

***THE BASICS***  
***OF THE***  
***ELLIOTT WAVE PRINCIPLE***

*by Robert R. Prechter*

*Published by*  
***NEW CLASSICS LIBRARY***  
*a division of*



***Elliott Wave International***

Post Office Box 1618, Gainesville, GA 30503 USA  
800-336-1618 or 770-536-0309 or fax 770-536-2514

***THE BASICS  
OF THE  
ELLIOTT WAVE PRINCIPLE***

Copyright © 1995-2013  
by Robert R. Prechter

Printed in the United States of America

First Edition: August 1995  
Second Edition: February 1996  
Third Edition: April 2000  
Fourth Edition: June 2004  
Fifth Edition: September 2013

For information, address the publishers:

**New Classics Library**  
a division of  
Elliott Wave International  
Post Office Box 1618  
Gainesville, Georgia 30503 USA

All rights reserved. The material in this volume may not be reprinted or reproduced in any manner whatsoever. Violators will be prosecuted to the fullest extent of the law.

Cover design: Marc Benejan  
Production: Pam Kimmons

ISBN: 978-154273-218-5

## CONTENTS

9	<b>The Basics</b>
9	The Five Wave Pattern
10	Wave Mode
12	The Essential Design
13	Variations on the Basic Theme
14	Wave Degree
16	<b>Motive Waves</b>
16	Impulse
18	<i>Extension</i>
19	<i>Truncation</i>
20	Diagonals
21	<b>Corrective Waves</b>
21	Zigzags (5-3-5)
23	Flats (3-3-5)
24	Triangles
26	Combinations (Double and Triple Threes)
28	<b>Guidelines of Wave Formation</b>
28	Alternation
28	Depth of Corrective Waves
29	Channeling Technique
30	Volume
31	Learning the Basics
34	<b>The Fibonacci Sequence and its Application</b>
37	Ratio Analysis
37	<i>Retracements</i>
38	<i>Motive Wave Multiples</i>
39	<i>Corrective Wave Multiples</i>
42	<b>Perspective</b>
43	<b>Glossary</b>

## FOREWORD

By understanding the Wave Principle, you can anticipate large and small shifts in the psychology driving *any* investment market and help yourself minimize the emotions that drive your own investment decisions. Where did this valuable tool come from?

Ralph Nelson Elliott, a corporate accountant by profession, studied price movements in the financial markets and observed that certain patterns repeat themselves. He offered proof of his discovery by making astonishingly accurate stock market forecasts. What appears random and unrelated, Elliott said, will actually trace out a recognizable pattern once you learn what to look for. Elliott called his discovery “the Wave Principle,” and its implications were huge. He had identified the common link that drives the trends in human affairs, from financial markets to fashion, from politics to popular culture.

Robert Prechter resurrected the Wave Principle from near obscurity in 1976. Bob was working as an analyst for Merrill Lynch when he discovered the complete body of R.N. Elliott’s work in the New York Public Library.

Mr. Prechter and A.J. Frost published *Elliott Wave Principle* in 1978. The book received enthusiastic reviews and became a Wall Street bestseller. Their forecast called for a roaring bull market in the 1980s, to be followed by a record bear market. Mr. Prechter left Merrill Lynch in 1979 to start the monthly publication, *The Elliott Wave Theorist*, and a new focus for Wall Street and investors worldwide was born.

Knowledge of the Wave Principle among private and professional investors grew dramatically in the 1980s. The stunning accuracy of the forecasts in *The Elliott Wave Theorist* earned numerous awards, and received a level of recognition that no other such publication has ever achieved.

It is no coincidence that the global acceptance of the Elliott Wave Principle has paralleled the growth of Elliott Wave International (EWI), the market analysis and publishing corporation founded by Robert R. Prechter, Jr. In the two decades since then, EWI has earned the reputation as the world's premier publisher of Elliott wave analysis and investment commentary. Tens of thousands of investors use the Wave Principle to guide their financial decisions. Tens of thousands more have bought products indirectly, through distributors and representatives. Prechter and Frost's book has now been translated into French, German, Dutch, Spanish, Swedish, Polish, Japanese, Chinese, and Russian.

Elliott Wave International is one of the world's largest providers of technical analysis. The revolution in instant data transmission has given us a perfect vehicle for around-the-clock coverage of global financial markets.

We now provide institutional and private investors with 24-hour market commentary via electronic delivery. We also provide monthly publications, hotlines and educational services that include periodic conferences, intensive workshops and tutorials, video tapes, special reports and books.

## ABOUT THE AUTHOR

Robert R. Prechter, Jr., began his professional career in 1975 as a Technical Market Specialist with the Merrill Lynch Market Analysis Department in New York. He has been publishing *The Elliott Wave Theorist*, a monthly forecasting publication, since 1979. Currently he is president of Elliott Wave International, which publishes analysis of global stock, bond, currency, metals and energy markets. He is also Executive Director of the Socionomics Institute, a research group. Mr. Prechter has won numerous awards for market timing, including the United States Trading Championship, and in 1989 was awarded the “Guru of the Decade” title by Financial News Network (now CNBC). He has been named “one of the premier timers in stock market history” by *Timer Digest*, “the champion market forecaster” by *Fortune* magazine, “the world leader in Elliott Wave interpretation” by The Securities Institute, and “the nation’s foremost proponent of the Elliott Wave method of forecasting” by *The New York Times*.

Mr. Prechter is author, co-author and/or editor of 14 books, including *Elliott Wave Principle – Key to Market Behavior* (1978), *R.N. Elliott’s Masterworks* (1980), *The Wave Principle of Human Social Behavior and the New Science of Socionomics* (1999), *Conquer the Crash* (2002), and *Pioneering Studies in Socionomics* (2003).

Since 1979, when he first addressed the subject, Bob has been exploring socionomics, the study and prediction of social trends in light of the Wave Principle, and its implications for the social sciences. In 1999, he created the Socionomics Institute, of which he is Executive Director. The institute is an independent think-tank whose mission is to develop socionomics as an academic discipline and to promote its commercial application. Recently, Mr. Prechter has made presentations on his socionomic theory to MIT, the London School of Economics, Cambridge University and academic conferences.

In 2004, the Socionomics Foundation, a 501(c)3 non-profit organization, was created to provide education and fund scholarly investigation into socionomic theory.

Mr. Prechter graduated from Yale University in 1971 with a degree in psychology. He served as the 21st president of the Market Technicians Association, and is a member of Mensa, Intertel, the Triple Nine Society, The Shakespeare Fellowship and the Shakespeare Oxford Society.





## THE BASICS

“The Wave Principle” is Ralph Nelson Elliott’s discovery that social, or crowd, behavior trends and reverses in recognizable patterns. Using stock market data for the Dow Jones Industrial Average (DJIA) as his main research tool, Elliott discovered that the ever-changing path of stock market prices reveals a structural design that in turn reflects a basic harmony found in nature. From this discovery, he developed a rational system of market analysis.

Under the Wave Principle, every market decision is both *produced by* meaningful information and *produces* meaningful information. Each transaction, while at once an *effect*, enters the fabric of the market and, by communicating transactional data to investors, joins the chain of *causes* of others’ behavior. This feedback loop is governed by man’s social nature, and since he *has* such a nature, the process generates forms. As the forms are repetitive, they have predictive value.

Elliott isolated thirteen “waves,” or patterns of directional movement, that recur in markets and are repetitive in form, but are not necessarily repetitive in time or amplitude. He named, defined and illustrated the patterns. He then described how these structures link together to form larger versions of the same patterns, how those in turn are the building blocks for patterns of the next larger size, and so on. His descriptions constitute a set of empirically derived rules and guidelines for interpreting market action. The patterns that naturally occur under the Wave Principle are described below.

### **The Five-Wave Pattern**

In markets, progress ultimately takes the form of five waves of a specific structure. Three of these waves, which are labeled 1, 3 and 5, actually effect the directional movement. They are separated by two countertrend

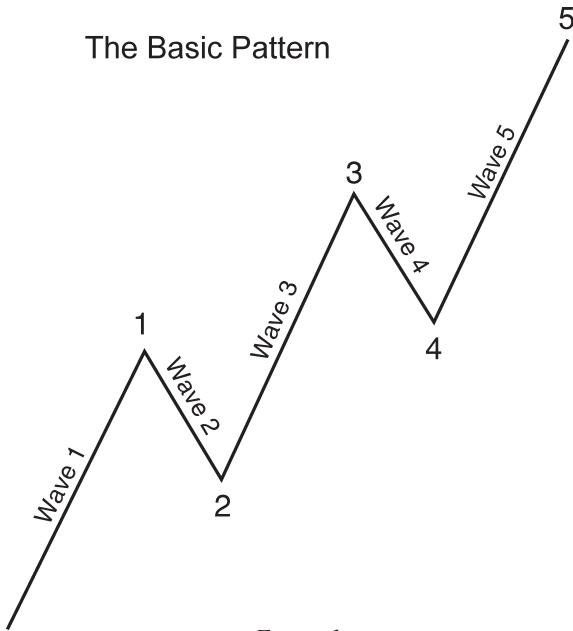


Figure 1

interruptions, which are labeled 2 and 4, as shown in Figure 1. The two interruptions are apparently a requisite for overall directional movement to occur.

