

# TREND TRADING INDICATORS

Secrets to Predicting Market Direction



John L. Person

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## Introduction

### Profiting from Trend Analysis

*“The trend is your friend”*

In simplest terms, trend is defined as the direction of price over a period of time. There are many techniques that can be used to trade with the trend. Most profitable longer-term traders choose to trade in the direction of the trend while intermediate-term traders will trade the longer-term trend against pullbacks in the intermediate term time frame. Short-term traders or daytraders will also use pullbacks against longer-term trends but may also incorporate countertrend techniques in their trading decisions.

This guide is designed to introduce you to what I consider three of

the most important trend trading concepts that many traders seem to either not know or completely forget to incorporate when executing investment decisions using real money.

1. Seasonal and intermarket analysis
2. Traditional trend line charting techniques
3. Technical indicators

Many investors are familiar with the axioms, “sell in May and go away,” or perhaps, “harvest lows are made in the fall,” but they fail to either adhere to their game plan or follow through with applying seasonal tendencies of supply and demand functions of the markets. I plan on sharing secrets that I have also written about in my second book *Candlestick and Pivot Point Trading Triggers*, as well as in the *Commodity Trader’s Almanac*, which I co-authored with Jeff Hirsch, so please consult either of these titles if you wish to go further with your studies on trend.

In addition, I will share techniques on how to correctly apply trend line analysis and integrate multiple timeframe techniques. I will also show you some of the more reliable technical indicators for helping to identify trend market conditions.

As the saying goes, “the trend is your friend”—until the trend ceases to exist. Many traders in the course of their careers have tried to identify when a trend ceases to exist and to capitalize on that reversal. This is often referred to as anticipating a trend reversal, or top or bottom picking. While it can be extremely lucrative if you are right, unfortunately very few traders are successful at picking tops

and bottoms. As a result, their trading careers end quickly.

It is a proven fact that more successful traders wait for a trend to be established and then try to profit by trading on the right side of the direction of that price move for an extended period of time. The trick here is to stay disciplined and focused, but many trend followers understand the significance of seasonal analysis and they let historic data help them gauge how long they expect a trend to last.

Some of the most technically advanced studies are applied to trend trading. As I mentioned, one of the simplest forms of analytical studies is understanding seasonal analysis. More complex analysis that I will introduce in this book

*In simplest terms, trend is defined as the direction of price over a period of time.*

includes pivot analysis, Elliott wave studies, and then going back to the turn of the 20th century, the concepts of “trend phases” introduced by Charles Dow. All of this will help you in your decision-making process for not only entering trades but also holding onto your trades. I was taught early on, nearly thirty years ago, to cut your losses short and let your winners ride. Understanding and applying some of these principles in this book will not only shed light on how to do that, but we will also share with you where you can acquire further educational material in order to master the techniques that many have acquired through the last half century.

All the best,  
John L. Person

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## Seasonal Analysis

**T**he key to achieving wealth by trading the markets—other than being on the right side of the trend—is good risk management and being properly positioned in a trade. It is crucial that the individual trader fully comprehends the psychological impact trading has on one’s own psyche, and more importantly, understanding how very little predictability there is in the market. That is where seasonal analysis can help prepare traders and investors for what lies ahead, and when shifts in supply and demand functions can reverse or help accelerate trending market conditions. I believe this book will help you to successfully formulate a solid plan of attack in market trends.

If the trader is armed with the right knowledge and can implement the application of good, sound technical analysis methodology to help time entries, exits, as well as to establish risk and profit objectives, the odds of success can be improved immensely.

Seasonal analysis gives investors and traders an edge in capturing that elusive “predictability of the markets.” What many traders do not realize is that most markets demonstrate seasonal price patterns; meaning they tend to make highs or lows near the same time period year after year.

Stocks, commodities, and even foreign currencies have a strong tendency to demonstrate seasonal patterns. One of the greatest benefits of incorporating seasonal analysis is being able determine when a market is in a weak or strong trend and time changes in the trend's direction.

The art of using history as a guide to predict future price moves is absolutely a mind-blowing experience, especially when you are able to profit from that knowledge. However, if it were that simple and reliable, everyone would be doing it, and every trader would be getting rich, and quickly. Unfortunately, this is not the case.

Seasonal analysis cannot forecast the outcome of each trade. Trend moves from a seasonal perspective can either be muted or magnified, depending on economic turmoil, political events, monetary and fiscal policy (stimulus) changes, and weather concerns that will impact supply and demand parameters.

There are always unique events that will affect certain markets or sectors. A specific company can influence prices.

There are many times when the macro economic environment will enhance a seasonal situation. Let's examine a case study using gold. By August of 2010, the market was in turmoil over whether or not a double dip recession was in the making. Gold had been in a strong uptrend as it was acting on its own merits, meaning there was global consumer demand and investment demand as many entities were looking at gold as a hedge against not only deflationary fears, but as a defense against longer term inflationary fears, due to central

banks' massive printing of currencies. In addition, government deficit spending was out of control. Therefore, gold was being bought by any and all avenues of investing perspectives.

In the *Commodity Traders Almanac, 2010 Edition*, I highlighted one of the top seasonal trades in August for gold:

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*"Seasonally, this is a strong price period for gold until late September or early October. Look to enter long positions on or about August 25 and holding until September 30. In the last 34 years this trade has worked 20 times for a success rate of 58.8%. The last 8 years have provided an amazing cumulative profit of \$20,160 per futures contract."*

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## USING SEASONAL ANALYSIS AS A FILTER

Seasonal analysis can not only help define when a trend move may take place, but can help one

to break down the cumulative profits, which aids in the decision-making process.

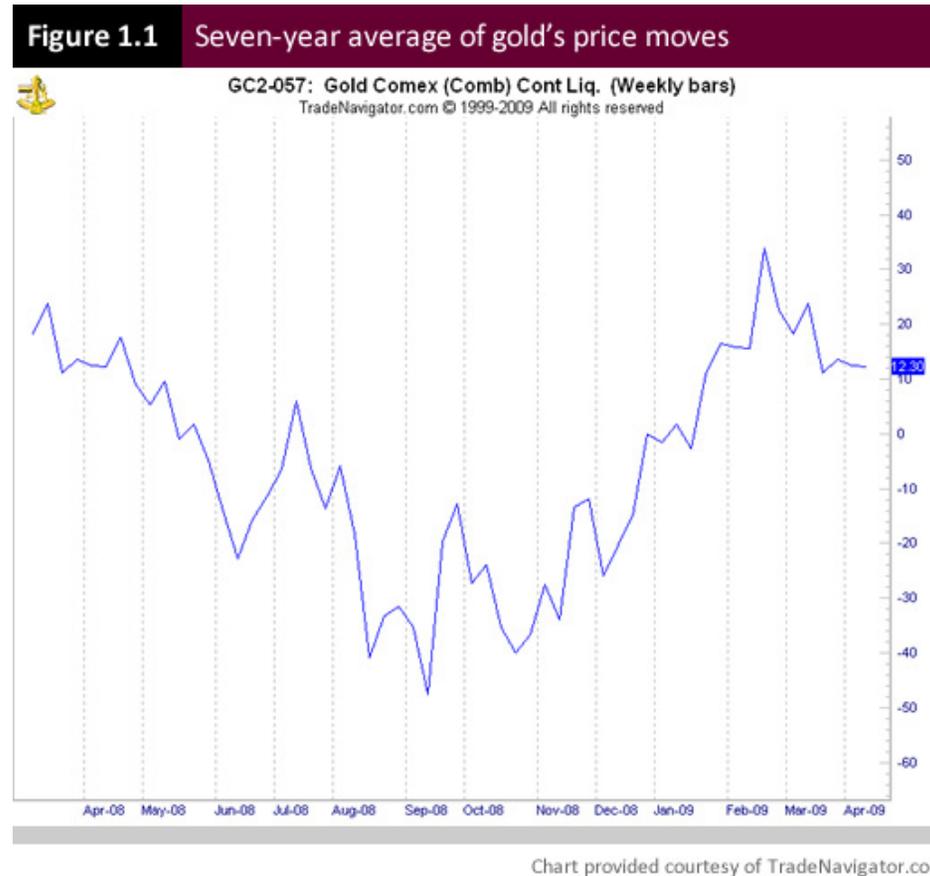
Here is where seasonal analysis helps me as a trader: I am constantly scanning for trading opportunities. We all know we can not take every trade, so there must be a filtering process to help us decide which trade has a higher probability, and then we can look at the risk to reward layout. I like to look for a good fundamental situation and a market that has a proven track record of somewhat high level of predictability based on its past trading history. I like to plan ahead, and using seasonal analysis helps me in that process. I can start a shopping list so-to-speak for which sectors enter a period of strength or weakness, and based on my criteria, I can filter out which areas to focus in on rather than acting after a market has already moved. In addition, I can start to lay out how much equity and which strategy I want to employ to take advantage of the oppor-

tunity. If, for example, I see a decent risk/reward opportunity of perhaps a three to one setup, I may diversify position tactics.

In the case of this bullish seasonal trend in gold, instead of loading up on a long futures position, or just buying into a bullish option strategy, I usually look to diversify my position in a bullish trend situation such as spreading my trading capital around. I may look to buy a highly correlated gold stock, and I will look at a near-the-money credit call spread in the exchange traded fund (GLD). At the same time, I might expand my risk capital and look at a slightly out-of-the-money short term credit put spread option position. Finally, I might just take a reduced holding of a long futures position. This way I am diversified in my actual trade, which can help me survive or take advantage of multiple outcome scenarios, whether the trend of gold continues sharply higher, mildly higher, stays flat, or drops first and then takes off.

I think many traders get the market trend right at times but fail in their sense of timing and perhaps over-position themselves for a trade. Then, when a slight move occurs against them or a draw-down happens, as is often the case in the real world of trading, they can't afford to hang on. This often results in a loss, or they miss the move entirely. An old saying of mine that may resonate with you if you have had experience in trading markets: "The market will always let you in the losers; the market's job is to keep as few winners around as possible." Diversifying your trend trading strategy may help you overcome this issue.

One has to remember that history can and does repeat itself; the problem is the outcomes are not always the same. Let me explain. Perhaps the market is bullish; it could move at lightning bolt speed to the upside, not allowing one to enter in a position. Or the market could move higher, but only by a small percentage. Or the market may not move higher but



rather sideways, still adhering to a seasonally strong period. Rather instead of moving up in value, it just remained the same. Now of course there are the few times when the market will not perform according to its past historic seasonal tendency and moves down against a long position.

We have many scenarios that could unfold, so I believe a more prudent, well-balanced trader can and should diversify his or her position based on many different outcomes. By employing different strategies with the same risk capital, one can still profit handsomely if the market does indeed move according to

the seasonal tendencies. The same technique enables traders to manage their risks more appropriately rather than going "all in" in one large overleveraged position.

Figure 1.1 is a seven-year average of gold's price moves taken as of the end of April 2009. Notice that between the August low and the September low, the average of those lows would come in around August 25.

The seasonal analysis indicates that this uptrend should continue through the end of September into early October. On average, the market conducts a short-term profit-taking correction or a trend reversal in the third week of October to the first week of November. After that, gold prices have the best three month bullish trend period from November lasting into late February. Short-term traders can potentially experience a period of approximately five weeks of stronger prices from August 25 through October 1.

A quick review of recent history shows from the low made on August 25, 2009 at 950.60, gold peaked by October 14, 2009 at 1079.50. Two weeks later it corrected to a low of 1034. Back on August 25, 2008, gold traded as low as 835.6, but it did take heat and fell further, first to a low of 754.3 by September 11. However by October 11, just four weeks later, gold made a sharp rally, posting a high of 889.5. A diversified trader may have ridden the storm out better than a fully vested, long, futures-only position trader. On a side note, that high made in October 2008 reversed hard in just 11 trading days, posting from peak of 950.80 to a trough of approximately 695.50, over a 250.00 dollar correction per ounce of gold.

I mention this to support my previous statement that not all years are created equal from a seasonal perspective in both the exact time of markets' moves and in price swings. The key to focus in on is that seasonal analysis can help

traders uncover when the best time of the year—on average—a market trend can occur, either up or down.

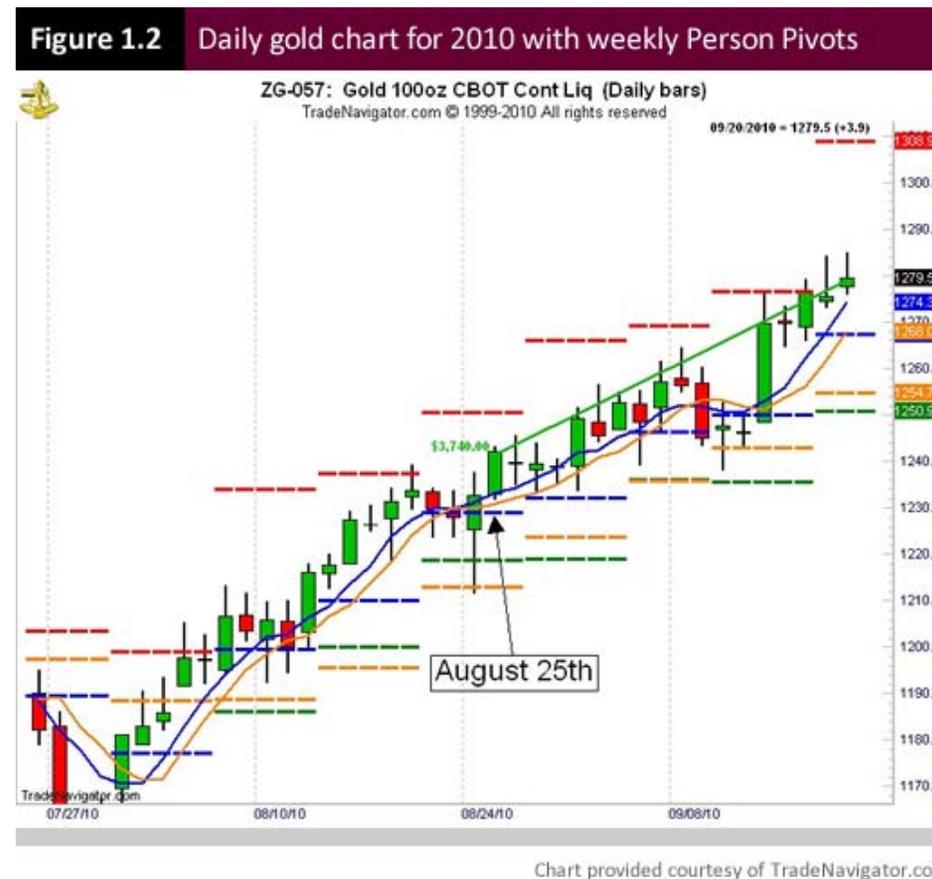
Take a look at Figure 1.2, which is a daily gold chart for 2010. As you can see, prior to August 24, the trend was up.

The graph shows the weekly Person Pivots overlaid on the charts, and you could see in the *Commodity Traders Almanac*, it stated, “Look to enter long positions on or about August 25.” The market made a corrective pullback on August 24, trading right down to the predicted support targets.

It was the next trading session where the move really started to accelerate.

If you did not act on the 24th, but rather waited until the 25th of August to enter a long position, you obviously would have had a better advantage from a risk/reward perspective. This is where employing various bullish strategies would be instrumental, and help one become a more complete, well-balanced, diversified trader trying to capture a strong trending and strong bullish seasonal market condition.

Buying on the close of business and holding as of the date of this writing, gold surged to a high of 1288 by September 21. As of the close the market, gold was at 1279.50. Seasonal analysis was instrumental in helping to define a strong trend condition and therefore one may have enhanced trading performance. Even if you did not catch this trend, at the very least, seasonal analysis alerted you to a high probability situation that



may have kept you from trading on the wrong side of the market. Or as we say, fighting the trend.

In addition to helping pick out a trend condition, seasonal analysis is absolutely instrumental in identifying when a trend may cease to exist, and that is also a very valuable piece of market knowledge, because one needs to be able to take profits in this business.

In the remainder of this ebook, we will delve into more techniques to aid traders in identifying trends and how to tread on the right side of the market.

### QUICK QUIZ

#### 1. What is the key to achieving wealth by trading the markets?

- a. Being on the right side of the trend
- b. Good risk management
- c. Proper trade position
- d. All of the above

#### 2. What types of securities demonstrate seasonal patterns?

- a. Stocks
- b. Commodities
- c. Foreign currencies
- d. All of the above

#### 3. Seasonal price patterns show that most markets make highs or lows near the same time period year after year.

- a. True
- b. False

#### 4. Seasonal analysis can help predict the outcome of each trade.

- a. True
- b. False

For the answers to this quiz, go to [TradersLibrary.com/TLEcorner](http://TradersLibrary.com/TLEcorner).

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## Pivot Point Analysis

This chapter is devoted to my favorite technical tool, **pivot points**. This is a tool that many traders either misuse or do not understand entirely. I use pivot point analysis to help confirm the market trend, or condition whether it is bullish or bearish. Then, I use the integrated formulas to project under those assumptions as to what the next time periods' range might be. In addition, I use pivot analysis to confirm at what price level a potential trend reversal level might be.

As traders, we think about what more one wants than to stay with the trend, correct? Well, traders also need as much help in setting risk targets as they do profit targets. Pivot analysis helps me achieve both of these goals.

This chapter will describe in full detail the principles behind the mathematical calculations as well as the rationale behind the psychological impact that drives traders to make decisions around these levels.

I will break it into separate sections to explain how it can be applied for identifying support and resistance levels in trending market conditions. This technical tool works for short and long term trend traders. It can be applied for stocks, futures, and in the foreign currency arena. Each investment vehicle has its own

nuances, such as trading session hours, time periods in which volume flows change, contract sizes, and decimal point placement so that you know how to correctly calculate the pivot point levels. First, you need to know the foundation of the methodology of pivot point analysis; this will then allow you to apply it to the specific markets of interest that you are trading.

## POWER OF PIVOT POINT ANALYSIS

The power in using pivot analysis is that the strategy works in all markets that have established ranges, based on significant volume or a large group of collective participants. After all, the current market price equals the collective action of buyers and sellers. Pivot point analysis is a robust, time-tested, and best of all, testifiable form of market analysis. This means that you can backtest to see the accuracy of this tool's predictive analysis. The really unbelievable aspect of pivots is who uses them. In fact, many traders

feel compelled not to learn about them because they seem complicated. I will dispel that myth.

In my first book, *A Complete Guide to Technical Trading Tactics*, I illustrated many trading methods that one can apply using pivot point analysis with candlesticks patterns, including the power of multiple time frames, or what is known as confluence of various target levels. This chapter will highlight those techniques as well as explain how to filter out and narrow the field of the respective support and resistance numbers and divulge various formulas that are popular today.

## WHAT IS PIVOT POINT ANALYSIS?

Pivot point analysis is a mathematical formula designed to determine the potential range expansion based on a previous time period's data, which includes the high, the low, and the close or settlement price. These variables from a given time period's range reflect

all market participants' collective perception of value for that time period. I want to quote the famous legendary trader **Jesse Livermore**, who stated nearly seventy years ago this observation: "The patterns the traders and technicians observe are simply the reflections of human emotional behavior." It rings as true today as it did then.

The range, which is the high and low of a given time period, accurately reflects all market participants' exuberant bullishness and pessimistic bearishness for that trading session, whether it is a day, a week, or a month. The high and low of a given period is certainly important, as it mirrors human emotional behavior.

Think of it this way: the high is a reference point for those who bought out of greed thinking they are missing an opportunity. They certainly won't forget how much they lost and how the market reacted as it declined from that level. The opposite is true for those who sold the low of

a given session out of fear that they would lose more by staying in a long trade; they certainly will respect that price point the next time the market trades back at that level. So the high and low are important reference points. With that said, pivot point analysis incorporates the three most important elements—the high, the low, and of course, the close of a given trading session. The most common formulas are:

**Pivot Point:** the pivot point is the high, low, and close added together and divided by three.

$$P=(H+L+C)/3$$

**Resistance 2:** R2 is the pivot point number plus the high and minus the low.

$$R2=P+H-L$$

**Resistance 1:** R1 is the pivot point number times two minus the low.

$$R1=(P \times 2)-L$$

**Support 1:** S1 is the pivot point number times two minus the high.

$$S1=(Px2)-H$$

**Support 2:** S2 is the Pivot Point number minus the high plus the low.

$$S2=P-H+L$$

## THE NEXT LEVEL

Some analysts add a third level to their pivot calculations to help target extreme price swings on what has occurred on occasion, such as a price shock resulting from a news driven event. Currency markets tend to experience a double dose of price shocks, as they are exposed to foreign economic developments as well as U.S. economic developments that pertain to a specific country's currency. This tends to make wide trading ranges. Therefore, a third level of projected support and resistance can be calculated.

$$\text{Resistance 3} = H + 2x (\text{Pivot} - \text{Low})$$

$$\text{Support 3} = L - 2x (\text{High} - \text{Pivot})$$

Or

$$R3 = (P-S1) + R2$$

$$S3 = P - (R2 - S1)$$

There are other variations which include adding the opening range. In this case, that would involve simply taking the open, high, low, and close and dividing by four to derive the actual pivot point.

$$P = (O, H, L, C) / 4$$

## PRICE ACTION REACTION

Let's see what these numbers mean and how price action reacts with these projected target levels. Here is how the numbers would break down by order, what typically occurs, and how the market behaves. Keep in mind, this is a general description and we will learn what to look for at these price points to spot reversals in order to make money and reduce risk.

I believe in looking at the progressively higher time period's price support or resistance projections. For example, from the daily numbers, I would look at the weekly figures and then from the weekly numbers, I would look at the monthly numbers.

*The longer the time frame, the more important or significant the data.*

It is rare that the daily numbers will trade beyond the extreme R2 or S2 numbers and when the market does, it is generally in a strong trending condition. In this case, we have methods to follow the market's flow, and we will cover this in more detail in the next few sections. By focusing on just a few select numbers and learning how to filter out excess information, I eliminate the analysis paralysis from information overload.

## Resistance Level 3

This is an extreme bullish market condition generally created by news-driven price shocks. This is where a market is at an overbought condition and may offer a day trader a quick reversal scalp trade.

