ELWAVE

Elliott Wave Theory

CONTENT

THE ELLIOTT WAVE PRINCIPLE

1. Introduction

The Elliott Wave principle was discovered in the late 1920s by Ralph Nelson Elliott. He discovered that stock markets do not behave in a chaotic manner, but that markets move in repetitive cycles, which reflect the actions and emotions of humans caused by exterior influences or mass psychology. Elliott contended, that the ebb and flow of mass psychology always revealed itself in the same repetitive patterns, which subdivide in so called waves.

In part Elliott based his work on the Dow Theory, which also defines price movement in terms of waves, but Elliott discovered the fractal nature of market action. Thus Elliott was able to analyse markets in greater depth, identifying the specific characteristics of wave patterns and making detailed market predictions based on the patterns he had identified.

Fractals are mathematical structures, which on an ever smaller scale infinitely repeat themselves. The patterns that Elliott discovered are built in the same way. An impulsive wave, which goes with the main trend, always shows five waves in its pattern. On a smaller scale, within each of the impulsive waves of the before mentioned impulse, again five waves will be found. In this smaller pattern, the same pattern repeats itself ad infinitum (these ever smaller patterns are labeled as different wave degrees in the Elliott Wave Principle)

Only much later were fractals recognized by scientists. In the 1980s the scientist Mandelbrot proved the existence of fractals in his book “the Fractal Geometry of Nature”. He recognized the fractal structure in numerous objects and life forms, a phenomena Elliott already understood in the 1930s.

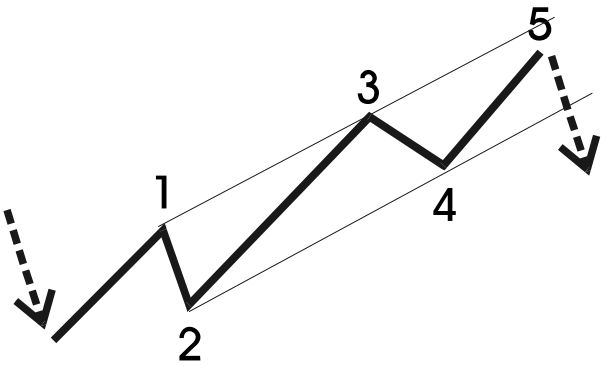
In the 70s, the Wave Principle gained popularity through the work of Frost and Prechter. They published a legendary

book (a must for every wave student) on the Elliott Wave (Elliott Wave Principle...key to stock market profits, 1978), wherein they predicted, in the middle of the crisis of the 70s, the great bull market of the 1980s. Not only did they correctly forecast the bull market but Robert R. Prechter also predicted the crash of 1987 in time and pinpointed the high exactly.

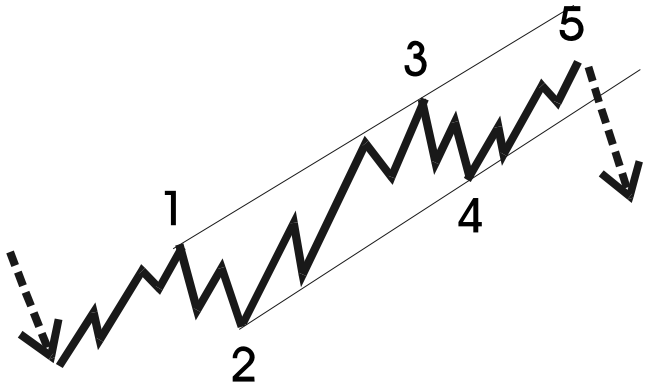
Only after years of study, did Elliott learn to detect these recurring patterns in the stock market. Apart from these patterns Elliott also based his market forecasts on Fibonacci numbers. Everything he knew has been published in several books, which laid the foundation for people like Bolton, Frost, Prechter and the professional traders who designed this Elliott Wave software, to make profitable forecasts, not only for stock markets, but for all financial markets.
Next let's first examine the patterns Elliott identified.

2. Basic Theory

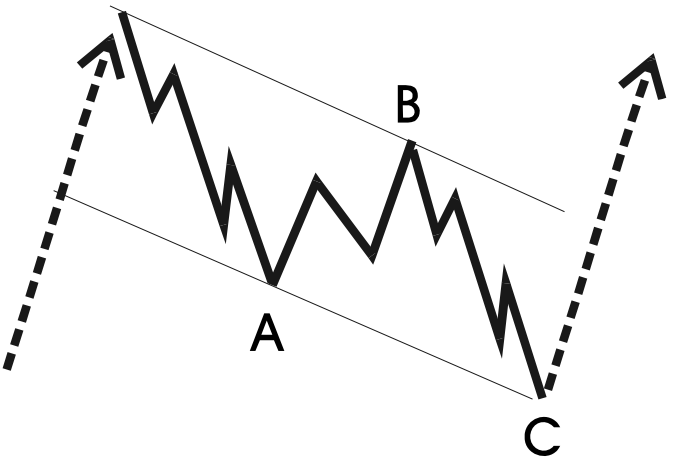
According to physical law: "Every action creates an equal and opposite reaction". The same goes for the financial markets. A price movement up or down must be followed by a contrary movement, as the saying goes: "What goes up must come down"(and vice versa).
Price movements can be divided into trends on the one hand and corrections or sideways movements on the other hand. Trends show the main direction of prices, while corrections move against the trend. In Elliott terminology these are called Impulsive waves and Corrective waves. The Impulse wave formation has five distinct price movements, three in the direction of the trend (I, III, and V) and two against the trend (II and IV).