At any time, the market may be identified as being somewhere in the basic five-wave pattern at the largest degree of trend. Because the five-wave pattern is the overriding form of market progress, all other patterns are subsumed by it.

### Wave Mode

There are two modes of wave development: *motive* and *corrective*. Motive waves have a *five-wave* structure, while corrective waves have a *three-wave* structure or a variation thereof. Motive mode is employed by both the

five-wave pattern of Figure 1 *and* its same-directional components, i.e., waves 1, 3 and 5. Their structures are called “motive” because they powerfully impel the market. Corrective mode is employed by all countertrend interruptions, which include waves 2 and 4 in Figure 1. Their structures are called “corrective” because they can accomplish only a partial retracement, or “correction,” of the progress achieved by any preceding motive wave. Thus, the two modes are fundamentally different, both in their roles and in their construction, as will be detailed in an upcoming section.

The five-wave motive phase has subwaves denoted by numbers, and the three-wave corrective phase has subwaves denoted by letters. Every motive wave is followed by a corrective wave. Just as wave 2 corrects wave 1 in Figure 1, the sequence A, B, C corrects the sequence 1, 2, 3, 4, 5 in Figure 2.

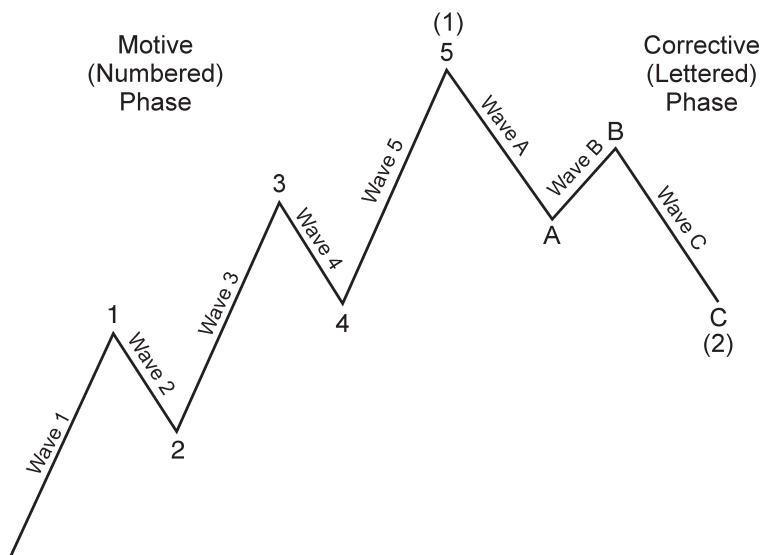


Figure 2

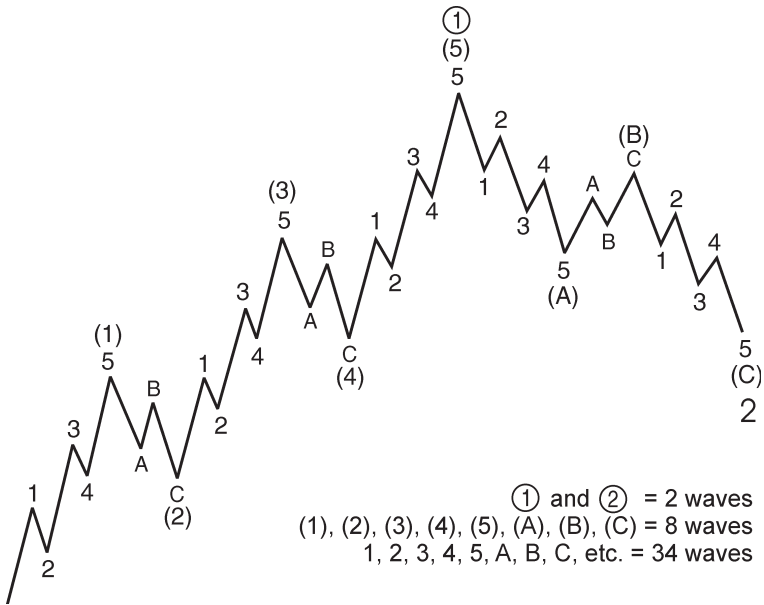


Figure 3

## The Essential Design

Figure 3 not only illustrates a *larger* version of Figure 2, it also illustrates *Figure 2 itself*, in greater detail. Waves (1) and (2) in Figure 3, if examined under a “microscope,” would take the same form as waves ① and ②. Regardless of degree, the form is constant. We can use Figure 3 to illustrate two waves, eight waves or thirty-four waves, depending upon the degree to which we are referring.

Now observe that within the corrective pattern illustrated as wave ② in Figure 3, waves (A) and (C), which point downward, are each composed of five waves: 1, 2, 3, 4 and 5. Similarly, wave (B), which points upward, is composed of three waves: A, B and C. This construction

discloses a crucial point: Motive waves do not always point upward, and corrective waves do not always point downward. The mode of a wave is determined not by its absolute direction but primarily by its *relative* direction. Aside from four specific exceptions, which will be discussed later in this chapter, waves divide in *motive* mode (five waves) when trending in the same direction as the wave of one larger degree of which it is a part, and in *corrective* mode (three waves or a variation) when trending in the opposite direction. Waves (A) and (C) are motive, trending in the *same direction* as wave ②. Wave (B) is corrective because it corrects wave (A) and is *countertrend* to wave ②. In summary, the essential underlying tendency of the Wave Principle is that *action in the same direction as the one larger trend develops in five waves, while reaction against the one larger trend develops in three waves, at all degrees of trend.*

Nor does Figure 3 imply finality. As before, this larger cycle automatically becomes two subdivisions of the wave of *next* higher degree. As long as progress continues, the process of building to greater degrees continues. The reverse process of subdividing into lesser degrees apparently continues indefinitely as well. As far as we can determine, then, all waves both *have* and *are* component waves.

### **Variations on the Basic Theme**

The Wave Principle would be simple to apply if the basic theme described above were the complete description of market behavior. However, the real world, fortunately or unfortunately, is not so simple. The rest of this section fills out the description of how the market behaves in reality.

## Wave Degree

All waves may be categorized by relative size, or degree. Elliott discerned nine degrees of waves, from the smallest wiggle on an hourly chart to the largest wave he could assume existed from the data then available. He chose the names listed below to label these degrees, from largest to smallest:

Grand Supercycle  
Supercycle  
Cycle  
Primary  
Intermediate  
Minor  
Minute  
Minuette  
Subminuette

Cycle waves subdivide into Primary waves that subdivide into Intermediate waves that in turn subdivide into Minor and sub-Minor waves. It is important to understand that these labels refer to specifically identifiable degrees of waves. By using this nomenclature, the analyst can identify precisely the position of a wave in the overall progression of the market, much as longitude and latitude are used to identify a geographical location. To say, “the Dow Jones Industrial Average is in Minute wave (v) of Minor wave 1 of Intermediate wave (3) of Primary wave (5) of Cycle wave I of Supercycle wave (V) of the current Grand Supercycle” is to identify a specific point along the progression of market history.

When numbering and lettering waves, some scheme such as the one shown at right is recommended to differentiate the degrees of waves in the stock market’s progression. We have standardized the labels as follows:

<b>Wave Degree</b>	<b>5s With the Trend</b>	<b>3s Against the Trend</b>
	(↑ next is Arabic symbols)	(↑ next is caps)
Grand Supercycle	Ⓘ Ⓜ Ⓢ Ⓣ Ⓥ	Ⓐ Ⓑ Ⓒ
Supercycle	(I) (II) (III) (IV) (V)	(a) (b) (c)
Cycle	I II III IV V	a b c
Primary	① ② ③ ④ ⑤	Ⓐ Ⓑ Ⓒ
Intermediate	(1) (2) (3) (4) (5)	(A) (B) (C)
Minor	1 2 3 4 5	A B C
Minute	⓪ Ⓛ Ⓜ Ⓨ Ⓥ	Ⓐ Ⓑ Ⓒ
Minuette	(i) (ii) (iii) (iv) (v)	(a) (b) (c)
Subminuette	i ii iii iv v	a b c
	(↓ next is Arabic symbols)	(↓ next is caps)

## MOTIVE WAVES

Motive waves subdivide into *five* waves and always move in the same direction as the trend of one larger degree. They are straightforward and relatively easy to recognize and interpret.

Within motive waves, wave 2 always retraces less than 100% of wave 1, and wave 4 always retraces less than 100% of wave 3. Wave 3, moreover, always travels beyond the end of wave 1. The goal of a motive wave is to make progress, and these rules of formation assure that it will.