## Resistance Level 2

We see this level when there is a bullish market price objective or target high number for a trading session. It generally establishes the high of a given time period. The market often sees significant resistance at this price level and will provide an exit target for long positions.

## Resistance Level 1

This is a mild bullish to bearish projected high target number. In low volume or light volatility sessions, or consolidating trading periods, this often acts as the high of a given session. In a bearish market condition, prices will try to come close to this level, but most times will fail.

## Pivot Point

This is the focal price level or the mean, which is derived from the collective market data from the prior session's high, low, and close. It is the strongest of the support and resistance numbers. Prices normally trade above or below this area before breaking in one direction or the other. As a general guideline, if the market opens above the primary pivot, be a buyer on dips. If the market opens below this level, look to sell rallies.

## Support Level 1

This level consists of a mild bearish to bullish projected low target number in light volume or low volatility sessions, or in consolidating trading periods. Prices tend to reverse at or near this level in bullish market conditions, but most times fall short of hitting this number.

## Support Level 2

At this level, we find a bearish market price objective or targeted low number. The market often

sees significant support at or near this level in a bearish market condition and it is a likely target level to cover shorts.

## Support Level 3

In an extremely bearish market condition, this level will act as the projected target low or support area. A price decline to this level is generally created by a news-driven price shock. This is where a market is at an oversold condition and may offer a day trader a quick reversal scalp trade.

## VALUE OF TIME FRAME

Daily, weekly, and monthly time frames can and should be utilized, as well. To understand how price moves within the pivots, begin by breaking down the time frames from longer term to shorter term. As traders, we should begin with a monthly time frame, where there is a price range or an established high or low for a given period and this range, including its price points.

Here is how I utilize time frame in my research. There are approximately 22 business days, or about four weeks in any given month. Every month there will be an established range—a high and a low. There are typically five trading days in a week. Now consider that in one day of one week in one month, a high and a low will be made. It is likely that this high and low may be made in a minute or within one hour of a given day, of a given week of that month. That is why longer-term time frames such as monthly or weekly analysis should be included in your market analysis.

In the world of 24-hour trading, the most popular question I get from those studying and using pivot points is: “What are the times that you derive the high, low, and close information?”

There are many different people telling many different stories. Here is what I do and what seems to work the best for me. For starters, just keep things simple and apply some good old-fashioned common

sense. If the exchanges and the banking system use a specific time to settle a market, then that is the time period that should be considered for a close. They should know those are the rules that make money move. I want to follow the money flow.

## PREDICTING HIGHS AND LOWS USING THE CALCULATIONS

I believe in keeping things simple, and that less is more. I use the numbers and the filtering method to help me select either the high or the low of a given trading session, and sometimes this works to project both the high and the low with amazing accuracy. Therefore, it is important not to be burdened with information overload. Remember:

- Pivot point calculations help determine when to enter and exit positions.
- They help as a leading price indicator for traders.

- Pivot points are used to project support and resistance or actual highs and lows of trading sessions.
- They help confirm other technical methods.
- Daily, weekly, and monthly time frames can and should be used.

In every week, there are five trading days. In every month, there will be an established range—in other words, a high and a low. In one day of one week in one month, a high and a low will be made.

It is likely that the high and the low will be made in a minute or hour of a given day of a given week in that month. That is why longer time frames such as a monthly or weekly analysis should be used.

Pivot point analysis relies on specific time frames for determining support and resistance levels for that particular timing element only, and infers that the analysis or calculations for the prior day will

not be applicable in most cases two, three, or four days later.

The same principle goes for the weekly and monthly calculations, so at the end of that time period, new data must be recalculated.

If in a given trading day, the market goes through my daily target numbers, the importance of the weekly and even monthly numbers is what gives me an indicator for the next major target levels of support and resistance.

## USING THE ACTUAL PIVOT POINT

I use the actual pivot point for many things. For example, it is important to understand that the pivot point can be used as an actual trading number in determining the high or low of a given time period, especially in strong bull or bear market trend conditions. In an extremely bullish trend condition, the pivot point can become the target low for that trading session.

This number represents the true value of a prior session. In an uptrending market, if the market gaps higher above the pivot point, then a retracement back to the pivot will attract buyers. Until that pivot point is broken by prices trading below that level, traders will step in and buy the pullback. Have you ever heard of the phrase “if bullish, buy breaks”? Well, using the pivot point as a price level to buy helps traders define at what price a break might occur.

The opposite is true in an extremely bearish market condition; the pivot point will act as the target high for the session. If a news-driven event causes the market to gap lower, traders will then access the news. Once prices come back up to test the pivot point, if the market fails to break that level and trade higher, sellers will take action and start pressing the market lower again.

Technically speaking, in a bearish market, the highs should be lower and the lows should be lower than

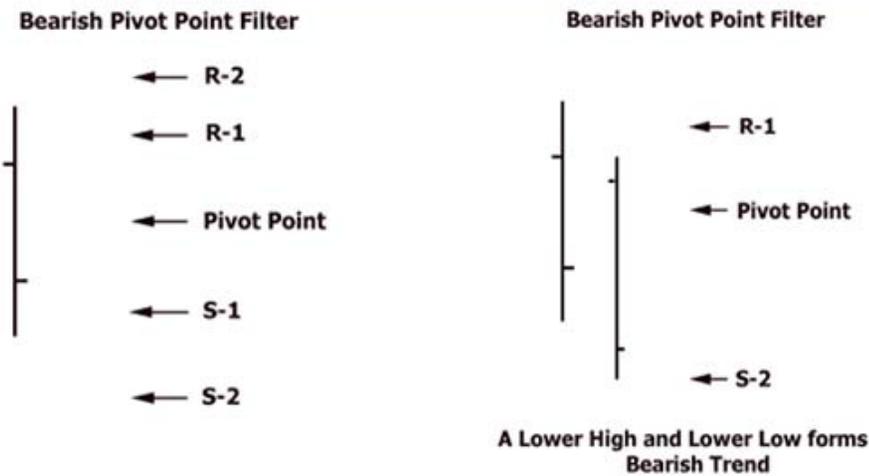
the preceding time frame. If they are, then to help filter out unnecessary information or excessive support and resistance numbers on my charts, I use the actual pivot point up to the R1 number for resistance, and then I target the S2 for the potential low for that time period’s trading range.

As you can see in the Figure 2.1, if I determine the market is bearish, and if I understand the relationship of the geometric distance of the resistance and support targets, I can eliminate the R2 number, since in a bearish environment we should see a lower high. If I am looking for a lower low, then I can eliminate the S1 support number as well, and now I have reduced the field to just three numbers.

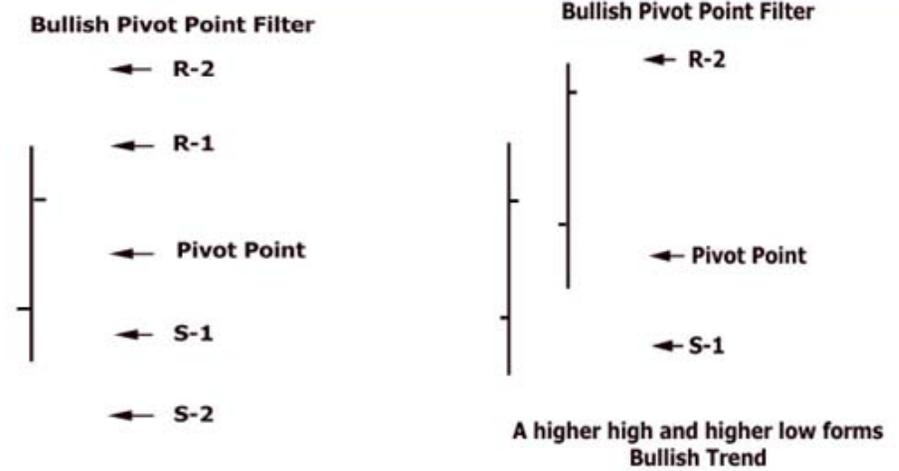
Once again, I am not using the numbers to place orders ahead of time (even though you could); I am using the numbers as a guide.

These numbers work so well and often act as a self-fulfilling prophecy because so many institutions and professional traders do use

**Figure 2.1** Bearish Pivot Point Filter



**Figure 2.2** Bullish Pivot Point Filter



them. Many hold differently sized positions, and some traders may not wait for the exact number to hit. Instead, they may start scaling out of positions (as I do). With this method, you can use these numbers as exit areas on your trades. As Figure 2.2 depicts, in a bullish market environment, by definition, the highs should be higher and the lows should be higher than the preceding time period. When I have determined that we are in a bullish trend, I target the S1 up to the pivot point for the low of the session and the R2 for targeting the high. This will give me an idea of what the potential trading range will be.

Take a look at Figure 2.3. It is a 15-minute chart using all five pivot calculations. We have a mid-point number which is the pivot point, with two upside resistance levels, and two downside support targets. I have a week's worth of data starting from Wednesday through the following Wednesday close. This chart is from thinkorswim by TD Ameritrade using the Person's Pivot indicator.

**Figure 2.3** 15-Minute Chart with Five Pivot Calculations



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**Figure 2.4** Filtering for One Resistance and One Support Target Level



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Using a filtering method as shown in Figure 2.4, we eliminated the excess support and resistance lines, so now we have one resistance and one support target level. Doesn't this elimination process give a better picture of what may have happened as opposed to what the real results were?

## LONGER TIME FRAMES

When the market goes through the projected daily target numbers, I use the longer time periods to give me the next reliable price objective. That is where the significance of the weekly and monthly numbers comes into play. Take for example the weekly chart on the S&P 500 Exchange Traded Fund (SPY) in Figure 2.5 using the

monthly pivot levels. Notice when the market was in a bearish trend in late 2008, the actual target levels were projecting out a lower high lower low scenario. Then, as the market reversed in a bullish trend throughout 2009, see how

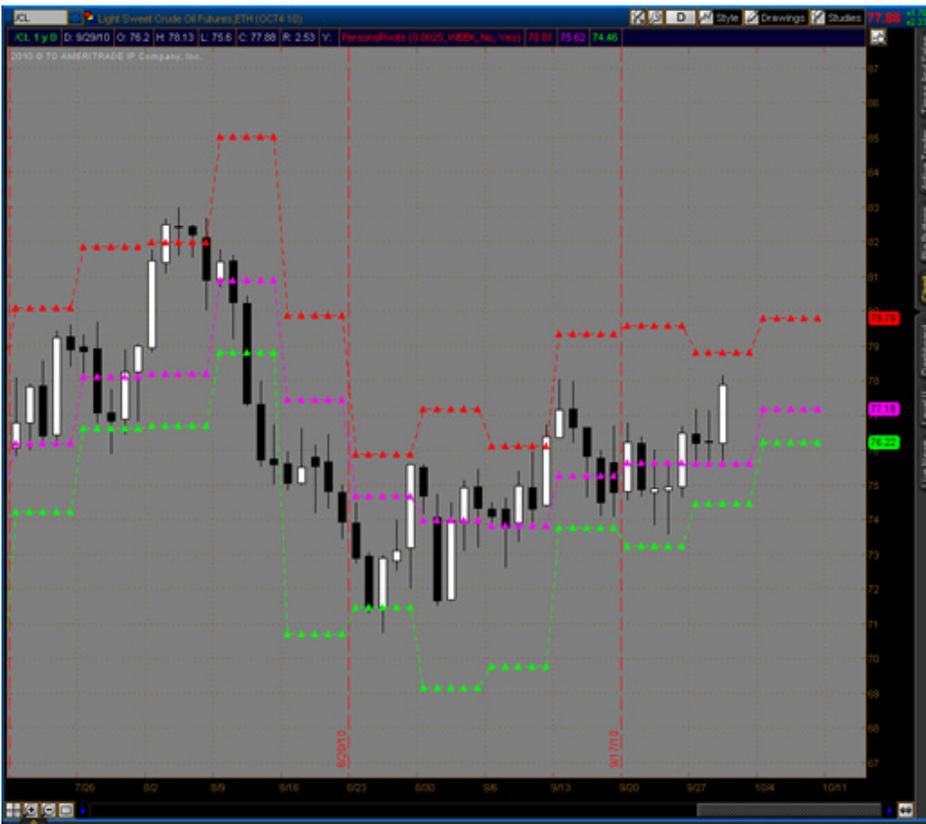
the monthly pivots were projecting higher highs and higher lows? Not only can pivot point analysis help keep traders on the right side of a trending market condition, the support and resistance target levels help navigate price

**Figure 2.5** Weekly SPY Showing Monthly Pivot Levels



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**Figure 2.6** Daily Price Chart Crude Oil Futures with Weekly Pivot Analysis



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extremes, allowing one to set entry and exit orders according to the market price direction.

For those interested in commodities, the graph in Figure 2.6 is a daily price chart of crude oil futures with a weekly pivot analysis displayed. As you can see, the pivot levels recalibrate and give not only a confirmation reading that the market is bullish by displaying higher highs and higher lows, it does so with exact pricing.

Now here is where combining different time frames can be most useful. As you look at Figure 2.7, you will see the e-mini S&P 500 futures with the weekly and daily pivot levels. What I like to look for is what I call a confluence, or a synchronized setup of various time frames within a trend.

For example, let's say we are in a higher degree time frame bullish trend and the market pulls back to the weekly support. I also like to see a daily support level coincide with that weekly pivot support for a low-risk buy

**Figure 2.7** E-Mini S&P 500 Futures with Weekly and Daily Pivot Levels



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setup. Notice the price action on September 23, 2010. The market pulled back to the weekly support level (pink) and that day's daily pivot (green) coincided at the same level. As the day progressed, traders could not take the market any lower and by the end of the day, the longer-term trend stayed intact as prices continued higher. By identifying the support targets in advance, one was keen to the idea to at least look to "buy the dip," or at the very least, not sell at the low of a retracement.

## CONCLUSION

Pivot point analysis is a valuable trading tool. Of course, there is no holy grail of indicators, but combining correlated technical tools to help you plan your trades will certainly give you an edge in the markets, especially if you are looking to trade both with a trend and looking for clues as to when or at what price level the trend may end. If you are interested in furthering your education on the use of pivot point analysis, including how to construct a trading methodology using a pivot point moving average, take a look at my home study course from *Traders' Library, Candlesticks and Pivot Point Strategies*.

## QUICK QUIZ

### 1. What is pivot point analysis?

- A mathematical formula designed to determine the potential range expansion based on a previous time period's data.
- A system for determining when to get into a trade.
- An exit-planning technique.
- All of the above

### 2. What is the most important element to pivot point analysis?

- The high
- The low
- The close
- All of these points are vital to pivot point analysis.

### 3. The basic formula for the pivot point is:

- $P + H - L$
- $(P \times 2) - L$
- $(H + L + C)/3$
- $(P \times 2) - H$

### 4. To understand how price moves within the pivots, examine time frames from:

- Longer term to shorter term
- Shorter term to longer term

For the answers to this quiz, go to [TradersLibrary.com/TLEcorner](http://TradersLibrary.com/TLEcorner).

3

## Commitment of Traders Report

There are many indicators and technical tools that can be used to help gain an edge in the market, especially in identifying the strength of a trend, or more importantly, helping to time a trend reversal. You may be familiar with my "Person's Pivots" and proprietary buy and sell signals, but believe me, I use other indicators and this chapter is focused on the "grand-daddy" of the consensus or contrarian indicators. I have been using this indicator since my start in the industry as a commodity trader back in the early 1980s. The tool I am talking about is none other than the Commodity Futures Trading Commission (CFTC) Commitment of Traders report (COT).

The data is like an insider information report, but it is legal. It acts like a true consensus of who literally "owns" the market. A trader can use this data to determine if market participants are too

heavily positioned on one side of the market in a long-term trend run, especially when we are entering a seasonally strong or weak time period from a supply and demand perspective. This chapter will provide a quick synopsis of where to find and how to use this report.

## WHEN

First, let's discuss when this report is released and how you can use it. The COT reports provide a breakdown of each Tuesday's open interest for markets, but they are not released until Friday at 3:30 p.m. EST. Current and historical Commitments of Traders data is available as is historical COT data going back to 1986 for futures-only reports, and to 1995 for combined options and futures reports.

The information is based on the open interest figures. Open interest is the total of all futures and option contracts entered into and not yet offset by a transaction, delivery, or exercise. The aggregate

of all long open interest is equal to the aggregate of all short open interest.

The terms and definition can be found at the [CFTC's website](#), but for ease of explanation, I will quote it here:

---

*“Open interest held or controlled by a trader is referred to as that trader's position. For the COT Futures-and-Options-Combined report, option open interest and traders' option positions are computed on a futures-equivalent basis using delta factors supplied by the exchanges. Long-call and short-put open interest are converted to long futures-equivalent open interest. Likewise, short-call and long-put open interest are converted to short futures-equivalent open interest. For example, a trader holding a long put position of 500 contracts with a delta factor of 0.50 is considered to be holding a short futures-equivalent position of 250 contracts. A trader's long and short futures-equivalent posi-*

*tions are added to the trader's long and short futures positions to give 'combined-long' and 'combined-short' positions. Open interest, as reported to the Commission and as used in the COT report, does not include open futures contracts against which notices of deliveries have been stopped by a trader or issued by the clearing organization of an exchange. Clearing members, futures commission merchants, and foreign brokers (collectively called reporting firms) file daily reports with the Commission. Those reports show the futures and option positions of traders that hold positions above specific reporting levels set by CFTC regulations. If, at the daily market close, a reporting firm has a trader with a position at or above the Commission's reporting level in any single futures month or option expiration, it reports that trader's entire position in all futures and options expiration months in that commodity, regardless of size. The aggregate of all traders' positions reported to the Commission usu-*

*ally represents 70 to 90 percent of the total open interest in any given market. From time to time, the Commission will raise or lower the reporting levels in specific markets to strike a balance between collecting sufficient information to oversee the markets and minimizing the reporting burden on the futures industry. “*

---

The data is collected as of the close each Tuesday from each clearing firm by the corresponding exchange where a particular commodity is traded. It is then turned over to the Commodity Futures Trading Commission (CFTC). They release the data each Friday at 3:30 p.m. EST.

I should point out that it is logical to watch for any major directional price changes in the market that you are analyzing from the time when the data was collected on Tuesday to the close of business on Friday to watch for any drastic price changes that may alter the position size of traders.

## KEY CATEGORIES

There are three categories to pay attention to: non-commercials (professional traders, hedge funds), commercials (banks and institutions, producers, or end users), and non-reportable positions holders (small speculators). Many people ask if the large speculators and commercials have reportable positions, then how do they figure out the small speculator's position? The answer is simple; the long and short open interest calculated as "non-reportable positions" is derived by subtracting total long and short open interest from the total "reportable positions" category. That is one more reason why there is no available information for the number of traders that exist in the "non-reportable positions" category.

This report helps uncover possible imbalances in markets that have been in a trending market condition for quite some time, and therefore can help you develop a game plan to look for timing clues

to enter trades accordingly. Keep in mind that the commercials are not always right; they are not in the market to time market turns. They are hedging their risk exposure in a cash position.

Since money moves the market, banks and large professional traders are a bit savvier when it comes to their business. After all, one would think a bank has a good idea of what direction interest rates are going to go once a central bank meeting occurs, right? This report reveals what the professionals are doing in relationship to the small speculators. If 80 percent of small speculators are accused of losing their money trading, then it would stand to reason that you would not want to be in the market on the side of the small speculator.

Therefore, in the short term, the non-commercials, professional speculators, or hedge funds are considered the smart money.

## INTERPRETATION

Here are some general guidelines for interpreting the information presented in the Commitment of Traders report that I wrote about in my first book, *A Complete Guide to Technical Trading Tactics* and in *The Commodity Traders Almanac*.

A. If non-commercials are net long, commercials are net long and the non-reportable positions category are net short, look at buying opportunities. In other words, go long with the pros.

B. If non-commercials are net short, commercials are net short

and the non-reportable positions category are net long, look at selling opportunities.

Examine Figure 3.1 on the e-mini S&P 500 index. See point "A," where the non-commercials are significantly net long, and then point "B," which shows the small speculators net short. This was the reading that was released on March 6, 2009 from data collected on March 3, 2009. The actual bottom on the March e-mini S&P contract was on March 6, 2009 at 662.50. The market proceeded to rally at the close of business on March 31, 2009 at 827.25, which

**Figure 3.1** E-Mini S&P 500 reading based on data collected March 3, 2009

E-MINI S&P 500 STOCK INDEX - CHICAGO MERCANTILE EXCHANGE										Code-13874A
FUTURES ONLY POSITIONS AS OF 03/03/09										
NON-COMMERCIAL			COMMERCIAL			TOTAL		NONREPORTABLE POSITIONS		
LONG	SHORT	SPREADS	LONG	SHORT	LONG	SHORT	LONG	SHORT		
(\$50 X S&P 500 INDEX)										OPEN INTEREST: 9,306,527
721,724	326,304	49,940	2311415	2452116	3083089	2828360	223,438	478,167		
CHANGES FROM 02/24/09 (CHANGE IN OPEN INTEREST: 207,448)										
51,785	16,938	4,200	183,203	159,681	239,188	180,819	-31,740	26,629		
PERCENT OF OPEN INTEREST FOR EACH CATEGORY OF TRADERS										
21.8	9.9	1.5	69.9	74.2	92.2	95.5	6.8	14.5		
NUMBER OF TRADERS IN EACH CATEGORY (TOTAL TRADERS: 426)										
95	106	41	152	149	266	277				

**Figure 3.2** Person COT Indicator Shows Small Speculators Short



Chart provided courtesy of TradeStation Technologies, Inc

was priced in the June futures contract, up almost 25 percent from the lows. The small speculators were net short into that rally.

Figure 3.2 using TradeStation shows my Person COT indicator reflecting that the small speculators were short as the professional traders were long since early February of 2009.

Examine the chart Figure 3.3, which is also on the e-mini S&P. This shows my TradeStation indicators with a zero line histogram color coded to identify the three classes of traders and their respective net positions as measured against the open interest numbers. The blue bars represent the non-commercial position or

**Figure 3.3** Classes of Traders and Their Respective Net Positions



Chart provided courtesy of TradeStation Technologies, Inc

professional trader category, the black line represents the commercials' positions, and the gray bars represent the small speculator net position.