Obviously the three waves in the direction of the trend are impulses and therefore these waves also have five waves. The waves against the trend are corrections and are composed of three waves.

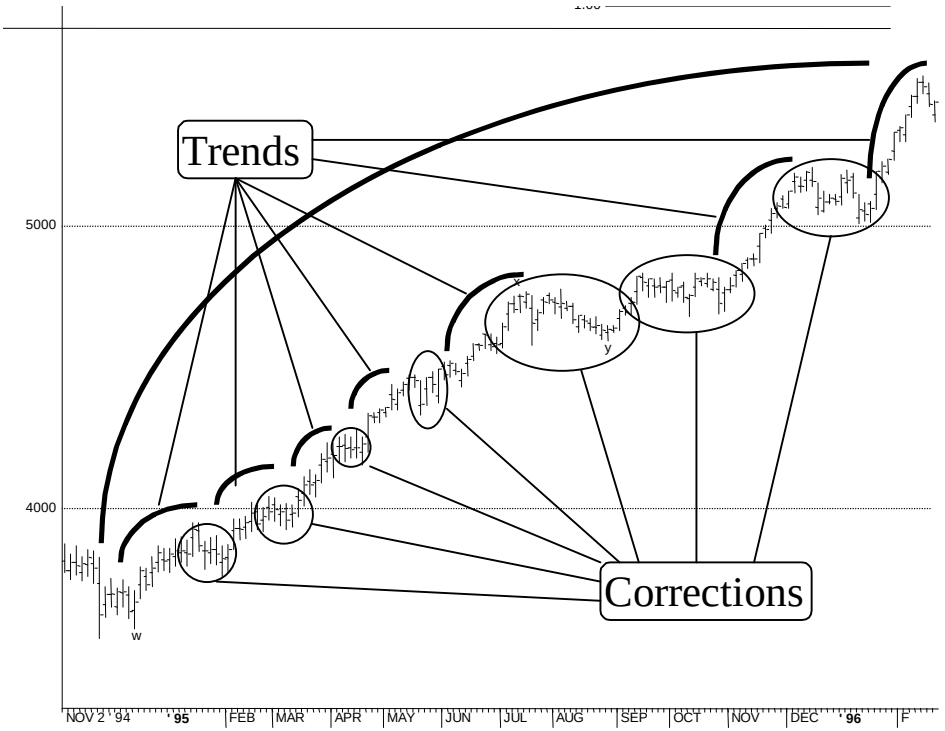


The corrective wave formation normally has three, in some cases five or more distinct price movements, two in the direction of the main correction (A and C) and one against it (B). Wave 2 and 4 in the above picture are corrections. These waves have the following structure:



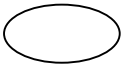
Note that these waves A and C go in the direction of the shorter term trend, and therefore are impulsive and composed of five waves, which is shown in the picture above.

An impulse wave formation followed by a corrective wave, form an Elliott wave degree, consisting of trend and counter trend. Although the patterns pictured above are bullish, the same applies for bear markets, where the main trend is down.
The following example shows the difference between a trend (impulse wave) and a correction (sideways price movement with overlapping waves). It also shows that larger trends consist of (a lot of) smaller trends and corrections, but the result is always the same.



In this graph trends and corrections against the trend can be recognized. Some trends and corrections of different magnitude have been pinpointed.

Trends



Corrections

Very important in understanding the Elliott Wave Principle is the basic concept that wave structures of the largest degree are composed of smaller sub waves, which are in turn composed of even smaller sub waves, and so on, which all have more or less the same structure (impulsive or corrective) like the larger wave they belong to.
Elliott distinguished nine wave degrees ranging from two centuries to hourly. Below, these wave degrees are listed together with the style *ELWAVE* used to distinguish them:

Wave degree	Trend	Correction
Grand Supercycle	Ⓘ	Ⓐ
Supercycle	(I)	(A)
Cycle	I	A
Primary	①	Ⓐ
Intermediate	(1)	(a)
Minor	1	A
Minute	i	a
Minuette	1	a
Sub minuette	i.	a.

In theory the number of wave degrees is infinite, in practice you can spot about four more wave degrees if you examine tick charts.
This indicates that you can trade the investment horizon, which is most suited for you, from very aggressive day trading to longer term investing. The same rules and patterns apply over and over again. Now we will take a look at the patterns...

