A Short Course in Technical Trading

PERRY J. KAUFMAN

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The Wiley Trading series features books by traders who have survived the market’s ever changing temperament and have prospered—some by reinventing systems, others by getting back to basics. Whether a novice trader, professional, or somewhere in-between, these books will provide the advice and strategies needed to prosper today and well into the future.

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Trading is all about making money. Technical trading uses chart patterns, indicators, some simple math, and clear rules to make money. There are many successful traders who use instinct, but I believe they've got a computer going inside their heads, looking for patterns and signals that tell them prices are going to surge ahead or stop and reverse. Experience teaches you what works and what doesn't work.

In this course we're going to take some simple ideas and turn them into successful trading. If you can't turn an idea into profitable returns, then you're wasting your time. Trading is really all about making money.

I was fortunate to have stumbled into this industry in 1970. As far as I know, no one studies to be a trader—it just happens. You watch stock or gold prices going up or down because of a series of front-page news events, and somehow you decide that here is a profit opportunity. You open a brokerage account and make a trade. Win or lose, you can't stop. It can be the fastest way to making or losing a fortune. When you start out, you have the overwhelming feeling of participating in the ideal of Free Trade. You are making the price and you are trying to beat the market—the collective action of all the other buyers and sellers. It's exhilarating.

When I was asked to teach a graduate course in technical analysis at Baruch College in the spring of 2002, my first thought was, “Technical analysis just isn’t enough.” The students need to come away with a skill that they can use and build on in the future. We were still immersed in the Enron collapse, and the press was exposing the conflicts of interest between the market analysts and the investment banking departments inside the major brokerage houses. All of a sudden, we couldn’t trust the information that was basic to making a buy or sell decision.

Using technical analysis is an unbiased way of evaluating a stock, index, or futures market. If the price is going down, it doesn’t matter if the analyst is reporting that the company is undervalued, or that the pro forma performance shows a potential profit in six months—the timing is not right to buy.
However, technical analysis isn’t enough. It doesn’t tell you how to trade. There is a big gap between analyzing the market and trading, and it is filled with trading losses. How can you bridge that gap without making every mistake yourself? You can learn from someone with experience. Good advice moves you along faster, but making mistakes yourself is an important and unavoidable way to learn. This course is intended to do both—teach you what works and give you a chance to make mistakes without costing you anything. You’ll find traditional instruction alternating with “words of wisdom,” a series of trading games that I encourage you to play, and comments on what is likely to go wrong when you trade. Those comments are the result of reviewing the trading of other ambitious students. We can learn from their mistakes in order to make fewer mistakes of our own.

I’ve been developing trading systems for 30 years, traded them myself, and directed others while they were being traded. I’ve profited from their successes and lost when they failed. By now I have a good understanding of what works and what doesn’t work, and why. This course is an effort to pass on that knowledge to you.

In case you’re thinking that this is a magical method for profitable trading, you’re wrong. There are no secrets in this course, just sensible methods and hard work. You should be able to take what you learn and use it as a solid foundation for moving forward, or you can trade successfully using only what you learned in this course.

OTHER READING

This course is based on experience; however, there are other books that can be used to expand each lesson. John Murphy’s *Technical Analysis of the Financial Markets* (New York Institute of Finance, 2000) is always a good place to start. Jack Schwager’s *Schwager on Futures: Technical Analysis* (Wiley, 1996) covers charting step-by-step and adds another level of understanding. Perry Kaufman’s *Trading Systems and Methods*, 3rd edition (Wiley 1998), my own book, has much more extensive coverage and evaluation of trading techniques. The last lesson in this course is based on a fine article by Ralph Acampora and Rosemarie Pavlick, “A Dow Theory Update,” originally published in the *MTA Journal*, January 1978, reprinted in the *MTA Journal*, Fall-Winter 2001.