Without going into exact details of this indicator or the exact figure of each category's net position, I want to focus on the overall consensus between the non-commercial

traders or large professional traders (blue) and the small speculator or general public, as highlighted in gray.

The chart starts from January 2008, and as you can tell, it was a very bearish market environment. Notice that the gray histogram lines are above the zero line, showing the small speculators

were net long all the way down. The blue bars are below the zero histogram line showing the large professional traders were net short. In fact, you can even see that by late June of 2008, the commercials also committed to the short side.

Now let's focus on late February of 2009, when the media and headline news proclaimed the end of the stock market and that the economy as we knew it was coming to an end. It was a very difficult time; housing prices plunged, jobs were lost, foreclosures skyrocketed, and the stock market plunged.

On an interesting note, see how professional traders (blue) were mounting a net long position and the commercials (black) were beginning to shed shorts? Now look at the gray histogram bars see how the small speculators threw in the towel, and after a long losing battle being net long in a bear market finally went short, darn near the bottom or "in the hole," as we say. March of 2009

posted a low right at one of my predicted pivot support levels and set off a buy signal.

The market did recover in what turned out to become an amazing rally. Professional traders held a net long position (blue) right through early April. Commercials (black) grazed a neutral position, bouncing between a small net long and net short the entire rally. It was the small speculators (gray) that committed to the short side all the way up.

So let's review. The small speculators were net long all the way down and net short all the way up. Wow—not a pretty picture, especially if you were a small speculator.

## SUMMER 2010 EXAMPLE

Here is where it gets interesting, though. Seasonally speaking, stocks tend to weaken in late April through the May time period. I am sure you are familiar with the saying, "sell in May and go away." I can assure you that according to

the CFTC Commitment of Traders Report, many small speculators did not follow that rule. In fact, notice that they finally threw in the towel and went net long darn close to both a seasonally weak time period and also near a predicted Person Pivot Point resistance target level (the red horizontal line on this chart).

This brings me to an interesting point—the summer of 2010 was no doubt a choppy and volatile market. Granted, we traded to these predicted support and resistance levels quite well, which helped me identify trading opportunities, but look back at how the small speculators were net long on the summer break. A low was made in the last week of August at the 1037 level, the small speculators made a net short position, commercials were reducing shorts, and the professional traders were holding a net long position. In fact, during the first week of September, before the monthly employment report was released and the Labor Day holiday, small speculators

added to their net short position. Commercials were less short and professional traders added to their net long position.

At that point, we had a weekly buy signal intact, with the information that small speculators are building a new net short position. This could be the ammunition the market needed to bring the market back to test the June high near 1130. In any event, the CFTC report is a strong contrarian indicator.

## "JAPAN SELLS YEN FOR FIRST TIME IN SIX YEARS"

Here is another example of how this report can help time major market reversals: the front page business news showed the Japanese government intervened on behalf of the Yen's value, the headlines stated.

One article as the story hit the newswires read as if the market price action was a shock. The only real shock was the fact that the Japanese government actually intervened. I would argue

that their government most likely was aware that there were a large number of speculators holding long positions, and that is why they chose to intervene in the first place—in order to gain maximum results with minimal effort. In this situation, the Yen was primed for a sharp correction; all it needed was a push off a cliff, so to speak.

situation, it is exactly what happened; speculators who were net long needed to liquidate their long positions by selling, forcing the price of the Yen versus the U.S. dollar lower.

Was this move predictable? Seasonally speaking, yes. The yen has a tendency to peak against

Sept. 15, 2010, 7:52 a.m. EDT

### U.S. dollar gains as Japan halts yen's rise

By William L. Watts and Myra P. Saefong, MarketWatch

LONDON (MarketWatch) — The dollar climbed against most currencies Wednesday, gaining after Japanese authorities took long-awaited action in the global foreign-exchange markets in a bid to halt the yen's advance on the greenback.

The dollar index (BOARD.DXY), which tracks the performance of the U.S. unit a basket of six major currencies, stood at 81.685, up about 0.7% from 81.064 late Tuesday.

The greenback soared against the yen (U.S.:USDYEN) to trade at ¥85.35, rebounding from ¥82.95 — the lowest in more than 15 years — seen before the intervention by Japan's finance ministry. The dollar had changed hands at ¥83.13 in North American trading late Tuesday.



Finance Minister Yoshihiko Noda confirmed intervention in the foreign-exchange markets but didn't specify the amount of money involved, according to reports. See report on Japan's intervention in the forex market.

"The Japanese authorities need to be aggressive now and hit the market hard, fast and furious because as time goes on, the announcement effect will dissipate," said David Bloom, global head of foreign-exchange strategy research at HSBC.

The action came a day after a leadership election for the ruling Democratic Party of Japan, in which Prime Minister Naoto Kan survived an internal challenge to his leadership. Read the full story on the election results.

Japan sells yen for first time in six years

© MarketWatch

If you were a speculator taking a percentage of profits, you would be forced to sell in order to act quickly before all profits eroded. That is what typically causes an avalanche of sell orders. In this

the U.S. dollar in mid-September. Armed with only that information, one would most likely not want to go long at a multi-year high. In fact one would most likely would want to look for a shorting opportunity. So how to decide what choices a

trader should make? After all, selling Yen futures could be costly, especially with the increased volatility; the leverage would kill you if you were early on such a trade. Another consideration would be the use of the CME's electronic mini Yen futures contract, or put options on the Yen futures. A trader could employ a combination of these products to take advantage of a strong seasonal tendency.

If you were a stock trader and did not have a futures account, you could take an options position on an exchange traded fund—the Japanese Yen Trust (FXY). But again, timing is everything. If you sold too early, you risk the chance of adverse risk on a futures contract, since options premiums could lose value as theta or time decay impacts the option premium.

## MARKET TEMPERATURE READINGS

Here is where the CFTC COT report can help. I call it a mar-

ket temperature reading. If the folks who trade their own as well as other people's money need to book a profit on a trade, it stands to reason if one is long, they would have to sell to get out, and if they are short, they have to cover or buy back those short positions, right? Well, the non-commercial traders are considered hedge funds or professional traders, and if they manage money then they look to take a percentage of profits on a quarterly basis. As with the Yen setup, the reason I was excited about this trade and was selling futures and buying put options was simple. The stars had all lined up.

- A. Seasonally, the Yen peaks against the dollar in mid-September.
- B. Large speculators were holding a substantial net long position in the market.
- C. The Yen had been in a defined uptrend for several months and was ripe for a correction.

D. The end of the quarter was within two weeks.

Take a look at the chart in Figure 3.4 showing the Person Histogram COT report. As you can see, the commercials were net short and the speculators were net long. The

speculators started to build a long position around the first week of July and were fully committed to this uptrend.

Now let's examine the actual report to see the complete breakdown of the CFTC's numbers.

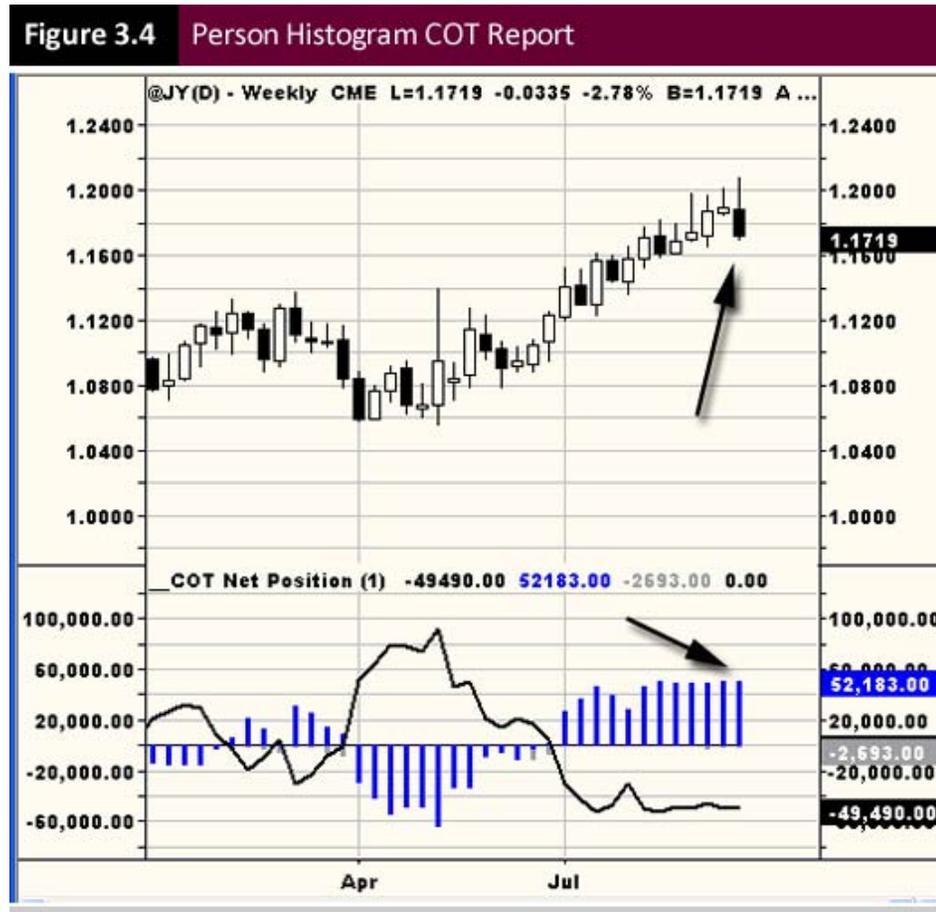


Chart provided courtesy of TradeStation Technologies, Inc

**Figure 3.5 Actual COT Report**

JAPANESE YEN - CHICAGO MERCANTILE EXCHANGE Code-097741  
 OPTION AND FUTURES COMBINED POSITIONS AS OF 09/07/10

NON-COMMERCIAL						COMMERCIAL		TOTAL		NONREPORTABLE POSITIONS			
Long	Short	Spreads	Long	Short		Long	Short	Long	Short	Long	Short		
(CONTRACTS OF JPY 12,500,000)											OPEN INTEREST:		161,314
COMMITMENTS											29,390	33,669	
66,038	13,995	5,161	60,724	108,489	131,924	127,645							
CHANGES FROM 08/31/10 (CHANGE IN OPEN INTEREST: 1,973)													
4,856	2,299	-5,344	3,802	7,998	3,314	4,952	-1,341	-2,979					
PERCENT OF OPEN INTEREST FOR EACH CATEGORY OF TRADER													
40.9	8.7	3.2	37.6	67.3	81.8	79.1	18.2	20.9					
NUMBER OF TRADERS IN EACH CATEGORY (TOTAL TRADERS: 108)													
40	25	21	28	32	78	68							

The non-commercials (professional speculators) were long 66,038 contracts versus short 13,995, which was a whopping 40.9 percent of the open interest of the market. The commercials were long 60,724 versus short 108,489. The non-reportable position traders (small speculators) were more or less neutral as they were long 29,390 versus short 33,669 positions. If a market is entering a seasonally weak period and is fully loaded on the long side, as confirmed with the COT report, then

you can start to explore selling opportunities. Just remember, if you are using options, select strike prices that are within the realm of reality and select the expiration month that will give you time for the trade to mature.

You can find this report at [nationalfutures.com/cftc-report.htm](http://nationalfutures.com/cftc-report.htm).

**QUICK QUIZ**

1. The total of all futures and options contracts entered into and not yet offset by a transaction, delivery, or exercise is referred to as:

- a. Consensus
- b. Open Interest
- c. Commitment of Traders
- d. Market Participation

2. The Commitment of Traders report:

- a. Acts as a true consensus of who literally owns the market.
- b. Is published by the New York Stock Exchange.
- c. Is an insider information report.
- d. All of the above

3. What is the key category to pay attention to when examining the COT report?

- a. Non-reportable position holders
- b. Non-commercials
- c. Commercials
- d. All of the above

4. How is the small speculator's position determined?

- a. By subtracting total open interest from the total reportable positions
- b. It is derived from the short open interest.
- c. There is no available information for the small speculator's position.
- d. By subtracting the short open interest from the long open interest.

For the answers to this quiz, go to [TradersLibrary.com/TLEcorner](http://TradersLibrary.com/TLEcorner).

## 4

## ADX as a Trend Strength Indicator

As previously discussed, a trend can be identified by using trend lines to identify either a series of higher highs and higher lows, or lower highs and lower lows. Moving average ribbons and moving average channels can also help traders gauge the market's direction along with the strength of the trend.

Because of the lag factor, it is often more difficult for the trader to be prepared for a trend change or a period of non-trending action. This can turn a profitable trade into a losing one and frustrate beginning traders who may start questioning their stop strategy. They may conclude that their stop was too tight and use a much wider stop next time, thereby increasing the risk. They might alternatively decide that their stop was too wide and therefore use too tight of a stop on their next trade and get chopped up.

### THE ADX INDICATOR

Traders can use the ADX indicator to determine whether a market is trending or not, as well as the strength of a trend. The ADX indicator is part of the Directional Movement Index developed by Welles Wilder and discussed in his 1978 book, *New Concepts in Technical Trading Systems*. Since the ADX is available

in most charting platforms, I will concentrate on the interpretation of the ADX, not the formula by which it is calculated. Other analysts like **Chuck LeBeau**, who won the coveted Traders' Library Traders Hall of Fame award, provides in-depth detail on how to effectively, and most importantly, correctly use this indicator in his **DVD course**.

It should first be noted that the ADX is not a timing indicator as it does not identify whether a market is moving up or down but is instead designed to determine whether a market is trending or not. When the ADX is rising, then the market is trending either up or down, and conversely a declining ADX suggests a non-trending market. Remember the direction of the ADX is more important than its value.

Like other methods discussed in this book, the ADX can be applied to weekly, daily, or intraday data. It is generally agreed upon by most technicians that the longer

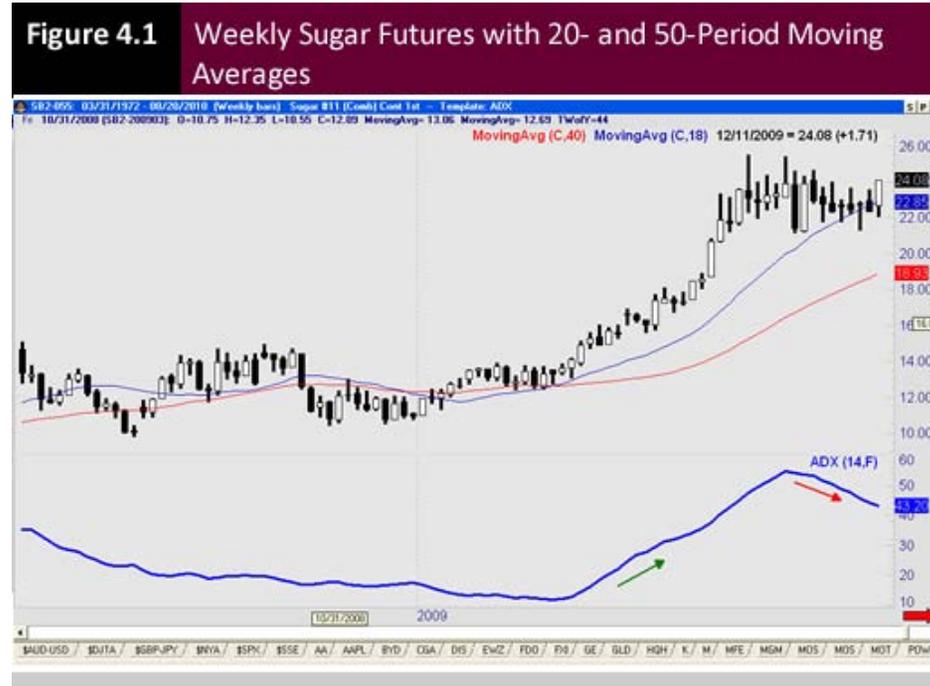


Chart provided courtesy of TradeNavigator.com

the time frame, the more reliable the signals. Sugar was one of the strongest trending markets in 2009, as it more than doubled in a single year.

In Figure 4.1, we have the weekly chart of the continuous sugar futures contract to which I have added the 20- and 50-period moving averages discussed earlier along with the 14-period ADX. The ADX was in a gradual downtrend into April of 2009 when it started

to turn higher. This coincided with the crossing of the 20-period MA moving above the 50 period. By the end of May, the ADX was clearly rising, indicating that sugar was now trending. It continued to rise during the summer and early fall, but in the middle of October 2009, the ADX had turned lower (see arrow). This indicated that sugar was no longer trending, but this should not have been taken as a sign that sugar prices had peaked.

Sugar prices remained in a trading range for the next eight weeks.

In trading stocks and providing advice for clients through **PA Stock Alerts**, the ADX analysis can be important. The strongest signals from the ADX occur when it drops down to low levels in the 10 to 15 range and then crosses back above the 20 level. This is because the very low ADX readings indicate that the market has reached an extreme level of non-trending behavior.

## USING A 21-PERIOD MOVING AVERAGE

To the chart of Apple (AAPL) in Figure 4.2, I have added a 21-period moving average of the ADX as well as a dotted line at the 20 level. In both December 2008 and February 2009, AAPL was unable to move through resistance at \$103.75, but on March 23, 2009 this resistance was overcome. The ADX line dropped below the 20 level in December and dropped below 15 several times in the next

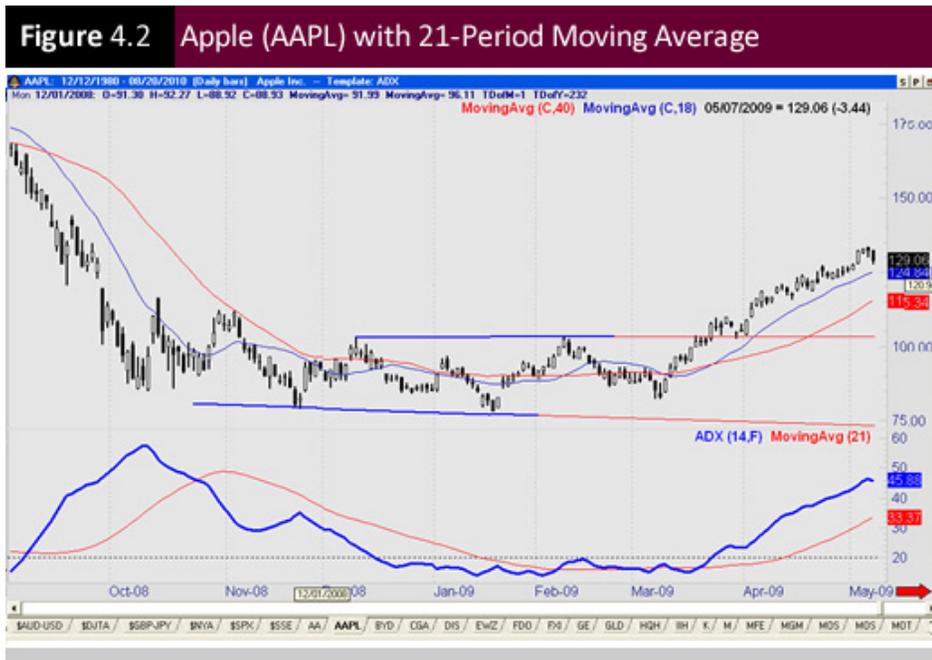


Chart provided courtesy of TradeNavigator.com

three months. As AAPL moved through resistance, the ADX moved above its moving average as well as the 20 level.

As discussed before, if a resistance level is overcome, it then becomes support and several days after the breakout, AAPL declined back to test support (former resistance) as indicated by the dashed vertical line. On this pullback, the ADX line was rising and above the 20-day moving average, indicating

that AAPL was starting to trend. The 20- and 50-day moving averages were also positive and the gap between the moving averages had begun to widen. For the next month, both AAPL and the ADX continued to move higher as AAPL rose from \$103.75 to over \$130 per share.

Understanding whether the ADX is rising or falling is of key importance and to help better identify the trend, a 21-period moving

average has proven to be useful. In a trending market, traders can use a wider stop with more confidence than is advised in a non-trending market. For my advisory service, **PA Stock Alerts**, my analysis suggested buying Mosaic (MOS) at \$45.68 (see Figure 4.3) and this level was reached on July 21, 2010. Just over a week later on August 2, 2010, MOS closed above next resistance in the \$47.65 area. The 20- and 50-day moving averages had turned positive, but the ADX

was still below its 21-day weighted moving average. Several days later, the \$52 level was overcome before MOS has a sharp pullback that lasted several days.

From a trading standpoint, this pullback could have made some traders consider closing out their long positions, but the movement of the ADX above its moving average indicated that MOS was in the trending mode, so a wider stop was a better idea. A week later, MOS was trading close to \$60.