3. Patterns

Studying the patterns is very important in order to apply the Elliott Wave Principle correctly. The pattern of the market action, if correctly determined, not only tells you to what price levels the market will rise or decline, but also in which way (or pattern) this will happen.

When you are able to recognize the patterns, and apply these patterns correctly, you can trade the Elliott Wave Principle. This is not easy to accomplish, but after some study and with the help of the "*ELWAVE* "tool you will find it easier. Humans, with sufficient experience, can analyse markets in an instance, which is a requirement for trading.

ELWAVE restricts itself mainly to the patterns mentioned in the **Classic Elliott Wave patterns**. These patterns have been programmed in our **CLASSIC RULES** version, which is equal to unchecking the check box "indicate reversal on > 50% retrace in **ANALYSIS OPTIONS**.
In our **MODERN RULES** version, as mentioned under **Modern Elliott Wave patterns**, we have defined more patterns, which we have found in more than 10 years of research and experience, which definitions are very profitable in our view. It is up to the user to determine which rules are preferable. We think it is important that the user has the opportunity of using his preferred set of rules.
Explaining the following descriptions, on the left you will find a picture of a bull market, at the right one of a bear market. The ***pattern*** section depicts the structure, while the ***description*** gives additional information. The pattern should follow the ***rules and guidelines***, which can also be derived from the picture. Furthermore the section, ***in which wave*** explains in which wave, as a part of a larger wave degree, the patterns normally occur. Last but not least the pattern must have an ***internal structure*** as described. This is very important to determine which pattern you are dealing with.

Classic Elliott Wave patterns

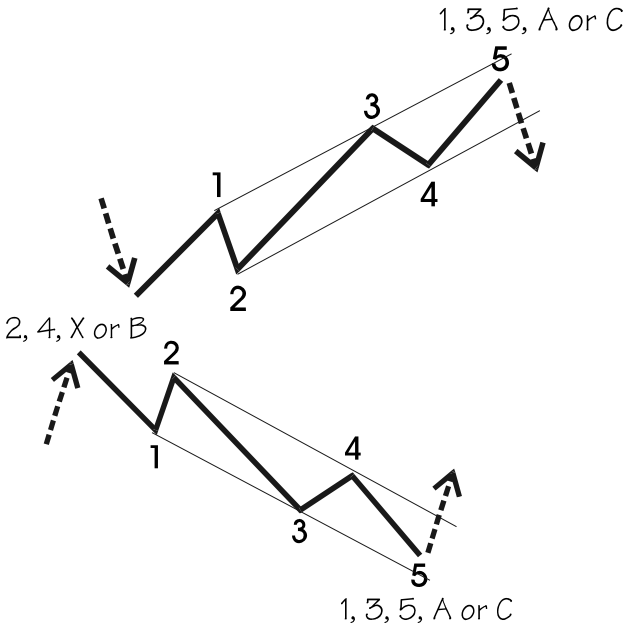
Below we have depicted all Elliott Wave patterns that are allowed under a **very strict interpretation** of the Elliott Wave Principle. Elliott detected most of these patterns, except for the Diagonal 2 pattern. The WXY and WXYXZ pattern have not been defined as such by Elliott, but he already had discovered these sorts of combinations.
In our Automatic analysis engine we use the WXY and WXYXZ also for Double and Triple Zigzags. This is a much

more consistent way of labeling these patterns, since now the ABC waves in waves W and Y are sub waves and an unfitting Wave X has been eliminated.
Because of this the Automatic analysis no longer has to search for more than five waves. Using the old definition of for example a Triple Zigzag, the search was for eleven waves, apart from inconsistencies this would have slowed down the analysis considerably.

I. Trends

a. Impulse

Pattern



Description

Impulses are always composed of five waves, labeled 1,2,3,4,5. Waves 1, 3 and 5 are themselves each impulsive patterns and are approximately equal in length. Waves 2 and 4 on the contrary are always corrective patterns.

Rules and guidelines

The most important rules and guidelines are:

- Wave 2 cannot be longer in price than wave 1, and it must not go beyond the origin of wave 1.
- Wave 3 is never the shortest when compared to waves 1 and 5.
- Wave 4 cannot overlap wave 1, except in diagonal triangles and sometimes in wave 1 or A waves, but never in a third wave. In most cases there should not be an overlap between wave 1 and A.
- As a guideline the third wave shows the greatest momentum, except when the fifth is the extended wave.
- Wave 5 must exceed the end of wave 3.
- As a guideline the internal wave structure should show alternation, which means different kind of corrective structures in wave 2 and 4.