Elliott further discovered that in price terms, wave 3 is often the longest and never the shortest among the three actionary waves (1, 3 and 5) of a motive wave. As long as wave 3 undergoes a greater percentage movement than either wave 1 or 5, this rule is satisfied. It almost always holds on an arithmetic basis as well. There are two types of motive waves: *impulse* and *diagonal*.

## IMPULSE

The most common motive wave is an *impulse*. In an impulse, wave 4 does not enter the territory of (i.e., “overlap”) wave 1. This rule holds for all non-leveraged “cash” markets. Futures markets, with their extreme leverage, can induce short term price extremes that would not occur in cash markets. Even so, overlapping is usually confined to daily and intraday price fluctuations and even then is rare. In addition, the actionary subwaves (1, 3 and 5) of an impulse are themselves motive, and subwave 3 is specifically an impulse. Figures 2, 3 and 4 depict impulses in the 1, 3, 5, A and C wave positions.

As detailed in the preceding three paragraphs, there are only a few simple rules for interpreting impulses properly. A *rule* is so called because it governs all waves to which it applies. Typical, *yet not inevitable*, characteristics of waves are called *guidelines*. Guidelines of impulse formation, including extension, truncation, alternation,



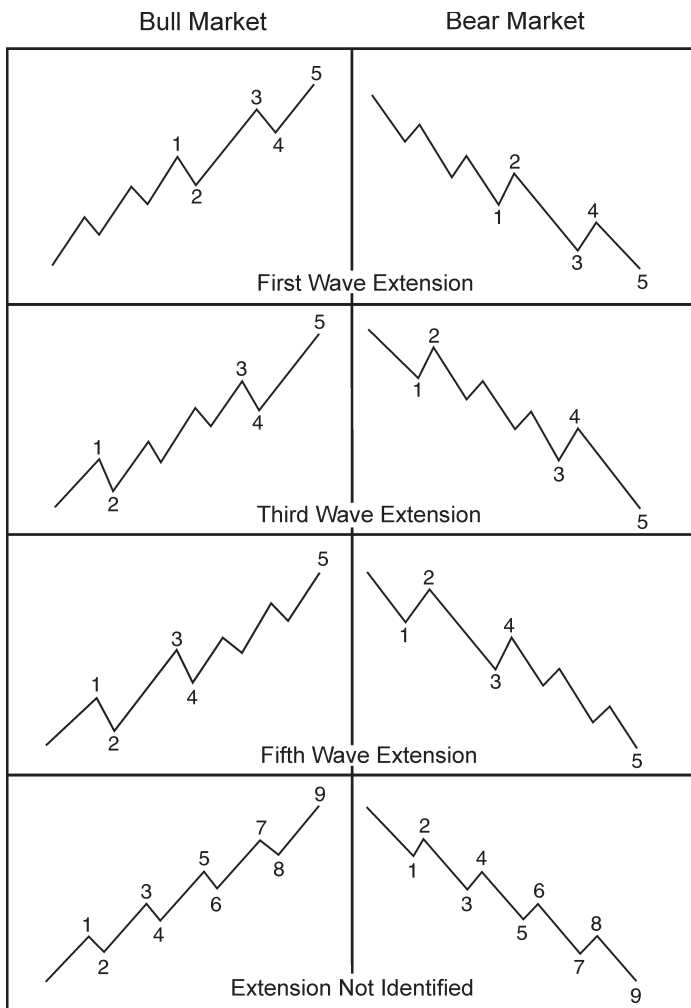


Figure 4

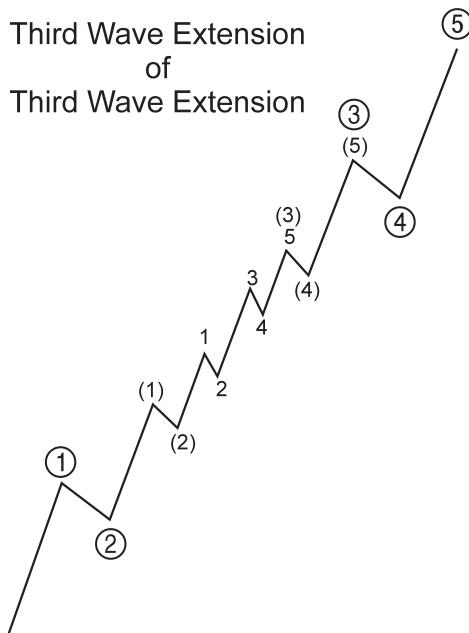
equality, channeling, personality and ratio relationships are discussed below. A rule should never be disregarded. In many years of practice with countless patterns, we have found but one instance above Subminuette degree when all other rules and guidelines combined to suggest that a rule

was broken. Analysts who routinely break any of the rules detailed in this section are practicing some form of analysis other than that guided by the Wave Principle. These rules have great practical utility in correct counting, which we will explore further in discussing extensions.

### ***Extension***

Most impulses contain what Elliott called an extension. Extensions are elongated impulses with exaggerated subdivisions. The vast majority of impulse waves do contain an extension in one and only one of their three motive subwaves (1, 3 or 5). The diagrams in Figure 4, illustrating extensions, will clarify this point.

Often the third wave of an extended third wave is an extension, producing a profile such as shown in Figure 5.

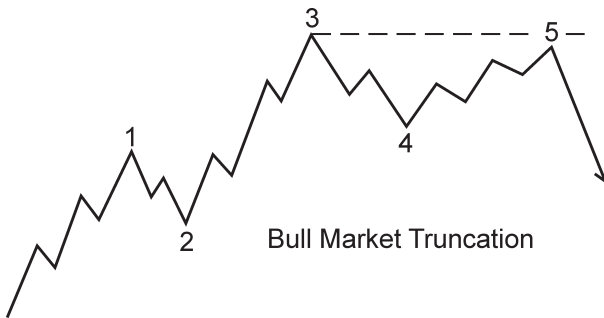


*Figure 5*

## ***Truncation***

Elliott used the word “failure” to describe a situation in which the fifth wave does not move beyond the end of the third. We prefer the less connotative term, “truncation,” or “truncated fifth.” A truncation can usually be verified by noting that the presumed fifth wave contains the necessary five subwaves, as illustrated in Figures 6 and 7. Truncation often occurs following a particularly strong third wave.

Truncation gives warning of underlying weakness or strength in the market. In application, a truncated fifth wave will often cut short an expected target. This annoyance is counterbalanced by its clear implications for persistence in the new direction of trend.



*Figure 6*



*Figure 7*

## DIAGONALS

A diagonal is a special type of wave that occurs primarily in the fifth wave position at times when the preceding move has gone “too far too fast,” as Elliott put it. A diagonal is a motive pattern, yet not an impulse, as it has one or two corrective characteristics. Diagonals substitute for impulses at specific locations in the wave structure. They are the only five-wave structures in the direction of the main trend within which wave four almost always moves into the price territory of (i.e., overlaps) wave one. (See Figure 8.)

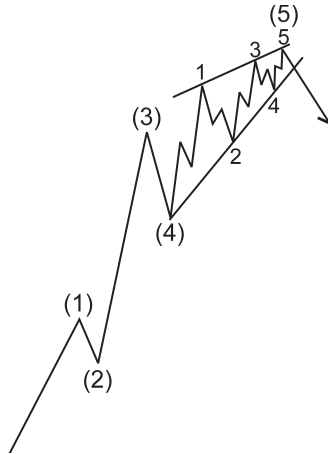


Figure 8

### *Leading Diagonal*

It has recently come to light that a diagonal occasionally appears in the wave 1 position of impulses and in the wave A position of zigzags. In the few examples we have, the subdivisions appear to be the same: 3-3-3-3-3, although in two cases, they can be labeled 5-3-5-3-5, so the jury is out on a strict definition. Analysts must be aware of this pattern to avoid mistaking it for a far more common development, a series of first and second waves. A leading diagonal in the wave one position is typically followed by a deep retracement.

## CORRECTIVE WAVES

Markets move *against* the trend of one greater degree only with a seeming struggle. Resistance from the larger trend appears to prevent a correction from developing a full motive structure. The struggle between the two oppositely trending degrees generally makes corrective waves less clearly identifiable than motive waves, which always flow with comparative ease in the direction of the one larger trend. As another result of the conflict between trends, corrective waves are quite a bit more varied than motive waves.

Corrective patterns fall into four main categories:

*Zigzag* (5-3-5; includes three types: single, double, and triple);

*Flat* (3-3-5; includes three types: regular, expanded, and running);

*Triangle* (3-3-3-3-3; three types: contracting, barrier and expanding; and one variation of contracting: running);

*Combination* (two types: double three and triple three).

