



Chapter 1

Thank-you for choosing E-CADEMY of Trading's Charting Your Course Online Course. In just a short while, you will have a better understanding of futures trading and be ready to do some buying and selling of your own!

You as an analyst

Most traders are going to look at both fundamental factors and price charts in analyzing markets. They realize you can't isolate one from the other . . . you can't look at bearish fundamentals alone and decide to sell when a price chart shows the market may already be at historic lows; you can't look at a bullish chart signal and buy blindly when you know some negative fundamental numbers are coming out.

The wise trader will always keep both influences in mind when making trading decisions, looking to fundamentals for long-term market direction and to technical analysis for actual trade entry and exit decisions.

Accurate fundamental information is more difficult to gather and digest so we will concentrate on technical analysis, a variety of techniques for studying price action. In the technical analyst's view, every fundamental factor that can influence a market is reflected in the current price. This analysis looks at the movement of price over time and tries to decipher chart patterns and other clues about future price direction.

Charting the Market

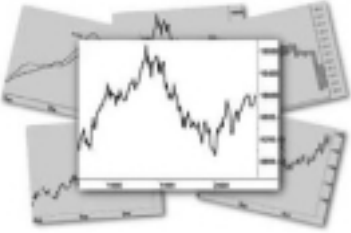
Technical analysis is an art, not a science. Although some price patterns may be clearly visible to a majority of traders, others may exist only in the eye of the beholder. What one analyst "sees" may not be what another analyst "sees." So, keeping in mind that this can be a very subjective study, we will look at various ways that technical analysts view the world of prices.

An isolated price does not mean a lot. Is it "high" or "low"? Relative to what, yesterday or last year? Is it moving up or down? Technical analysts use various types of charts to depict the relationship of one price to another. Values are reflected on the vertical scale, time on the horizontal scale. On some charts, only the close is important; on others, the open is significant. On some charts, time is a critical element; on others, time is not a factor at all. (104)



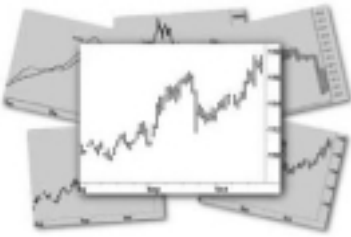
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One of the simplest charts is the line chart or close-only chart, which uses only one price for a time period, generally the close. A series of dots on the chart represent the price for each time period, and you just connect the dots to see the market's movement over time more clearly. This is the type of chart used for many moving average studies. (105)



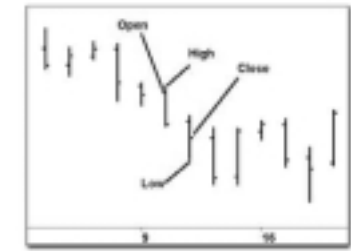
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Perhaps the most popular type of chart is the bar chart, which clearly shows the high price for a period and the low price for the period. A period may be a week, a day, 60 minutes, 1 minute . . . analysts look at prices in different time frames, depending on how close to the market they want to be. But the basic bar chart analysis is the same for all time frames. (106)



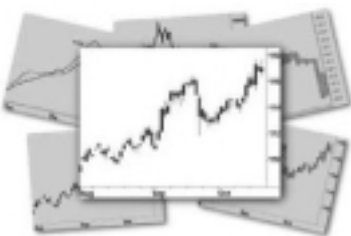
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A horizontal line on the right side of the high-low price bar indicates the closing price for a period on a bar chart. Sometimes the opening price is also indicated by a horizontal line on the left side of the price bar. However, the key features of the bar chart that usually get the most attention are the high and the low because they represent the extent of traders' opinions about prices for the period shown. (107)



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A type of charting that has become very popular since the 1980s and the advent of the personal computer is the candlestick chart that originated in Japan. With this chart, the open in relation to the close is the most important feature. (108)