In which wave

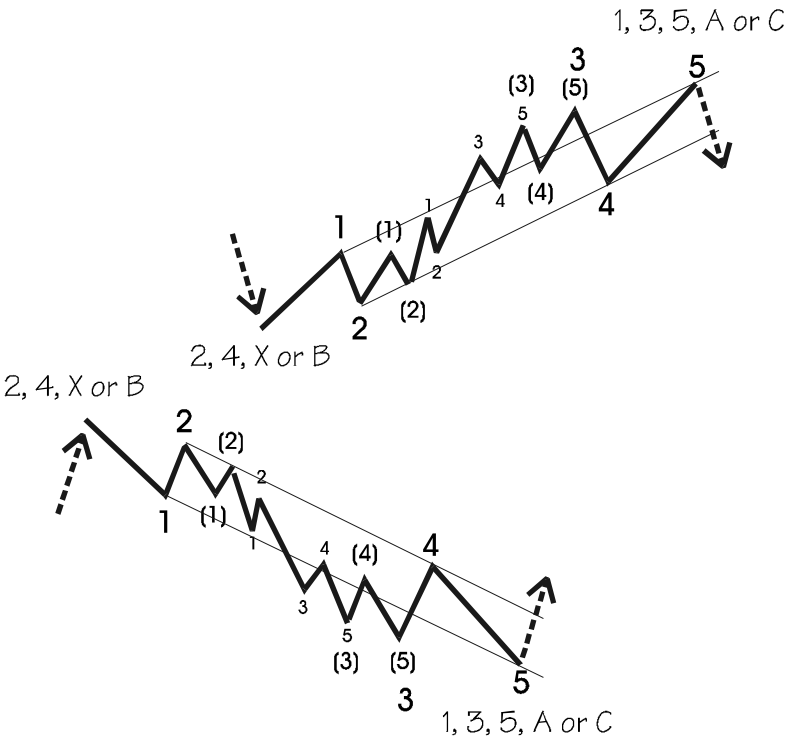
Impulse patterns occur in waves 1, 3, 5 and in waves A and C of a correction (this correction could be a wave 2, 4 or a wave B, D, E or wave X).

Internal structure

It is composed of five waves. The internal structure of these waves is 5-3-5-3-5. Note that the mentioned 3s are corrective waves, which should be composed of 5 waves in a corrective triangle.

b. Extension

Pattern



Description

By definition an extension occurs in an impulsive wave, where waves 1, 3 or 5 can be extended, being much longer than the other waves. It is quite common that one of these waves will extend, which is normally the third wave. The two other waves then tend to equal each other.
In our pattern definitions we call it an Extension1 if the first wave extends, an Extension3 if the 3rd wave extends and an Extension5 if the 5th wave extends.

Rules and guidelines

The most important rules and guidelines concerning an extended wave are:

- It is composed of 5, 9, 13 or 17 waves.
- Wave 2 cannot be longer in price length than wave 1, so it should not go beyond the origin of wave 1.

- Wave 3 is never the shortest when compared to waves 1 and 5.
- Wave 4 cannot overlap wave 1.
- Wave 5 exceeds the end of wave 3.
- The extended wave normally shows the highest acceleration.

In which wave

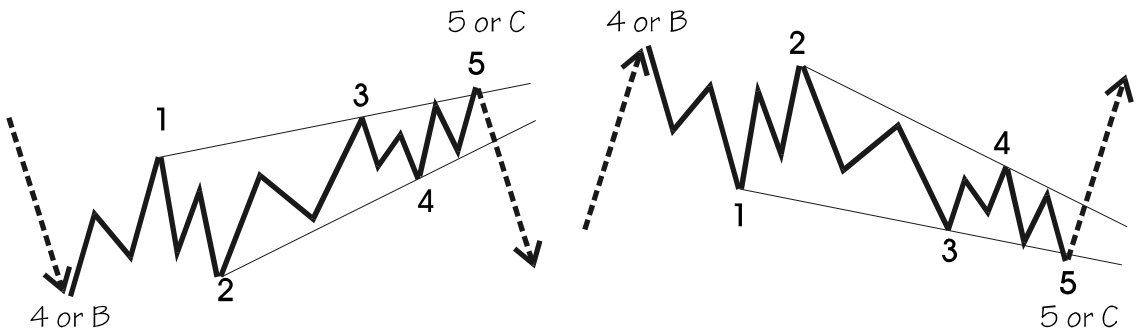
Extensions occur in waves 1, 3, 5, and in A and C waves, when compared to each other.

Internal structure

As a minimum it is composed of 9 waves, though 13 or 17 waves could occur. So the minimal internal structure of the 9 waves is 5-3-5-3-5-3-5-3-5. Note that the 3s mentioned are corrective waves, which could be composed of 5 waves in the case of a corrective triangle.

c. Diagonal triangle type 1

Pattern



Description

Diagonals are sort of impulsive patterns, which normally occur in terminal waves like a fifth or a C wave. Don't confuse them with corrective triangles.
Diagonals are relatively rare phenomena for large wave degrees, but they do occur often in lower wave degrees on intra-day charts. Usually Diagonal triangles are followed by a violent change in market direction.

Rules and guidelines

The most important rules and guidelines are:

- It is composed of 5 waves.
- Waves 4 and 1 do overlap.
- Wave 4 can't go beyond the origin of wave 3.
- Wave 3) cannot be the shortest wave.
- Internally all waves of the diagonal have a corrective wave structure.
- Wave 1 is the longest wave and wave 5 the shortest.
- The channel lines of Diagonals must converge.
- As a guideline the internal wave structure should show alternation, which means different kind of corrective structures.