### ZIGZAGS (5-3-5)

A *single zigzag* in a bull market is a simple three-wave declining pattern labeled A-B-C and subdividing 5-3-5. The top of wave B is noticeably lower than the start of wave A, as illustrated in Figures 9 and 10.

Occasionally zigzags will occur twice, or at most, three times in succession, particularly when the first zigzag falls short of a normal target. In these cases, each zigzag is separated by an intervening “three” (labeled X), producing what is called a *double zigzag* (see Figure 11) or *triple zigzag*. The zigzags are labeled W and Y (and Z, if a triple).

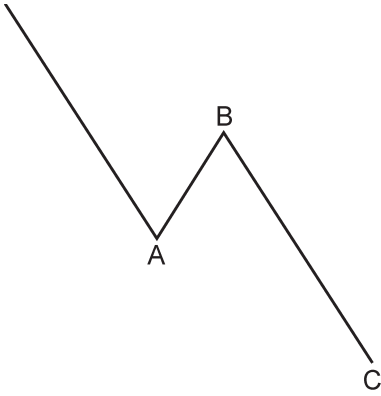


Figure 9

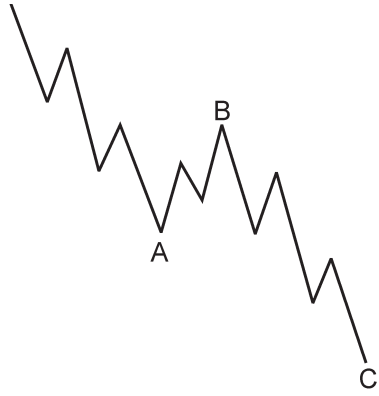


Figure 10

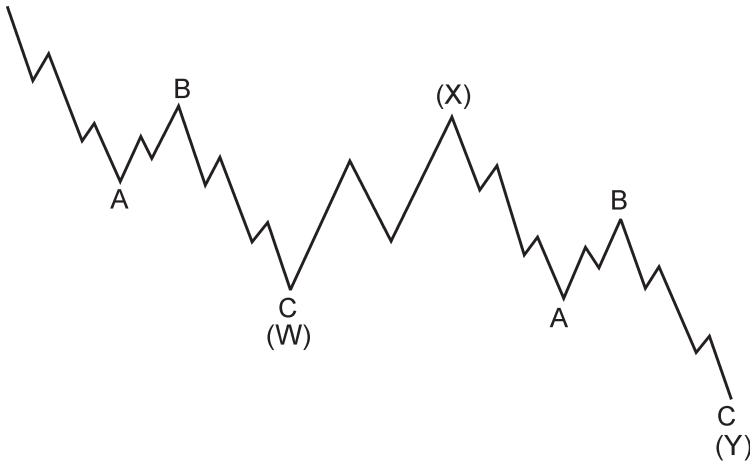


Figure 11

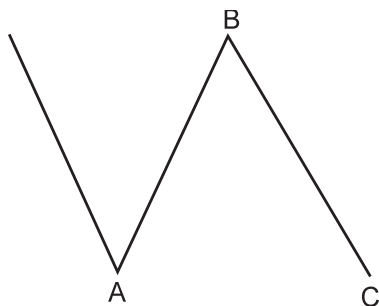


Figure 12

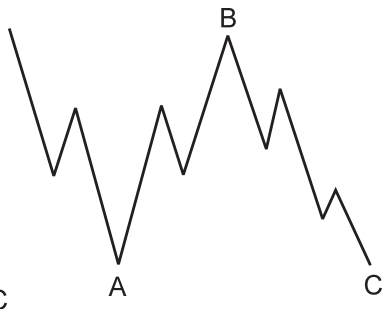


Figure 13

### FLATS (3-3-5)

A flat correction differs from a zigzag in that the subwave sequence is 3-3-5, as shown in Figures 12 and 13. Since wave A lacks sufficient downward force to unfold into a full five waves as it does in a zigzag, the B wave reaction seems to inherit this lack of countertrend pressure and terminates near the start of wave A. Wave C, in turn, generally terminates just slightly beyond the end of wave A rather than significantly beyond as in zigzags.

Flat corrections usually retrace less of preceding impulse waves than do zigzags. They participate in periods involving a strong larger trend and thus virtually always

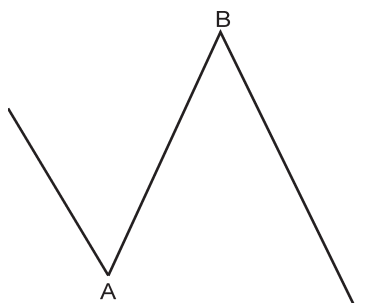


Figure 14

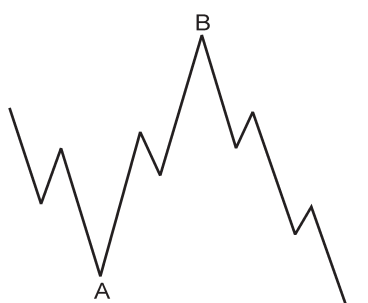


Figure 15

precede or follow extensions. The more powerful the underlying trend, the briefer the flat tends to be. Within impulses, fourth waves frequently sport flats, while second waves rarely do.

Three types of 3-3-5 corrections have been identified by differences in their overall shape. In a *regular* flat correction, wave B terminates about at the level of the beginning of wave A, and wave C terminates a slight bit past the end of wave A, as we have shown in Figures 12 and 13. Far more common, however, is the variety called an *expanded* flat, which contains a price extreme beyond that of the preceding impulse wave. In expanded flats, wave B of the 3-3-5 pattern terminates beyond the starting level of wave A, and wave C ends more substantially beyond the ending level of wave A, as shown in Figures 14 and 15.

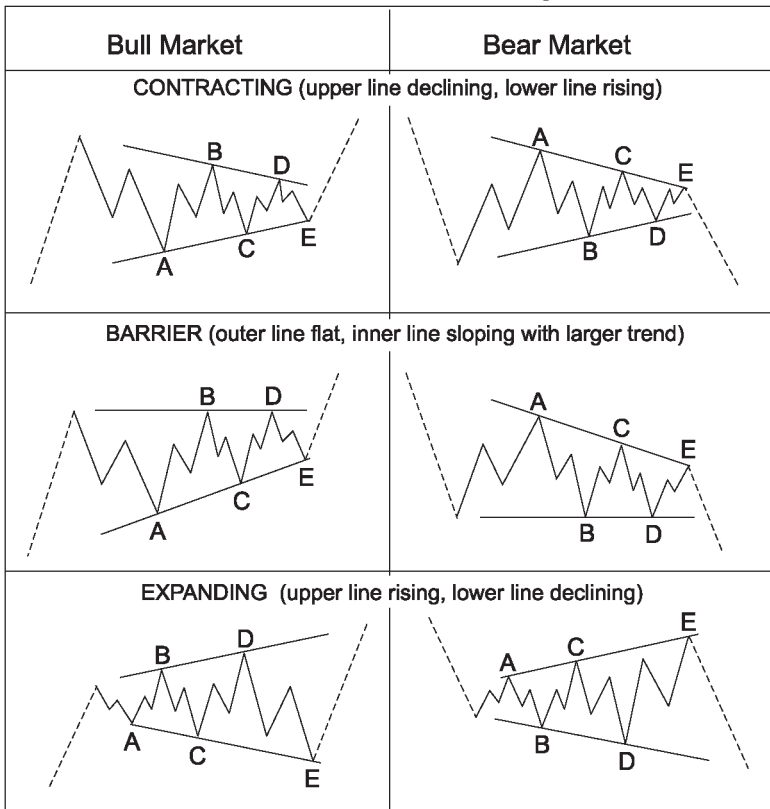
In a rare variation on the 3-3-5 pattern, which we call a *running* flat, wave B terminates well beyond the beginning of wave A as in an expanded flat, but wave C fails to travel its full distance, falling short of the level at which wave A ended. There are hardly any examples of this type of correction in the price record.

## TRIANGLES

A triangle appears to reflect a balance of forces, causing a sideways movement that is usually associated with decreasing volume and volatility. The triangle pattern contains five overlapping waves that subdivide 3-3-3-3-3 and are labeled A-B-C-D-E. Triangles fall into three main categories as illustrated in Figure 16. These illustrations depict the contracting and barrier triangles as taking place within the area of preceding price action, in what may be termed *regular* triangles. However, it is quite common for wave B of a contracting triangle to exceed the start of wave A in what may be termed a *running* triangle, as shown in Figure 17.