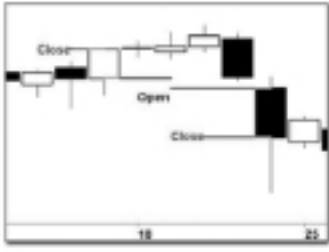


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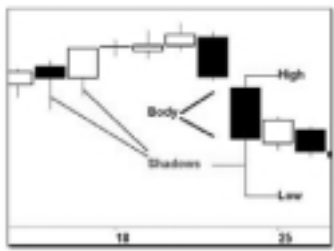
Some analysts look at price action that takes place overnight as essentially public trading while the action that occurs between the open and close is more likely to be professional trading. Needless to say, they believe that what the professionals do during the trading session sheds more light on price direction than what the public does overnight.

The focus of attention on the candlestick chart is the "body" - that is, the difference between the open and the close for the period. If the close is higher than the open, the body is usually shown as clear or white; if the close is lower than the open, the body is usually shown as black or a solid color. As a result, you get a quick visual picture of the day's price action by just glancing at a candlestick chart. (110)

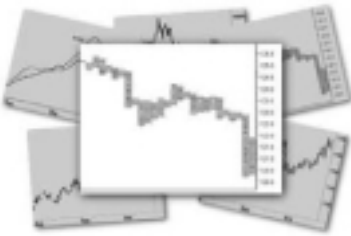
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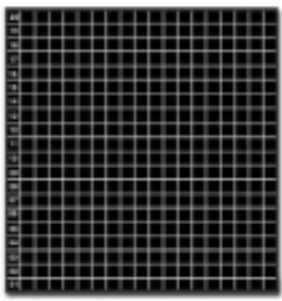
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bar

The price action during the period that occurs outside of the bodies shows up as "tails" or "shadows" and sometimes look like the wick of a candle. Like the bar chart, they indicate the high and low boundaries of traders' thinking about prices for the period but are not considered to be as important as the body.

Candlestick chart analysis includes a number of colorful names for chart patterns - engulfing patterns, shooting stars, hanging man, haramis and many others that are unique to this type of analysis. Each candlestick and each pattern reveal clues about the mass psychology of the market, and you will need to take a candlestick analysis course just to learn the nuances of each. You can find a basic candlestick course at www.pfg.ws (111)

Next to price, time is a key component of most types of charts, whether they are close-only, bar charts or candlesticks. Price action usually reflects what happens during a specified period, whether it's a month, a week, a day or a minute.

One type of chart that pays virtually no attention to time whatsoever is the point-and-figure chart. Not only is time irrelevant on this chart but the open and close also mean nothing. The high and the low are significant because the complete focus of this chart is on reaching specific price points. (114)

Perhaps the most crucial step in point-and-figure analysis is the very first step: Determining what the value of a "box" should be. The value can be a tick or it can be some larger unit of value, depending upon the time frame in which you are trading.

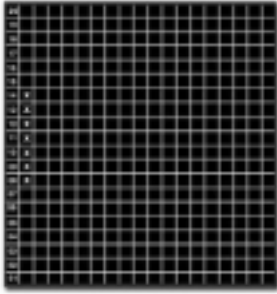
Assume a value of 1 for each box. Now the building of the point-and-figure chart can begin.

Assume prices are moving upward and have reached the values of 8, 9, 10, 11 and 12. An X would go in each of those boxes in the same column to represent rising prices. (bar)

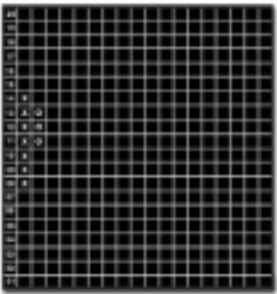
If the market hits 13, an X goes in that box; at 14, the same thing happens . . . and continues upward in this manner as long as a new high is reached.