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*Redding, Connecticut*

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I would like to acknowledge the gracious help of TradeStation Technologies, Inc., and Janette Perez for providing their systems. Since their inception, I have found their programmable platform an indispensable tool for implementing many of my strategies. The charts in this book were all produced using the TradeStation Platform.

My warmest thanks to my mother for, besides other things that mothers do to make things work, her very astute comments when reviewing the manuscript.

Of course, the most important and extensive help came from my wife, Barbara, who worked along with me every weekday and every weekend reviewing the constant flow of hundreds of orders in the Trading Game. It was an effort far beyond the call of duty.

And, to all the dedicated teachers who give so much to future generations.

P. J. K.
This course is about how to trade, not how to hold a position. It’s about being on the right side of the hill. It will teach you when to buy, when to sell, and how to take losses before they affect your net worth.

There are some basic market truths that everyone needs to know before trading. One of the most important things to learn is that things change. Because things change, you need to ground yourself with trading facts. After all, you are going to be immersed in stock prices, interest rates, and the barrage of information that floods the news. You will need to know some of the terms used in trading and in analyzing price patterns. You’ll also want to know what works and what doesn’t work—mostly what works—and why. For the answer to this last question, you will need to work your way through the lessons. By the end of this course, you will understand why a technical approach to trading makes sense.

THE MARKET CHANGES

The stock market is evolving. It is not the same as it was 10 years ago, or even 5 years ago. That’s good news for those of you starting now because you won’t be burdened by unnecessary and incorrect ideas about the way the market should act. Consider the obvious things that have changed:

- The equipment is faster.
- The people who are trading are more knowledgeable.
- More people are using the markets—there is more competition.
- Exchanges are becoming electronic.
A lot of the order entry is computerized.

Commissions are so low that they no longer force you to hold a trade for a long time just to break even.

Improved communications technology has caused globalization.

New trading vehicles, such as trusts, Fed funds rates, single stock futures, and derivatives have changed the way institutions and individuals use the markets.

Everyone reacts to news faster than ever before.

We’ve discovered recently that the recommendations of stock analysts often were biased.

How could prices move in the same way now, when the basic structure of the market is in constant change?

The importance of these changes is that what was successful trading in the past is unlikely to work as well today—if at all. During the 1990s we saw an unprecedented bull market trend in stocks that stretched around most of the world. That was followed by an equally dramatic, highly volatile drop in prices and an erratic sideways price period. In Figure 1.1a, we see the S&P
500 index from 1993 through 1997, and in Figure 1.1b, Microsoft from late 1995 through 1997. The trends are remarkable. During the last three years of that period, the S&P 500 gained 50 percent, and Microsoft gained 260 percent.

We see how quickly these markets can change in Figure 1.2. The S&P (Figure 2.1a) loses 50 percent of its value during 2000 and 2001, with very sharp drops and mild rallies. Microsoft (Figure 1-2b) loses half of its value, changing to an erratic, volatile sideways pattern before dropping half its value in one month. As if global warming affected the markets, we are seeing one extreme after another.


**HOLDING ON FOR THE BIG PROFIT**

Of course, you can still profit from a buy-and-hold approach, given enough time. You also can profit from a sustained policy of the Federal Reserve to lower interest rates and stimulate growth—a plan that can last two years or more and create trends in everything from stocks to real estate and art. But when you hold a position for a long time, you are exposed to more price fluctuations
and more risk. With the exception of the mid-1990s, there haven’t been many periods of high profitability for investors and long-term traders.

Beginning in 1999 anyone holding equity positions found out that the stock market doesn’t just keep going up. It’s been three years of downward, sideways, and volatile price movement; trying to keep losses to a minimum isn’t easy. Investors are now looking at the market with the eye of the trader, trying to hold a position when it’s doing the right thing and getting out when it’s not. There’s nothing wrong with that approach. In fact, there’s a lot that’s right with it.