In which wave

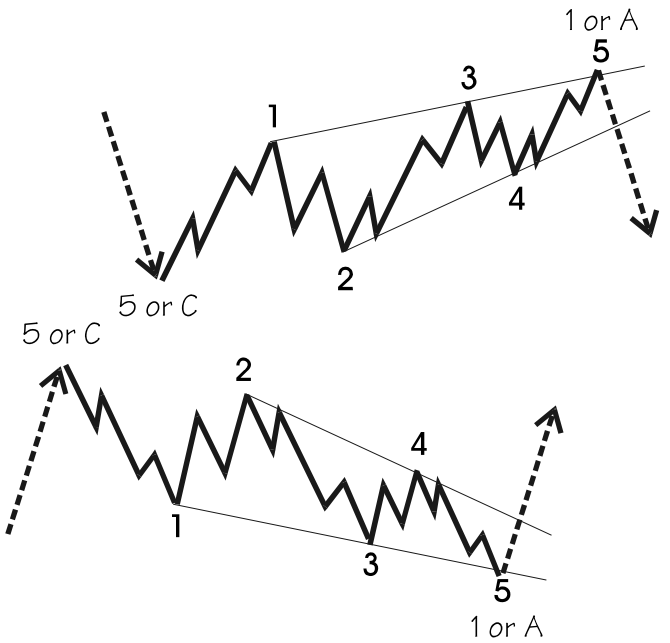
Diagonal triangles type 1 occur in waves 5, C and sometimes in wave 1.

Internal structure

The internal structure of the five waves is 3-3-3-3-3.

c. Diagonal triangle type 2

Pattern



Description

Diagonal type 2 is a sort of impulsive pattern, which normally occurs in the first or A wave. The main difference with the Diagonal Triangle type 1 is the fact that **waves 1, 3 and 5** have an internal structure of **five** waves instead of three. Experience shows it can also occur in a wave 5 or C, though the Elliott Wave Principle does not allow this. Don't confuse this with corrective triangles.
Diagonals are relatively rare phenomena for large wave degrees, but they do occur often in lower wave degrees in intra day charts. These Diagonal triangles are not followed by a violent change in market direction, because it is not the end of a trend, except when it occurs in a fifth or a C wave.

Rules and guidelines

The most important rules and guidelines are:

- It is composed of 5 waves.
- Wave 4 and 1 do overlap.
- Wave 4 can't go beyond the origin of wave 3.
- Wave 3) cannot be the shortest wave.
- Internally waves 1, 3 and 5 have an impulsive wave structure.
- Wave 1 is the longest wave and wave 5 the shortest.
- As a guideline the internal wave structure should show alternation, which means that wave 2 and 4 show a different kind of corrective structure.

In which wave

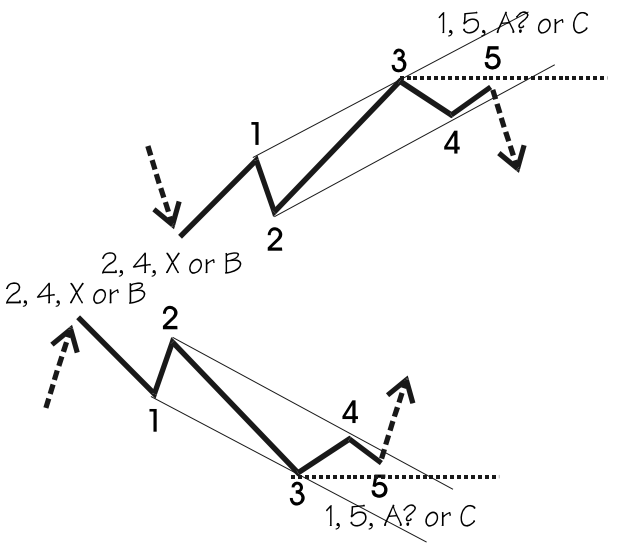
Diagonal triangles type 2 occur in waves 1 and A.

Internal structure

The five waves of the diagonal type 2 show an internal structure of 5-3-5-3-5.

d. Failure or Truncated 5th

Pattern



Description

A failure is an impulsive pattern in which the fifth wave does not exceed the third wave. Fifth waves, which travel only slightly beyond the top of wave 3, can also be classified as a kind of failure. It indicates that the trend is weak and that the market will show acceleration in the opposite direction.

Rules and guidelines

The most important rules and guidelines are:

- Wave 2 cannot be longer in price distance than wave 1, so it should not go beyond the origin of wave 1.
- Wave 3 is never the shortest when compared to waves 1 and 5.
- Wave 4 cannot overlap wave 1, except for diagonal triangles and sometimes in waves 1 or A, but never in a third wave. There should not be overlap between wave 1 and A.
- Wave 5 fails to go beyond the end of wave 3.
- As a guideline the third wave shows the greatest momentum.
- As a guideline the internal wave structure should show alternation, which means different kinds of corrective structures.