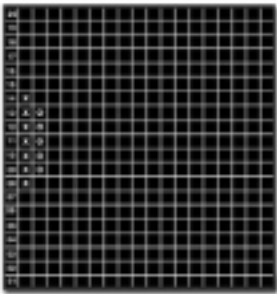
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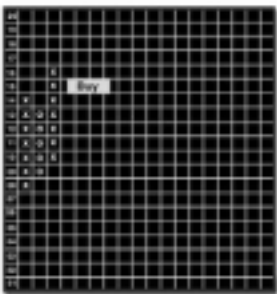
bar3



bar4



bar5



bar6

At some point, however, the market will stop advancing, at least temporarily, and no more Xs can be added. Now comes the second most crucial step in point-and-figure analysis: How many boxes will it take before the column of Xs on the chart reverses? (bar3)

Typically, the number of boxes used for a reversal is 3 or what is known as a 1-by-3 point-and-figure chart. If an X cannot be added to the column of Xs for a new high, the low comes into play. If the price is sitting at 13 as in our example, nothing happens - perhaps for days. But if the price has dropped by the value of 3 boxes - in this case, to 11 - a column of Os begins one column to the right of the Xs and one box below the high X. (bar4)

Once the column of Os starts, the low price is the key. If it is low enough, an O is added to the bottom of the column of Os such as we have done in boxes 10 and 9 here. (bar5)

When an O for a new low cannot be added to the column of Os, the focus is again on the high. If the high price represents a 3-box reversal, a new column of Xs starts. One signal to buy comes when a column of Xs exceeds a previous column of Xs or, better yet, two or three previous columns of Xs. (bar6)

All of this may sound very complicated, but, fortunately, many of today's technical analysis software packages include point-and-figure charting as one of the analytical alternatives. All you have to do is enter the parameters for the box size and reversal values you want and you have an instant Xs and Os point-and-figure chart.

Point-and-figure charts have not been as popular as other charting methods, but that could change as trading becomes increasingly global and continues around-the-clock. Most charts require some type of mark for each time period, even when there is little or no price movement. A point-and-figure chart based only on prices and not on some arbitrary time period requires little work when nothing is happening. It saves its entries for only those times when prices move enough to warrant it. (122)

Analysts have developed numerous technical indicators over the years to help them get a more comprehensive reading of price action. We can't cover

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all of them, but one of the most predominant techniques through the years has been the concept of moving averages. (124)

A moving average is based on one price per period - it may be the close, it could be the high or low or it could be a composite of the open-high-low-close. Whatever price is used, the concept of the moving average is simple: Add up all the prices for the number of periods that you want to include in your study and then divide the sum by the number of prices used to get a simple average.

Analysts use a number of variations on the moving average to place more weight on recent prices - ideas such as exponential moving averages, weighted moving averages and displaced moving averages. (126)

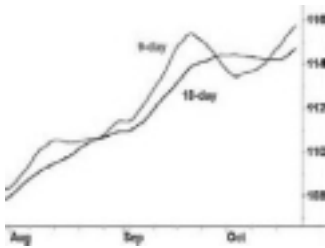
However, the basic signal from moving averages is that if a shorter-term moving average crosses above a longer-term moving average, buy because it indicates prices are moving up; if a shorter-term average crosses below a longer-term moving average, sell because it indicates prices are moving down. The moving average crossover, as simple as it is, is the basis for some successful trading systems. (127)

Let's do a quick review of the charts mentioned in our technical analysis primer before we move on to a few analytical techniques. We looked at five chart types.

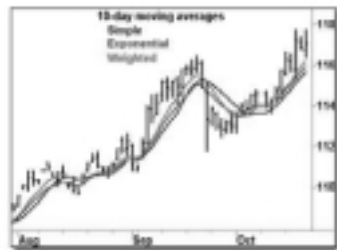
The close or at least one price per period is important for the close-only and moving average charts. The high and low for a period are important for bar and point-and-figure charts. The open and its relationship to the close are critical for candlestick charts. Most charts are based on time periods of various lengths, but time is not a factor for point-and-figure charts.