**EXTRA BENEFITS OF TRADING**

When you actively trade a stock or a futures contract, you are not holding a position all of the time. That’s very important because stocks spend a lot of time doing nothing, or doing the wrong thing. To offset these sometimes prolonged periods of aggravation or boredom, we get an occasional price shock, such as September 11, 2001, the U.S. invasion of Kuwait, a presidential

election, or a surprise interest rate increase by the Federal Reserve. A price shock causes an unpredictable, large jump in prices.

Note that the term unpredictable means that you can’t plan to make a profit, no matter how clever you are. When you are always in the market, you will always be tossed around by price shocks, most of them small, a few of them very big. We’re going to spend some time throughout this course looking back at price shocks. They are the rare random events that cause the greatest losses among traders. The longer you trade, the more you’ll see price shocks. You don’t ever want to make the mistake of thinking that it was skill that netted a big profit from a price shock. It was luck. Next time, or the time after, you won’t be lucky. It’s a 50-50 chance.

**WHAT IS TECHNICAL TRADING?**

*Technical trading* is the process of making trading decisions based on clear, objective, predetermined rules. Those rules apply only to price data, volume, and for futures markets, open interest. You could include other economic

![FIGURE 1.2b](image_url)  
**FIGURE 1.2b**  After its historic bull market, Microsoft’s price turned volatile and sideways before dropping half its value in April 2000.
data, such as unemployment and the Consumer Price Index (CPI), but that's not necessary and we won't do it here. Besides, it's not clear that using all these facts will improve our profits.

The techniques used in technical trading include trendlines, moving averages, chart patterns, and a few indicators based on simple mathematical formulas. None of it is complicated, but it takes practice to do it right.

Some people call this systematic trading. The way to be sure that the indicators are done correctly is to enter them into a spreadsheet, or program them into a software trading program that helps us get results quickly. Charting and pattern recognition remain special skills, but ones that are not very difficult to master.

**CHOOSING THE SYSTEMATIC WAY**

It is not a choice between “which is better,” investing based on fundamentals or technical trading. They are two very different methods chosen for completely different reasons.

The fundamental investor may be looking for a cheap price or good value on a piece of merchandise with the idea of holding it until it returns to value, or appreciates in value. You don’t want to overpay for real estate or stocks because it cuts into your returns.

The systematic trader is foremost a trader. A trader doesn’t hold a position based on value, but decides whether the price is relatively too high or too low, whether it is in a long-term or short-term trend, extremely volatile or quiet. For each of these technical qualities, the systematic trader has a clear rule to follow. The rules are based on common sense and then tested using historical data to be sure they actually work. We will learn how a spreadsheet or special computer program may be used to validate the rules. You will find that many of the rules that are based on charting methods have been handed down from one generation to another.

**TECHNICAL TRADING AND VALUE**

A technical trader may also be influenced by fundamentals. A long-term trend follower—one who buys a stock when the trend is rising—is really tracking the increase in the value of the stock in an objective way. If Mrs. Hathaway was long Cinergy (a public utility) in 1997 based on a 100-day
trend, she would be taking advantage of the Fed policy of lowering rates even though the reason for rising prices might not be important to her, and she may not have seen the close relationship between Cinergy's stock price and interest rates.

The fast systematic trader could even profit if the stock or futures market were above value. He or she could be in a trade for a few hours or a few days. The value of a stock isn't very important for a fast trader, only its volatility and short-term direction. Even when stocks were trending higher, as they were in 1997, the impact of the long-term trend on a one-day trade was very small. You could buy or sell and still return a profit. Value, or fundamental information, is of minor importance for short-term traders.

We choose systematic trading because

- It provides discipline.
- We can backtest (check the rules using historic prices) to see if the trades would have been profitable.
- We have confidence by knowing what results to expect both risk and return.
- We can monitor current performance to decide if the method is still working as we expected.

**USING A METHOD WE UNDERSTAND**

By using trading rules based on prices, we are going to avoid some important problems. For example,

- We don't know how to find out if a stock is undervalued. In fact, we're not sure that the experts can find the right value. We've found out the hard way that those who try to assess value may not have all the facts.
- We don't need to watch a stock price drop by 90 percent before being told by an expert that its value has changed.
- We are concerned that news, opinions of others, or just a bad day can change the opinion of a fundamental or value trader.
- We don't know if using fundamentals can produce consistent profits.

