1 | Closing the Gap

Back in the 1920s and 1930s, Richard W. Schabacker wrote several books that were based on Dow theory. He hypothesized successfully that certain patterns in the major averages were also relevant to individual stocks. His brother-in-law Robert D. Edwards continued his work. Many in our generation are familiar with the technical work of Edwards and his partner John Magee (Magee, 1994, ix–xv). Together, they are considered the fathers of modern technical analysis. As we know, technical analysis is a snapshot of market participants' collective behavior. Because we are dealing with human emotions, these patterns of collective behavior are continually repeated. They can be recognized and then used to anticipate future moves in the markets. These patterns can be further broken down into naturally recurring sets of waves and calculations.

The basic structure of financial markets lies in a catalog of repeatable patterns uncovered by Ralph Nelson Elliott, refined over the years by other well-known Elliotticians, including Robert Prechter Jr. The Wave Principle represents a good pattern recognition system. No two patterns are ever alike, but they all have repeatable tendencies. Inside these waves are universal calculations, which are measured in terms of price and time. These

measurements are driven by Fibonacci relationships. Much of the research on the time element is derived from the work of W. D. Gann, who should be considered the founding father of modern time studies. From Gann, modern Fibonacci analysts have done an excellent job of simplifying the methodology so traders can use it as an everyday discipline.

The Elliott methodology relies heavily on the Fibonacci relationships to the point where the trader really can't use one without the other. Because the Wave Principle relies on Fibonacci calculations, it would make sense that those who use Fibonacci retracements would recognize patterns in terms of Elliott waves. This book incorporates the time principle into the Fibonacci–Elliott ways of thinking and provides traditional technical analysis. I find, however, that the Elliott–Fibonacci community has left out an important part of the equation. Some Fibonacci calculations are so complex that they are not practical to use. Traders use Fibonacci calculations because they are practical pattern-recognition tools. Yet, what if some calculations are too complex to be recognized easily? If it doesn't work, what do we do instead? How do we fill in the gap? This book, to a degree, closes that gap.

Most books of this genre cover Elliott and Fibonacci, as well as sacred geometry. This book enhances most of these studies. The methodology presented here relies heavily on the Lucas series of mathematics. French mathematician Edouard Lucas (1842–1891) discovered this series, which is a derivative of the Fibonacci sequence. It is mentioned briefly in other books, and it is here where this series is presented in great detail. Although I am not the first to present Lucas to the financial community, I believe its profound influence on many financial charts in all degrees of trend has been greatly misunderstood and understated. This book attempts to rectify that. Lucas's work does not supersede Fibonacci's; it complements it. What most people in the trading community don't realize is the degree to which it complements it. According to the research presented here, you will see how often it does. The purpose of using the time dimension is to gain a very important tool in the pattern recognition game.

Édouard Anatole Lucas

Famous for his research in number theory, François Édouard Anatole Lucas is the 19th century French mathematician for whom the Lucas Series is named. It was while working with the Fibonacci series (one he is often credited with naming) that he discovered the closely related series of numbers. While defined nearly identically to the Fibonacci series (each number is the sum of the previous two, except for the first two members of the series; f(n) = f(n-2) + f(n-1)), Lucas numbers start with 2 and 1 rather than 1 and 1. While seemingly a small difference, the variation is clear:

Lucas Series:
2, 1, 3, 4, 7, 11, 18, 29, 47, 76, 123, 199, 322, 521, ...

Fibonacci Series:
1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, ...

continued on next page

An airplane pilot would never think of taking off in a plane that was not equipped with instruments that would enable him or her to fly or land it in spite of poor visibility. As challenging as financial markets are, using technical analysis as a pattern recognition system without the time dimension is like attempting to land a plane in zero visibility.

Before switching to "instruments," we must be able to navigate in good weather. Basic navigation of financial markets begins with an understanding of the Wave Principle. The Wave Principle gives the trader a good start at pattern recognition. Those of you trained in the Edwards and Magee school of technical analysis can compare and contrast the two methodologies. This book uses the Wave Principle only as a guide because it is fairly complex and not totally reliable in real time.

When we look at the waves, we can get an idea of where we are in a trend. We can also have an idea if we are in the main trend or in a move that technically "corrects" that trend. Sometimes a correction is so large in relation to the main trend that we really don't know whether the larger trend has changed. This is one of the black holes in the Wave Principle that this book intends to clarify.