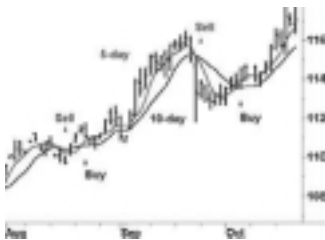
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Chapter Quiz

Question 1: Technical Analysis is...

- A) An art.
- B) A science.
- C) Like reading tea leaves.

Question 2: The key points of a price bar on a bar chart are...

- A) Open and low
- B) Open and close
- C) High and Low
- D) Mid-Range price and high

Question 3: On Which of these charts is the open most important?

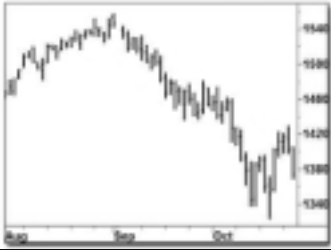
- A) Bar chart
- B) Close-only chart
- C) Candlestick chart
- D) Moving average chart

Question 4: Time is not a factor on...

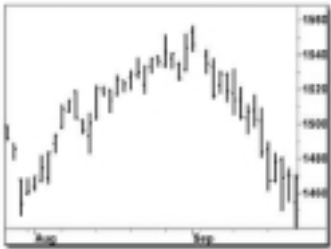
- A) Moving average charts
- B) Point-and-figure charts
- C) Bar Charts
- D) Candlestick charts

answers are on the last page of the course

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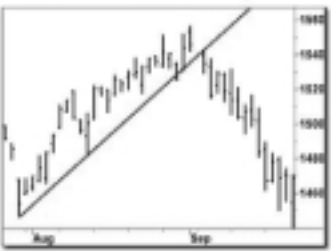
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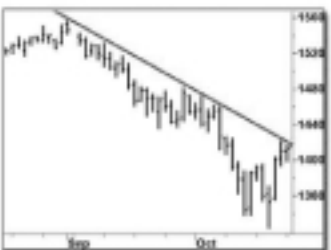
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Technical Analysis 101: Significant Chart Patterns

Now that you've seen the various types of charts, you're ready to get into some real analysis. We will cover only basic techniques that apply to all of the chart types and will use bar charts for our examples. We will not get into the many technical indicators that analysts use such as the Relative Strength Index, Stochastics and many others.

For more detailed information on any of the chart types or technical studies, ask your broker to refer you to numerous books, classes and seminars that are available on these subjects. This section is only a starting point for further study. (135)

Chart Patterns

One of the best-known market axioms is "Trade with the trend" or "The trend is your friend." It's a good rule because that's where most of the money is usually made in futures trading. The trick is to identify the trend early enough in its development to jump onboard. (136)

Almost anyone looking at this chart would agree that there is an uptrend and a downtrend. They are easy to spot in hindsight after they have occurred but not so easy to detect when you are looking at the right edge of the chart. (137)

An uptrend is defined as a series of higher highs and higher lows. You draw a straight line along the bottom of the lows to show the uptrend and extend it to show where the momentum of the upward advance should take prices if the uptrend continues its present pace. An upward slope of 45 degrees is the most desirable. (138)

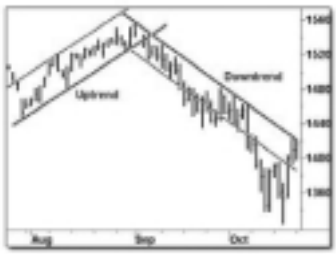
A downtrend is defined as a series of lower highs and lower lows. You draw a straight line across the top of the highs to show the downtrend and where the momentum of the downward advance should take prices if the decline continues at this pace. (139)