Variations of Elliott Wave Triangles



© Robert R. Prechter 2005

Figure 16

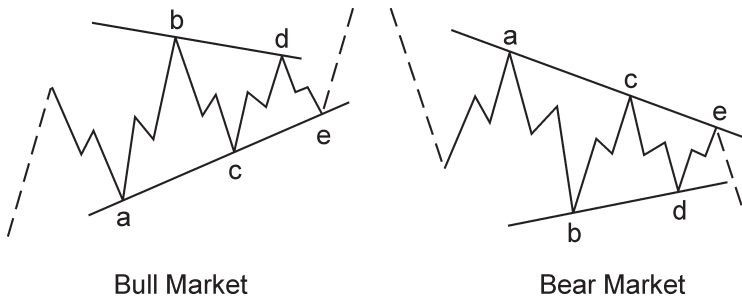


Figure 17

A triangle always occurs in a position *prior to* the final actionary wave in the pattern of one larger degree, i.e., as wave four in an impulse, wave B in an A-B-C, or the final wave X in a double or triple zigzag or combination (see next section). A triangle may also occur as the final actionary pattern in a corrective combination, as discussed in the next section, although even then it usually precedes the final actionary wave in the pattern of one larger degree than the corrective combination. Although upon extremely rare occasions a second wave in an impulse appears to take the form of a triangle, it is usually due to the fact that a triangle is *part* of the correction, which is in fact a double three.

### COMBINATIONS (DOUBLE AND TRIPLE THREES)

Elliott called sideways combinations of corrective patterns “double threes” and “triple threes.” While a single three is any zigzag or flat, a triangle is an allowable final component of such combinations and in this context is called a “three.” A double or triple three, then, is a combination of simpler types of corrections, including the various types of zigzags, flats and triangles. Their occurrence appears to be the flat correction’s way of extending sideways action. As with double and triple zigzags, each simple corrective pattern is labeled W, Y and Z. The reactionary waves, labeled X, can take the shape of any corrective pattern but are most commonly zigzags. Figures 18 and 19 show two examples of double threes.

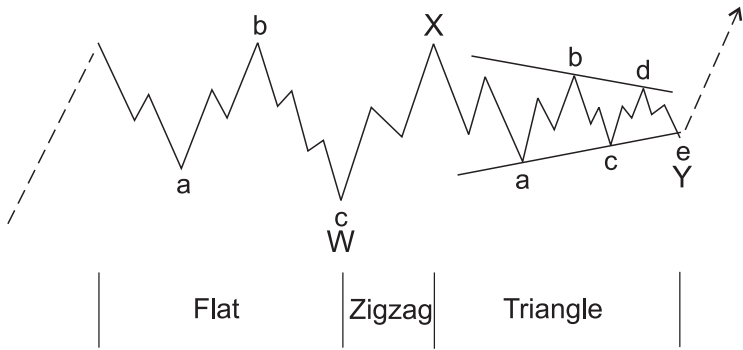


Figure 18

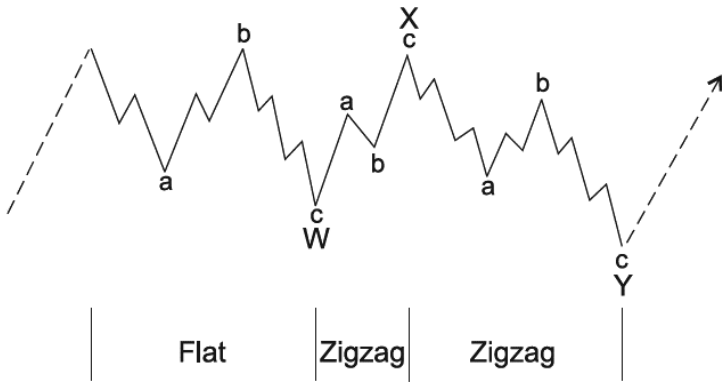


Figure 19

For the most part, double threes and triple threes are horizontal in character. One reason for this trait is that there is never more than one zigzag in a combination. Neither is there more than one triangle. Recall that triangles occurring alone precede the final movement of a larger trend. Combinations appear to recognize this character and sport triangles only as the final wave in a double or triple three.

All the patterns illustrated in this booklet take the same form whether within a larger rising or falling trend. In a falling trend, they are simply inverted.

## GUIDELINES OF WAVE FORMATION

### ALTERNATION

The guideline of alternation states that if wave two of an impulse is a sharp retracement, expect wave four to be a sideways correction, and vice versa. Figure 20 shows the most characteristic breakdowns of impulse waves, both up and down. Sharp corrections never include a new price extreme, i.e., one that lies beyond the orthodox end of the preceding impulse wave. They are almost always zigzags (single, double or triple); occasionally they are double threes that *begin* with a zigzag. Sideways corrections include flats, triangles, and double and triple corrections. They usually include a new price extreme, i.e., one that lies beyond the orthodox end of the preceding impulse wave.

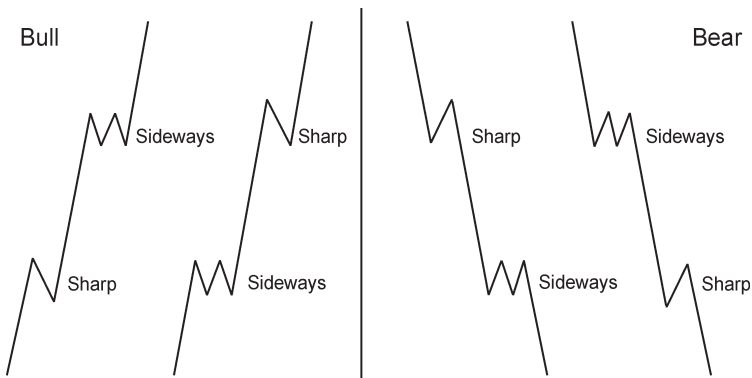


Figure 20

### DEPTH OF CORRECTIVE WAVES

No market approach other than the Wave Principle gives as satisfactory an answer to the question, "How far down can a bear market be expected to go?" The primary guideline is that corrections, especially when they themselves are fourth waves, tend to register their maximum

retracement within the span of travel of the previous fourth wave of one lesser degree, most commonly near the level of its terminus. Note in Figure 21, for instance, how wave 2 ends at the level of wave four of 1, and how wave 4 ends at the level of wave four of 3.

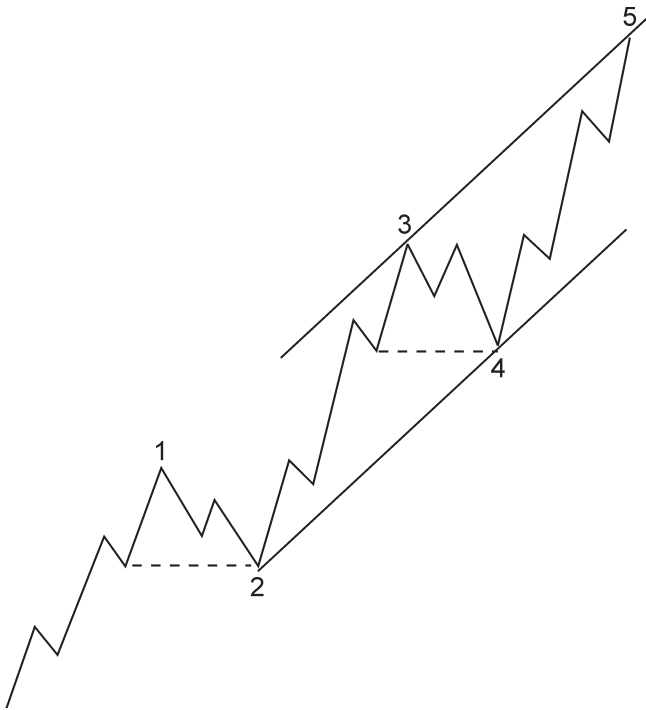


Figure 21

## CHANNELING TECHNIQUE

Elliott noted that parallel trend channels typically mark the upper and lower boundaries of impulse waves, often with dramatic precision. Analysts should draw them in advance to assist in determining wave targets and to provide clues to the future development of trends.

To draw a proper channel, first connect the ends of waves two and four. If waves one and three are normal, the upper parallel most accurately forecasts the end of wave 5 when drawn touching the peak of wave three, as in Figure 21. If wave three is abnormally strong, almost vertical, then a parallel drawn from its top may be too high. Experience has shown that a parallel to the baseline that touches the top of wave one is then more useful.

The question of whether to expect a parallel channel on arithmetic or semilog (percentage) scale is still unresolved as far as developing a definite tenet on the subject. If the price development at any point does not fall neatly within two parallel lines on the scale (either arithmetic or semilog) you are using, switch to the other scale in order to observe the channel in correct perspective. To stay on top of all developments, the analyst should always use both.

Within parallel channels and the converging lines of diagonal triangles, if a fifth wave approaches its upper trendline on declining volume, it is an indication that the end of the wave will meet or fall short of it. If volume is heavy as the fifth wave approaches its upper trendline, it indicates a possible penetration of the upper line, which Elliott called "throw-over." Throw-overs also occur, with the same characteristics, in declining markets.