There are two basic patterns of waves. The first are known as "impulse waves," which is the larger degree prevailing trend. The other is known as "corrective waves," which move counter to the main trend. Each has its own distinct set of characteristics. In this chapter, I only cover the basics as a review of materials you may have read elsewhere. Later, I will show you how to recognize an impulse or corrective wave by exclusively understanding the number sequences.

IMPULSE WAVES

Impulse waves have their own unique characteristics. The larger prevailing trend is considered to be an impulse wave, which you can recognize as it moves in a 5-wave sequence. Impulse waves can also move in 9- or 13-wave patterns. There are only

As is true for any Fibonacci-like series, the ratio of successive Lucas numbers converge to the golden ratio phi, φ(1.618 ...). Moreover, the two series are related in many other ways with ongoing research still in progress today. According to Clark Kimberling, Professor of Mathematics, University of Evansville, to find the following Lucas-Fibonacci identities to be true, write the two sequences as L(0), L(1), L(2), . .. and F(0), F(1), F(2), ...then for all nonnegative integers n:

L(n) = F(n+2) - F(n-2)
L(4n) + 2 = (L(2n))^2
L(4n) - 2 = 5(F(2n))^2
F(n + m) + F(n - p) = F(n)L(m) if m is even
L(n - 1)L(n + 1) + F(n - 1)F(n + 1) = 6(F(n))^2.

Forty-seven such identities are given by Verner E. Hoggatt, Jr. in his book *Fibonacci and Lucas Numbers* (Hoggatt 1969, 59-60).

IMPULSE WAVES

1. Wave 3 is never the shortest wave.
2. Wave 2 never retraces more than 99 percent of wave 1.
3. Wave 4 does not overlap the territory of wave 1.

three iron laws of impulse waves according to Prechter (Prechter 1999, 30):

1. Wave 3 is never the shortest wave.
2. Wave 2 never retraces more than 99 percent of wave 1.
3. Wave 4 does not overlap the territory of wave 1.

Let's clear up some of the confusion surrounding these rules. Some think the third wave is always the largest wave, but this simply is not the case. Generally, the tendency is for wave 3 to be the largest wave, but the rule is that it can't be the shortest wave. If you are counting waves and the middle wave is the smallest, something else is going on. That particular wave might be an extension of the first wave, but it isn't a third wave (Figure 1.1).

The other controversy surrounds fourth waves. According to some in the Elliott community, they do not allow for any overlap of the first and fourth waves, but I've seen many instances where wave 4 touches, grazes, or slightly overlaps wave 1. I think you need to apply common sense to the situation. If you have a fourth wave that makes an obvious violation into first-wave territory, it isn't a fourth wave. If you've had a first wave, a retracement second wave, and a third wave that makes a decent advance; and then you have a pullback that grazes first-wave territory before turning up, I think you can make a case for the pullback being the fourth wave.

Another characteristic of impulse waves is the Rule of Alternation. This is not an iron law, but rather a guideline. The Rule of Alternation suggests that if the second-wave retracement takes

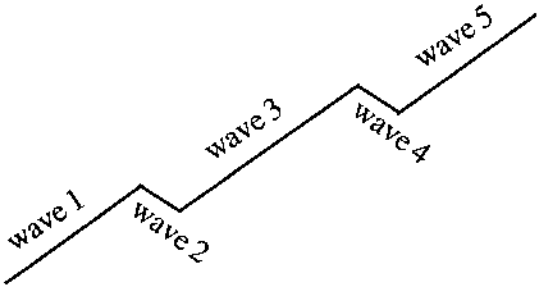

Figure 1.1
Basic Elliott Wave Pattern

the form of a sharp correction, the fourth wave is likely to be a flat correction. Another way in which this rule manifests itself is that when the first wave is the largest wave, the fifth wave will be the smallest. In a larger move, if one set of five has the third wave as the extension, the next round will have either the first or the fifth wave as the extended wave (Prechter, 1999, 61).

Extensions are another important characteristic of impulse waves. This means that of waves 1, 3, or 5, one will be considerably larger than the other two. Extensions are hard to count while they are in progress, and the exact count is not readily apparent until late in the move. The time cycles clear up much of the confusion and allow traders or analysts a better roadmap to determine more easily where they are in the bigger scheme of things.