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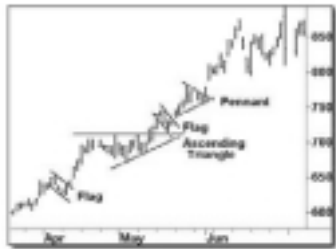
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At some point the momentum of the market will change and the trendlines will be broken, either because of some market development or simply because the market just ran out of buyers to continue the uptrend or ran out of sellers to extend the downtrend. Those trendline breaks suggest the direction of the market has changed and provide trading signals. (140)



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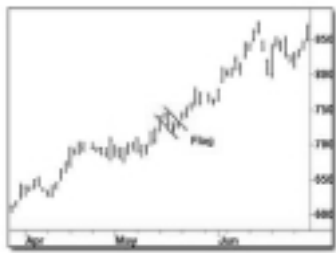
A useful addition to the trendlines are channel lines drawn across the tops of the uptrend and along the bottoms of the downtrend. They illustrate how orderly the market is and where it is positioned within the trending channel. If prices begin to back down from an uptrend's channel line, for example, it may be an early alert that the uptrend is weakening and that the market may be getting ready to reverse course. (142)



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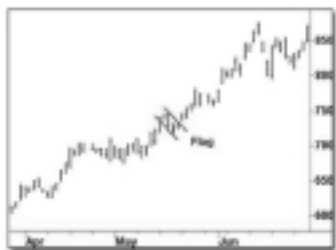
This type of trendline analysis applies to any chart. Whatever chart you use, first find the trend; then analyze where current prices are within that trend and the prospects that the trend will continue or change.

Few markets move straight up or straight down. Even in the strongest trends, there frequently are little pauses while traders adjust to new market conditions. If you are trading with the trend and you see those periods, your concern is likely to be, "Will the trend continue?" or "Will the market reverse?"



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As prices unfold, they sometimes do so in patterns or formations that not only provide clues about market direction but also can be used to measure the extent of a potential move. One set of patterns can be described as "continuation formations" - those formations that suggest the trend in place will continue.(144)



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A favorite continuation formation is the "flag." It is a little countertrend move against the direction of the main trend - a resting period where bulls and bears sort out who will lead the market from here. Typically, a breakout of the flag signals a new leg in the direction of the main trend that is in place. (145)

Some analysts use the flag to project how far the trend might go. They measure the length of the flagpole and add that to the point where the

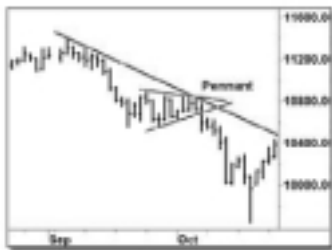
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market breaks out of the flag to get a potential price target. Keep in mind that this is not an exact science, but if enough traders think it can happen, the target can become a self-fulfilling prophecy. (146)

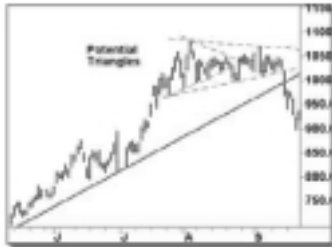
"Pennants" and several types of "triangles" are other continuation formations that operate much like the flag, but each offer their own twist on chart analysis. Typically, they indicate a period of consolidation, and the market tends to come out of the triangle in the same direction that it entered the triangle. (147)



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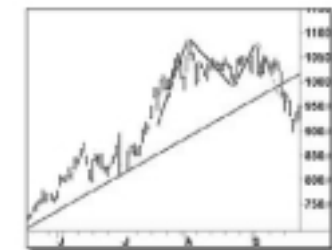
The same type of analysis applies in downtrends where flags and triangles provide congestion areas that may look like a step-down arrangement as each new level of lower prices develops. (148)

Of course, not every formation that starts out looking like a flag or triangle turns into a flag or triangle. Markets are notorious for doing the unexpected. Instead of the continuation formation that you "saw" in a developing triangle, you may get a "reversal formation." (149)