## **VOLUME**

In normal fifth waves below Primary degree, volume tends to be less than in third waves. If volume in an advancing fifth wave of less than Primary degree is equal to or greater than that in the third wave, an extension of the fifth is in force. While this outcome is often to be expected anyway if the first and third waves are about equal in length, it is an excellent warning of those rare times when both a third *and* a fifth wave are extended.

At Primary degree and greater, volume tends to be higher in an advancing fifth wave merely because of the natural long term growth in the number of participants in bull markets.

## LEARNING THE BASICS

The Wave Principle is unparalleled in providing an overall perspective on the position of the market most of the time. While this perspective is extremely comforting and useful, the more practical goal of any analytical method is to identify market lows suitable for entering positions on the long side and market highs offering the opportunity to take profits or enter the short side. The Elliott Wave Principle is especially well suited to these functions. Nevertheless, the Wave Principle does not provide *certainty* about any one market outcome. One must understand and accept that any approach that can identify high odds for a fairly specific outcome will produce a losing bet some of the time.

What the Wave Principle provides is an objective means of assessing the relative *probabilities* of possible future paths for the market. What's more, competent analysts applying the rules and guidelines of the Wave Principle objectively should usually agree on the *order* "of those probabilities." At any time, two or more valid wave interpretations are usually acceptable by the *rules* of the Wave Principle. The rules are highly specific and keep the number of valid alternatives to a minimum. Among the valid alternatives, the analyst will generally regard as preferred the interpretation that satisfies the largest number of *guidelines* and will accord top alternate status to the interpretation satisfying the next largest number of guidelines, and so on.

Alternate interpretations are extremely important. Your second-best “count” is an essential aspect of trading with the Wave Principle, because in the event that the market fails to follow the preferred scenario, your top alternate count becomes your backup plan.

The best approach is deductive reasoning. Knowing what Elliott rules will not allow, one can deduce that whatever remains must be the most likely course for the market. By applying all the rules of extensions, alternation, overlapping, channeling, volume and the rest, the analyst has a much more formidable arsenal than one might imagine at first glance.

Most other approaches to market analysis, whether fundamental, technical or cyclical, disallow other than arbitrarily chosen stop points, thus keeping either risk or frequency of stop-outs high. The Wave Principle, in contrast, provides a built-in objective method for placing a loss-limiting stop. Since Elliott wave analysis is based upon price patterns, a pattern identified as having been completed is either over or it isn't. If the market changes direction, the analyst has caught the turn. If the market moves beyond what the apparently completed pattern allows, the conclusion is wrong, and any funds at risk can be reclaimed immediately.

Of course, there are often times when, despite a rigorous analysis, the question may arise as to how a developing move is to be counted or perhaps classified as to degree. When there is no clearly preferred interpretation, the analyst must wait until the count resolves itself, in other words, to “sweep it under the rug until the air clears,” as Hamilton Bolton suggested. Almost always, subsequent moves will clarify the status of previous waves by revealing their position in the pattern of the next higher degree. When subsequent waves clarify the picture, the probability that a turning point is at hand can suddenly and excitingly rise to nearly 100%.



The ability to *identify* junctures is remarkable enough, but the Wave Principle is the only method of analysis which also provides guidelines for *forecasting*. Many of these guidelines are specific and can occasionally yield results of stunning precision. If indeed markets are patterned, and if those patterns have a recognizable geometry, then regardless of the variations allowed, certain price and time relationships are likely to recur. In fact, real world experience shows that they do. The next section addresses some additional guidelines that are helpful in the forecasting exercise.

## THE FIBONACCI SEQUENCE AND ITS APPLICATION

Known for centuries by scientists, naturalists and mathematicians, the sequence of numbers 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, and so on to infinity is known today as the Fibonacci sequence. The sum of any two adjacent numbers in this sequence forms the next higher number in the sequence, viz., 1 plus 1 equals 2, 1 plus 2 equals 3, 2 plus 3 equals 5, 3 plus 5 equals 8, and so on to infinity. The ratio of any two consecutive numbers in the sequence approximates 1.618, or its inverse, .618, after the first several numbers. Refer to Figure 22 for a complete ratio table interlocking all Fibonacci numbers from 1 to 144.

1.618 (or .618) is known as the Golden Ratio or Golden Mean. Nature uses the Golden Ratio in its most intimate building blocks and in its most advanced patterns, in forms as minuscule as atomic structure and DNA molecules to those as large as planetary orbits and galaxies. It is involved in such diverse phenomena as quasi crystal arrangements, planetary distances and periods, reflections of light beams on glass, the brain and nervous system, musical arrangement, and the structures of plants and animals. Science is rapidly discovering that there is indeed a basic proportional principle of nature. The stock market has the very same mathematical base as do these natural phenomena.

At every degree of stock market activity, a bull market subdivides into five waves and a bear market subdivides into three waves, giving us the 5-3 relationship that is the mathematical basis of the Elliott Wave Principle. We can generate the complete Fibonacci sequence by using Elliott's concept of the progression of the market. If we start with the simplest expression of the concept of a bear swing, we get one straight line decline. A bull swing, in its simplest form, is one straight line advance. A complete

### Fibonacci Ratio Table

NUMERATOR		1	2	3	5	8	13	21	34	55	89	144
1	1.00	2.00	3.00	5.00	8.00	13.00	21.00	34.00	55.00	89.00	144.00	
2	.50	1.00	1.50	2.50	4.00	6.50	10.50	17.00	27.50	44.50	72.00	
3	.333	.667	1.00	1.667	2.667	4.33	7.00	11.33	18.33	29.67	48.00	
5	.20	.40	.60	1.00	1.60	2.60	4.20	6.80	11.00	17.80	28.80	
8	.125	.25	.375	.625	1.00	1.625	2.625	4.25	6.875	11.125	18.00	
13	.077	.154	.231	.385	.615	1.00	1.615	2.615	4.23	6.846	11.077	
21	.0476	.0952	.1429	.238	.381	.619	1.00	1.619	2.619	4.238	6.857	
34	.0294	.0588	.0882	.147	.235	.3824	.6176	1.00	1.618	2.618	4.235	
55	.01818	.03636	.0545	.0909	.1455	.236	.3818	.618	1.00	1.618	2.618	
89	.011236	.02247	.0337	.05618	.08989	.146	.236	.382	.618	1.00	1.618	
144	.006944	.013889	.0208	.0347	.05556	.0903	.1458	.236	.382	.618	1.00	

Toward perfect ratios

Figure 22

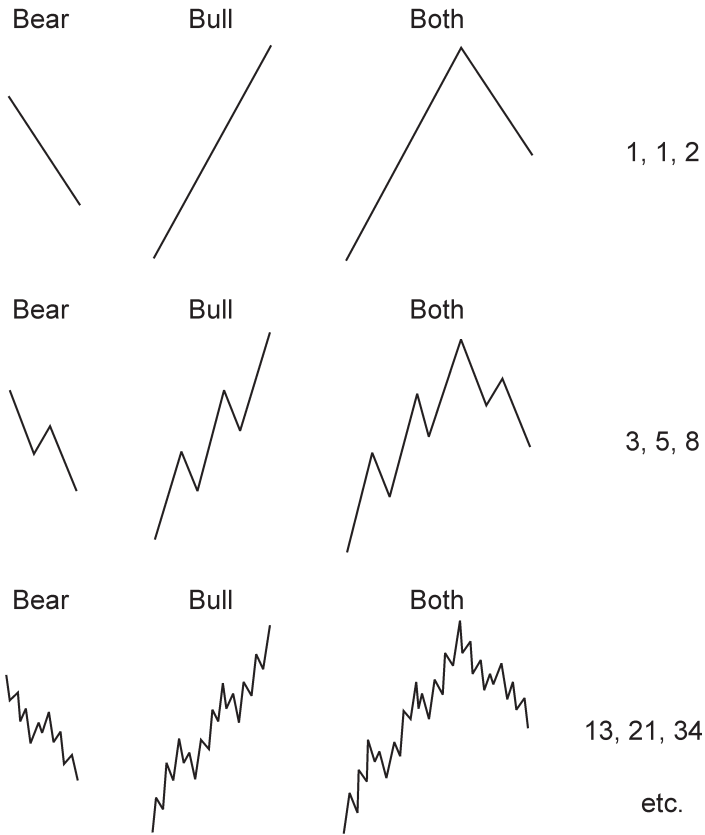


Figure 23

cycle is two lines. In the next degree of complexity, the corresponding numbers are 3, 5 and 8. As illustrated in Figure 23, this sequence can be taken to infinity.

In its broadest sense, then, the Elliott Wave Principle proposes that the same law that shapes living creatures and galaxies is inherent in the spirit and attitudes of men *en masse*. The Elliott Wave Principle shows up clearly in

the market because the stock market is the finest reflector of mass psychology in the world. It is a nearly perfect recording of man's social psychological states and trends, reflecting the fluctuating valuation of his own productive enterprise, and making manifest its very real patterns of progress and regress. Whether our readers accept or reject this proposition makes no great difference, as the empirical evidence is available for study and observation. Order in life? Yes. Order in the stock market? Apparently.