There are sets of common relationships in an impulse sequence that are Fibonacci based. The most common tendency is for the third wave to be the extended wave, and many times it will measure 1.618 or 2.618 times the length of wave 1 as measured from the bottom of wave 2 (Prechter 1999, 125–138). In lower probability cases, wave 3 may even measure 4.23 times the length of wave 1.

When wave 3 is the extended wave, the tendency is for waves 1 and 5 to have a .618/1.618 relationship to each other. In rare cases, wave 5 can be a 2.618 extension of wave 1. Recently, we had a situation in the XAU where wave 5 was a 2.618 extension of wave 1 and wave 3 was not the shortest wave. When wave 5 extends, it usually measures 1.618 times the length of waves 1 to 3, with wave 1 being the smallest wave. When wave 1 extends, it will usually measure 1.618 times the length of waves 3 to 5, with wave 5 being the smallest wave. In rare cases, we can have a double extension where waves 3 and 5 are both twin 4.23 extensions of wave 1.

The best way to recognize an extended wave is to observe how the progression begins. Once we get a new trend, we'll have a first wave up, a retracement, and another leg up. If the second retracement violates the territory of the very first wave in the sequence, we know by the iron law of fourth waves that this can't be a fourth wave. It must be the start of an extension or larger move. How do we know that it is not a corrective move? Watch the volume patterns. At all times, we will use other indicators to confirm a wave count. If we are in an uptrend, the down days compared to the

CORRECTIVE WAVES

Corrective waves have their own unique set of characteristics that differentiate them from impulse waves. A wave is corrective when it moves counter to the trend. There are two types of corrective waves. One family consists of sharp corrections, the other family of flat corrections. You may consider triangles to be another subset, but technically they are part of the flat family.

up days will be lower volume on average. For instance, if we've been through a long downtrend where sentiment became unusually negative, the trend going in the new direction will start to build decent volume days and the pullbacks will be of lighter volume. A lighter volume wave that slightly overlaps a first wave up is likely to be corrective, counter to the new trend, and part of an extension going in the new direction. The time dimension will also give us a good clue as to the underlying direction. I will cover that in a later chapter.

CORRECTIVE WAVES

Corrective waves have their own unique set of characteristics that differentiate them from impulse waves (please see Figure 1.2 for a look at the complete wave sequence). A wave is corrective when it moves counter to the trend. There are two types of corrective waves. One family consists of sharp corrections, the other family of flat corrections. You may consider triangles to be another subset, but technically they are part of the flat family.

Sharp corrections normally fall into a 5–3–5 pattern of waves. They are labeled differently from impulse waves and use letters as opposed to numbers. An ABC correction will contain five small waves moving counter to the trend followed by a small, sideways or triangle correction, followed by five more waves. The way to recognize these waves is that they violate the overlap rule where the fourth wave falls deep into the territory of the first wave. The best way to recognize sharps is that they are very choppy.

If you don't understand waves and have no real plan to do so, the best way to understand corrective moves is by their choppiness or lack of structure. Corrective waves are also characterized by an average lower volume than the prevailing larger degree trend moving in the other direction. How do you know you are in a correction? Let's say we are in a bear market and begin a bounce. If the up days are on light volume, it's bound to fail. It can be as simple as that.

Sharp corrections retrace 38 percent, 50 percent, 61 percent, 78 percent, or 88.6 percent. In rare cases, they will retrace 23 percent. Several years back, a study was done by Rich Swannell, an Australian Elliottician. He took millions of retracements in all degrees of trend

and found that 60 percent of second-wave retracements fell under the bell curve between the 25 and 70 percent retracement level (Swannell 2003, 34–35). This adds to the complexity because 40 percent of the time, we will have some other retracement such as the 14.6 or even the 88.6 percent. How one definitively defines a second wave in an impulse or a B wave in a corrective, I'm not sure.

We derive the 88.6 level because it is the square root of the .786 retracement level. However, moves will stop short of a full retest right on the 88.6 percent marker. For most common retracement relationships, here's what happens. We will get an impulse move in one direction, and when it comes time to retrace, the first leg will retrace 38 percent counter to the trend. This would be an A wave or the first part of an ABC. A small B wave commences, and finally the C wave kicks in to take the entire retracement to the 50, 61, or 78 percent marker.

For instance, the first move counter to the main trend keeps going and retraces 61 percent. This is a clue that the move might not be corrective. Normally, A waves will not move 61 percent counter to the prevailing trend. Odds are something else is going on. What might that be? First legs that move 61 percent going the other way most often are new trends in the opposite direction, but they could also be 100 percent retests, which turn out to be double tops (bottoms).