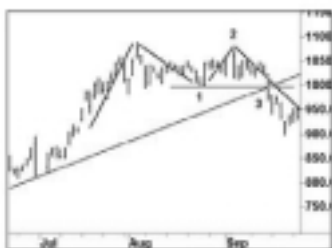
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"Reversal formations" suggest a market has completed its run and is in the process of changing direction. Among the reversal formations are the "V" top or bottom where prices spike to a high or low and then make a sharp turn in the other direction or, what is more common, an "M" top or a "W" bottom or what some call a 1-2-3 swing formation. (150)



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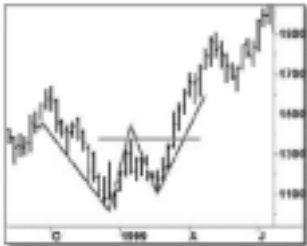
In an "M" topping formation, the market hits a high, settles back, rallies to a high that is lower than the previous high, falls back and then pushes below the interim low. The break below that low signals a top is in place and the direction of the market is now headed lower. (151)



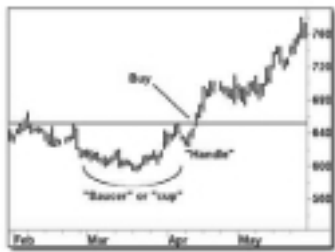
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As with continuation formations, it is impossible to cover all of the reversal formations in detail in this short overview of technical analysis. Analysts will talk about "saucer bottoms" and "head-and-shoulders" tops and "cups and handles," and each has a meaning that reflects their appearance on a chart. (152)

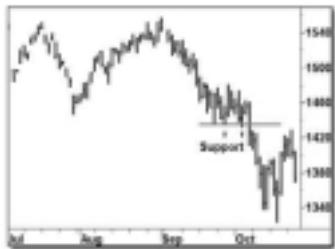
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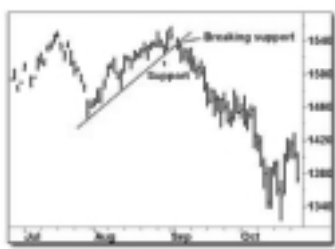
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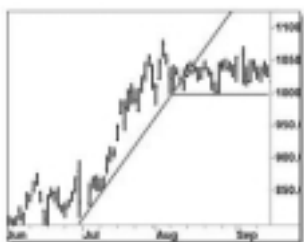
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Technical analysis includes several other terms that are important and need to be explained. Although patterns or formations usually involve a series of price bars, only one price point or just a couple of price bars may produce a technical signal.

The first of these is "support." The uptrend line is an example. If the market is to continue upward at its current pace, prices should react back up after they come down toward the trendline that you've drawn across the bottoms. (153)

Another example is a former low. The rationale is that, if a market was worth buying earlier at a price, it should be worth buying again at the same price. Of course, many factors go into that conclusion about perceived value, but the matter of price history should at least be considered as "horizontal support" if the market approaches previous lows. (156)

The first assumption about a trendline or a prior low is that prices will lift back up from these points - they provide support. A trend in place tends to continue in place. At some point, however, a trendline will be broken or an earlier low will be taken out. Broken support is a key signal for a market reversal - the longer the trendline or the more obvious the previous low, the better the signal that you may want to be short. (157)

The initial break of support does not automatically mean the market is headed lower. Instead, the market may just go sideways. All the breaking of trendline support means is that the market is tired of going up. (158)

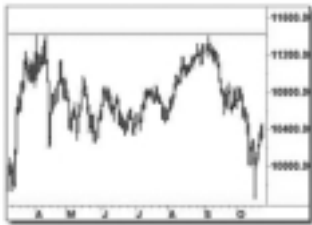
Similar to support is "resistance." In a downtrend, the trendline across the tops acts as a lid or barrier to a price advance. Similar to support on an uptrend, resistance on a downtrend indicates that here is a price that has gotten "too high" for traders to buy, and the market will, instead, turn back down to maintain the pace of the downtrend. (159)

