

THIRD EDITION

TECHNICAL ANALYSIS

The Complete Resource
for Financial Market Technicians

CHARLES D. KIRKPATRICK II

JULIE R. DAHLQUIST

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THE COMPLETE RESOURCE FOR FINANCIAL MARKET TECHNICIANS

THIRD EDITION

Charles D. Kirkpatrick II, CMT
Julie Dahlquist, Ph.D., CMT

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To Ellie—my precious wife, long-term love, companion, and best friend.

—Charlie

To Richard, Katherine, and Sepp.

—Julie

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San Antonio, TX*

ABOUT THE AUTHORS

Charles D. Kirkpatrick II, CMT, relative to technical analysis, is or has been:

President, Kirkpatrick & Company, Inc., Kittery, Maine—a private firm specializing in technical research; editor and publisher of the Market Strategist newsletter.

Author of several other books on aspects of technical analysis in the trading markets.

Adjunct professor of finance, Brandeis University International School of Business, Waltham, Massachusetts.

Director and vice president, Market Technicians Association Educational Foundation, Cambridge, Massachusetts—a charitable foundation dedicated to encouraging and providing educational courses in technical analysis at the college and university level.

Editor, *Journal of Technical Analysis*, New York, New York—the official journal of technical analysis research.

Director, Market Technicians Association, New York, New York—an association of professional technical analysts.

In his life in the stock and options markets, Mr. Kirkpatrick has been a hedge fund manager, investment advisor, advisor to floor and desk traders and portfolio managers, institutional stock broker, options trader, desk and large-block trader, lecturer and speaker on aspects of technical analysis to professional and academic groups, expert legal witness on the stock market, owner of several small businesses, owner of an institutional brokerage firm, and part owner of a CBOE options trading firm. His research has been published in Barron's and elsewhere. In 1993 and 2001, he won the Charles H. Dow Award for excellence in technical research, and in 2009, he won the MTA award for his contributions to technical analysis. In 2012, he and Julie Dahlquist together won the Mike Epstein Award from the Market Technicians Association Educational Foundation for their dedication to expanding technical analysis courses into college and university graduate schools and for creating this textbook to be used in professional courses on technical analysis. Educated at Phillips Exeter Academy, Harvard College (A.B.), and the

Wharton School of the University of Pennsylvania (M.B.A.), he was also a decorated combat officer with the 1st Cavalry Division in Vietnam. He currently resides in Maine with his wife, Ellie, and their various domestic animals.

Julie R. Dahlquist, Ph.D., received her B.B.A. in economics from University of Louisiana at Monroe, her M.A. in theology from St. Mary's University, and her Ph.D. in economics from Texas A&M University. Dr. Dahlquist has taught at the collegiate level for three decades. Currently, she is an associate professor of professional practice in economics and finance at the M. J. Neeley School of Business at Texas Christian University. Dr. Dahlquist is a frequent presenter at national and international conferences. She is the coauthor (with Richard Bauer) of *Technical Market Indicators: Analysis and Performance* (John Wiley & Sons) and *Technical Analysis of Gaps* (Pearson). Her research has appeared in *Financial Analysts Journal*, *Journal of Technical Analysis*, *Managerial Finance*, *Applied Economics*, *Working Money*, *Financial Practice and Education*, *Active Trader*, and the *Journal of Financial Education*. She is a recipient of the Charles H. Dow Award (2011) and the Epstein Award (2012). She serves on the Board of the Market Technicians Association Educational Foundation and as editor of the *Journal of Technical Analysis*. She and her husband, Richard Bauer, have two children, Katherine and Sepp.

INTRODUCTION TO TECHNICAL ANALYSIS

Technical analysis—these words may conjure up many different mental images. Perhaps you think of the stereotypical technical analyst, alone in a windowless office, slouched over stacks of hand-drawn charts of stock prices. Maybe you think of the sophisticated multicolored computerized chart of your favorite stock you recently saw. Possibly you think of a proprietary trader in front of multiple computer screens displaying graphics of each trade in a series of futures markets. Perhaps you begin dreaming about all the money you could make if you knew the secrets to predicting stock prices. Or, maybe you remember sitting in a finance class and hearing your professor say that technical analysis “is a waste of time.” In this book, we examine some of the perceptions and misperceptions of technical analysis.