Flat corrections (Figure 1.3) are also known as complex sideways patterns. Their shape is the three-wave pattern but is considered to be broken down into a smaller subset of 3–3–5. They are best recognized as moves

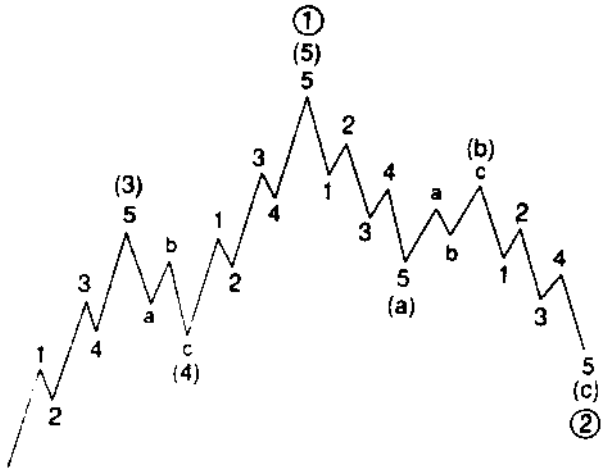

Figure 1.2
Complete Wave Sequence

where all three legs tend to equality. The A wave will move counter to the prevailing trend and is likely to retrace 23 to 38 percent. The B wave will then come all the way back to retest the high (low). The C wave will drop down to the level of support (resistance) of the A wave before the prevailing trend continues.

One of the most hazardous patterns in the entire catalog is known as an irregular or expanded flat pattern. This pattern is dangerous because it is a low probability that happens often enough to be a problem. Although there hasn't been a statistical study done on expanded flats, I've been told by other expert Elliotticians that they confirm about 30 percent of the time. Here's what happens: After an impulse wave in the prevailing direction, an A wave will retrace 38 percent of the move and then turn back in the direction of the prevailing trend and make a new price extreme. Let's say we have an uptrend in place. The first leg down will retrace approximately 38 percent and then turn back up, thus confusing market participants into thinking the prevailing trend is back in place. There is the obvious retest of the old high, and when the old high is taken out, participants are induced to go long. They are wrong because prices don't carry very far.

What happens next is almost criminal. After participants take their long positions, a C wave kicks in going the other way. C waves are always the most violent moves in the entire catalog. The C wave usually measures 1.618 times the A wave that began the pattern. If, for instance, the A wave measured 10 points and the B wave up, which took out the old price extreme, takes out the old high by 2 to 3 points, a C wave will now drop 16 points, taking out the old A wave low. The players who went long either get stopped out or taken to the cleaners. Finally, by the time the C wave measures 1.618 times the original A wave, new players are

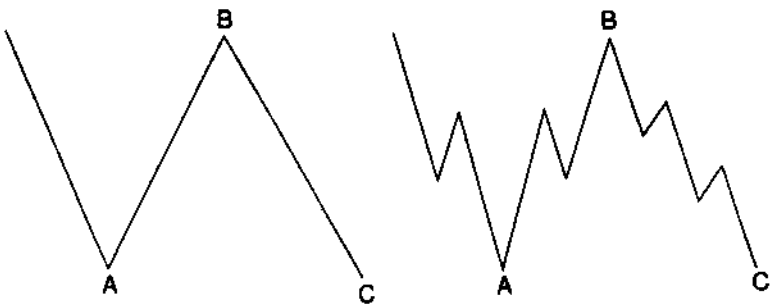

Figure 1.3
Flats

convinced this is a new trend moving in the opposite direction. They join in on the short side, but they are wrong. The correction is over as prices fail to drop another point. This time it is the bears who are taken to the cleaners, as the correct side of the market is once again the prevailing trend prior to the A wave.

The problem with trading this sort of pattern is that you can suspect it, but it only works out 30 percent of the time. Unfortunately, the only time we can really recognize an expanded flat is when it is complete and in the rearview mirror. Sorry, this isn't a game for children. The good news is we can smoke out these patterns more readily by adopting the methodologies uncovered in this book.

TRIANGLES

Triangles appear in the fourth wave of impulse moves and B waves in corrective moves. The implication of triangles is they are the next to last move in a pattern. What makes a triangle so complex as part of a fourth wave is that, by nature, fourth waves are difficult to count. The third wave, which is usually the most powerful move in an entire pattern, generally includes the point of recognition where all participants realize the trend is up. Casual participants such as the general public begin to get interested.

