of an investor as someone who seeks income from dividends or bond coupon payments.

Actually, the dividing line between trader and investor isn't fixed except for purposes of taxation. Be careful not to fall into the semantic trap of thinking that a trader is a wild-eyed speculator while an investor is a respectable guy in a pinstriped suit. I use the word *trader* in this book, but don't let it distract you. People who consider themselves *investors* use technical methods, too.



REMEMBER

You can use technical methods over any investment horizon, including the long term. If you're an expert in Blue Widget stock, for example, you can use technical analysis to add to your holdings when the price is relatively low, take some partial profit when the price is relatively high, and dump it all when it falls more than you can stomach, only to buy it back when it bottoms. Technical analysis has tools for identifying each of these situations. You can also use technical tools to rotate your capital among several securities, allocating more capital to the ones delivering the highest gains or the lowest risk. At the other end of the holding period spectrum, you can use technical analysis to spot a high-probability trade and execute the purchase and sale in one hour.

Remembering the Trend Is Your Friend

You can look at most charts and see that securities prices tend to move in trends, and trends often persist for long periods of time. Opinion varies as to how long any specific security remains in trending mode. It may be 20 percent or it may be 80 percent. A *trend* is a discernible directional bias in the price — upwards, downwards, or sideways. Many people don't consider sideways a trend in its own right, but rather a departure from an upward or downward direction.

And yet it can be useful to consider sideways a trend because when you widen the time frame to include more time, you often see that a sideways move is a transition phase from one direction to the other, often on a sudden breakout. You gain an edge when you can forecast a change in direction, even if you don't know yet which way. The secret to successful trading is to buy at a low price and sell at a higher price. The chart displays lows and highs, and your charting work should indicate where you can next buy low and sell high.

In these sections, I show a model for identifying trendedness and how technical analysts use the model to make money.

Charting your path

The price chart is the primary workspace of technical analysis. Many technical analysts work only with mathematical manipulation of prices in order to devise probabilistically optimum trades, but the chart is the starting point for nearly everyone and remains the main workspace for the majority. Figure 1-1 shows a classic uptrend following a downtrend.

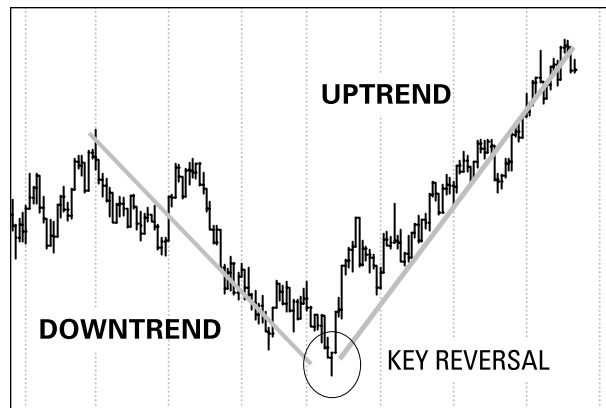


FIGURE 1-1:
Uptrend and
downtrend.

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REMEMBER

At the most basic level, your goal as a technical trader is to sit on your hands while the security is falling and wait to identify the *reversal point* — the best place to buy (shown in the circle) — as early as possible. Figure 1-1 is a good example of the kind of chart with which you'll spend most of your time. Unfortunately, most charts aren't as clear-cut as to the correct trading decision as this one.