We will let the market tell us that prices are rising or falling and not rely on the advice of broker. A trend follower needs a Yogi Berra type of philosophy: “It’s not going up until it’s going up!”
What's the Downside to Technical Trading?

Every method has its problems. To use systematic trading, you also need to know what can go wrong.

- You can’t find a method that works.
- You may take a position opposite to what is being said on CNBC.
- It may seem stupid to take another long position after just posting two losses in a row.
- It started working great, but now something’s gone wrong.
- The risk is too high.

Each one of these problems has a reasonable solution. The purpose of this course is to show you some of the methods that are most likely to work, and

Why Technical Trading Works

Let's be realistic. Not all trading systems work, but many systems do work. Those are the ones based on a sound premise. Once you understand how to follow the rules, systematic trading works because

- It identifies price trends and patterns objectively and applies clear rules.
- It will profit from a fundamental or seasonal trend—if one exists.
- It controls losses using stops.
- It takes profits, based on predefined values.
- It easily allows diversification.
- It can be adjusted to personalized risk levels.
- It is not affected by news or opinion.
- It generates profits when continuously applied over time.
help you get comfortable with their good and bad parts. *If you can’t find a simple method that works, you won’t find a complicated one.*

**WHAT ARE THE OTHER GUYS DOING?**

Let’s take a few minutes to look at how many fundamental traders decide on what stock to buy, and when they will enter and exit the position.

**How Do We Normally Decide to Buy a Stock?**

- We make a qualitative decision: Is it a good company?
- Is it profitable? Has it paid dividends regularly? Is the stock rising? Does it have a lot of debt? Is the P/E ratio high or low? In other words, is the company a good value?
- Is the company healthy? Is it in good strong hands? Is the management competent? Is there a large employee turnover? Are salaries reasonable?
- Is the company likely to be competitive in the future?
- Add to these concerns some new questions, such as: Does the CEO have a sensible exit package? Are there any accounting irregularities?

All of these questions and answers are important. They try to reach the vital areas that determine whether a company is sound and likely to remain that way. The problem is whether you can get answers to these questions, and whether those answers are reliable. Even when they appear to be answered, what is your level of confidence in a decision based on so many complex issues?

**Reliability of Information**

Let’s look at the most outrageous event of the past 10 years—the collapse of Enron. Briefly, Enron was a powerhouse in energy trading. It had assets in the form of a pipeline, and a large trading “book” in electricity. It was thought of as innovative and highly successful, a business model for the future. It was a substantial component of the S&P.

We see now that much of that was done with mirrors. It appears that Enron had off-balance-sheet deals that were not reflected in their numbers, and the company was said to have generated artificial trades to make it appear that their trading volume was higher. Enron closed out trades before producing its monthly risk report, and then reset them the next day. The
company did everything it could to inflate the Enron stock price and with the apparent blessing of their accountants. With the full benefit of hindsight, how reliable is the information that we use to base our value decisions?

**Pro Forma Results—What Are They?**

Amazon.com has made an art of publishing *pro forma* company performance. What is that? It’s not the net earnings of the company, or its profitability. It’s a statement of “what company earnings would be if...,” where “if” can be

- *If* we didn’t need to write off a one-time loss due to a mistake in starting a new product
- *If* we didn’t need to pay out debt that was obligated when we began the company
- *If* we didn’t have to pay our employees a salary

The problem is that *pro forma* results can be anything, as long as you explain what you’ve done. As remarkable as it seems, the stock price will rally after good *pro form* results—why would a *pro forma* report be anything but good?