At some point in time, the third wave comes to an end and sentiment becomes one of surprising disappointment. Professionals begin to take profits as they sell to latecomers. However, there are still enough buyers to keep the trend alive. What a triangle signifies mostly is a tug of war for dominance between bulls and bears. As fourth waves are difficult to count, we don't realize we are in a triangle until at least half the pattern is already developed. Let's say we are in a bull market. As wave 3 ends and there is a drop, participants erroneously assume a new bear market. What happens is that the first wave down ends prematurely, and participants erroneously believe that it is an automatic continuation of the prevailing bull trend. However, there will still be another drop, and those participants who are less convinced will drop off. Overall, the battle between bulls and bears continues until the triangle completes.

The two most common types of triangles are contracting and expanding (Figure 1.4). There are a few important guidelines in identifying a

valid triangle. In contracting triangles, the five-wave sequence will have at least two waves going in the same direction that have a 1.618/.618 relationship to each other. What that means is that either A and C or D and E will have that Fibonacci interwave relationship. The tendency for expanding triangles works the same way, except that the waves get bigger as the pattern progresses.

The mistake most Elliotticians make is confusing the triangle with the complex sideways or expanded flat pattern. What happens is the alleged triangle develops most of the way but ends blowing up near the end. Here are some guidelines to prevent that from happening:

1. Realize the triangle is the next to last move in a pattern. Chances are slim that you'll see a triangle confirm early in a trend.
2. Always look for those Fibonacci interwave relationships discussed above. If you don't have those relationships, odds are that the triangle is not going to confirm.
3. A triangle has to have the look of a triangle. Elliott and Prechter both state that the most important aspect of any wave count is that the pattern has to possess the proper look to it.
4. This one is original to this work. The time bars usually confirm the pattern. This is not an iron-clad rule, but rather a strong guideline. Most triangles will complete in the correct number of Fibonacci or Lucas time bars.

I've found that triangles will complete in 47, 55, 76, 78, or 89 bars on one of the intraday time frames. As you can see, this is a mixture of Lucas and Fibonacci. The periods followed here are 1, 5, 15, and 60 minutes; and then daily, weekly, monthly, and yearly.

Some contracting triangles contain a concept called "Thrust Measurement." In certain instances when the triangle appears in the fourth wave position, we can measure a perpendicular line from where the A wave begins down to a trend line extended into space as a potential target for the completion of the fifth wave. There are examples of this later in the book, but let's say the width of the triangle from the origin to a line drawn perpendicular straight down measures 15 points. Let's say that for xyz stock, the third wave ends at 60; the A wave bottoms at 52; and the triangle finally completes at E wave 55. Many Elliotticians mistakenly assume the thrust measurement would be the length of the A wave which is 8 points.