If you are new to the study of technical analysis, you might be wondering just what technical analysis is. In its basic form, the answer is that technical analysis is the study of prices in freely traded markets with the intent of making profitable trading or investment decisions. Technical analysis is rooted in basic economic theory. Consider the assumptions presented by Robert D. Edwards and John Magee in the classic book *Technical Analysis of Stock Trends*:

- Stock prices are determined solely by the interaction of demand and supply.
- Stock prices tend to move in trends.
- Shifts in demand and supply cause reversals in trends.
- Shifts in demand and supply can be detected in charts.
- Chart patterns tend to repeat themselves.

Technical analysts study the action of the markets rather than of the goods in which the market deals. The technical analyst believes that “the market is always correct.” In other words, rather than trying to consider all the factors that will influence the demand for Gadget International’s newest electronic gadget and all the items that will influence the company’s cost and supply curve to determine an outlook for the stock’s price, the technical analyst believes that all these factors are already factored into the demand and supply curves and, thus, the price of the company’s stock. We find that stock prices (and prices for any security in freely traded

markets) are influenced by psychological factors as well, most of them indecipherable. Greed, fear, cognitive bias, misinformation, expectations, and other factors enter into the price of a security, making the analysis of the factors nearly impossible. The technical analyst disregards all these imponderables and instead studies the way the marketplace is accepting the multitude of exogenous information and beliefs with the intention of finding patterns in that action that have predictive potential.

Students new to any discipline often ask, “How can I use the knowledge of this discipline?” Students new to technical analysis are no different. Technical analysis is used in two major ways: predictive and reactive. Those who use technical analysis for predictive purposes use the analysis to make predictions about future market moves. Generally, these individuals make money by selling their predictions to others. Market letter writers in print or on the Web and the technical market gurus who frequent the financial news fall into this category. The predictive technical analysts include the more well-known names in the industry; these individuals like publicity because it helps market their services.

On the other hand, those who use technical analysis in a reactive mode are usually not well known. Traders and investors use techniques of technical analysis to react to particular market conditions to make their decisions. For example, a trader may use a moving average crossover to signal when a long position should be taken. In other words, the trader is watching the market and reacting when a certain technical condition is met. These traders and investors are making money by making profitable trades for their own or clients’ portfolios. Some of them may even find that publicity distracts them from their underlying work.

The focus of this book is to explain the basic principles and techniques of technical analysis. We do not attempt to predict the market, nor do we provide you with the Holy Grail or a promise of a method that will make you millions overnight. Instead, we offer background, basic tools, and techniques that you will need to be a competent, reactive, technical analyst.

As we will see when we study the history of technical analysis, the interest in technical analysis in the United States dates back more than 150 years, when Charles H. Dow began to write newsletters that later turned into the *Wall Street Journal* and developed the various Dow averages to measure the stock market. Since that time, much has been written about technical analysis. Today, there are entire periodicals, such as the *Technical Analysis of Stock and Commodities* and the *Journal of Technical Analysis*, devoted to the study of the subject. In addition, there are many articles appearing in other publications, including academic journals. There are even a number of excellent books on the market. As you can see from this book’s extensive bibliography, which is in no way a complete list of every published item on technical analysis, a massive quantity of material about technical analysis exists.

So why does the world need another book on technical analysis? We began looking through the multitude of materials on technical analysis a few years ago, searching for resources to use in educational settings. We noticed that many specialized books existed on the topic, but there was no resource to provide the student of technical analysis with a comprehensive summation of the body of knowledge. We decided to supply a coherent, logical framework for this material that could be used as a textbook and a reference book.

Our intent in writing this book is to provide the student of technical analysis, whether a novice college student or an experienced practitioner, with a systematic study of the field of

technical analysis. Over the past century, much has been written about the topic. The classic works of Charles Dow and the timeless book by Edwards and Magee still contain valuable information for the student of technical analysis. The basic principles of these early authors are still valid today. However, the evolving financial marketplace and the availability of computer power have led to a substantial growth in the new tools and information available to the technical analyst.

Many technical analysts learned their trade from the mentors with whom they have worked. Numerous individuals who are interested in studying technical analysis today, however, do not have access to such a mentor. In addition, as the profession has advanced, many specific techniques have been developed. The result is that the techniques and methods of technical analysis often appear to be a hodgepodge of tools, ideas, and even folklore, rather than a part of a coherent body of knowledge.