**What Happens When Public Confidence Changes?**

Returning to Enron, we need to remember how fast public confidence eroded. In Figure 1.3 we see the stock quickly drop from $30 to nothing in the final days, but Enron prices had peaked a year earlier. Even before the off-balance-sheet transactions became public and problems became obvious, prices had declined from $90 to $60. What is most upsetting is that the major brokerage firms did not issue a sell signal until Enron was in the throws of death, a decline of nearly 90 percent of the stock price.

**How Would You Have Done?**

Look at Figure 1.3 again. During all of 2000 and the first part of 2001, Enron held above $60, peaking at $90. In early 2001 it dropped from about $70 to $60, then to $50 within a few weeks. That was an unprecedented decline, leaving prices well off the highs by 40 percent. Traditional thinking declares a bear market when prices decline 20 percent. At least we need to recognize that something has changed. Why would the price drop 40 percent unless there was a problem?
The decision to sell a stock is at least as important as the one to buy. Ask yourself

- What is the opposite of a buy decision when using only fundamental information?
- How long does it take to realize that the quality is no longer there?
- How far down does a stock price need to fall from the highs before you sell?
- One major retail broker waited until Cisco had declined 75 percent before taking it off their hold list. What would you have done?

Do you remember that the public was told (on CNBC) that the major houses had shifted from a buy recommendation to a neutral when Enron hit $10? Let's look at other examples to get an idea of some of the recent price
patterns. If you were holding these stocks from 1997, consider whether you could have made an objective decision to sell them before the major price drop. If you did not actually get out while you still had profits, then you need to learn some things about technical trading.

Cisco

Cisco (Figure 1.4) moved higher for three years, along with all of technology, with very little retracement. At the beginning of 2000 it dropped more than one-third in two weeks, a sign that something had dramatically changed. Prices tried to rally, but by the third quarter of that year they began falling to new lows. There was still a 300 percent profit in the original position. Would you have gotten out?

General Electric

General Electric (GE), the flagship of the Dow, had a steadier rise and a less volatile fall than Cisco (see Figure 1.5). You may have exited at $40, or even $45, as prices fell, and then regretted that decision when prices moved back over $50. General Electric certainly doesn’t look like Cisco, but a decline
from $60 to $30 is an unnecessarily large loss to absorb when you easily could have done better.

**American Airlines**

It was not possible to be prepared for the price shock in American Airlines that came in mid-1998 (see Figure 1.6), when price turned from a perfect bull market to fall 35 percent in a few days. You might have been lucky when the second shock hit, at the beginning of 2000, because prices were already heading lower. You might even have escaped the third shock on September 11, 2001, because prices were still looking weak. The first shock should have been a lesson in itself.

**Amazon.com**

Amazon is a remarkable investment story. We all believe in the future of the Internet, and Amazon was up front taking advantage of that promise. However, expectations and profits are different, and Amazon has not been able to deliver quarterly profits. Instead, it feeds the hopes of the investors by releas-
FIGURE 1.6  **American Airlines** is different from the other examples because of a series of price shocks. Would you have been on the correct side of the market? Would you be correct next time?

FIGURE 1.7  **Amazon.com lost $50 million each quarter** yet continued higher through 1999. It was the product of dreams. Fortunes were made and lost. Does the extreme volatility in 1999 tell you anything?
ing *pro forma* financial statements showing that profits are likely if everything goes according to projections. So far, that hasn’t happened. We are still hoping.

The volatility of Amazon (see Figure 1.7), much greater than many other stocks, is based on overspeculation, constant promotion by the company, and a lack of any basis for valuing the stock price. How do you price the stock when the company posts a loss every quarter since inception?

**IF YOU CAN’T HELP LOOKING AT THE CHART PATTERNS THEN YOU’RE GOING TO BE A GOOD TECHNICAL TRADER**

It’s fun to look at chart patterns and trends and imagine what trades you could have made. In technical trading we’re going to learn rules about price patterns and apply them in the same way to all of the stock and futures markets. Before you move on to the next lesson and see these rules, think about what you already know about price patterns.