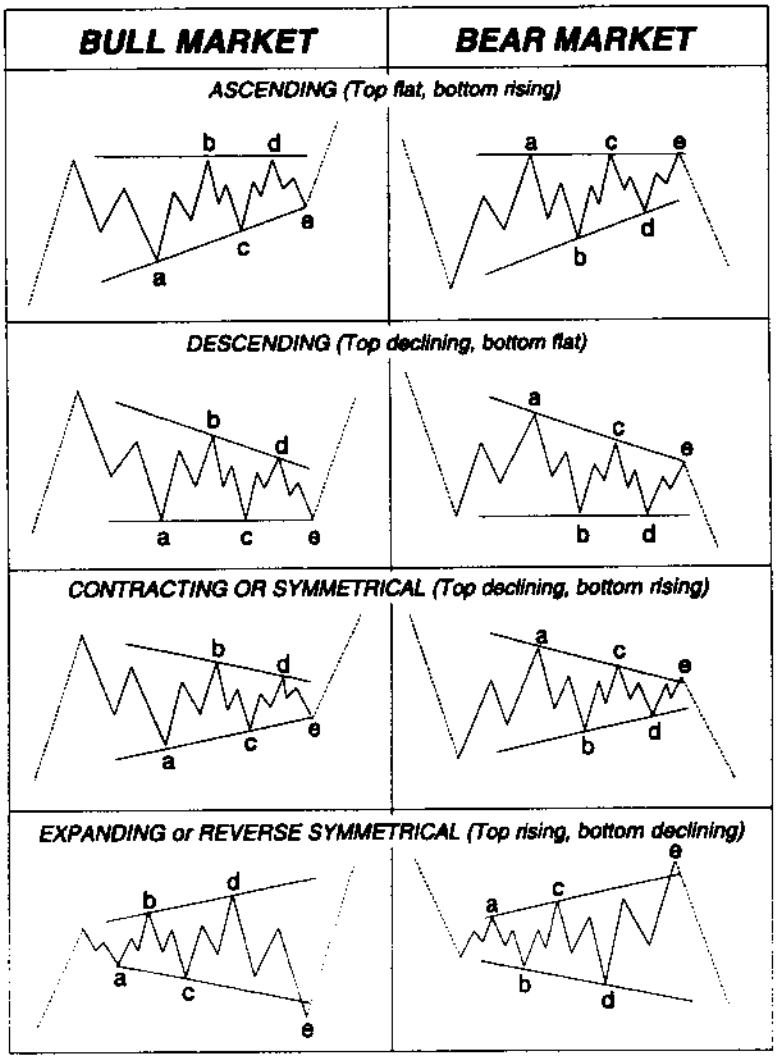

Figure 1.4
Triangle Patterns

Note: Each of these patterns may occur in either the rising or falling position.

However, when we back up the lower trend line to the point in time where the A wave started, we find the trend line extends back into space to a point on the chart near 45. When we see the triangle completed at 55, we can then project a final fifth wave target at 70.

DIAGONAL TRIANGLES

Diagonal triangles (Figure 1.5) are considered to be impulse waves and are the only waves that allow overlap between the first and fourth waves. Diagonal triangles are considered to be part of the impulse wave family because we see them often as fifth waves part of the larger overall trend.

Also, they would not be considered as corrective waves because they are so often the final wave of a pattern. Because there is much overlap, they are confused with corrective waves. Eventually, the third wave will sprout above resistance, but as the move gets higher, you can determine a wedge shape with converging trend channel lines. The other reason they are confused with corrective waves is that each leg is a three-wave pattern and has the look of an A wave.

Most diagonal triangles appear in the ending position, but in rare situations they can be seen in the leading first- or A-wave, position. The difference between the two is that the ending pattern is 3-3-3-3-3, and the leading wedge takes on the shape of a 5-3-5-3-5. In the leading position, the wedge pattern has good volume, whereas in the ending position volume is waning, indicative of the end of a move.

SENTIMENT

Each particular wave has its own range of emotions. Once a new trend starts, the crowd has been conditioned by the old trend. At the end of a bear market, psychology is such that the masses have been beaten down for years. For those of you who go back to the 1970s, sentiment was so bad that the major brokerage houses were laying off good percentages of their sales staffs. This is normal behavior in a recession, but in this case, it reached the point where they were even discouraging newcomers from entering the field. People were so down on stocks that even economists and other industry experts had little hope they would ever take off again. By the end of a bear market, most participants are convinced that price action is a bottomless pit that will go on forever. That is how you can recognize a true bottom. Tops are at the other extreme. Recall that by March 2000, everyone was convinced that the NASDAQ was going to the moon.

A new bull market starts and is met by doubt and disbelief. Participants are of the opinion that the new move up is just a correction and that the larger degree trend will return to set another new price low extreme simply because the prevailing trend has already done so for years (or whatever degree of trend we are considering). When the first wave finally does end, we get a retracement that has a technical purpose of testing the low. That does not mean it has to go all the way to the exact bottom. The sentiment