Many books on the market assume a basic understanding of technical analysis or focus on particular financial markets or instruments. Our intent is to offer the reader a basic reference to support a lifelong study of the discipline. We have attempted to provide enough background information and terminology that you can easily read this book without having to refer to other references for background information. We have also included a large number of references for further reading so that you can continue learning in the specialized areas that interest you.

Another unique characteristic of this book is the joining of the practitioner and the academic. Technical analysis is widely practiced, both by professional traders and investors and by individuals managing their own money. However, this widespread practice has not been matched by academic acknowledgment of the benefits of technical analysis. Academics have been slow to study technical analysis; most of the academic studies of technical analysis have lacked a thorough understanding of the actual practice of technical analysis. It is our hope not only to bring together a practitioner-academic author team but also to provide a book that promotes discussion and understanding between these two groups.

Whether you are a novice or an experienced professional, we are confident that you will find this book helpful. For the student new to technical analysis, this book will give you the basic knowledge and building blocks to begin a lifelong study of technical analysis. For the more experienced technician, you will find this book to be an indispensable guide, helping you to organize your knowledge, question your assumptions and beliefs, and implement new techniques.

We begin this book with a look at the background and history of technical analysis. In Part I, "Introduction," we discuss not only the basic principles of technical analysis but also the technical analysis controversy—the debate between academics and practitioners regarding the efficiency of financial markets and the merit of technical analysis. This background information is especially useful to those who are new to technical analysis and to those who are studying the subject in an educational setting. For those with more experience with the field or with little interest in the academic arguments about market efficiency, a quick reading of this first part will probably suffice.

In Part II, "Markets and Market Indicators," we focus on markets and market indicators. Chapter 5, "An Overview of Markets," is a basic overview of how markets work. Market vocabulary and trading mechanics are introduced in this chapter. For the student who is

unfamiliar with this terminology, a thorough understanding of this chapter will provide the necessary background for the remaining chapters. Our focus in Chapter 6, “Dow Theory,” is on the development and principles of Dow Theory. Although Dow Theory was developed a century ago, much of modern-day technical analysis is based on these classic principles. A thorough understanding of these timeless principles helps keep the technical analyst focused on the key concepts that lead to making money in the market. In Chapter 7, “Sentiment,” the psychology of market players is a major concept. In Chapter 8, “Measuring Market Strength,” we discuss methods for gauging overall market strength. In Chapter 9, “Temporal Patterns and Cycles,” we focus on temporal tendencies, the tendency for the market to move in particular directions during particular times, such as election year cycles and seasonal stock market patterns. Because the main fuel for the market is money, Chapter 10, “Flow of Funds,” looks at measures of market liquidity and how the Federal Reserve can influence that liquidity.

Part III, “Trend Analysis,” can be thought of as the heart of technical analysis. If we see that the market is trending upward, we can profitably ride that trend upward. If we determine that the market is trending downward, we can even profit by taking a short position. In fact, the most difficult time to profit in the market is when there is no definitive upward or downward trend. Over the years, technical analysts have developed a number of techniques to help them visually determine when a trend is in place. These charting techniques are the focus of Chapter 11, “History and Construction of Charts.” In Chapter 12, “Trends—The Basics,” we discuss how to draw trend lines and determine support and resistance lines using these charts. In Chapter 13, “Breakouts, Stops, and Retracements,” we focus on determining breakouts. These breakouts will help us recognize a trend change as soon as possible. Moving averages, a useful mathematical technique for determining the existence of trends, are presented in Chapter 14, “Moving Averages.”

Part IV, “Chart Pattern Analysis,” focuses on the item that first comes to mind when many people think of technical analysis. In Chapter 15, “Bar Chart Patterns,” we cover classic bar chart patterns; in Chapter 16, “Point and Figure Chart Patterns,” we focus on point and figure chart patterns. Finally, short-term patterns, including candlestick patterns, are covered in Chapter 17, “Short-Term Patterns.”

Part V, “Trend Confirmation,” deals with the concept of confirmation. We consider price oscillators and momentum measures in Chapter 18, “Confirmation.” Building upon the concept of trends from earlier chapters, we look at how volume plays a role in confirming the trend, giving us more confidence that a trend is indeed occurring. We also look at oscillators and indexes of momentum to analyze other means of confirming price trend.