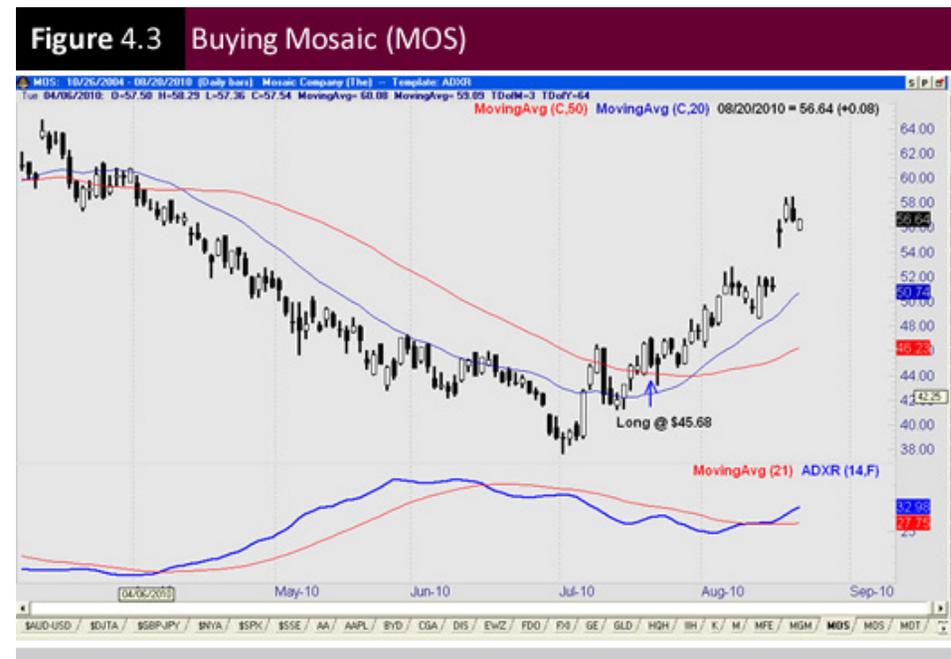
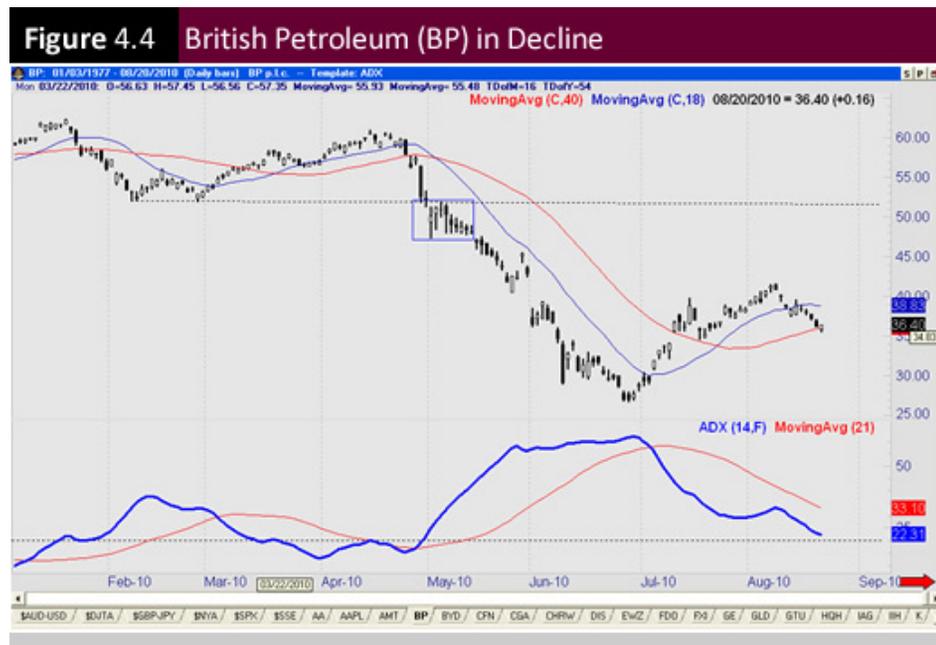


Chart provided courtesy of TradeNavigator.com

## INTERPRETING STRENGTH

As I have stressed earlier in this chapter, a rising ADX line does not give you any indication on what direction a market is moving, but helps you determine the strength of a rally or a decline. Figure 4.4 shows British Petroleum (BP) when its price started to decline during the latter part of April as support at \$51.90 was broken at the end of the month. Remember, this support now becomes resistance. BP stock tested this resistance and moved sideways (see box in Figure 4.4) for nine days before resuming its decline. Even though prices were locked in a trading range, the ADX was rising strongly. It had previously dropped below the 15 level and then moved strongly above 20. Towards the latter part of May, the rise in the ADX slowed as BP prices continued to plunge. The ADX did not drop below its moving average until early July as BP started to rally and eventually moved from a low near \$27 to over \$41 per share.



The best way to determine whether the ADX can help your trading is to study it, and run it on your existing positions as well as those trades you are considering. In this way, you should have a better idea whether or not the ADX can help you in your trading.

## QUICK QUIZ

### 1. The ADX indicator identifies:

- Trade timing opportunities
- The direction of a market's movement
- If a market is trending or not
- The lag factor

### 2. Trend lines can be used to identify a series of:

- Higher highs and lower lows, or lower highs and higher lows
- Lower highs and lower lows, or higher highs and higher lows

### 3. Moving average ribbons and channels help to identify:

- The presence of a trend
- The market's direction
- The strength of a trend
- Both b & c

### 4. The strongest ADX signals occur when:

- The indicator drops to the 10 to 15 range.
- The indicator crosses the 20 level.
- There is no trend.
- Both a & b

For the answers to this quiz, go to [TradersLibrary.com/TLEcorner](http://TradersLibrary.com/TLEcorner).

5

## Stochastics & MACD

George C. Lane is credited with creating the formula for **stochastics**, a range-based momentum oscillator indicator. His indicator is a popular technical tool used to help determine whether a market is overbought, meaning prices have advanced too far, too soon, and are due for a downside correction. Stochastics can also help to identify oversold markets, meaning prices have declined too far, too soon, and are due for an upside correction. The indicator itself is based on a mathematical formula that is computed to compare the settlement price of a specific time period to the price range of a specific number of past periods.

The theory is based only on the assumption that in a bull, or uptrending market, prices tend to

make higher highs and the settlement price usually tends to be in the upper end of that time period's trading range.

When the momentum starts to slow, the settlement prices will start to fade from the upper boundaries of the range and the stochastics indicator will show that the bullish momentum is starting to change. The exact opposite is true for bear or downtrending markets.

There are two lines that are referred to as %K and %D. These are plotted on a horizontal axis for a given time period and the vertical axis is plotted on a scale from zero to 100.

The formula to calculate the first component, %K (14 period) is as follows:

**The value of %K =  $c-Ln/Hn-Ln*100$**

**c=closing price of current period, Ln= lowest low during n period of time, Hn=highest high during n period of time and n=number of periods.**

The second calculation is the %D (3 period), and it is the moving average of %K.

It is calculated as follows:

$$\%D=100(Hn/Ln)$$

**Hn= the n period sum of (c-Ln).**

It is important to understand the rules of how to interpret buy or sell signals. When the readings are above 80 percent, and %K crosses over the %D line and both lines are pointing down, a "hook" sell signal is generated. A confirmed sell signal is triggered once both %K and %D close back beneath the 80 percent line.

The exact opposite is true to generate a buy signal when %K crosses above %D. When the reading is below 20 percent, and both lines are pointing up, a "hook" buy signal is generated. A confirmed buy signal is triggered once both %K and %D close back above the 20 percent line.

### FAST VERSUS SLOW STOCHASTICS

There are other techniques associated when using stochastics, including fast stochastics and slow stochastics.

The difference is how the parameters are set to measure the change in price. This is referred to as a gauge in sensitivity. A higher rate of sensitivity will require the number of periods in the calculation to be decreased. This is what "fast" stochastics does; it enables one to generate faster and higher-frequency trading signals in a short time period.

Markets need volatility in order to move and we need markets to move in order to trade. We also need to base our trading plans on reliable signals. Not all times do the setups that trigger an entry work as perfectly as in Figure 5.1, which is why I use other confirming signals to corroborate trading signals. I also like to see if the methodology works in a diverse group or non-correlated markets.

**Figure 5.1** Entry Trigger with Confirming Signals



Chart provided courtesy of TradeNavigator.com

To test how robust, or how well a signal responds in different markets helps validate the reliability of that signal.

Figure 5.2 is a Spot FOREX Euro Currency chart that demonstrates the same setup and trigger that would enter a long position with the %K and %D crossover above the 20 percent line with a confirming higher closing high candle pattern. The sell signal also works well as confirmed when %K and %D both cross over and close back below the 80 percent line.

## BULLISH CONVERGENCE

One other method to use the stochastic indicator is trading with a pattern called **bullish convergence**, seen in Figure 5.3. It is used in identifying market bottoms. This is where the market price itself makes a lower

**Figure 5.2** Spot Forex Euro Currency Stochastic Signals



Chart provided courtesy of TradeNavigator.com

low from a previous low, but the underlying stochastic pattern makes a higher low. This indicates that the low is a “false bottom” and can resort to a turnaround for a price reversal.

Market prices can and usually do vacillate around the actual pivot point number before making a decision on a directional price move. It is at these points, or market conditions, that you want to use an indicator to help measure the true strength or weakness of the price action. That is what the Stochastics indicator does. In Figure 5.3, we see how a secondary low is marked with a higher indicator low.

Once we draw the corresponding lines, it appears as if prices and the indicator are actually converging. This is hinting that the secondary low is not as bearish as it seems, and that a market rally can occur.

**Figure 5.3** Stochastics Shows Bullish Convergence



Chart provided courtesy of TradeNavigator.com

In essence, this is exactly what happens, and as prices trade above both moving average values, we have a nice trigger to go long for a quick profitable scalp.

## BEARISH DIVERGENCE

Another signal is a trading pattern called bearish **divergence**, seen in Figure 5.4. It is used in identifying market tops. This is where the market price itself makes a higher high from a previous high, but the underlying stochastic pattern makes a lower high. This indicates that the second high is a “weak” high and can resort to a turnaround for a lower price reversal.

**Figure 5.4** Stochastics Shows Bearish Divergence

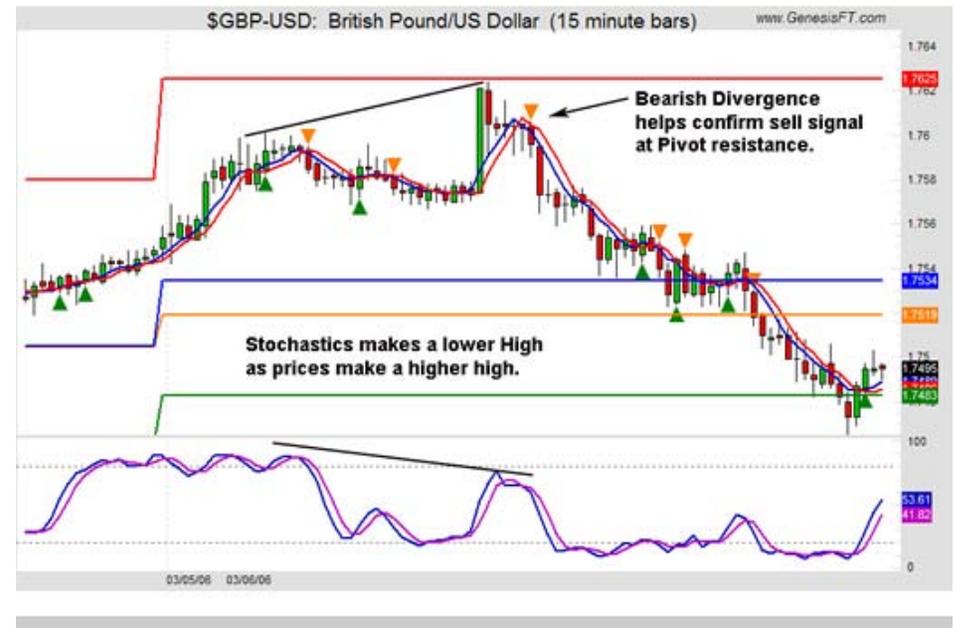


Chart provided courtesy of TradeNavigator.com

The example in Figure 5.4 shows how the market makes a secondary high, but the corresponding high in the stochastics is at a lower level than the primary high point. This pattern can alert you that if the market appears to be ready for a new bull trend, the stochastics readings should be equal to or higher than the primary peak level.

Likewise, a higher high that is accompanied with a lower stochastics reading indicates a potential trend reversal, especially when prices are near a pivot resistance level. Notice the lower closing low off the secondary peak, and then as %K and %D both cross over and are beneath the 80 percent line. This helps confirm the sell signal, which was triggered with the moving average crossovers and the lower closing lows.

Bearish divergence signals warn you that there is an impending downtrend of a substantial amount. Therefore, it is important to monitor for divergence patterns.

The bearish divergence pattern signals or forecasts that there is an impending reversal in prices and that one is ready to occur. As I mentioned previously, one can anticipate and get ready to place an order to act on the signal, but you should not act until the confirmation of a lower closing low triggers the entry, which is on the close or the next open. Here are rules to guide you to trading a stochastics bearish divergence pattern:

- The first peak in prices should correspond with a peak in the %K and %D readings above the 80 percent level.
- The second peak must correspond to a significant higher secondary price high point.

- If the secondary stochastics peak is less than or under the 80 percent level, this signals a stronger sell signal.
- Prices should make a lower closing low to confirm a trigger to enter a short position. Enter on the close of the first lower closing low or the next open. The protective stop should initially be placed above the high of the secondary high.

## MOVING AVERAGE CONVERGENCE/DIVERGENCE

MACD in its simplest terms is an indicator that shows when a short-term moving average crosses over a longer-term moving average. Gerald Appel developed this indicator as we know it today for the purpose of stock trading. It is now widely used for short-term trading signals in stocks, futures, and Forex markets, as well as for swing and position traders.

It is composed of three exponential moving averages. The initial inputs for the calculations

were the difference between a 12-day and a 26-day exponential smoothed average. The signal line used is a 9-day smoothing of today's MACD value, subtracted from today's, or the last time count's MACD value. Most charting packages give the 12-period, 26-period, and the smoothed average of a 9-period for the signal line.

There are many variations and most charting software packages allow you to change the parameters. Just remember, the less time periods you input, the more sensitive the indicator will be to price changes. Therefore, with fewer time periods, an indicator will generate more signals. Longer time periods help smooth out the false cross-over signals. Some variations to consider are a 10-period, a 24-period, and for the smoothed average signal line, use an 8-period input.

The concept behind this indicator is to calculate a value, which is the difference between the

two exponential moving averages, which then compares that to the 9-period exponential moving average. What we get is a moving average crossover feature and a zero line oscillator, and that helps us to identify overbought and oversold market conditions. The chart in Figure 5.5 shows how the MACD helps to confirm buy and sell signals.

I might add that since traders are now more computer savvy than ever before, many charting software packages allow changing or optimizing the settings or parameters. In other words, it is easy to change or "tweak" the variables in Appel's original calculations.

Traders can increase the time periods in the moving average calculations to generate less trade signals and shorten the time periods to generate more trade signals. The 15-minute chart in Figure 5.6 shows many signals generated. Just as is the case for most indicators, the higher the time periods

**Figure 5.5** MACD Confirms Buy and Sell Signals

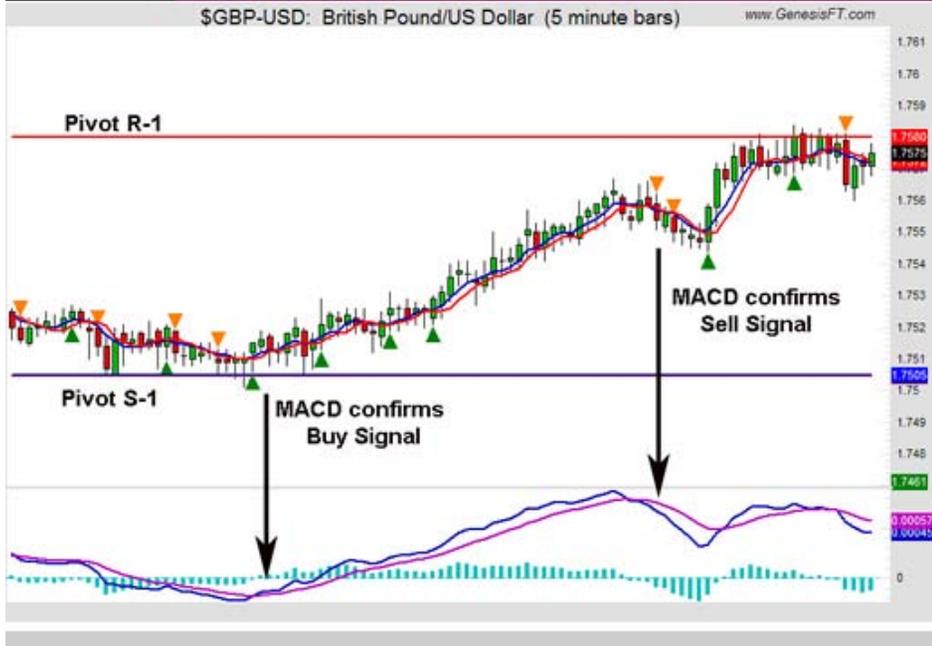


Chart provided courtesy of TradeNavigator.com

used, the less sensitive the indicator will be to changes in price movements.

MACD signals react quickly to changes in the market and that is why a lot of analysts including myself use it. It helps clear the picture when moving average crossovers occur. It measures the relative strength between current prices as compared to past time frames, giving a short term perspective relative to a longer term perspective.

To understand how to use this indicator, always remember that when the fast line crosses above the slow line, a buy signal is generated. The opposite is true for sell signals.

**Figure 5.6** 15-Minute Chart Showing Many Signals

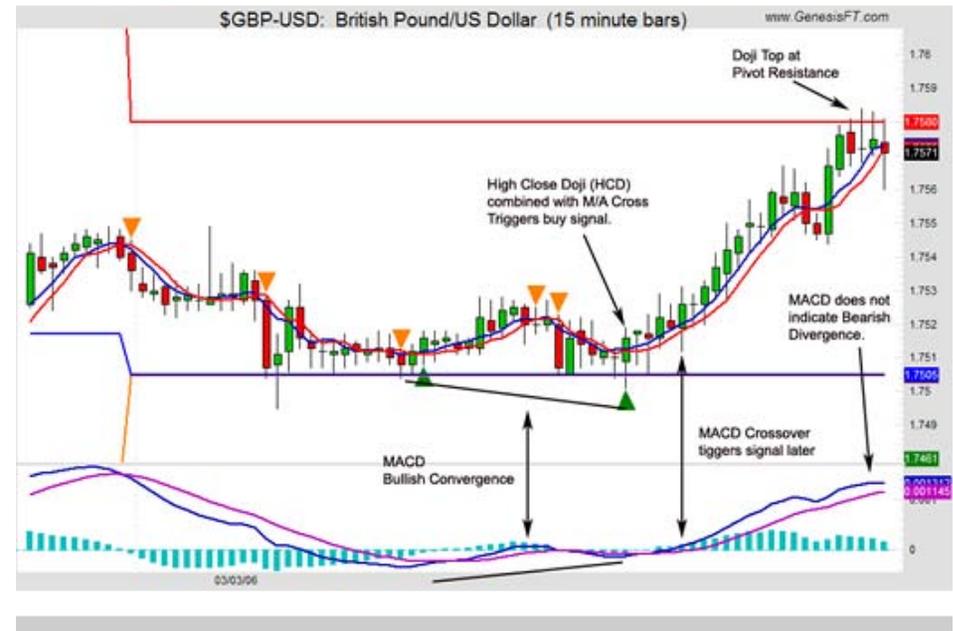


Chart provided courtesy of TradeNavigator.com

MACD also has a zero base line component, called the histogram, which is created by subtracting the slower signal line from the MACD line. If the MACD line is above the zero line, prices are usually trending higher. The opposite is true if MACD is declining below the zero line.

MACD is a lagging indicator since it is based off of moving averages. We want to look for the zero line crossovers to identify market changes and help confirm trade entries or to trigger action to exit a position.

Watching for clues that identify shifts in momentum as the market moves from one extreme to another or overbought to oversold to trigger a trading opportunity can be identified with the aid of MACD readings in both the moving average and the histogram component. While

**Figure 5.7** MACD Histogram with Bearish and Bullish Divergence



Chart provided courtesy of TradeNavigator.com

it is more profitable in buying the absolute bottom, that is a haphazard guessing game to play. Trading based on a set of rules and being able to use a confirming indicator to identify a change in price direction and then following that price movement is the essence of how to make money in the markets.

Buy and sell signals with a bullish and bearish divergence as described in the last chapter can also be found using MACD. However, with the MACD, we can see the convergence and divergence in the moving average lines, and it is more reliable when they appear in the histogram bars. In Figure 5.7 with the chart for Euro

Currency, the MACD histogram helps identify both bearish and bullish divergence patterns.

You may have the impression I prefer the stochastics over the MACD study, and for the most part, I do. The fast stochastics indicator generally gives confirmation on my triggers earlier than the MACD studies. In Figure 5.8, notice

that the high close doji (HCD) triggers a buy that is confirmed and is in sync with the stochastics signal. The MACD triggers six days later a whopping 237 pips difference.

This frequently occurs where MACD lags other indicators, however, it is most helpful as a trend momentum confirmation tool.

**Figure 5.8** Doji Triggers Buy Before MACD

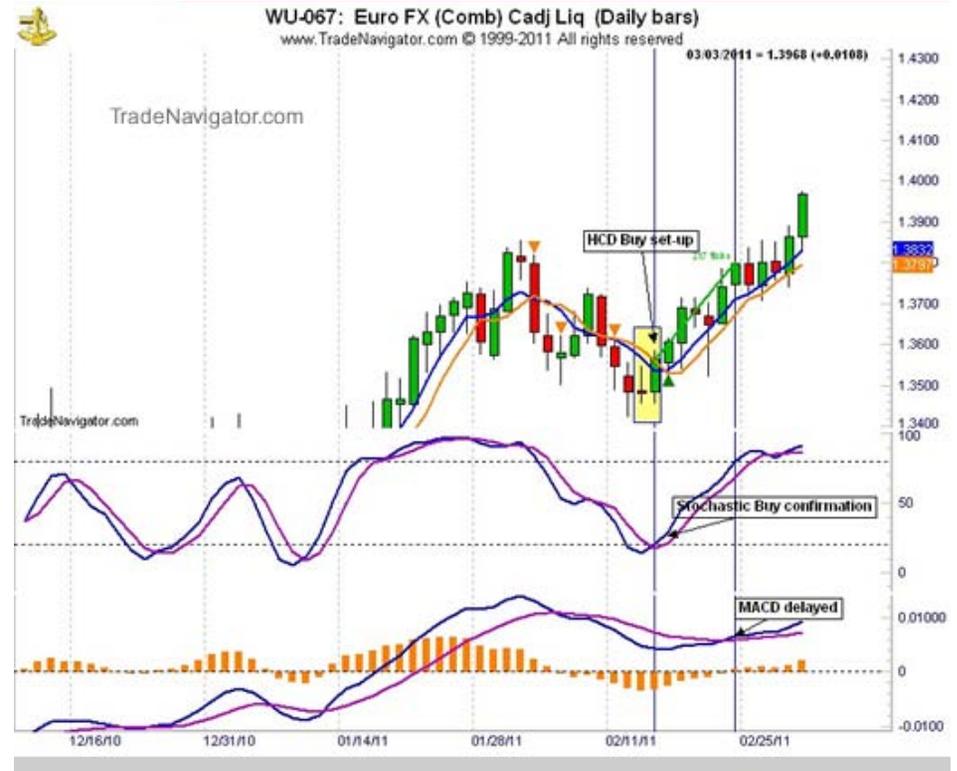


Chart provided courtesy of TradeNavigator.com

As you follow the flow of the market, you may notice where the MACD triggers a false sell signal, but the stochastics does not. However, once the stochastics %K and %D close below the 80 percent level, MACD helps to confirm the exit.