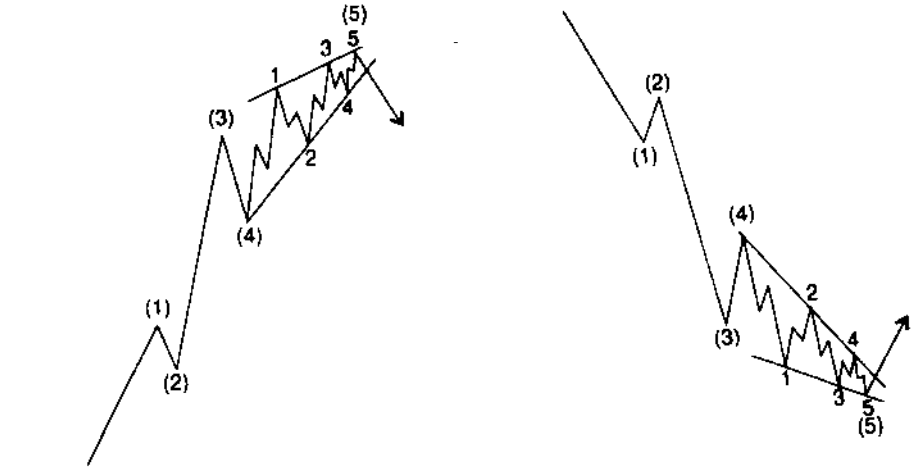

Figure 1.5

Diagonals

of second-wave retracements is "Here we go again." You can recognize second- or B-wave retracements by their recreation of the mood in the final wave of the old trend (Prechter, 1999). This is why participants in a bear market rally believe we are in the early stages of a new bull market. In the early phases of a new bull market, almost nobody believes it is a bull market.

Okay, we've had our retest or technical retracement, and participants come to discover the sky isn't falling. When all of the technical requirements for a second- or B-wave are met in terms of price and time, there is only one way for prices to go and that is to a new extreme in the new direction. What happens in third waves is that once we get near resistance or the first wave, high-sentiment indicators are still mostly negative as participants believe a market top is close. In fact, we are still much closer to the bottom than we are to the top. In the last great bull market of the 1980s, during much of the early 1980s up to late 1985, participants were convinced we were near a top. It's hard to imagine today, but when the Dow was between 1000 and 2000, people thought that was the ceiling. Because sentiment is negative, the implication is that there is plenty of money on the sidelines that hasn't been put to work.

Where does this money come from? Realize that in the early stages of new bull markets, the economy has bottomed and relative prosperity has returned. Bull markets are characterized by a new set of companies with new technologies. As time goes by, people start becoming optimistic about their future prospects and start investing their earnings. At some point,

momentum kicks in and more people finally realize the trend has indeed turned. This is usually at the midpoint of third waves and is considered to be the "point of recognition."

As we know, third waves will extend in some Fibonacci relationship to the first wave. Market conditions, economic factors, demographics, and technology will determine the size and scope of the cycle. A third wave usually extends to 1.618, 2.618, 4.23, or 6.83 times the length of the first wave. In certain instances, the third wave can even be a double 4.23 extension. How else can Dow 2000 in the early 1980s turn into Dow 7000–11,000 by the years 1998 to 2000?

By the time we are beyond the point of recognition, the easy-money crowd starts to get involved. People who have no interest in or knowledge of the markets get interested. When cab drivers make money in stocks, we are getting late in the move. When everyone at the cocktail parties talks about the stock market, it's getting very late. By now, sentiment indicators have turned positive and reached bullish extremes. When certain price and time targets are met, the third wave ends.

The prevailing sentiment of fourth waves as discussed previously is one of surprising disappointment (Prechter, 1999). Fourth-wave consolidations are very complex. According to Bill Williams (1998), another well-known Elliottician, if you wake up in the morning and have no clue about the wave count, odds are that it is a fourth wave. Fourth waves are characterized by many cross currents. There are those who are convinced the bull market is over. Others are attempting to buy the dip. In the end run, the pullback is of a lower volume than the third wave up and lacks the conviction of a new trend going the other way. At some point, selling pressure dries up, and the fifth wave kicks in.

Fifth waves are characterized as being weaker technically than the third wave, yet sentiment goes to new extremes. Not only are the cab drivers becoming day traders, but also grandmothers are pulling the trigger. Many are total novices involved for the first time. Technically, it is a pattern where all divergences develop. The first one is that the advance/decline market internals are not

Sentiment Cycle

Bottom: The extreme of emotional sentiment. In a bear market, one feels like the market is a bottomless pit; and in a bull market, one feels like the market can go to the moon.

Beginning of new trend: Sentiment is of doubt and disbelief. Feelings from the old trend are still entrenched.

End of first wave: The market is in a retracement that retests the low.

Second or B wave: The retracement creates sentiment that is reminiscent of the final wave of the old trend.

Third wave: Retest of bottom holds. Sentiment reaches new extremes until the point of recognition.

Fourth wave: Sentiment is of surprising disappointment and confusion. No one is sure which way the market is heading.

Fifth wave: Volume compared to third wave is lighter. When everyone is finally convinced of a trend's direction, then the trend is likely over and ready to correct.

as strong as the third wave. Fewer and fewer stocks are participating in the move. There is a divergence as the move powers on but with lighter volume. During earnings season, stocks already are priced to perfection, and if they don't meet inflated expectations, they are generally taken out to the woodshed. However, because it's still the fifth wave, prices tend to recover, but not with the power and conviction seen in the third wave.