In which wave

A failure can only occur in a fifth wave or a C wave, but normally not in the fifth wave of wave 3.

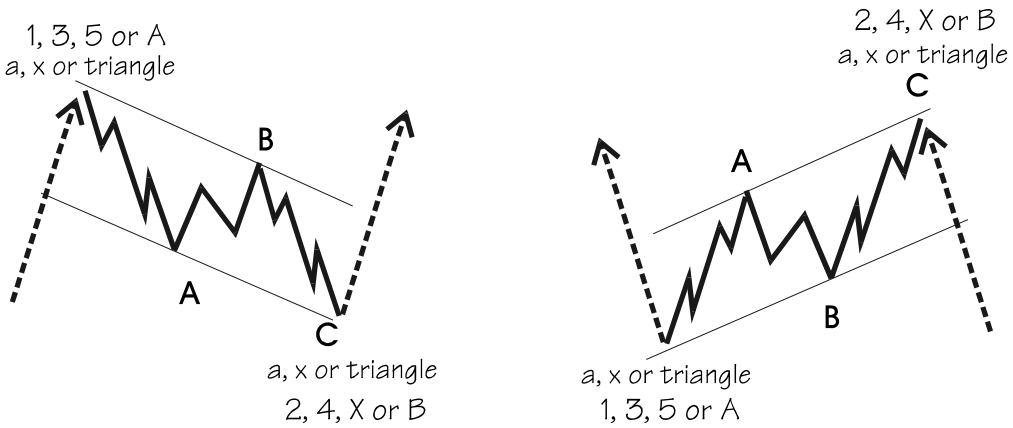
Internal structure

It must be composed of five waves.

II. Corrections

a. Zigzag

Pattern



Description

A Zigzag is the most common corrective structure, which starts a sharp reversal. Often it looks like an impulsive wave, because of the acceleration it shows. A zigzag can extend itself into a double or triple zigzag, although this is not very common, because it lacks alternation (the same two patterns follow each other). Notice that the zigzag can only be the first part of a corrective structure.

Rules and guidelines

- It is composed of 3 waves.
- Waves A and C are impulses, wave B is corrective.
- The B wave retraces no more then 61.8% of A.
- The C wave must go beyond the end of A.
- The C wave normally is at least equal to A.

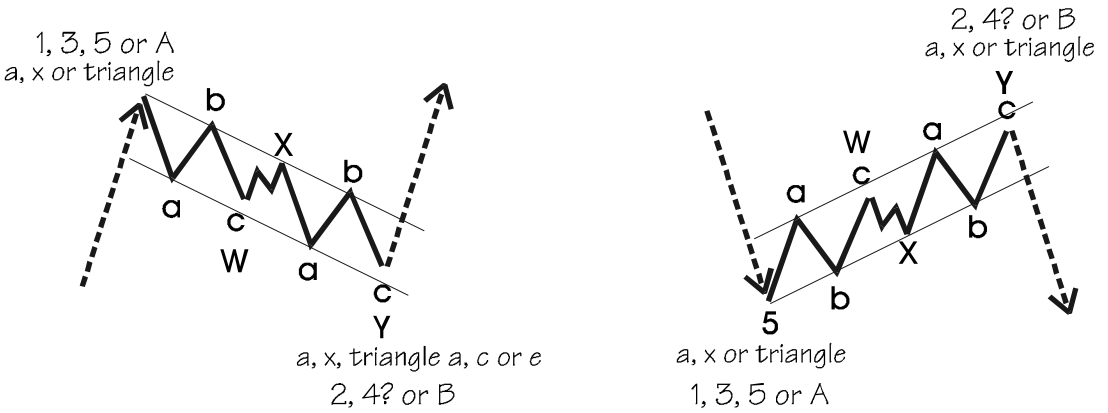
In which wave

Most of the time it happens in A, X or 2. Also quite common in B waves as a part of a Flat, (part of) Triangles and sometimes in 4.

Internal structure

A single Zigzag is composed of 3 waves, a double of 7 waves separated by an X wave in the middle, a triple of 11 waves separated by two X waves (see pictures below). The internal structure of the 3 waves is 5-3-5 in a single Zigzag, 5-3-5-3-5-3-5 in a double.