### QUICK QUIZ

**1. The stochastics indicator is used to determine if:**

- a. a market is overbought or oversold
- b. prices have moved too far, too soon
- c. a correction is due
- d. all of the above

**2. A “false bottom” is often revealed by what stochastic indicator pattern?**

- a. Bullish convergence
- b. Bearish convergence
- c. Bearish divergence
- d. Bullish divergence

**3. A “weak high” is often revealed by what stochastic indicator pattern?**

- a. Bullish convergence
- b. Bearish convergence
- c. Bearish divergence
- d. Bullish divergence

**4. The moving average convergence/divergence indicator:**

- a. Shows when a short-term moving average crosses over a longer-term moving average.
- b. Is composed of three exponential moving averages.
- c. Identifies overbought and oversold market conditions.
- d. All of the above.

**For the answers to this quiz, go to [TradersLibrary.com/TLEcorner](http://TradersLibrary.com/TLEcorner).**

6

## Moving Averages

A simple way to determine the trend is to draw trend lines. In an uptrend, we should see a sequence of higher highs and higher lows. So we would draw a line against the lows and extend it outward to forecast a support level sometime in the future. In a downtrend, as the sequence of events shows lower highs and lower lows, we would draw a line against the top of the highs and extend it outward to help predict a resistance point in the future. Another method used in determining trend line support and resistance is through the use of moving averages. The moving average is generally calculated by taking the average of the closing price of a defined number of sessions.

The moving average is one of the most widely utilized indicators in technical analysis. The reason that this is the case is that the moving average is easily identifiable and easy to backtest. Many automated trend trading systems use moving averages or some derivation of a moving average method to generate buy and sell signals. Moving averages are considered classic indicators and are very popular with traders today. Most technicians view the moving average as a way to signal a change in the direction of the trend, and even for identifying levels of support and resistance. They can also be used as a way to smooth out the volatility of the market.

Traders can use just one moving average or combine a few different ones and overlay these on their charts. By using short-term, intermediate-term and a longer-term moving average overlaid on top of the chart, you can see the trend direction of market prices from a different perspective. Different markets such as futures, stocks, exchange-traded funds, and foreign currencies all have their own particular nuances such as trading hours and trading time frames. So it is important to understand that one set of parameters in the moving average may not work as efficiently in one market versus another. For example, in the spot foreign currency markets, such as the euro currency, the trading hours are virtually around the clock five days a week, compared to trading in the Euro Currency Exchange Traded Fund (FXE), where we have a limited trading session from 9:30 a.m. to 4:15 p.m. EST. This relationship of time trading differences even exists between the cash stock

indexes versus the futures stock index products. So when using moving averages, it is important to understand that the variables and parameter settings of one instrument may be more or less sensitive to another due to liquidity and trading hours.

## WHAT ARE MOVING AVERAGES?

In its simplest terms, a moving average takes a measurement of past price action to help smooth out price data. As the calculation is formulated with each new date as the name implies, the sum moves as an older date is dropped. Since we are using past data to calculate the formula, moving averages are considered a trend following or confirmation indicator. Since moving averages are based on past price action, they simply cannot be leading price indicators. When we discuss past price action, remember the shorter the time frame, the more sensitive the moving average will be to price changes.

As we have discussed previously in this book, all traders, analysts, and technicians have equal access to the most important common denominators. Those are the open, the high, the low, and the close. This chapter is dedicated to various moving average types, which includes examining these four variables. Most traders use the close as their price input for calculating a moving average. There are advantages and disadvantages to only using a close variable input as your moving average. But first let's discuss the various types of moving averages, and then we will discuss the parameter inputs to use and the reasons and purposes for measuring these values.

## SIMPLE MOVING AVERAGE

There are two main types of moving averages. The first is a simple moving average (SMA), which is defined as dividing the sum of two or more figures by the number of figures. When we apply this to market analysis, it means adding up the price inputs for a

given number of time periods and dividing the sum by the number of time periods. A 10-day simple moving average is the 10-day sum of closing prices, divided by 10. As the name implies, a moving average moves or is considered a rolling indicator because as a new date emerges, you remove or drop the old date in your continuously rolling new data as it becomes available.

By averaging the price data, a smoother line is produced and the trend is much easier to recognize. The disadvantages of the simple moving average is that it only takes into account the time period of the sessions covered in the calculation and it gives equal weight to each day's price.

## EXPONENTIAL MOVING AVERAGE

The next calculation is using what is known as an exponential moving average (EMA). Exponential moving averages are calculated from complex formulas and have

become the most common averages used today by many quote vendors, analysts, and traders since they are weighted to give more importance to the newest data from current market conditions as older data becomes less important as time passes and is eventually filtered out.

Calculating all these numbers by hand or even with a calculator is tedious and time-consuming, but fortunately computers can now figure all this out for us. A simple moving average is straightforward and has minimal mathematical requirements.

## HISTORY OF MOVING AVERAGES

We have the aerospace industry to thank for the use of simple, weighted, and exponential moving averages. The formula was originally used as a way of calculating the trajectory of missiles. As for applying moving averages to trading, many books and magazine articles have been written on

the subject. One such article was by Frank Hochheimer who wrote an article way back in the 1978 *Commodity Yearbook* entitled, “Computers Can Help You Trade the Futures Markets.” He conducted a study on 13 different commodity markets to find the optimal moving averages between simple, weighted, and exponential in order to determine the best and most consistent cumulative net profits.

One of his findings was that each individual market had its own optimal moving average settings. Another of his findings was that simple moving averages outperformed both linear weighted and exponential moving averages. As the computer era emerged, more and more traders have developed their own backtest studies to optimize their settings for individual markets for their individual trading needs. In this chapter, we will reveal various methods and combinations from parameter settings to the use of multiple simple moving average time frames.

## MULTIPLE MOVING AVERAGES

The use of multiple moving averages gives a trader read of the market from different perspectives. Generally speaking, when we use more than one moving average, we are looking to com-

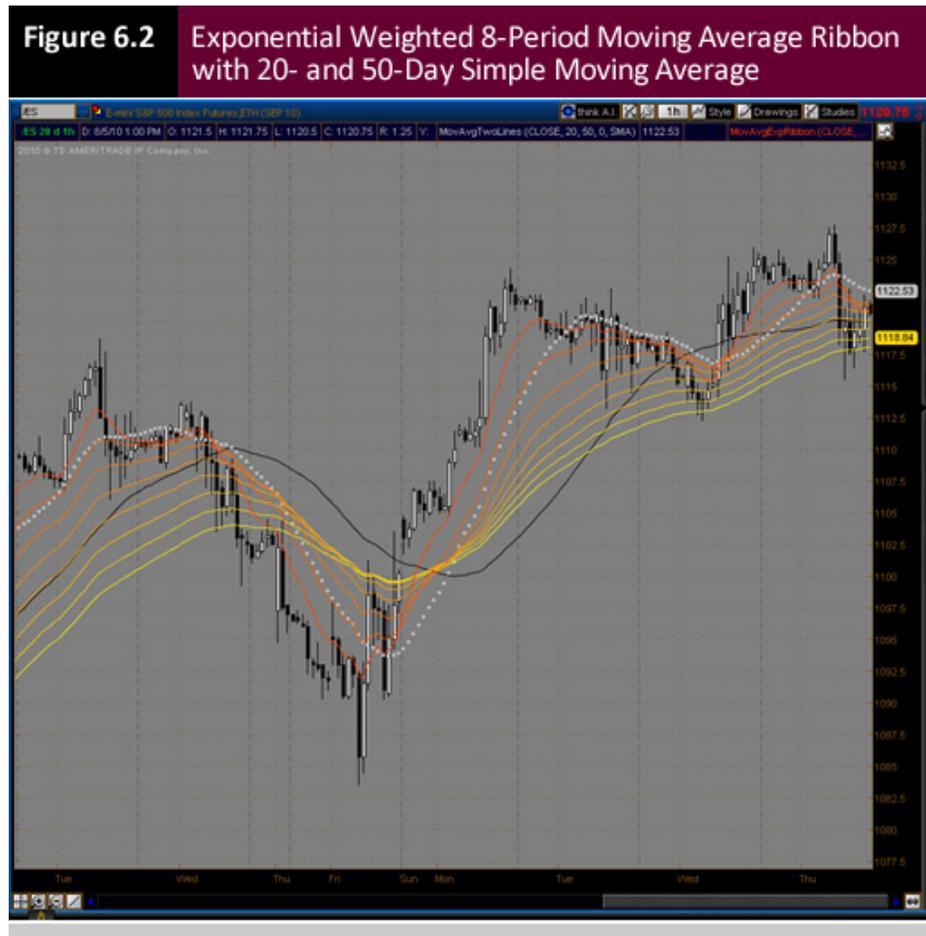
pare one time frame versus another. Usually it is a short-term versus a longer-term outlook. Figure 6.1 shows a daily chart of the Russell 2000. The white dotted line is a 20 day simple moving average based on the close, as compared to the solid black line, which is a 50-day

Figure 6.1 Russell 2000 Daily with 20- and 50-Day Moving Averages



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simple moving average based on the close. Buy signals are generated when the short-term moving average is above the longer-term moving average. An additional filter can be used to go along when the current price is trading above both moving averages. You will notice that by mid March of 2010, a strong uptrend had developed and the shorter-term 20-day moving average acted as support until mid-May, when prices broke below both the 20- and then 50-day moving average. A reversal sell signal would have occurred by early June. The short-term moving average was below the longer-term moving average, and as an additional filter, current prices were trading beneath both moving average values.



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## MOVING AVERAGE RIBBONS

Moving beyond the use of two or three different time period moving averages is the moving average ribbon. The ribbon as it is called is created by using a series of exponential moving averages of various

lengths. Since most computers and trading software platforms have advanced graphics cards, the ribbons are mostly seen using gradient colors. The ribbon moving average method starts with one time frame and increases either

by a specific time period, or by a percentage. To create a simple moving average ribbon for example, you start by using a 10-period moving average, using 8 moving averages increasing by 10 periods, so that you will have a 10-, 20-,

30-, 40-, 50-, 60-, 70-, and 80-period moving average system overlaid on your price chart. Ribbons can be used to determine a weak or strong trend. With all the moving averages pointing in the same direction, the trend is said to be strong. Price reversals are confirmed when all the moving averages have crossed over each other and start to move in the opposite direction. Figure 6.2 uses the e-mini S&P futures contract, illustrating an exponential weighted 8-period moving average ribbon combined with the 20- and 50-day simple moving average.

A good bullish setup to determine a high quality trade is not only when the shorter-term moving averages cross up over the intermediate and longer-term settings; in addition, we look for prices to close above all moving averages.

An additional filter would be if the market closed at least two consecutive time periods above the moving average settings, as this would reduce the likelihood of a

reversal failure. Since most failed market reversals or false breakouts occur almost immediately, waiting for confirmation by multiple closes reduces the likelihood of a failed breakout. The downside to this filtering method is that we increase the risk factor because prices have moved higher from the lows and we reduce the potential lion's share of the profits since the trend in this trade will have been sufficiently intact.

Another filter I use is if the real body (open, close relationship) is above the moving average settings for two or more periods. Others have used the entire range to help filter higher quality setups to enter positions when trend trading using moving averages.

## MOVING AVERAGE CHANNELS

As we discussed previously, there are four main variables that we all have equal access to and can use to input for moving averages. These are the open, the close, the

high, and the low. For this section, we want to focus on taking a moving average of both the high and the low. In doing so, we will form a moving average channel. The rationale here is that if we are in a strong uptrend, prices will continue to close above past or prior highs and will continue to move up until the market or current prices close below the average of past or prior lows.

In Figure 6.3, we have an e-mini S&P chart based on a five-minute time interval. We took a seven-period simple moving average of the highs and a seven-period simple moving average of the lows. As you can see from this example, a strong uptrend developed once the market closed above the upper channel or the seven-period moving averages of the highs. Notice that once the market closed below the lower band or the seven period moving averages of the lows, the market entered a defined downtrend. The moving average channel method helps traders stay on the right side of the market by

**Figure 6.3** Strong Uptrend Develops Above Upper Channel



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identifying positive or negative momentum or strong trending market conditions.

## BOLLINGER BANDS

The moving average channel is a simple and less complicated meth-

od to calculate than using volatility bands such as the more popular and famous technical tool known as Bollinger bands. Bollinger bands are made up of three moving average components in which the width of the bands expand or

contract as price volatility increases and decreases. The bands are measured based off of the center moving average component using a 20-day simple moving average. The upper band is calculated by multiplying the standard deviation by two and the lower band is calculated by subtracting the 20-day moving average by two standard deviations.

- Middle Band = 20-day simple moving average
- Upper Band = 20-day SMA + (20-day standard deviation of price x 2)
- Lower Band = 20-day SMA - (20-day standard deviation of price x 2)

Simply put, two standard deviations means that 87 percent of all prices will close inside the Bollinger bands. The Bollinger bands try to help us uncover whether prices are too high or too low in relative terms.

A simple trading plan can be executed so that when price touches

the lower Bollinger band, one may look to take a buying opportunity. But when prices close below the lower Bollinger band, traders can develop either an exit strategy on long positions, or start to sell short, anticipating that prices will continue lower.

On the other hand, as prices reach towards the upper band, traders can start to look at exit strategies from long positions or start to implement short trades. It is important to note that in strong trending periods, prices will “walk the band,” meaning they will continue to move up or down when settlement prices occur outside of the bands averages. Just because prices “tag” the Bollinger bands, meaning they are drawn either to the upper or lower band, this in itself is not a buy or sell signal. In order to improve the quality of the trade signal, one needs an additional indicator for a trade confirmation.

## CONFIRMING INDICATORS

A word of warning when it comes to using indicators for confirmation—make sure they are not similar in nature or related in parameter settings. Remember; avoid collinearity when using additional technical indicators for confirmation.

*Make sure that indicators used for confirmation are not similar in nature or related in parameter settings.*

For example, avoid following any indicator that uses an 18- to 22-day simple moving average setting, because Bollinger bands use the 20-day simple moving average for the middle band. A really good sequence of events to watch for to confirm that a strong trend

is intact is not only when prices close outside of the bands, but also when the Bollinger bands widen and point in the direction of that trend. In addition, Bollinger bands can act as a gauge of volatility when the bands contract or come together; it shows when the market is in a period of low volatility or a consolidation phase. The benefit to traders here is that once you understand that markets go through phases of volatility or trend phases and then pause into consolidation periods, it is the Bollinger bands that can help identify these different cycles or phases by examining the narrowing or widening of the bands.

Figure 6.4 shows a daily candle chart on Google (GOOG) with a 20-period simple moving average, using the standard deviation from the formula mentioned above. In early April 2010, prices broke out to the upside of the top band, but experienced a large gap lower in price as the market trended lower. Notice the direction of the three moving average components all

**Figure 6.4** Google (GOOG) Daily Candle Chart with 20-Period SMA



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pointed down and prices hugged or “tagged” the lower band. This illustrated a bearish market turn and downtrend. It wasn’t until late July that prices traded back up above the middle band, which by early August acted as support. Besides identifying support and resistance targets, Bollinger bands can also aid traders in uncovering directional trend changes. As with most indicators, traders should incorporate other indi-

cators or trading techniques for confirmation before entering trades, and Bollinger bands are no exceptions.

## CONFIRMING PATTERNS

Other means of confirming indicators can be the use of just simple patterns such as “M” top and “W” bottom formations. By definition, a “W” bottom is a series of higher highs and higher lows, and an “M” top formation is a series of lower highs and lower lows. In Figure 6.5, we see a

**Figure 6.5** Wells Fargo (WFC) Daily Showing “W” Pattern



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daily chart on Wells Fargo (WFC). As you can see, right around July 5, we have a series of lows and closes beneath the lower Bollinger band. Five days later, we suddenly find the market piercing through the middle band, almost closing in on the upper band. As the market pulls back, notice it forms a secondary low on July 20, which is a higher low. This is what starts to form the “W” pattern.

In addition, the secondary low is above or inside the lower Bollinger band. To take one step further, you will also see that the July 20 low is formed with a higher close than open sequence. Swing traders can look to buy near the close of this bar at 25.91, placing stops below the low formed on July 5 at 24.60. The profit objective would be near the top of the Bollinger band at 28.55.

## AVERAGING MOVING AVERAGES

When you are using a series of moving averages, it can be help-

ful to actually take the average of moving averages. Instead of having excess information or multiple moving averages overlaid on charts, you can more easily work with one moving average overlaid on prices. The benefit here is if you have a charting program that can give indications of when moving averages cross over, generating buy and sell signals, and you can use the moving average as a directional moving trend line. It will not burden you with information overload and clog up your graphs.

In essence, with software program such as Genesis, TradeStation, or Thinkorswim’s charts, traders can have indicators built-in to give alerts or arrows when a crossover of two moving averages actually occurs. As you can see in Figure 6.6, you only have to have one moving average overlaid on prices, but as the arrow pointing down shows, you have a sell signal that develops from the point of intersection of the crossover from the hidden moving average. Once again, the advantage here

is that traders can focus on the signal and the price to moving average relationship. If the market truly is in a sell mode or bearish trend condition, then the average of both moving averages should

act as resistance. This is one idea that may help you start to develop your own automated trading system using moving averages to identify trends.



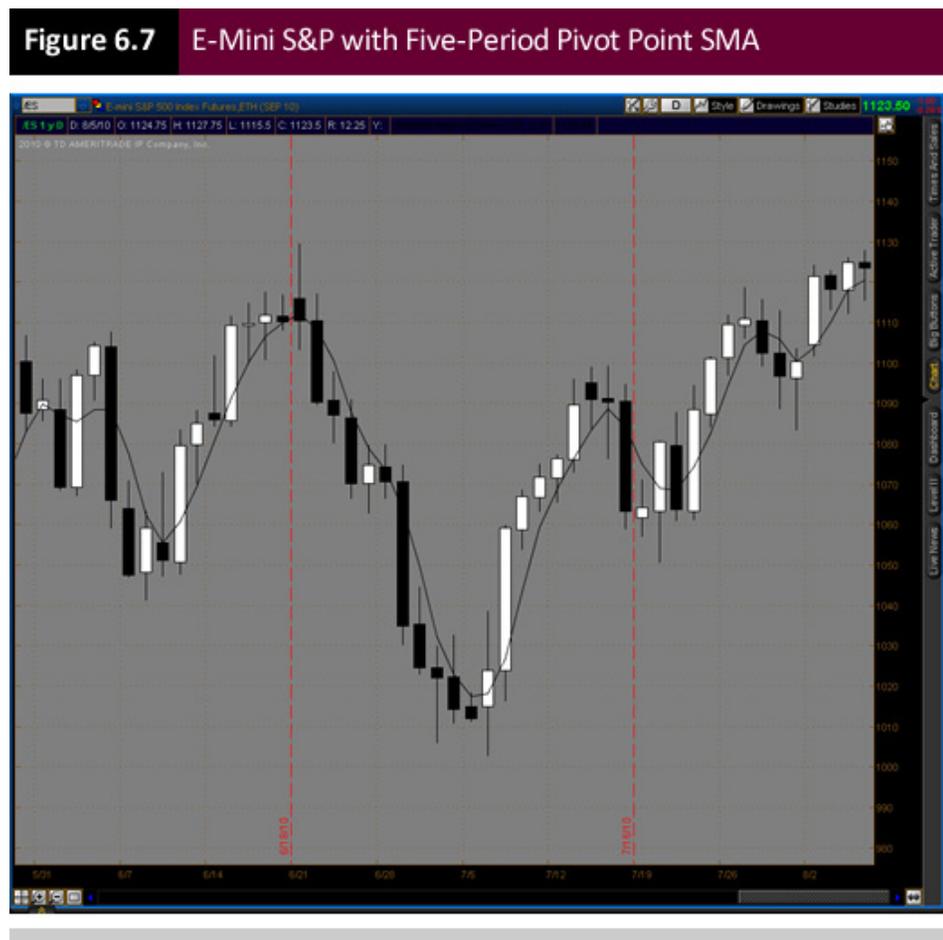
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## PIVOT POINT MOVING AVERAGES

We have not discussed calculating a moving average using a combination of the four common denominators (open, high, low, and close) or averaging out one or more of these components. One of

my favorite moving average concepts is using the typical price for a specific time period—otherwise known as the pivot point—which is derived from taking the sum of the high, low, and close and dividing by three. The formula again is:

$$(H+L+C) / 3 = \text{Pivot Point}$$



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This information provides a clear picture of the “average true price” as a gauge of bullish or bearish market conditions for that time period. In Figure 6.7, we have a daily chart on the e-mini S&P. Notice that the pivot point moving average “hugs” prices closely when we are in a trend mode. The moving average acts as a support in an uptrend phase and this moving average acts as a good resistance line in a downtrend phase. Always remember that the shorter the time frame, the more sensitive the moving average will be to directional price changes. The moving average used here is a simple moving average using a five-period pivot point setting rather than the close.

## MOVING AVERAGE OSCILLATORS AND HISTOGRAMS

If I have not stated it already, let me make sure we cover this subject now—because moving averages are trend-following mechanisms, they obviously work best

when markets are in a trending phase, and when applied correctly, they allow the trader to let profits run and cut short their losses. That is, if one devises a specific trading plan with buy and sell signals that have incorporated the use of multiple moving averages.