Like support at an earlier low, the market hits resistance when it approaches previous highs. It's the same type of thing that happens if the

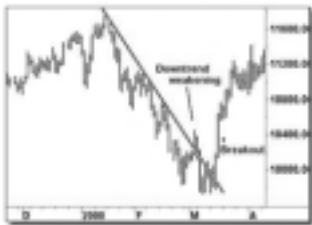
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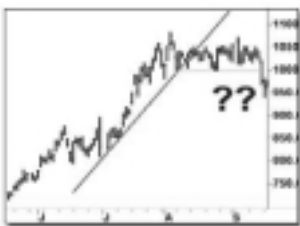
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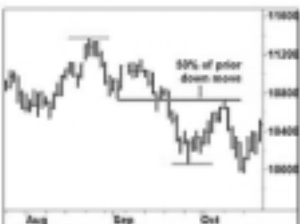
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price of a hamburger or a shirt gets too high. You resist and won't buy it, and prices are likely to turn back down. Without buyers, the market cannot go up when resistance is too strong. (160)

Like support at uptrend lines and previous lows, resistance at downtrend lines and previous highs eventually weakens or evaporates altogether. It may take the market a little time to adjust to a new price world and to get used to prices that once were "too high," but breaking above a downtrend line or earlier highs is a signal that you may want to be long. (161)

Once you see that the trending situation has changed after support or resistance has been broken, the main questions you might have are, "How far will this new trend go? How long can it last? Will it be worthwhile to trade?" (162)

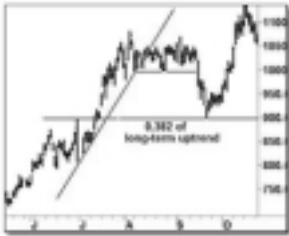
One technique for measuring the potential of a reversal move is what analysts call "retracements" - that is, how much of a previous move will the market retrace before it finds a top or bottom? A popular retracement target is 50% of the previous move. (163)

Analysts use a number of other techniques to measure price potential including Fibonacci ratios and methods developed by W.D. Gann that have both price and time elements. A Fibonacci student, for example, might see a 0.618 retracement of the previous move as a target. These techniques require a course of study in themselves. (164)

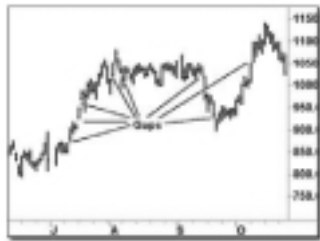
The key points about retracements are: (1) 50% is a popular goal; (2) a market that makes a shallower retracement - say, only 25% of the previous move - is a stronger market than one that has a deeper setback of, say, 75% of the previous move, and (3) a retracement target that coincides with a support or resistance point such as a prior low or high is a much stronger signal.

Another aspect of technical analysis that involves price measurement is the area on a chart where no trading takes place at all - the so-called "gaps." Gaps do not show up on close-only and point-and-figure charts because of the way they are constructed, but on bar or candlestick

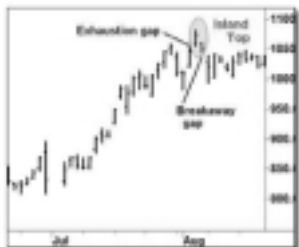
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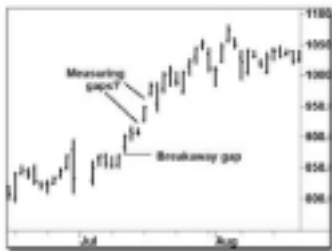
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charts, gaps may be more visible than other patterns because of what isn't there on the chart. Interpreting them, however, isn't so clear-cut. (167)

Gaps can indicate a market that is "exhausted," having just one last burst of energy left before it turns. Gaps can indicate a "breakaway" situation where the market makes an abrupt turn from its previous trend and makes it clear that the old trend will not resume. A combination of the exhaustion and breakaway gap can form an "island reversal." (168)