Next, we turn our attention to the relationship between cycle theory and technical analysis in Part VI, “Other Technical Methods and Rules.” In Chapter 19, “Cycles,” we discuss the basic principles of cycle theory and the characteristics of cycles. Some technical analysts believe that cycles seen in the stock market have a scientific basis; for example, R. N. Elliott claimed that the basic harmony found in nature occurs in the stock market. Chapter 20, “Elliott, Fibonacci, and Gann,” introduces the basic concepts of Elliott Wave Theory, a school of thought that adheres to Elliott’s premise that stock price movements form discernible wave patterns.

Once we know the basic techniques of technical analysis, the question becomes, “Which particular securities will we trade?” covered in Part VII, “Selection.” Selection decisions are the

focus of Chapter 21, “Selection of Markets and Issues: Trading and Investing.” In this chapter, we discuss the intermarket relationships that will help us determine on which market to focus by determining which market is most likely to show strong performance. We also discuss individual security selection, measures of relative strength, and how successful practitioners have used these methods to construct portfolios.

As technical analysts, we need methods of measuring our success. After all, our main objective is making money. Although this is a straightforward objective, determining whether we are meeting our objective is not quite so straightforward. Proper measurement of trading and investment strategies requires appropriate risk measurement and an understanding of basic statistical techniques. That’s where Part VIII, “System Testing and Management,” comes into play. The last couple of chapters help put all the tools and techniques we present throughout the book into practice. Chapter 22, “System Design and Testing,” is devoted to developing and testing trading systems. At this point, we look at how we can test the tools and indicators covered throughout the book to see if they will make money for us—our main objective—in the particular way we would like to trade. Finally, Chapter 23, “Money and Portfolio Risk Management,” deals with “stops” to protect individual investments from loss and with money management to avoid overall capital loss.

For those who need a brushup in basic statistics or want to understand some of the statistical concepts introduced throughout the book, Richard J. Bauer, Jr., Ph.D., CFA, CMT (Professor of Finance, Greehey School of Business, St. Mary’s University, San Antonio, Texas), provides a tutorial on basic statistical techniques of interest to the technical analyst in Appendix A, “Basic Statistics.”

For those who are unfamiliar with the terms and language used in trading, Appendix B, “Types of Orders and Other Trader Terminology,” offers brief definitions of specific order types and commonly used terms in order entry.

A comprehensive bibliography positioned before the index at the back of the book provides not only historic reading references but also contemporary studies by academic institutions as well as recent books and articles on various aspects of technical analysis both practical and theoretical.

As with all skills, learning technical analysis requires practice. We have supplied a number of review questions and problems at the end of the chapters to help you begin thinking about and applying some of the concepts on your own. (A study guide, available separately, provides the answers to the questions.) The extensive bibliography will direct you to further readings in the areas of technical analysis that are of particular interest to you.

Another way of honing your technical skills is by participating in a professional organization that is focused on technical analysis. In the United States, the Market Technicians Association (MTA) provides a variety of seminars, lectures, and publications for technical analysis professionals. It has 23 U.S. and 16 foreign chapters, three levels of membership (student, affiliate, and full), and a well-stocked library of technical analysis books and other publications. The MTA also sponsors the Chartered Market Technician (CMT) program. Professionals wanting to receive the prestigious CMT designation must pass three examinations and adhere to a strict code of professional conduct. More information about the MTA and the CMT program may be found at the Web site www.mta.org. The International Federation

of Technical Analysts, Inc. (IFTA) is a global organization of market analysis societies and associations. IFTA and its 21 member associations worldwide sponsor a number of seminars and publications. IFTA offers a professional certification, the Certified Financial Technician (CFTe), and a masters-level degree, the Master of Financial Technical Analysis (MFTA). The details of these certifications, along with contact information for IFTA's member associations around the world, can be found at their Web site: www.ifta.org.

Technical analysis is a complex, ever-expanding discipline. The globalization of markets, the creation of new securities, and the availability of inexpensive computer power are opening even more opportunities in this field. Whether you use the information professionally or for your own personal trading or investing, we hope that this book will serve as a stepping-stone to your study and exploration of the field of technical analysis.

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