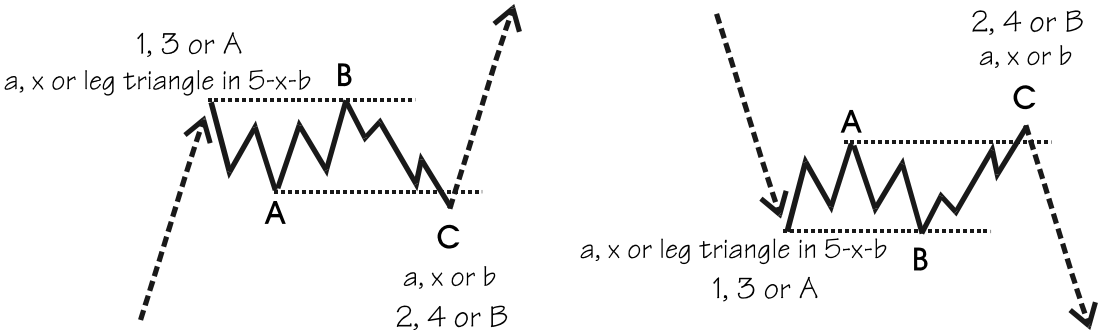
Example of a **Double Zigzag**



As you have noticed we have a more modern representation of the Double Zigzag using the labels WXY instead of ABCXABC. This is more consistent, since this way 2 zigzags of lower degree get connected to each other by waves of higher degree. On top if that, our automatic analysis needed such a consistent method of labeling to reach maximum performance. Instead of labeling 7 waves (ABCXABC), the Automatic analysis needs to label only 3 waves (WXY). According to the same method a Triple Zigzag is represented by WXYXZ instead of ABCXABCXABC. This way the number of waves was reduced to five instead of eleven.

b. Flat

Pattern



Description

Flats are very common forms of corrective patterns, which generally show a sideways direction. Waves A and B of the Flat are both corrective patterns. Wave C on the contrary is an impulsive pattern. Normally wave C will not go beyond the end of wave A.

Rules and guidelines

- It is composed of 3 waves.
- Wave C is an impulse, wave A and B are corrective.
- Wave B retraces more then 61.8% of A.
- Wave B often shows a complete retracement to the end of the previous impulse wave.
- Wave C shouldn't go beyond the end of A.
- Normally wave C is at least equal to A.

In which wave

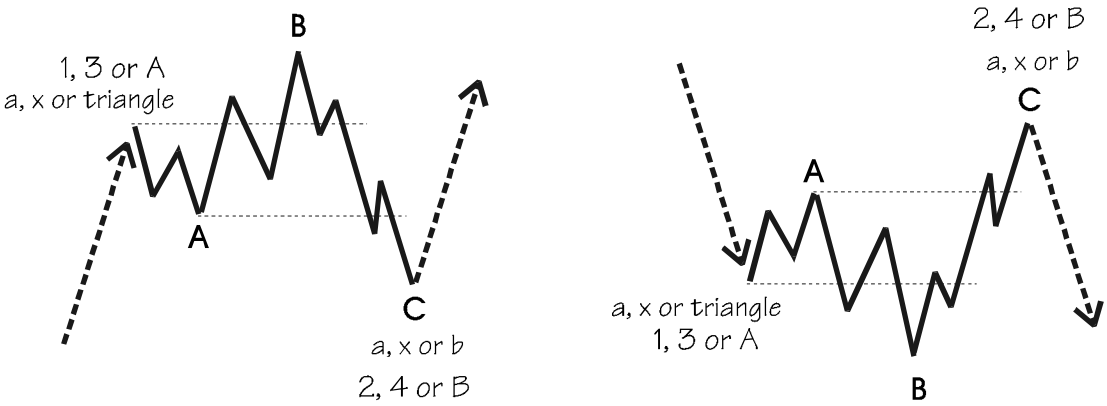
It occurs mostly in B waves, though also quite common in 4 and 2.

Internal structure

As mentioned before a Flat consists of 3 waves. The internal structure of these waves is 3-3-5. Both waves A and B normally are Zigzags.

c. Expanded Flat or Irregular Flat

Pattern



Description

This is a common special type of Flat. Here the B wave is extended and goes beyond the (orthodox) end of the previous impulsive wave. The strength of the B wave shows that the market wants to go in the direction of B. Often a strong acceleration will take place, which starts a third wave or an extended fifth. If the C wave is much longer then A, the strength will be less.

Rules and guidelines

- It is composed of 3 waves.
- Wave C is an impulse, waves A and B are corrective.
- Wave B retraces beyond the end of the previous impulse, which is the start of wave A. The C wave normally is much longer then A.

In which wave

This corrective pattern can happen in 2, 4, B and X. If it happens in 2 and C is relatively short, normally an acceleration in the third will take place.