A gap that can help you project a move's potential is known as a "measuring gap." After making a move higher, for example, a market may jump into new higher territory, leaving a gap where no trading takes place. Depending on the condition of the market, it could be regarded initially as an exhaustion gap. If the market maintains its strength, however, it may be viewed as a measuring gap indicating the halfway point of an extended move. (169)

Again, there are no absolutes, but a measuring gap projects a further move up or down equivalent to the move prior to the gap. (170)

It's not hard to understand that a number of commodity markets would be influenced by seasonal price patterns based on their production and usage patterns. Periods of large supplies at harvest, for example, are likely to see pressure on prices. Likewise, periods of tighter supply away from harvest are likely to feature greater demand and higher prices.

Financial markets also have seasonal and cyclical patterns. In some cases, they may be measured in days; in others, they may be multi-year cycles. In each case, there are fundamental reasons behind the patterns. When several cycles converge at the same point in time, they can have a significant effect on prices. Analysts who study cycles try to project when they will occur so they can position themselves in the market correctly. This section has barely touched some of the many facets of technical analysis. We have only mentioned some subjects and not covered areas such as technical indicators at all. Specialists can tell you much more if you decide to look further into a technique that appeals to you. However, let's review the basic information we did cover on technical analysis.



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The first thing to look for on a price chart is the trend. An uptrend is a series of higher lows and higher highs identified by a straight trendline drawn across the bottoms. A downtrend is a series of lower highs and lower lows identified by a straight line drawn across the highs. Chart patterns such as flags and pennants or triangles can indicate that a trend will continue. Chart patterns such as M tops or W bottoms can indicate that a trend will reverse.

A trendline can provide support in an uptrend or resistance in a downtrend. Previous lows can also provide horizontal support. Previous highs can offer horizontal resistance. Breakthroughs of support or resistance are key indications of trend changes. Retracements and gaps can be useful in determining how far prices can go in the new trend. Cycles and seasonal patterns can be useful in determining the timing of price highs and lows.

Chapter Quiz

Question 1: A trendline for an uptrend is drawn across the...

- A) Highs.
- B) Closes.
- C) Lows.
- D) Opens

Question 2: A broken trendline is a good signal for...

- A) Something that needs to be fixed.
- B) A turn in the prices
- C) A trending market that is getting stronger

Question 3: Which of the following is not a continuation formation?

- A) Triangle
- B) M pattern
- C) Flag
- D) Pennant



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Question 4: Which of the following is a reversal formation?

- A) Triangle
- B) M pattern
- C) Flag
- D) Pennant

Question 5: Which of the following provides support for prices?

- A) A trendline in an uptrend
- B) A trendline in a downtrend
- C) A prior price high

Question 6: If a trendline is broken, what is a popular retracement level?

- A) 10%
- B) 25%
- C) 50%
- D) 90%

Question 7: Which of the following types of analysis focus on time?

- A) Gaps
- B) Continuation patterns
- C) Reversal patterns
- D) Cycles

Congratulations!

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Quiz Answers

Question 1: Technical Analysis is...

A) An art.

Question 2: The key points of a price bar on a bar chart are...

C) High and Low

Question 3: On Which of these charts is the open most important?

C) Candlestick chart

Question 4: Time is not a factor on...

B) Point-and-figure charts

Question 1: A trendline for an uptrend is drawn across the...

B) Closes.

Question 2: A broken trendline is a good signal for...

B) A turn in the prices

Question 3: Which of the following is not a continuation formation?

B) M pattern

Question 4: Which of the following is a reversal formation?

B) M pattern

Question 5: Which of the following provides support for prices?

A) A trendline in an uptrend

Question 6: If a trendline is broken, what is a popular retracement level?

C) 50%

Question 7: Which of the following types of analysis focus on time?

D) Cycles