As the saying goes, “the trend is your friend,” but the age-old question begs, so when does the trend end? To help answer this question, savvy technicians and computer geeks who like to develop their own indicators can devise an oscillator to compare the difference between two moving averages, as well as closing price to the distance of those moving averages. Based on moving average values, it is very relevant and possible to develop a histogram component by setting a standard deviation of where a closing price is located to the last known value of the moving average.

Based on a historical viewpoint, an oscillator like this can be used to help determine the strength

or weakness of a trend. In other words, this method can be used to determine if prices have more room to run, or if they have reached an overbought or oversold condition by looking at the values of the current market price and the moving averages.

As prices depart too far from the means or the short-term moving average starts to aggressively pull too far from the longer-term moving average, one can construct a histogram to help illustrate this relationship. It is even possible to trade a convergence or divergence based off of the pattern in the histogram, similar to what is used with MACD.

Figure 6.8 shows a 15-minute intraday chart on the Euro Currency FX using my TradeStation platform. I have a simple moving average overlaid on the chart to help me identify trending market conditions. As you can see, the bottom section of the chart has what is labeled the Person Histogram. This is a moving aver-



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age oscillator, which helps me generate buy and sell signals, and gives me clues to when the market has reached an oversold or overbought condition.

Look at the low at the 7:30 a.m. time frame; now look at the corresponding histogram reading. Then, take a look at the low at approximately 9:45 a.m., and you should see that the histogram reading has

a higher low. We call this bullish convergence. What this indicator has identified is that the price has departed too far from the means and that this downtrend that started approximately at 6:30 a.m. has likely exhausted itself. This is a very valuable tool in my trading because it helps me make the determination of entering and exiting trades. Due to the fact that

I created this histogram, I understand and have more confidence in what it's trying to tell me, and therefore it helps me make a better educated and informed trading decision.

## MOVING AVERAGES SUMMARY

In summary, moving averages can be used in a variety of ways other than just looking at a 200-day moving average based on the close (which is the normal setting that most stock pundits or the media will quote), as you can see from this chapter. You have now learned that there are a variety of parameter settings you can utilize in different ways in order to capture a reading of what these moving averages are telling us about the condition, and more importantly, the trend of the market.

## QUICK QUIZ

### 1. The simple moving average is calculated:

- a. From complex formulas
- b. By summing the price inputs for a given time period and dividing that sum by the number of time periods
- c. By dropping old price data as new price data emerges
- d. From a series of weighted averages

### 2. When calculating the exponential moving average,

- a. Past market conditions must be taken into consideration.
- b. More weight is given to newer data.
- c. Backtesting confirms accuracy.
- d. A calculator should be used.

### 3. To help determine the strength of a trend, use:

- a. Moving average channels
- b. Exponential moving averages
- c. Moving average ribbons
- d. 50-day moving averages

### 4. The Person histogram helps a trader to:

- a. Make the determination of entering and exiting trades.
- b. Generate buy and sell signals.
- c. Identify market conditions as overbought or oversold.
- d. All of the above.

For the answers to this quiz, go to [TradersLibrary.com/TLEcorner](http://TradersLibrary.com/TLEcorner).

7

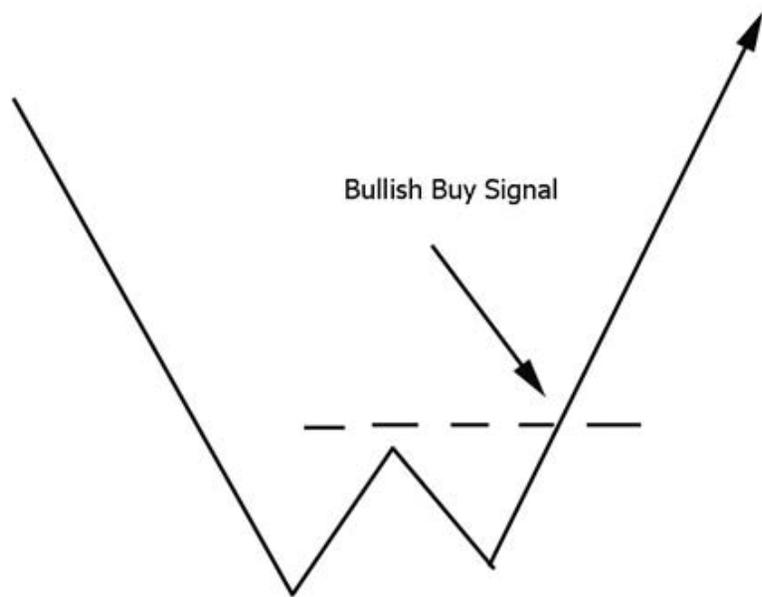
## Dow Theory

Charles Dow was one of America's most famous stock market observers. His reputation revolved around the fact that the market made continued gyrations. He observed that the stock market moved in three phases. His observations included that the market had short-term daily fluctuations, an intermediate-term trend called a secondary wave, and a longer-term trend called the primary wave. The primary uptrend was characterized by three upward swings. It was the work of Charles Dow that Ralph Elliott incorporated to create the Elliott wave theory.

Back in 1897, the Wall Street Journal printed out two main indexes. One was the Industrial Average and the other one was the railroads, which is now what we call the **Dow Jones Industrial Average**, and the transportation index. Back in the early 1900s, it was very easy to manipulate an individual stock. It was nearly impossible to manipulate a group of stocks, and that was what Charles Dow believed would be a better way to gauge the strength of the economy, by looking at the overall trend of these indexes. That way, it gave him a better idea of the bigger picture of the trend of the market. There was a third index added called the Dow Jones Utility Index, and it helped to confirm a boom or bust cycle.

Charles Dow had certain principles of confirmation—if two of the three sectors were rising, this would be good confirmation that the economy was in a bullish market trend condition, and therefore one could look at buying stocks. If the industrial and the transportation indexes were declining, that would signal an overall weakness in the economy and that one may want to look to take profits in the markets. These were known as simple but strong confirming index tools. Through time, we have seen many changes, including newer indexes, like the technology sector as represented by the NASDAQ. Now we also have exchange traded funds (ETFs) on indexes like the S&P 500 called the SPDRs (SPY) or the NASDAQ (QQQs). To take matters further, we now have ETFs on the top sectors such as financials (XLF), material stocks (XLB), the energy sector (XLE), and even consumer staples (XLP) just to name a few.

**Figure 7.1** Bullish Buy Signal



## DOW'S BULLISH PHASE THEORY

Dow believed an overall bull or bear market was created by three distinct phases. A bullish buy signal was established once the market traded above the high of a previous rally after a definitive downtrend (see Figure 7.1). Once prices trade above a previous high after forming a double bottom, or what is known as a “W” pattern, a buy signal is initiated.

If you examine the graph in Figure 7.2, you will see the distinct “W” pattern or the double bottom. Once the market trades back above the first swing high, a buy signal was initiated. This is a weekly chart on

**Figure 7.2** E-Mini NASDAQ 100 Futures Showing Double Bottom

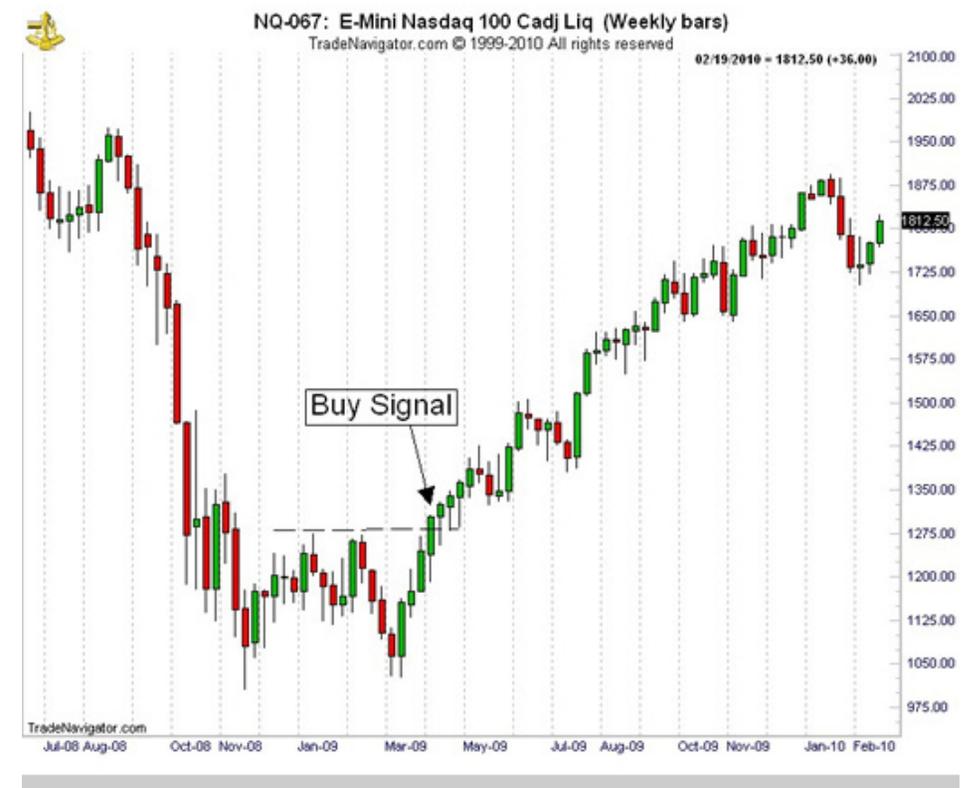


Chart provided courtesy of TradeNavigator.com

the e-mini NASDAQ 100 futures. When combining this setup with an understanding of Dow three wave phase theory, it is amazing to see this action as recently as the low in March of 2009. It's been approximately 100 years since Dow first published his work, and we still see these setups working. Identifying and trading a newly discovered trend requires a bit of knowledge in what to look for, as well as patience and discipline. The setups are there and they work, if you know what to look for and how to apply these principles.

## BEGINNINGS OF A BULL MARKET

Once you have identified a bullish setup, applying the concept of Dow's theory can help you not only potentially ride a trend a bit longer, but his theories can help you correctly identify when a trend may be exhausting itself.

### Phase One

The principles behind the emotional state of the masses who

comprise the market's makeup are in my opinion: precautionary fear, lack of discipline, and greed. The beginnings of a bull phase are as markets are forming bottoms as known to be in accumulation phases; this is known as Phase One. Investors who are cautious buy high-quality, beaten-down stocks and limit purchases. In other words, they are just nibbling at this point. Typically, investors start buying utility stocks or high dividend yielding stocks. They want to make money, but are afraid of losing, thus they are being cautious. As the fear of loss prevails, there is little in the way of courage.

### Phase Two

Then as the trend matures, we enter into what is known as Phase Two. As the market starts to prove itself by displaying higher prices, volume starts to increase as more and more investors buy as their confidence level rises. Investors will start buying lower grade and small cap stocks, just to get in the market before what they now believe

is the bull market. They just want to get in something before missing the move. This is when we witness a lack of discipline; investors buy just to get in, and they lose sight of their trading plans.

### Phase Three

Phase Three is generally when the irrational exuberance state or extreme speculation takes place. Investors will do anything to get in on the action, greed takes over, and this is where you find increases in margin trading. Many will borrow money to buy stocks to not only get in on the action, but also with real hopes to "get rich quick." Stock picking based on value or positive earnings is usually not important at this stage of the game. People just get in believing stocks will keep going up.

This is the ultimate state of greed; all levels of logic are abandoned, emotions rule, and there is no longer that precautionary level of fear that existed as it did in phase one. The confidence level is excessively

high, the feeling that one can't lose prompts the need to borrow money or become heavily leveraged in the market. This was the case in 2000 as the "tech wreck," as it was called, posted the top in the stock market, in particular the technology sector as represented by the NASDAQ. My theory is that due to the massive infliction of monetary loss on a large audience of speculators, it may take years if not another decade or a terrific bull market to attract those who lost money in that event to come back into the market again.

In Figure 7.2, the price action showed a steady stream of rising prices after the confirmation buy signal. Prices continued steadily higher throughout 2009 and into early 2010. Certainly by mid February of 2010, phase one and two were completed. As Figure 7.2 shows, we had not yet experienced a typical phase three bull market condition since prices did not escalate to an irrational exuberance state. In fact, we had yet

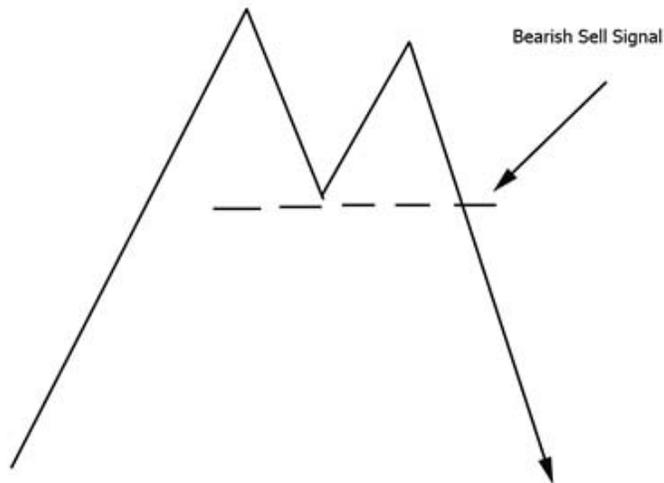
to experience any criteria for the beginnings of a bear market which I will explain now.

## DOW'S BEARISH PHASE THEORY

A bear market or bullish reversal move is commonly identified once prices break below an important support level or old low. I like to sell against a failed double top as prices trade below the old low for confirmation. In Figure 7.3 below, a sell signal occurs as prices trade below the low of what is also known as an "M" top pattern.

I just mentioned the "tech wreck" that occurred in late 2000, and the graph in Figure 7.4 is a monthly chart on the e-mini NASDAQ 100 futures contract that shows a text book case of the "M" top pattern that initiated not only a substantial sell signal but also the end of that bull mar-

**Figure 7.3** Bearish Sell Signal; "M" Top



**Figure 7.4** E-Mini NASDAQ 100 Futures Showing "M" Pattern



Chart provided courtesy of TradeNavigator.com

ket's trend. The three phases of the bullish side were very prominent in the rally preceding the bear market. As of this writing, we have still not even come close to the highs made back then. In fact, many companies are either out of business or were acquired by others.

Now, let's look at Figure 7.5, a daily chart on the U.S. dollar index. Here is a classic double top or "M" top pattern that initiated a significant bear market move. Granted, this index was not around when Charles Dow stated his theories. However, when applying his theories on a bear mar-

**Figure 7.5** U.S. Dollar Index with Double Top



Chart provided courtesy of TradeNavigator.com

ket condition combined with the failed double top pattern, one would be able to ride this bear trend for a substantial profit. The similarities between these two markets are simply too strong to ignore. Both the NASDAQ 100 and the U.S. Dollar were highly visible in the media, but it is the “M” top pattern that is consistent with creating a significant bear market trend. Let’s review Dow’s bear market theories.

## Phase One: Distribution

Dow believed that like a bull market, there were three parts to a bear market, beginning with the distribution phase. This is where there is a longer battle between bulls and bears, mainly when the general public is buying as professionals are selling to unload their long position. Have you heard the phrase, “tops take longer to form than bottoms?” Notice in Figure 7.5 that the top lasted over one month before the sell signal was generated as the market entered a significant bear trend.

## Phase Two: Panic

Phase two is what was termed the “panic” period. This is where prices accelerate rapidly to the downside, usually without any upside correction. This could be a period where the media may be publicizing the fact that the bull market has ended and traders who were long might look to liquidate their longs to stop the bleeding.

## Phase Three: Capitulation

Phase Three is what I call the capitulation period. We will see larger down days than before, and volatility is extremely high as measured by wide price swings. But overall volume starts to dry up as extreme pessimism reigns supreme.

I believe it is due to the mass psychological aspect of human behavior that has proven the Dow Theory again and again. It has certainly not only stood the test of time, but it is applicable in markets that did not even exist in his own day. Apart from imbalances in supply and demand, it is the understanding of the three principles of precautionary fear, lack of discipline, and greed that will help you define a trend. Truly successful trend traders plan out their trades, from when to enter to where

to place their stops. They have faith in their methodology and act with courage when it is time to place an order. Greed does not dictate their trades, price action does.

### QUICK QUIZ

#### 1. Dow's theory on the market's gyrations included:

- a. Short-term, intermediate-term, and long-term trends
- b. Daily, secondary, and primary waves
- c. Elliott, Gann, and Dow fluctuations
- d. Both a & b

#### 2. According to Dow, the three phases of a bearish market are:

- a. Distribution, panic, and capitulation
- b. Precautionary fear, lack of discipline, and greed
- c. Irrational exuberance, extreme speculation, and accumulation
- d. Lower high, lower low, double bottom

#### 3. During a bull market, you are most likely to find traders expecting to "get rich quick" in which of Dow's phases?

- a. Phase One
- b. Phase Two
- c. Phase Three
- d. None of the above

#### 4. According to Dow, confirming an overall trend among various indexes enables one to gauge the strength of the economy.

- a. True
- b. False

For the answers to this quiz, go to [TradersLibrary.com/TLEcorner](http://TradersLibrary.com/TLEcorner).

## 8

# Volume and Open Interest

**T**rend analysis comes in many forms and indicators. After understanding and examining the direction of price, which includes the close as well as the current close as compared to past price action (old highs, lows, opens, and closes), the next best confirming indicator for trend traders is volume. There is one more exclusive indicator for futures traders and that is open interest.

These are important tools which will give clues to the strength or weakness of a trend, or as we technicians say, the health of the trend—so let's review the basics.

### VOLUME

The definition of volume is the number of trades for all shares in stocks, or for commodities, the total amount of trades for all contract months of a given futures contract both long and short, combined. For example, stock index futures like the e-mini S&P's or the foreign currency contracts all trade on quarterly expirations, which include March, June, September, and December contract months. The volume will represent the total for all the trades in each contract month.

Most technical analysts believe that volume is an indicator of the strength of a market trend. It is also a relative measure of the dominant behavior of the market. Volume is the measurement of the market's acceptance or rejection of price at a specific level and point in time.

There are several theories and so-called rules when using volume analysis on price charts. The first rule to remember is: if a market is increasing in price and the volume is increasing, the market is said to be in a bullish mode and can indicate further price appreciation.

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*If a market is increasing in price and the volume is increasing, the market is said to be in a bullish mode and can indicate further price appreciation. The opposite is true for a declining market.*

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The exact opposite is true for a declining market. However, if a substantial daily market price increase or decrease occurs after a long steady uptrend or downtrend, especially on unusually daily high volume, it is considered to be a “blow-off top or bottom,” and can signal a market turning point or trend reversal. Here are some guidelines to use when using volume analysis:

- Increasing volume in a rising price environment signals excessive buying pressure and could lead to a substantial advance.
- Increasing volume while prices are falling may signal a bear move.

- Decreasing volume while prices are climbing may indicate a plateau, and can be used to predict a reversal.
- Decreasing volume with a weaker price environment shows that fresh sellers are reluctant to enter the market and could be a sign of a future downtrend.
- Excessive volume while prices are high indicates that traders are selling into strength and often creates a price ceiling.
- Excessively low volume while prices are low indicates that traders are buying on weakness and often creates a floor.

In Chapter Six, we discussed the use of moving averages. One technique that many traders use is taking a moving average of daily volume. This helps examine the overall trend of volume as well as filter and pinpoint abnormal decreases or increases in trading volume activity.

Let's examine the graph below in Figure 8.1. This is a weekly chart on the stock Netflix, Inc. (NFLX), which as you can see experienced a stratospheric price increase starting in early 2010. The upper portion of the chart shows the candlestick price chart and the bottom portion reflects the bar histogram of weekly volume with a 20-week simple moving average overlaid on the volume graph.

The low made in February of that year was marked by a bullish reversal on—at that time—the heaviest weekly volume. As the price trend climbed higher, notice that the direction of volume also increased, confirming the rally was real and sustainable. This shows there was an accumulation of shares, or as we identified in the first bullet point, increasing volume in a rising price environment. It signals excessive buying pressure and in this case it did lead to a substantial price advance.

**Figure 8.1** Netflix (NFLX) Weekly Chart Shows Price Increase

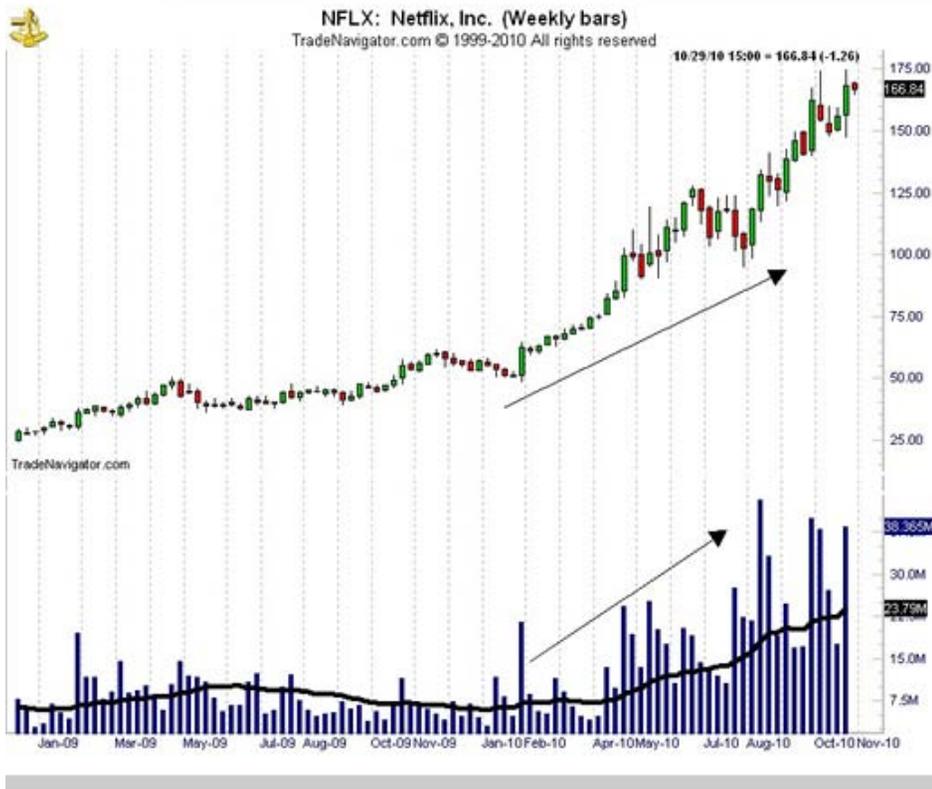


Chart provided courtesy of TradeNavigator.com

## OPEN INTEREST

On the other hand, open interest reveals the total amount of open positions that are outstanding in existence and not offset or delivered upon. Remember that in futures trading, this is a zero sum game. For every long there is a

short, and for every buyer there is a seller. The open interest figure represents the longs or shorts, but not the total of both. So the general theory for open interest is that when prices rise and open interest increases, this reveals that more new longs have entered the mar-

ket and more new money is flowing into the market. This reflects why the price increases.