**Can You Apply the Same Buy-Sell Principles to All Stocks?**

- Can you write down the rules you’ve used to buy and sell a stock, any stock? Can you write down the rules for when you would have exited the long positions in the previous stock charts? If so, you’re a systematic trader.
- When you look at a chart, do you see it in terms of continuous price moves? Do you look at the highs and lows of price swings? Do you draw conclusions, make up rules, and imagine that you can capture large profits?

Looking at a historic chart is frustrating and deceiving. It makes you think that you could have profited from the price moves. It’s much harder when you can’t see the future. However, high-tech display equipment lets you see the past price movement of any stock. It has brought many new traders to the table who think they can profit from future price moves because they can see the past.

**THE IMPORTANCE OF TIMING**

A few thoughts about timing are important before we move forward. We would like to think that we can profit from the news if we act faster than others. It’s not true.
• The market moves on anticipation. “Buy the rumor, sell the fact.” If you bought on every piece of good news published in the Wall Street Journal, you would be broke.

• The market responds to the difference between the actual news and what was expected. The unemployment rate could have dropped 0.2 percent, and the market falls because it expected a drop of 0.4 percent.

• Action does not always mean immediate reaction. When did the Fed start lowering interest rates? When did the market start to respond? In the case of interest rates, it always takes more than one move by the Fed before you see a reaction in the economy.

Evolving Markets

The market is dynamic. It is not the same as it was, yet it is driven by the same underlying economic forces.

What Has Changed?

• The equipment has changed, allowing instantaneous analysis, program trading, electronic orders (smart order entry), high-momentum trading, and unreasonable expectations.

• Methods have changed, with far more systematic traders, especially professional fund managers.

• Participants have changed, with a larger influence from pensions, designer funds, and institutional investors. Day traders are common because commissions are low.

• Electronic exchanges and side-by-side trading are new. You can beat your competition by creating an electronic order the instant a system “signal” is triggered.

• Globalization has changed the way world markets move, with alternating leaders and followers.

• There are more trading vehicles, including ETFs for index and sector investing, and single stock futures.

• Markets are noisier because of more participation. Sometimes they have irrational swings because of piggy-backed orders. The frequency of extreme moves is increasing, causing greater volatility.

Will a system that worked in 1990 work in 2002? Probably not. Will the people who made money in the 1990s make money now? If they change, too.
Throughout this course there will be trading tips, trading insights, and some old-fashioned advice. Take some time to think about all of it.

**Don’t Confuse Luck for Skill**

In a prolonged bull market, all buyers are eventually right. They buy all dips, regardless of size, because it has always worked. As they gain confidence, they may add leverage by buying on margin. At the end of the bull market they are usually wiped out.

- It’s a business, not a casino.
- It’s all about risk.
- Learn how to take a loss.
- Don’t turn a profit into a loss.
- Anticipation is the key to success.
In this chapter you will learn about the trend. The trend is simply the direction of prices over some time period. No matter how much you learn, you will always want to know the trend of the market.

TRENDS

Trends are very easy to see on a chart. They are seen best over a long time period—weeks, months, and years. If prices are going up, the trend is up; if prices are going down, the trend is down. Here we get to the first problem. If prices go up and then down, is the trend up or down? Look at Figure 2.1, the S&P weekly chart. Is the price going up or down? The answer is “yes.” It’s going up in the long term, over the period of the entire chart, but down in the shorter term, the last two years.

The Trend Depends on Your Time Frame

If you’re a very, very long-term investor, the trend will always be up because inflation and economic growth eventually will cause the stock index to make new highs. If you’ve been holding Merck from 1994 through 2002, you’ve watched the price rise from $5 to $60, a gain of 1,100 percent. If you bought Merck at the beginning of 2001 and held it through 2002, you watched the price go from $90 down to $60, a loss of 33 percent.

The trend is always a matter of time interval. Even over a few days, two traders may see the same market as going in different directions. Each one can make money or lose money within the same period by correctly or incorrectly deciding where to buy and where to sell.