## RATIO ANALYSIS

Ratio analysis has revealed a number of precise price relationships that occur often among waves. There are two categories of relationships: retracements and multiples.

### *Retracements*

Fairly often, a correction retraces a Fibonacci percentage of the preceding wave. As illustrated in Figure 24, sharp corrections tend more often to retrace 61.8% or 50% of the previous wave, particularly when they occur as wave 2 of an impulse wave, wave B of a larger zigzag, or wave X in a multiple zigzag. Sideways corrections tend more often to retrace 38.2% of the previous impulse wave, particularly when they occur as wave 4, as shown in Figure 25.

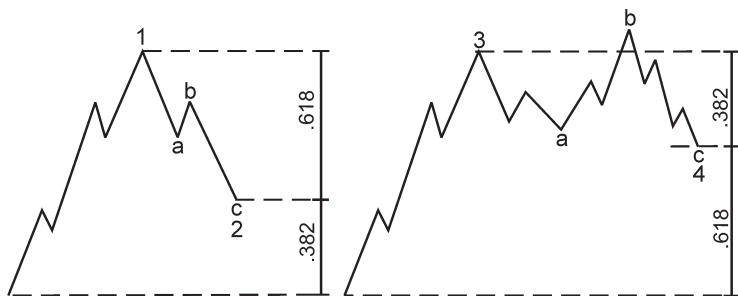


Figure 24

Figure 25

Retracements are where most analysts place their focus. Far more reliable, however, are relationships between *alternate* waves, or lengths unfolding in the same direction, as explained in the next section.

### Motive Wave Multiples

When wave 3 is extended, waves 1 and 5 tend towards equality or a .618 relationship, as illustrated in Figure 26. Actually, all three motive waves tend to be related by Fibonacci mathematics, whether by equality, 1.618 or 2.618 (whose inverses are .618 and .382). These impulse wave relationships usually occur in *percentage* terms. For instance, wave I in the Dow Jones Industrials from 1932 to 1937 gained 371.6%, while wave III from 1942 to 1966 gained 971.7%, or 2.618 times as much.

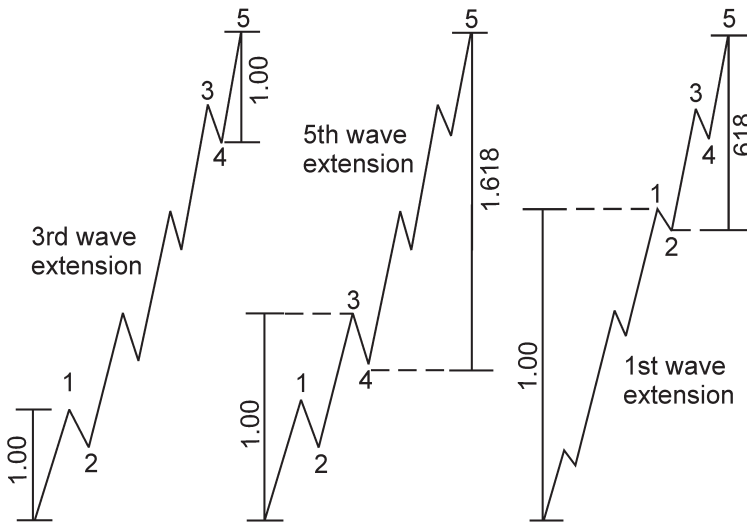


Figure 26

Figure 27

Figure 28

Wave 5's length is sometimes related by the Fibonacci ratio to the length of wave 1 through wave 3, as illustrated in Figure 27. In those rare cases when wave 1 is extended, it is wave 2 that often subdivides the entire impulse wave into the Golden Section, as shown in Figure 28.

In a related observation, unless wave 1 is extended, wave 4 often divides the price range of an impulse wave into the Golden Section. In such cases, the latter portion is  $.382$  of the total distance when wave 5 is not extended, as shown in Figure 29, and  $.618$  when it is, as shown in Figure 30. This guideline explains why a retracement following a fifth wave often has double resistance at the same level: the end of the preceding fourth wave and the  $.382$  retracement point.

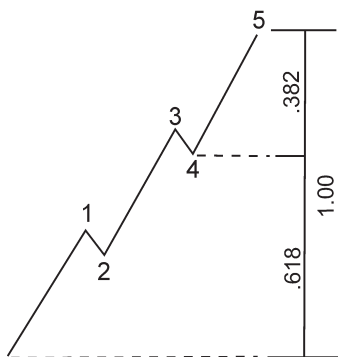


Figure 29

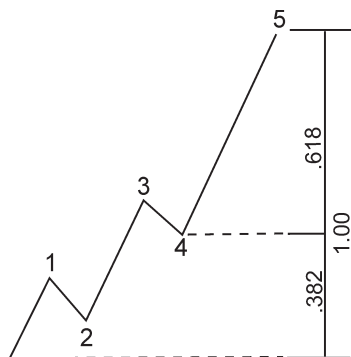


Figure 30

### ***Corrective Wave Multiples***

In a zigzag, the length of wave C is usually equal to that of wave A, as shown in Figure 31, although it is not uncommonly  $1.618$  or  $.618$  times the length of wave A. This same relationship applies to a second zigzag relative to the first in a double zigzag pattern, as shown in Figure 32.

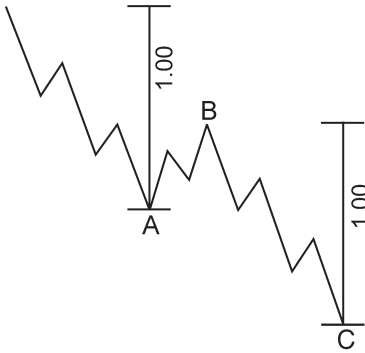


Figure 31

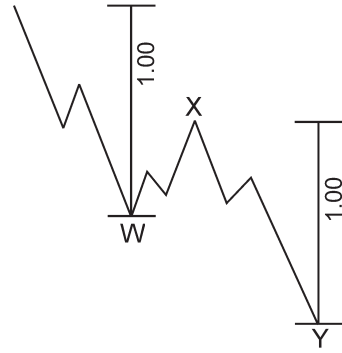


Figure 32

In a regular flat correction, waves A, B and C are, of course, approximately equal. In an expanded flat correction, wave C is usually 1.618 times the length of wave A. Often wave C will terminate beyond the end of wave A by .618 times the length of wave A. Each of these tendencies

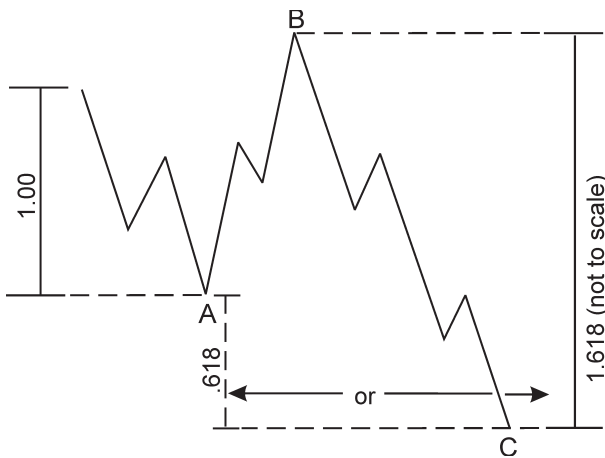


Figure 33



are illustrated in Figure 33. In rare cases, wave C is 2.618 times the length of wave A. Wave B in an expanded flat is sometimes 1.236 or 1.382 times the length of wave A.

In a triangle, we have found that at least two of the *alternate* waves are typically related to each other by .618. I.e., in a contracting, ascending or descending triangle, wave e = .618c, wave c = .618a, or wave d = .618b. In an expanding triangle, the multiple is 1.618.

In double and triple corrections, the net travel of one simple pattern is sometimes related to another by equality or, particularly if one of the threes is a triangle, by .618.

Finally, wave 4 quite commonly spans a gross or net price range that has an equality or Fibonacci relationship to its corresponding wave 2. As with impulse waves, these relationships usually occur in percentage terms.

These guidelines increase dramatically in utility when used together, as several are simultaneously applicable in almost every situation at the various degrees of trend.

## PERSPECTIVE

What the Wave Principle says is that mankind's progress (of which the stock market is a popularly determined valuation) does not occur in a straight line, does not occur randomly, and does not occur cyclically. Rather, progress takes place in a "three steps forward, two steps back" fashion, a form that nature prefers. As a corollary, the Wave Principle reveals that periods of setback in fact are a requisite for social (and perhaps even individual) progress.