Of course, the exact opposite is true on a declining market. Chartists combine both the price movement and the data from volume and open interest to evaluate the “condition” of the market. If there is a price increase on strong volume and open interest increases, then this is a signal that there could be a continued trend advance. The opposite is true for a bear market when prices decline. If price increases, volume stays relatively flat or is little changed, and open interest declines, this reflects a weakening market condition. This is considered to be a bearish situation because if open interest is declining and prices are rising, then this shows that shorts are covering by buying back their positions rather than new longs entering the market. That would give a trader a clue that there is a potential trend reversal coming.

## IDENTIFYING OPPORTUNITY

This information can be used to identify an opportunity when there is a major top or bottom in the futures markets. If you are a stock trader, you may also want to pay attention to this data, especially if you are trading high beta, or stocks highly correlated to underlying commodity markets. For example, in the graph in Figure 8.2, we have a daily chart on corn futures. There are several companies that come to mind that have a vested interest in what happens to the trend in corn prices; one is Archer Daniels Midland (ADM) and another is Bunge (BG).

A good question to ask would be: can higher corn prices help or hurt a company’s bottom line? To a stock trader, it would be important on a price advance to ascertain if the move was sustainable and accompanied by widespread accumulation, rather than a short lived price spike. Here is where volume and open interest would help one gather further evidence.

**Figure 8.2** Corn Futures Daily Chart Shows Rising Prices

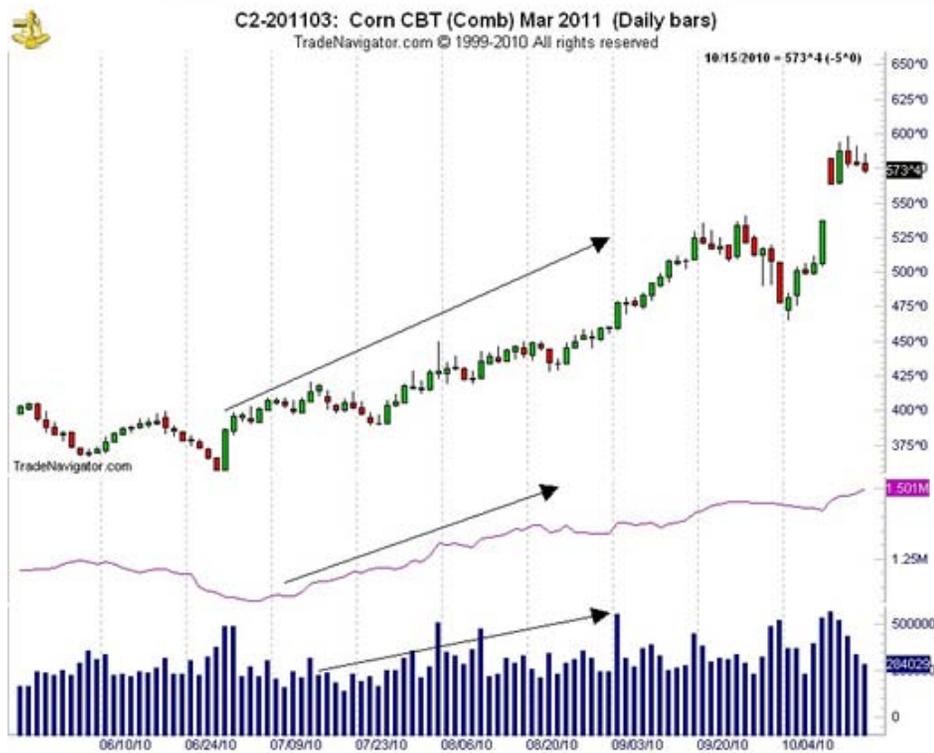


Chart provided courtesy of TradeNavigator.com

Notice in Figure 8.3, we have three separate panes. The top section is a candlestick, the middle is the open interest data, and the bottom section is a volume histogram with a 20-day moving average study overlaid on the bar graph. From late June of 2010, we see the

price advance, accompanied with a rise in open interest, revealing that traders are adding to longs with an increase in trading volume. This indicates that traders are accumulating positions and that the health of this trend is very strong. This helps one to understand that

**Figure 8.3** New Bullish Trend in Gold is Sustainable

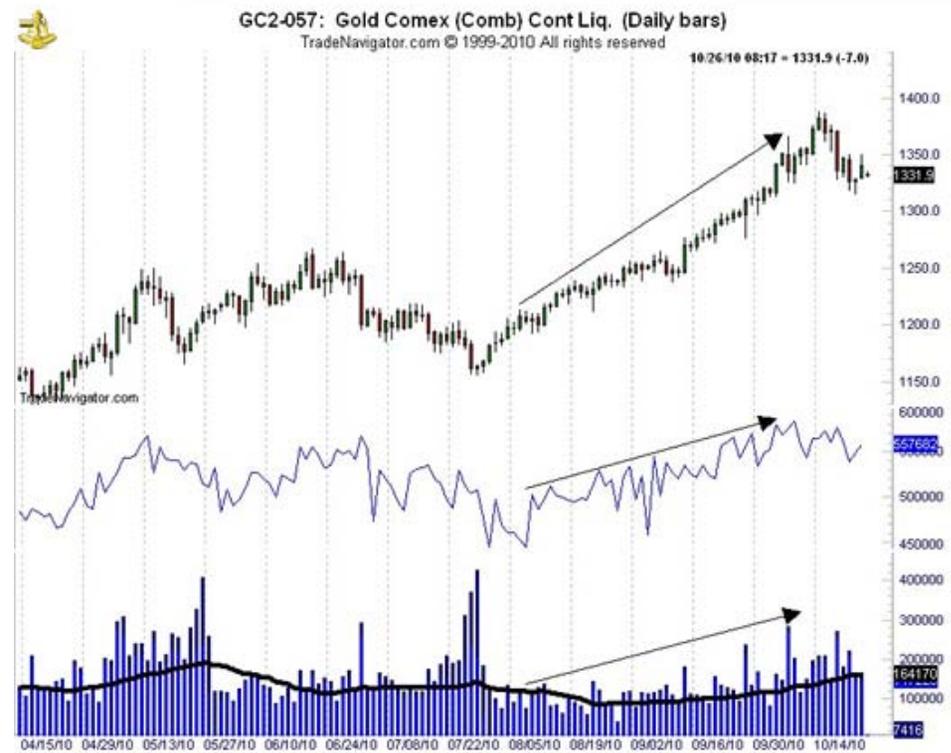


Chart provided courtesy of TradeNavigator.com

there could be a sustainable price advance over time.

Let's examine the graph in Figure 8.3 further. Gold can be traded as a futures contract, or stock traders can trade an exchange traded fund (GLD), or highly correlated stocks such as Newmont Mining (NEM) or

Hecla Mining (HL). Now whether you are a futures trader or a stock trader, here is where volume and open interest analysis can help traders understand the overall health of the trend. This information may help traders stay with the trend a bit longer. Like the

old saying goes, “ride the winners and cut your losses,” using these technical tools may help you to see if the price advance or the trend is sustainable.

As the chart shows, once again as prices start to bottom in late July of 2010, the open interest figures shown in the middle section start to increase. This is also accompanied by an increase in volume. Together, this signals that the start of the new bullish trend is healthy and sustainable.

## CONCLUSION

There are many indicators that rely and are built based upon prices, but very few are derived using volume studies, and as far as commodities are concerned, the open interest data. Both tools are instrumental for the traders who want to stay on the right side of the trend and are easy to access. Remember, these tools help confirm the overall health of the market trend.

## QUICK QUIZ

**1. Volume is an indicator of the health of a market trend.**

- a. True
- b. False

**2. If volume is increasing in a rising price environment, then:**

- a. The market is in a bullish mode
- b. The market is in a bearish mode
- c. Further price appreciation can be expected
- d. Both a & c

**3. Decreasing volume in a weaker price environment:**

- a. Indicates a plateau.
- b. Can be used to predict a reversal.
- c. Could be a sign of a future downtrend.
- d. Indicates a bear market.

**4. When prices rise and open interest increases:**

- a. New longs have entered the market.
- b. New shorts have entered the market.
- c. Money is flowing out of the market.
- d. Traders are taking profits.

**For the answers to this quiz, go to  
[TradersLibrary.com/TLEcorner](http://TradersLibrary.com/TLEcorner).**

9

## Trend Lines

I was taught nearly 30 years ago, the most profitable way to trade is with the trend. So naturally, it’s important to identify what the trend is and in what market condition you are trading. Unfortunately, many people do not adhere to this advice, either by trying to outsmart the market or letting their intelligence or ego interfere with a simple rationale of identifying the current market condition.

In this chapter, I will disclose some of the more proper methods for identifying the market condition, or what we call the trend, by simple line drawing techniques and ways to help identify when a market trend is potentially exhausting itself or running out of steam. I will also show some of the techniques that I learned early in my career on how to correctly use trend line analysis to help me implement trades. Most importantly, based on these techniques, I will cover how to look for

initial entry points of interest, stop placement levels, spots to add on positions once a trend is maturing, and places to move protective stop orders based on the use of drawing lines on my charts.

Throughout the history of the trading industry, many phrases and clichés have evolved due to past human errors and successes. From my 30-plus year career, I would like to share with you some of the techniques and tactics for successful trend trading based on some of those phrases.

## THE TOP FIVE SECRETS TO REMEMBER WHEN TREND TRADING

1. The trend is your friend.
2. The trend is your friend until it ends.
3. Never anticipate when a new trend will begin; markets have a habit of moving further than traders expect.
4. When in a bullish trend, buy pullbacks.
5. When in a bearish trend, sell rallies.

In this chapter, we will go over the proper techniques for drawing trend lines such as lines drawn from lows, from highs, and from range mid-points. We will discuss the importance of the condition and location of those trend lines specifically, the angle, degree, and separation from price to the trend line.

*If you are going to analyze the market, you need to figure out where prices can go.*

## FIRST THINGS FIRST

I was always taught if you are going to analyze the market, you need to figure out where prices can go. To do that requires you to look at where prices have been. Start with looking at the longer-term picture. Drop down to the intermediate term and then to the short-term time frame.

For longer-term investing requiring more than one month, I will start with the monthly chart. Drop down to a weekly chart and use my daily or end-of-day charts. For swing trading, I will still look at the weekly and daily time frames, but include a 60-minute chart. For day traders, I like to look at the weekly and daily market direction and then take trades based off of the 5- and 15-minute time frame.

As for drawing trend lines, the important thing here is to identify the pivotal swing points, both highs and lows, and then extend a line out to help identify the trend's direction. Let's examine Figure 9.1. This is a chart on Potash (POT). I have purposefully made a black and white chart so that if you print this page out, it will be seen clearly. From the low marked point "A," which was created by a "W" bottom pattern as the right side low was formed by a hammer candlestick, the market moved up to the first pullback low, or swing low. This is where we would connect the trend line and extend out in the future. As the saying goes, "the trend is your friend until it ends." Here is how correctly drawing trend lines can help you identify a change in a trend's direction.

Once prices have traded beneath the longer term extension, say for two consecutive closes below the trend line, one can argue that the trend has changed direction. After the peak at point "B," the trend started to reverse and change direction. So does one look to buy the pullback as prices start to close back in on the line extension? If one did not enter at the beginning phase of this "W" bottom pattern, then one could look for

**Figure 9.1** Potash (POT) Trend Lines



Chart provided courtesy of TradeNavigator.com

a low risk trade setup by buying a test of the trend line extension. However, once prices fail to continue higher and close beneath the uptrend line; in other words, fail to hold the trend line support, the trader should exit the long position. This would result in a loss, but as the example here shows, a

small loss. As you can see, prices continued lower. Once a reversal occurs, traders wait for “bounces” or rallies to sell against. One such rally occurs in early May as the chart shows. To determine future overhead resistance, one would draw a line against the high at point “B” and extend out.

**Figure 9.2** McDonald’s (MCD) Defines Buying Pullbacks in Bullish Environment

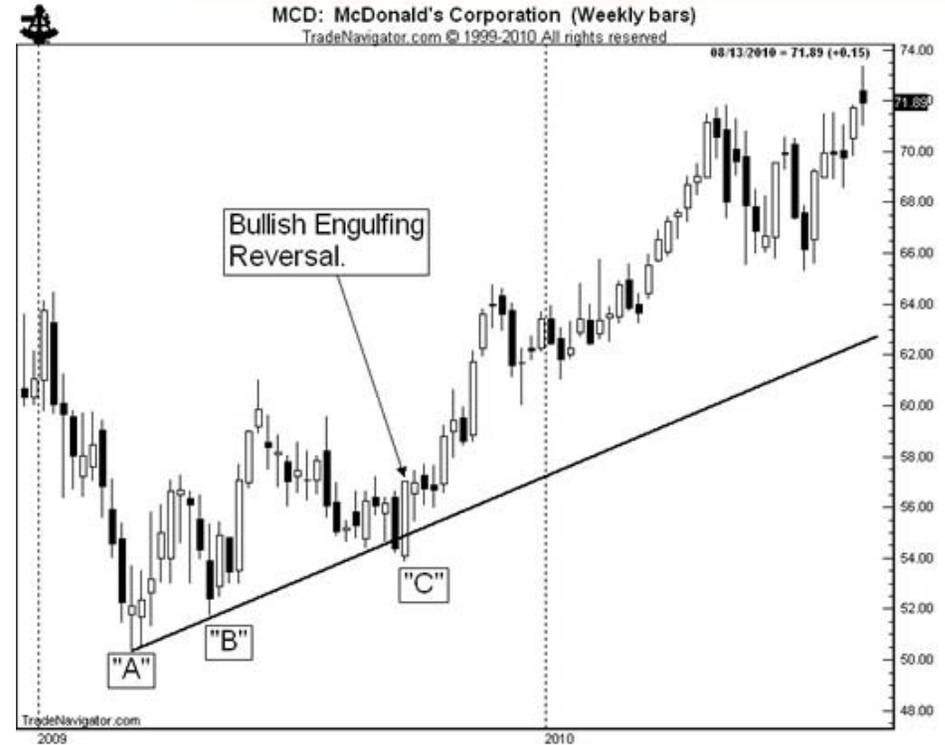


Chart provided courtesy of TradeNavigator.com

Let’s examine the next graph in Figure 9.2; this is a weekly chart on McDonald’s (MCD). Another double bottom forms, creating the “W” pattern from point “A” to point “B.” If one wanted to draw a textbook upward sloping trend line, it would exist at a nearly 45 degree angle. Once prices retrace

towards this support line, that would be a targeted area to look to enter a long position. As we say, this defines buying pullbacks in a bullish environment. Point “C” intersects right at the trend line extension. Notice that the candle formation is a bullish engulfing pattern, which may help to con-

**Figure 9.3** Old Resistance Becomes New Support

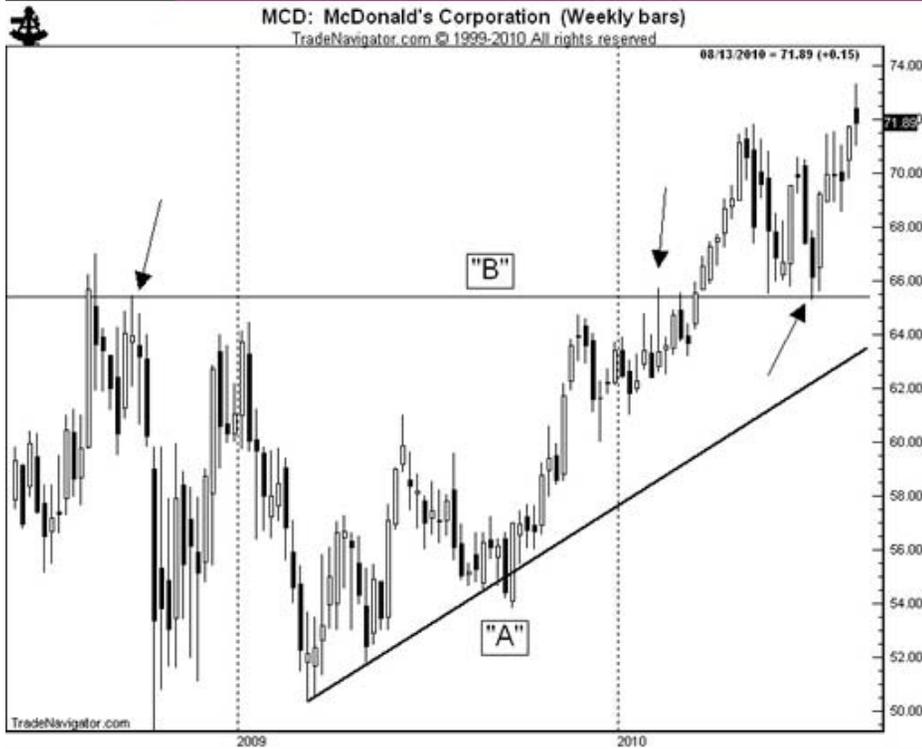


Chart provided courtesy of TradeNavigator.com

firm the positive momentum as prices bounce off of the newly constructed support trend line.

We have addressed how to properly identify bullish trend lines, one area that I believe is critical is identifying what we say is “old resistance,” which turns into new

support. Figure 9.3 helps to illustrate this technique. In Figure 9.3, using the same weekly chart on McDonalds (MCD), you can see the old highs during 2008. If you draw a horizontal line across your chart as prices bottom in 2009 and start the new uptrend, that old high is creating a ceiling of resistance.

However, once prices break out and above that level, if the market is to prove itself to be bullish, prices should not trade back under that line. The line of old resistance should prove to become the new line of support. Instead of buying the market on the first breakout of old resistance, most conservative traders will wait until the market pulls back to the horizontal line and then they will go long with close stops because the price action should hold based on the theory that old resistance should act as new support. In this example, trend line “B” has acted under that old axiom.

## QUICK QUIZ

**1. Proper trend line analysis can help traders identify:**

- a. Initial entry points
- b. Stop placement levels
- c. Add-on positions
- d. All of the above

**2. When in a bullish trend, buy pullbacks.**

- a. True
- b. False

**3. When in a bearish trend, sell pullbacks.**

- a. True
- b. False

**4. A trader should exit the long position:**

- a. As prices continue higher
- b. When prices close beneath the uptrend line
- c. When prices hold the trend line support
- d. All of the above

**For the answers to this quiz, go to [TradersLibrary.com/TLEcorner](http://TradersLibrary.com/TLEcorner).**

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## Elliott Wave Theory

**N**o book on trends would be complete without some introduction on the Elliott wave theory. I do not necessarily use Elliott wave theory consistently in my trading, but I do know the principles of the waves and the theory behind the psychological aspects that drive human beings are reflected in market prices, namely fear and greed. As it is often stated, human emotion often interferes with human intelligence.

I want to share with you my experience, feelings, and observations on this theory, as well as quote a good acquaintance who is one of the premier technicians in the world on the effectiveness of Elliott Wave, who says: “it works when it works.” This means that I do not use it all the time, and as

I disclose the principles here, you will understand why. So I guess you are now asking yourself why bother sharing it in this book? The reason is because it reveals trends and the trend patterns.

### HISTORY AND VALUE OF ELLIOTT WAVE

Ralph Nelson Elliott (1871-1948) was a dedicated student of the stock market. Back in the 1920s, he observed market moves, both bullish and bearish, occur in three distinct phases. He began to develop theories and views that the overall prices in stock market averages move in waves. This was presumed to fall in line with the understanding of the work credited by Charles Dow as defined in the Dow Theory.

The purpose of this chapter is to give an introduction as to what Elliott wave is and how you can apply this method in the markets combined with what we have already covered, incorporating Dow Theory with “W” bottoms

and “M” top formations, seasonal analysis, pivot points, moving averages, trend lines, indicators like ADX, MACD, and stochastics, and volume and open interest studies.

I believe it is important that traders have a complete understanding of trend analysis but also phases or waves as they are considered. Elliott wave principles can help you uncover just that, and more specifically, what phase or “wave” the market trend is in. As you may have already discovered, all markets certainly do trade in phases, from periods of consolidations to trending modes. With the knowledge of the Elliott wave principles, this information may give you a better understanding of which side of the market to be on, and to capture profitable moves with surgical precision. And hopefully more times than not, trading from the winning side.

Since many of the concepts explained already are great tools in and of themselves, combining them with Elliott wave is some-

thing that has been achieved and practiced even by Mr. Elliott himself. His discoveries were simply a compelling phenomenon into the art of forecasting price moves. I will cover the basis for his discoveries and the overall strengths as well as weaknesses of his work. Keep in mind that Elliott wave is a fractal concept which works in multiple time frames so that it can truly benefit all styles of trading from day to swing to position traders. The fractal concept is simply defined as cycles or patterns repeating in shorter time frames and developing in longer-term time periods, meaning there are waves within waves.

A completed Elliott wave cycle from bullish to bearish or bearish to bullish consists of eight waves. There are two distinct wave definitions. Impulse waves are the ones termed to be moving with the main trend and corrective waves are against the main trend.

Impulse waves have five primary price movements and the cor-

rective waves are seen as having three primary price moves, which are lettered and run in the opposite direction of the main trend. A healthy long-term trend follows the indication of heavier volume during the impulse waves (one, three, and five).