As the market powers even higher despite bearish divergences, weaker volume, or market internals, everyone is convinced that prices will keep going higher. Why? Because the mood becomes a self-fulfilling prophecy. By the end of a fifth wave, proof of the trend is seen, and despite the early signs of trouble, the market keeps going. Finally, participants are convinced that prices can only go one way. A day will come where a certain news event like a Federal Reserve Open Market Committee will announce that there will be no rate hikes and the talking heads on television will announce that nothing is standing in the way of the markets to power even higher. That is when the move is likely over. At bear market bottoms, it is just the opposite. People see the market as a bottomless pit. At market tops, everyone is finally convinced that prices are going to the moon. This is where it ends.

MY EXPERIENCE WITH ELLIOTT

There is no doubt that Elliott waves provide a universal structure to all free financial markets. It is an excellent pattern-recognition system. Those in academia who have been telling us for the past 60 years that prices are random are all wet. If you get nothing else from this book, you'll realize that Random Walk Theory is obsolete. According to Burton Malkiel in *A Random Walk Down Wall Street*, future steps or market directions can't be predicted based on past actions (Malkiel 1973, 24). Those who tell you that it's impossible to time financial markets just don't have the skills required to do it. The Elliotticians of the 20th century from Elliott himself all the way to Prechter have laid a firm foundation of understanding how financial markets work. The Wave Principle was the first really popular line of defense against Random Walk Theory, but there are flaws and gaps.

The first flaw is that there is so much subjectivity in the interpretations of the waves. Strict Elliott interpretation contains wave notation in degrees of trend that range from grand super cycle all the way down to micro

waves on a 1-minute chart or even smaller on a tick chart. You can spend so much time trying to figure out if you are in wave 1 of wave 2 or still in wave 5 of 1. The academics of the Wave Principle also get caught up with proper notation with letters, numbers, Roman numerals, and Roman numerals within parentheses. I found this to be unnecessary, and it never helped me make a red cent. With no disrespect to the Elliott mentors of this generation, I've found them to be long on the textbook presentation of the waves and their forecasts largely inaccurate. This should not be news to any of you.

I'm here to tell you that the most important thing you can do with Elliott is apply common sense to the situation. The best application of Elliott in real time is as a guide. You don't need certainty in wave counts. However, you do need to have an idea where you are. It's important to know if you are in a first, third, or fifth wave. It is important to understand the difference between impulse and corrective trends. If you get the major part right, you can be wrong about the exact wave count; but if you are still on the right side of the market, you will come out ahead.

The leaders of the wave community have done a fine job of laying the foundation and setting the table for the next development in this field. What they've done is tell us textbook waves move in impulse 5s and corrective 3s. They haven't told us how to recognize them easily. If they did, there wouldn't be such debate. To use a sports analogy, if the Mets won the game today 4-3, there wouldn't be any argument. We can analyze the game from a standpoint of strategy, offense, and pitching, but all that really matters is the facts. Scoreboard! You can never dispute the final score of a game. When you look at an RSI reading of 70, it's 70. There is no debate. When we look at an engulfing candlestick pattern, it is what it is. But if we can't agree on a wave count, we have a problem.

The methodology in this book goes a very long way in bridging that gap. What is presented here and in the following chapters will take your understanding of Elliott and pattern recognition to new levels of precision. The great W. D. Gann began this work nearly 80 years ago, but for most of the 20th century, at least in the United States, he has been brushed under the carpet. Until now.

Random Walk Theory

Based on Burton Malkiel's landmark 1973 book, *A Random Walk Down Wall Street*, random walk theory states that markets can not be predicted based on past results. Based on the research of Maurice Kendall in 1953, the theory asserts that stock price fluctuations are independent of each other and have the same probability distribution, but that over an extended period of time, prices will maintain an upward trend (Investopedia.com 2007).

A true believer in random walk theory would say that it is an impossibility to outperform the market. If each stock has an equal probability of moving up or down and if the result of this movement is always random, then it follows that any analysis, whether technical or fundamental, would be a huge waste of time. The only counsel Malkiel offers his proponents is a long-term buy and hold approach with no attempt at timing the markets.

Although random walk theory continues to be debated today, those who study technical analysis have long since found it obsolete.