Until a few years ago, the idea that market movements are patterned was highly controversial, but recent scientific discoveries have established that pattern formation is a fundamental characteristic of complex systems, which include financial markets. Some such systems undergo "punctuated growth," that is, periods of growth alternating with phases of non-growth or decline, building fractally into similar patterns of increasing size. This is precisely the type of pattern identified in market movements by R.N. Elliott some sixty years ago.

Most important to individuals, portfolio managers and investment corporations is that the Wave Principle often indicates in advance the relative *magnitude* of the next period of market progress or regress. Living in harmony with those trends can make the difference between success and failure in financial affairs.

To obtain a full understanding of the Wave Principle, including the terms and patterns, please read *Elliott Wave Principle* by A.J. Frost and Robert Prechter. We wish you every success.

---

## GLOSSARY

**Alternation (guideline)** – In an impulse wave, if wave two is a sharp correction, wave four will usually be a sideways correction, and vice versa.

**Apex** – Intersection of the two boundary lines of a contracting triangle or contracting diagonal.

**Barrier Triangle** – A triangle pattern where the B-D trendline is horizontal and the A-C trendline points in the direction of the main trend at next higher degree.

**Channeling (guideline)** – Impulse waves, zigzags and multiple zigzag patterns will often travel within a trend channel, whose boundaries are defined by parallel upper and lower price trendlines.

**Combination** – A sideways pattern composed of two or three corrective patterns linked by intervening X waves.

**Contracting Triangle** – A triangle pattern whose A-C and B-D trendlines converge.

**Corrective Wave** – A three-wave pattern or combination of three-wave patterns.

**Depth of Corrective Waves (guideline)** – Within impulse waves, often the corrective waves – especially fourth waves – end in the price territory of the previous fourth wave of one lesser degree and usually at that fourth wave's termination point.

**Diagonal** – A motive wave that almost never travels within a parallel trend channel, and whose wave 4 almost always ends in the price territory of wave 1. The four kinds of diagonal waves are:

**Ending Contracting** – A diagonal whose boundary lines form a wedge-shaped pattern. It can occur only as the fifth wave of an impulse wave and as wave C of flats and zigzags. Subdivides into 3-3-3-3-3, where each wave is a zigzag or multiple zigzag pattern.

**Leading Contracting** – A diagonal whose boundary lines form a wedge-shaped pattern. It can occur only as the first wave of an impulse wave and as wave A of zigzag. Subdivides into 3-3-3-3-3, where each wave is a zigzag or multiple zigzag pattern, or 5-3-5-3-5.

**Ending Expanding** – An ending diagonal whose boundary lines diverge (quite rare).

**Leading Expanding** – A leading diagonal whose boundary lines diverge (quite rare).

**Double Three** – Combination that comprises two corrective wave patterns, labeled W and Y, linked by a corrective wave pattern labeled X.

**Double Zigzag** – Sharp wave pattern that comprises two zigzags, labeled W and Y, linked by a corrective wave pattern labeled X.

**Equality (guideline)** – In an impulse wave, two of the actionary waves will tend to be equal in terms of time and magnitude.

**Expanded Flat** – A version of a flat wave pattern where wave B goes beyond the start of wave A, and wave C goes beyond the end of wave A.

**Expanding Triangle** – A triangle wave pattern whose A-C and B-D trendlines diverge.

**Extension** – Elongated impulse wave whose subwaves, especially the actionary waves, are usually as long or longer than the waves at next higher degree.

**Failure** – See Truncation.

**Flat** – Sideways corrective wave pattern, labeled A-B-C, that subdivides 3-3-5.

**Fibonacci relationships** – These describe how the length of waves with respect to price and time are mathematically related to each other by the Fibonacci ratio of .618, as well as other Fibonacci numbers.

**Guidelines** – Characteristics of wave formation that usually – but don't always – occur.

- 
- Impulse wave** – A motive wave pattern that subdivides 5-3-5-3-5. It usually travels within a parallel trend channel, and its wave 4 never ends in the price territory of wave 1.
- Irregular Flat** – See Expanded Flat.
- Motive wave** – A five-wave pattern that makes progress in the direction of the main trend, where wave 2 always retraces less than 100% of wave 1, and wave 3 can never be the shortest wave. The two kinds of motive wave are impulse and diagonal.
- Orthodox top (or bottom)** – Price level that represents the end of the wave pattern.
- Post-Triangle Thrust measurement** – After a triangle ends, the next wave, which is usually sharp and fast, is called a thrust. The post-triangle thrust measurement, which is calculated by applying the width of the triangle to the end of wave E, estimates the expected minimum distance traveled of that thrust.
- Regular Flat** – A flat wave pattern where wave B terminates at about the start of wave A, and wave C ends just slightly past the end of wave A.
- Right Look** – When wave patterns conform to certain shapes, proportions and trendlines, they are said to have the “right look.”
- Rules** – Characteristics of wave formation that always occur.
- Running Flat** – A flat wave pattern where wave B terminates well beyond the start of wave A, and wave C ends prior to the end of wave A.
- Running Triangle** – A contracting triangle where wave B terminates beyond the start of wave A.
- Sharp corrective wave** – A corrective wave pattern that usually forms a relatively steep angle and never registers a new price extreme beyond the previous wave that it is retracing.

**Sideways corrective wave** – A corrective wave pattern that is usually relatively horizontal in shape, and, before terminating, usually records a new price extreme beyond the previous wave that it is retracing.

**Third-of-a-Third Impulse wave** – Normally the most powerful segment of an impulse wave, because it is the third wave of five waves that make up the third wave of the impulse.

**Three** – Often used as a synonym for a corrective wave, because almost all corrective waves consist of three waves.

**Throw-over** – When wave 5 of an impulse wave terminates beyond the corresponding trendline of a parallel trend channel, or when wave 5 of a contracting diagonal terminates beyond the 1-3 trendline.

**Triangle** – A sideways corrective pattern, labeled A-B-C-D-E, that subdivides 3-3-3-3-3, where the initial subwaves are all zigzags or multiple zigzag patterns.

**Triple Three** – Combination pattern that comprises three corrective wave patterns, labeled W, Y and Z, linked by corrective wave patterns labeled X (quite rare).

**Triple Zigzag** – Sharp wave pattern that comprises three zigzags, labeled W, Y and Z, linked by corrective wave patterns labeled X.

**Truncation** – When wave 5 of a motive wave fails to exceed the end of wave 3, or when wave C of a zigzag fails to go beyond the end of wave A.

**Width of a Contracting or Barrier Triangle** – Equals the length of a vertical line that connects the A-C and B-D trendlines at the origin of wave A of the triangle.

**Width of an Expanding Triangle** – Equals the length of a vertical line that connects the A-C and B-D trendlines at the end of wave E of the triangle.

**Zigzag** – Sharp corrective wave pattern, labeled A-B-C, that subdivides 5-3-5.

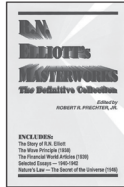




# Books



*Elliott Wave Principle*  
A.J. Frost and  
Robert R. Prechter



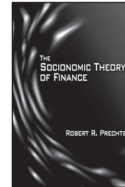
*R.N. Elliott's  
Masterworks*  
edited by  
Robert R. Prechter



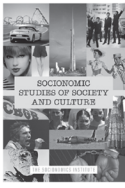
*The Wave Principle  
of Human Social  
Behavior*  
Robert R. Prechter



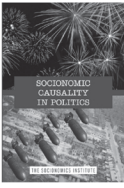
*Pioneering Studies in  
Socionomics*  
Robert R. Prechter



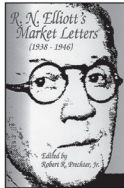
*The Socionomic  
Theory of Finance*  
Robert R. Prechter



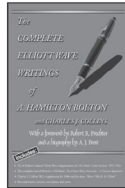
*Socionomic Studies  
of Society and  
Culture*  
Robert R. Prechter



*Socionomic Causality  
in Politics*  
Robert R. Prechter



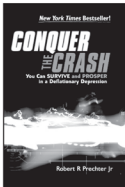
*R.N. Elliott's  
Market Letters  
(1938-1946)*  
edited by  
Robert R. Prechter



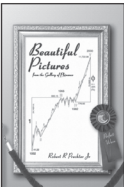
*The Complete  
Elliott Wave  
Writings  
of  
A. Hamilton Bolton*  
edited by  
Robert R. Prechter



*The Elliott Wave  
Writings of A.J. Frost  
and Richard Russell*  
edited by  
Robert R. Prechter



*Conquer the Crash*  
Robert R. Prechter  
(published by  
John Wiley & Sons)



*Beautiful Pictures*  
Robert R. Prechter



*Market Analysis for  
the New Millennium*  
edited by  
Robert R. Prechter

Available at  
[elliottwave.com/books](http://elliottwave.com/books)  
and  
[socionomics.net/store](http://socionomics.net/store)  
Or call 800-336-1618 (inside the U.S.)  
or 770-536-0309 (outside the U.S.).