It is assumed that Elliott used some of Fibonacci's work because a complete wave cycle is com-

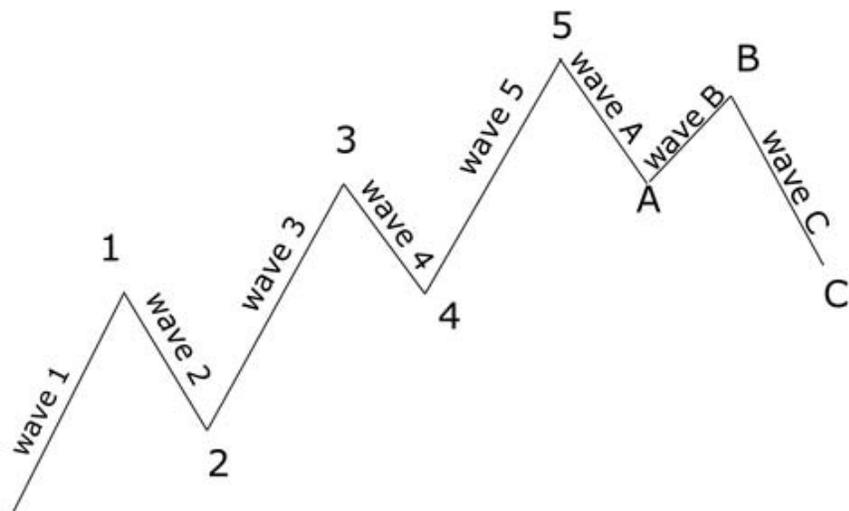
posed of eight price moves, five up and three down, as you can see in Figure 10.1. Incidentally, three, five, and eight are contained in the Fibonacci series of numbers. The fundamental concept behind Elliott's theory is that bull markets have a tendency to follow a basic five-wave advance, followed by a three-wave decline. The exact opposite is true for bear markets.

For more experienced chartists, they would of course recognize that the end of a bullish move's fifth point could possibly be considered the number one point of a one-two-three formation, or the top of a head and shoulders formation. The one thing Elliott most wanted chartists to recognize is that his wave theory worked on long-term charts as well as intra-day charts.

wave one count for the weekly time period. We can also see a five wave count on a five minute chart that composes just wave one on a daily chart. Elliott wave theory combines the best of traditional charting techniques and price pattern formations such as triangles and wedges. These are simply consolidation patterns within trends. These trends' phases are considered waves.

**Figure 10.1** Elliott Wave Cycle

Uptrend contains 5 numbered waves



Correction contains 3 lettered waves

## A WAVE IS A WAVE

It does not matter what time frame you trade in; a wave is a wave. The idea here is that each wave is simply a subset of another wave just to a lesser degree. Each wave is itself part of the higher degree wave. We can define this by saying waves of one time frame can be expanded to relate to a higher time period, and one time frame can be subdivided into a shorter term time frame. For example, we might see a five wave count on a 60-minute chart that, when converted to a daily or weekly chart, counts as a full

Price objectives from predicting possible highs or lows can be determined through the use of Fibonacci ratios and the corresponding rules associated with each wave description. I also have had tremendous success identifying turning points as indicated by the maturity of a price move. For example, if it is the bottom of wave two or four, I may look for support targets using the Fibonacci ratios as well as the pivot point support targets. When I see a confluence or multiple cluster of support targets from using both techniques, it heightens my assertion to go with a position because

I understand which direction to trade from. I will admit there are times when an Elliott wave pattern is crystal clear and helps me trade on the winning side, and then there are times when I do not have a clue and can not make out any clear or distinct pattern.

That is when I rely on other techniques such as trading in a short term time frame within the direction of a higher degree time frame. For instance, if the 15-minute trend is up, classified by the market trading above a set of moving averages (namely pivot point averages), then I look for buy signals as defined by a series of higher highs, higher lows, and higher closing highs as prices trade above a set of moving averages on the five-minute time period.

The key in understanding Elliott wave is that it can work with all markets and time frames, whether it is stocks, ETFs, futures, or Forex. It is a valuable technical tool because it is comprised of wave

forms, Fibonacci correction, and projection ratios and has a time element as magnitudes of each wave are concerned.

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*Elliott wave analysis can work with all markets and time frames; whether it is stocks, ETFs, futures, or Forex.*

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Trading is not about being rigid and sticking with just one single method. Market conditions change, requiring an assortment of tools to improve your market forecasting abilities. Because it is a complete and comprehensive analytical tool, I believe studying and using Elliott wave will improve your chances for success.

The Elliott wave principle was originally applied for the stock market, but the core foundation of its decipherable use was based on the premise of mass human psychology. Due to the exorbitant extent of trading on a global scale in foreign currency, I find it works well when the patterns jump out on the charts. In a world of chaotic and turbulent volatility, Elliott wave attempts to give a trader a better chance of interpreting what phase a market is in, price objectives, and time durations to expect a move to last. It is highly subjective, and I strongly suggest sticking to the rules I will outline when applying these principles in your trading.

## **RULES FOR TRADING WITH ELLIOTT WAVE**

Each wave has its own set of characteristics or personalities and rules. Besides wave counts and the interaction with Fibonacci extension and correction relationships, there is a time element and what

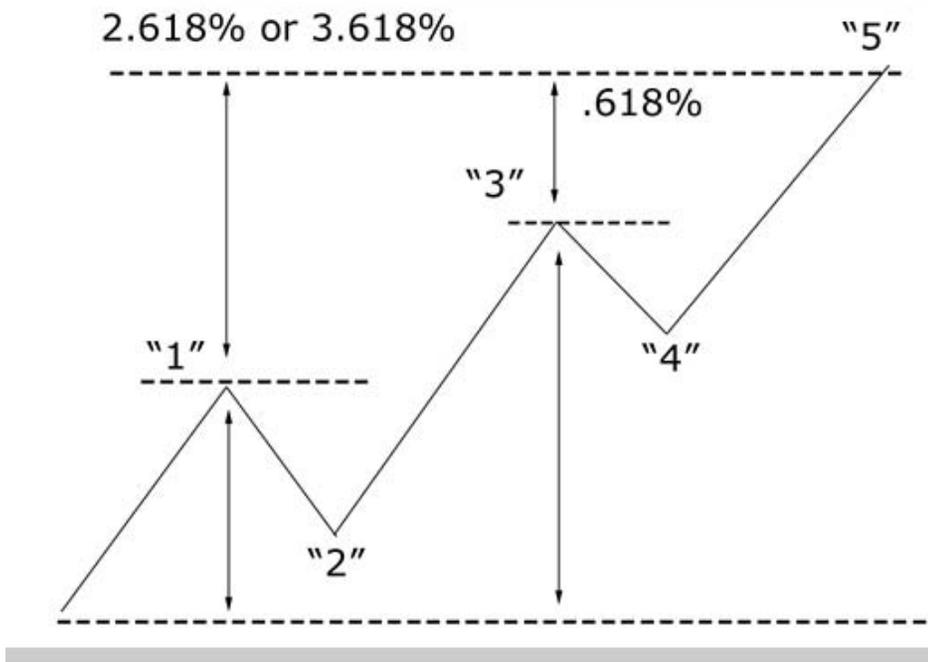
is referred to as a proportionate and alternate relationship with the measurement of the waves.

## **Wave One**

The first wave is the base or starting point derived from a consolidation trading phase after a prolonged price decline. It usually appears to be simply a small corrective bounce from a previous trend. It is the smallest in price moves as compared to the three impulse waves. This stage or wave is what technicians have discovered to be an accumulation phase. Using what we have learned with Fibonacci calculations so far, we can apply the ratio numbers to develop a technique to give price projections for a typical five wave pattern. In order to help determine the top or peak of a five wave move, we can use several techniques.

Using software that includes a Fibonacci correction and expansion tool, we can easily determine a price objective with fairly good

**Figure 10.2** Fibonacci Correction and Expansion with Elliott Wave



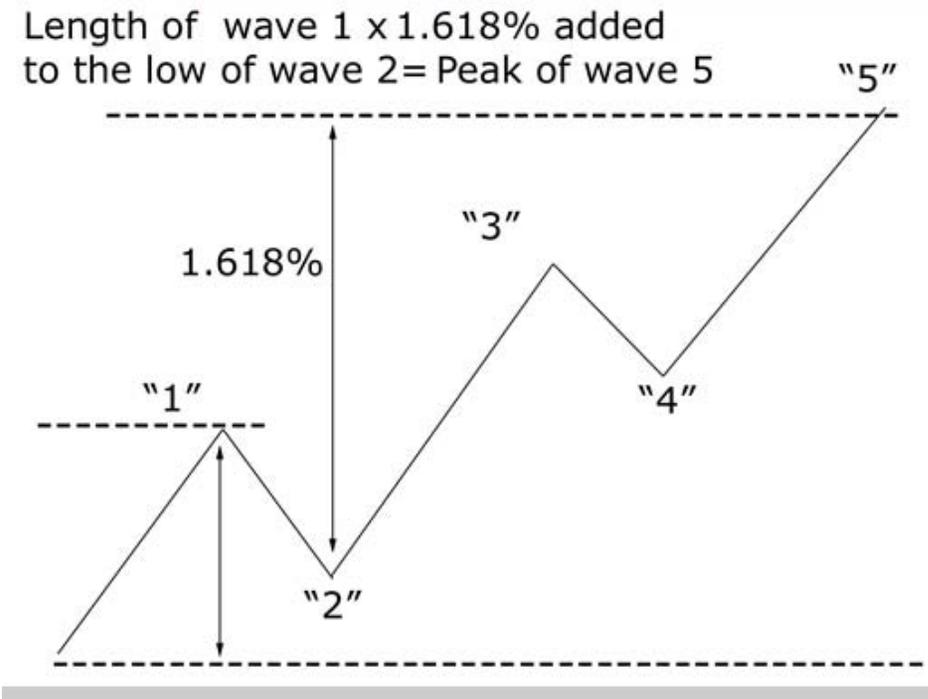
accuracy. If your charting software program does not have this feature, my website, [NationalFutures.com](http://NationalFutures.com), provides a free pivot point and Fibonacci calculator.

Once we determine the overall measurement or amplitude of wave one, extend that amount by 3.236 and add that sum to the bottom of wave one. I have seen a

higher frequency of the 2.618 percent ratio work as well. See Figure 10.2 for illustration.

Another method to predict the peak for wave five is to take the measurement from the bottom of wave one to the top of wave three and multiply out by 1.618 percent. See Figure 10.3.

**Figure 10.3** Predicting the Peak for Wave Five



The one drawback in using this method is the consideration of how much time it takes for a swing measurement to reach its objective. Using Fibonacci extensions just gives us an idea of a potential move; it does not give us a time frame in which the move will occur. The move could take days, weeks, or months to meet the objective. That is why I have

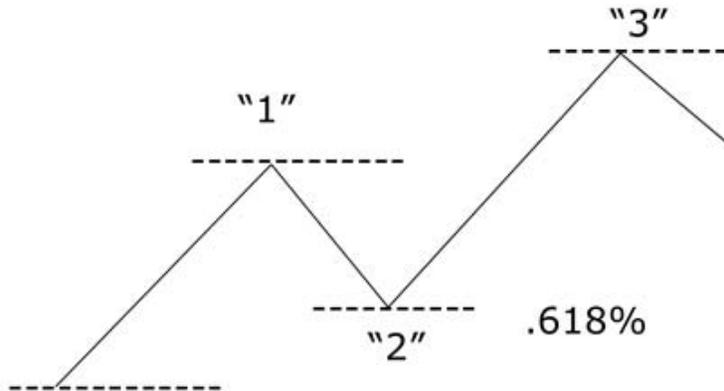
included examples of integrating longer-term pivot point analysis such as weekly and monthly time periods. These seem to be more effective in predicting both time and price turning points.

## Wave Two

As you can see in Figure 10.4, the second wave usually retraces .618 percent of the sum of wave one.

**Figure 10.4** Wave Two Retraces 0.618 Percent Sum of Wave One

Wave 2 is usually a .618% retracement of the length of wave 1.



Wave two can at times retrace 100 percent of the entire previous trend or wave one, but not beyond the beginning of that wave. This means that if it is a bullish cycle, wave two will not make a lower low, and if it is a bearish cycle, it will not make a higher high. This is what technicians generally consider the makings of “W” patterns or double bottoms or “M” patterns or double tops. This was discussed

in the chapter on Dow Theory. These are commonly referred to as 1-2-3 patterns and resemble a head and shoulder chart pattern. Traders have also been able to use the number two point to predict the top of wave five by taking the sum of the price move in wave one, multiply that amount out by 1.618 percent and then add that figure to the price point of the bottom of wave two.

### Wave Three

The third wave is one of the most important because this is where you will see your trend confirmation occur. This wave is the largest of the three impulse waves. It is accustomed with heavy volume. From a fundamental aspect, this is where you will start to hear more and more bullish news, which will in turn support the move upward. Generally speaking, the top of wave three equals a measurement of the length of wave one multiplied out by a factor of 1.618 percent. Another way to determine or predict the top of wave three is to take the overall length of wave one, multiply that amount by 2.168, and then take that sum and add it to the price point of the low of wave two. Technicians jump on the trend and place market orders to enter a position from the break-out above the number one wave. You usually see a large increase in volume and open interest at that point. This is where break-away gaps will occur. One rule that

needs to be followed is to make sure the third wave is a true wave; it cannot be the shortest of the five waves.

### Wave Four

The fourth wave is the corrective wave. It usually gives back some of the advancement from the third wave. One may see measuring chart patterns like triangles, pennants, or flags during the fourth wave. Triangles, pennants, and flags are continuation patterns and generally break out in the same direction as the overall trend. The most important rule to remember about the fourth wave is that the low of the fourth wave can never overlap the top of the first wave. Here is where we will find tremendous trading opportunities once you can identify the fourth wave. As the principle applies, old highs (resistance) once broken will later turn into a new low (support) on a re-test as we covered in our chapter on trend line analysis.

## Wave Five

The fifth wave is usually the strongest for some commodities, such as cotton, soybeans, gold, and currencies. This is where the longest “leg” of the waves will be formed. It is also during this final phase that the price advance begins to slow. From the rule of “multiple techniques,” other indicators and oscillators like MACD and stochastics begin to show signs of being overbought in a bullish trend, or oversold in a bearish trend. We notice during this period that the market is beginning to lose momentum and that the trend may be exhausting itself.

## CONCLUSION

Robert Prechter of *Elliott Wave International* is one of the world’s foremost leading experts on Elliott wave. If you see yourself wanting to learn more into this subject, he has written several books on this subject, and I would recommend that you explore them, along with and his video courses *Trading the Elliott Waves* and *Understanding*

*the Extraordinary Value of the Elliott Wave Model*, both of which can be found at [www.traderslibrary.com](http://www.traderslibrary.com).

To summarize what we’ve learned in this chapter, here are the main principles that you should focus on when working with Elliott Wave Theory:

- Wave A is usually mistaken as a regular pullback in the trend, but this is where you could possibly start seeing the makings of “W” or “M” patterns (1-2-3 patterns), double tops or bottoms, or a head and shoulders chart pattern.
- Wave B is a small retracement back towards the high of wave five, but it does not quite reach that point. This is where traders will exit their position or begin setting up their position for a move in the opposite direction.
- Wave C confirms the end of the uptrend and when confirmation is made by going

beyond Wave A, then another cycle begins in the opposite direction.

## SUBJECTIVITY IN ELLIOTT WAVE

There are more observations to understand which are quite subjective rather than absolute rules regarding Elliott wave theory. Having the ability to look at a chart and being capable of seeing the corresponding trends or waves in the market will help you determine which side of the market to trade on.

One such setup is identifying a higher right side double bottom form as wave two forms. Remember, it will look like a double bottom or correct near the .618 percent retracement level. Wave two can also retrace 100 percent of wave one, so armed with this information, you will have a better idea of how much to risk on a trade. For example, as you see a fourth wave develop, it will be better to wait for a buy sig-

nal rather than chase the market as it declines and sell short right as it starts building an upside reversal that forms into wave five. Better yet, with the knowledge of what the characteristics of a fifth wave might look like you can:

- project a profit objective
- filter a trading system to look for better triggers to sell short as the maturity of a long-term trend starts to dissipate.

This will also help you not to stick around in a trade too long.

## QUICK QUIZ

**1. Elliott wave analysis can work in all markets and all time frames.**

- True
- False

**2. A complete Elliott wave cycle consists of how many waves?**

- 5
- 3
- 8
- 13

3. What kind of waves are said to move with the main trend?

- a. Corrective
- b. Fractal
- c. Dow
- d. Impulse

4. In which wave will a trader see a trend confirmation occur?

- a. Wave one
- b. Wave two
- c. Wave three
- d. Wave four

For the answers to this quiz, go to [TradersLibrary.com/TLEcorner](http://TradersLibrary.com/TLEcorner).



## In Closing

I hope you found this book useful in increasing your knowledge and understanding of trend and its effect on the market. With the tools and indicators we covered, you're well on your way to being able to harness the power of a trend and using it to improve your trades.

All the best in your continued education and trading endeavors.

John Person

### ABOUT THE AUTHOR

John Person is a 32-year veteran of the futures and options trading industry. He started on the floor of the Chicago Mercantile Exchange back in 1979. This was the premier exchange which launched foreign currency trading. He then had the privilege of working with George Lane, the innovator of the stochastic indicator.

John has worked his way throughout the industry as an independent trader, broker, analyst and branch manager for one of Chicago's largest discount / full service firms under the direct supervision of a former Chairman of the Chicago Board of Trade. John is the founder of [NationalFutures.com](http://NationalFutures.com), an online education website.

John has shared his wealth of knowledge in the field of techni-

cal analysis, his trading style, and system development. John developed the Person's Pivots and the

PPS indicator, both of which are on TD Ameritrade's

[Thinkorswim](#) trading platform. He also has developed indicators for [TradeNavigator](#) and [TradeStation Securities](#). He has

taught thousands of traders, including mem-

bers of the largest exchanges. He is the author of three nationally and internationally popular trading books as well as three trading courses and a DVD seminar series. His latest book series, *The Commodity Trader's Almanac*, is instrumental in trading the seasonal aspects of the commodity markets and the correlated ETFs and stocks of those markets.

The nation's most respected business journalists call John Person for his market opinions. He is widely quoted by CBS Market Watch, Reuters, Dow Jones



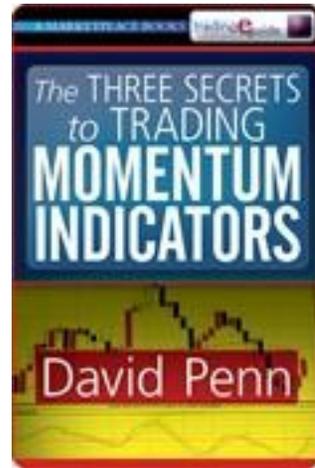
Newswires, and appears regularly on CNBC. He is a sought after speaker for many professional organizations such as the Market Technicians Association (MTA), the International Federation of Technical Analyst Society (IFTA) and delivers keynote speeches and seminars at some of the country's top national investment expos.

John's thorough understanding of the futures industry makes him qualified to offer his clients a balanced perspective of the trading industry. In addition, the personal contacts he has developed around the world and in the financial industry have been instrumental in helping him gain an edge on information pertaining to the markets.

## RECOMMENDED READING

### The Three Secrets to Trading Momentum Indicators

By David Penn



You can't predict the future, but if you see a car going 100 miles an hour toward a picket fence, you have a pretty good idea. In trading, this concept is called momentum and it is one of the most widely used factors in creating effective, profitable technical indicators.

This eBook not only shows the three secrets that allow you to capitalize on the power of momentum indicators, the digitally integrated features make it easier for you to see the charts and click right through to the glossary and additional information. Momentum indicators are excellent for getting on the right side of the trend and spotting the reversal before it happens. With a mastery of momentum, traders can put this predictability to work making them money.

[Item #7781726 - more info...](#)

### The Definitive Guide to Momentum Indicators

By Martin Pring



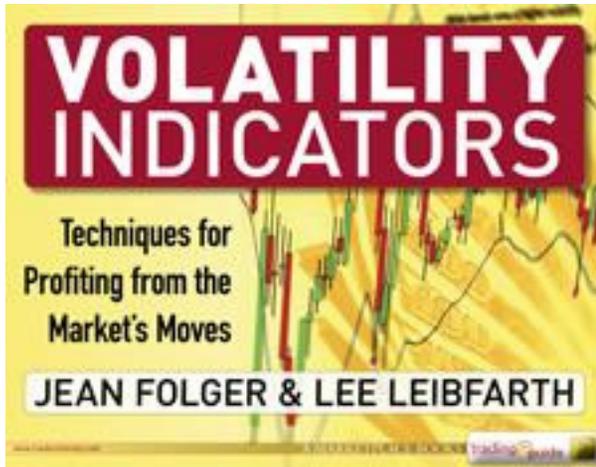
Momentum, often caused by fast-breaking news or big-money investors taking or dumping positions, is one of today's most valuable technical analysis tools for spotting trends and catching turning points. Now, Martin Pring delivers the most comprehensive volume available on the subject.

*The Ultimate Guide to Momentum Indicators* is a unique combination of text and audio-visual CD tutorial. It is an excellent teaching tool for in-depth research, instant reference, and interactive review. It provides technical traders with remarkably accurate methods—proven effective in today's fast-moving markets—for anticipating and exploiting trends.

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## Volatility Indicators: Techniques for Profiting from the Market's Moves

By Lee Leibfarth & Jean Folger



You have probably been hearing a lot about volatility in today's financial markets, and that's because it is such a crucial factor in trading. Fluctuations in trading activity can be used to establish timing for trade that will yield maximum results—if you know what to look for.

In this new eBook, Jean Folger and Lee Leibfarth, authors of *Make Money Trading*, help you to understand volatility and the indicators that can help to harness its power. Volatility indicators provide predictive insight into the price movements of the market and are powerful technical analysis tools that can be used to find profitable trades.

This new eBook format makes everything you need to know about volatility indicators—from a history of the most popular volatility indicators to experimental application, to finding unique opportunities for short and long-term traders—just a click away! It's a breeze to get right to the information you're looking for and even tap into answers that go beyond the book!

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