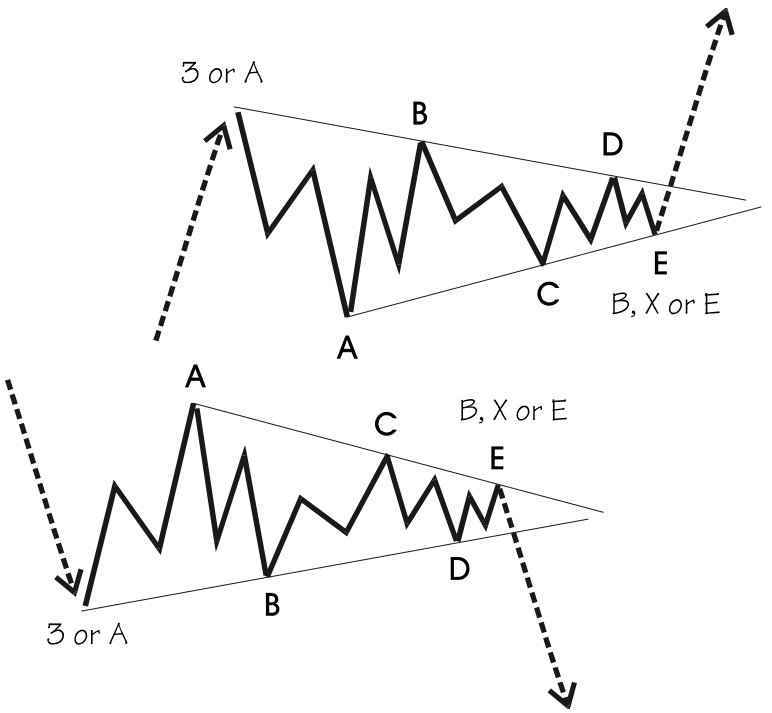
Internal structure

It is composed of five waves, which have an internal structure of 3-3-5.

c. Triangles

Contracting Triangle:

Pattern



Description

A triangle is a corrective pattern, which can contract or expand. Furthermore it can ascend or descend. It is composed of five waves, each of them has a corrective nature.

Rules and guidelines

- It is composed of 5 waves.
- Wave 4 and 1 do overlap.
- Wave 4 can't go beyond the origin of wave 3.
- Wave 3 cannot be the shortest wave.
- Internally all waves of the diagonal have a corrective wave structure.
- In a contracting Triangle, wave 1 is the longest wave and wave 5 the shortest. In an expanding Triangle, wave 1 is the shortest and wave 5 the longest.
- Triangles normally have a wedged shape, which follows from the previous.
- As a guideline the internal wave structure should show alternation.

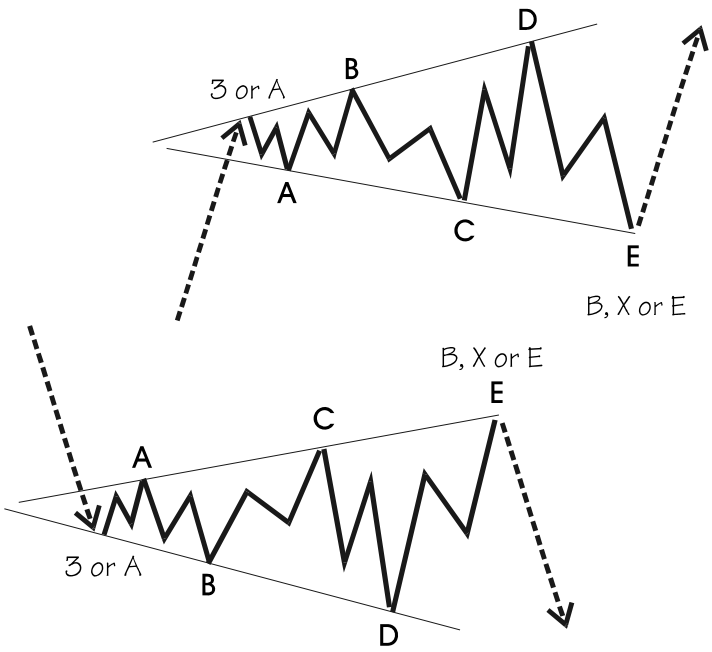
In which wave

Triangles occur only in waves B, X and 4. Never in wave 2 or A.

Internal structure

It is composed of five waves, of which the internal structure is 3-3-3-3-3.

Expanding Triangle:



Ascending Triangle:
This is a triangle, which slopes upwards. This pattern has been implemented in the **MODERN RULES**.

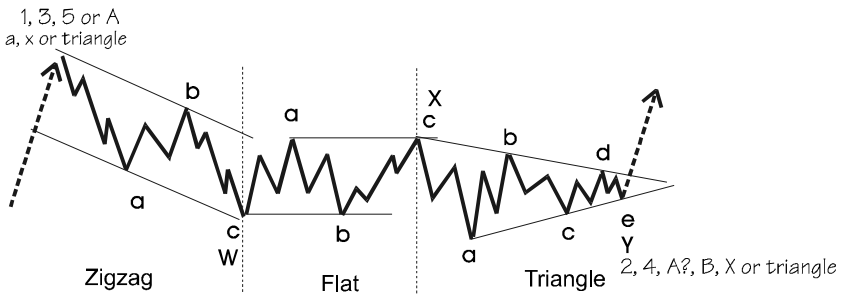
Descending Triangle:
This is a triangle, which slopes downwards. This pattern has been implemented in the **MODERN RULES**.

Running Triangle:
This is a triangle where the B wave exceeds the origin of wave A.

d. WXY or Combination

Many kinds of combinations are possible. Below a rather complex example has been depicted.

Pattern



Description

A Combination combines several types of corrections. These corrections are labeled as WXY and WXYXZ if it is even more complex. It starts for example with a Zigzag (wave W), then an intermediate X wave, then a Flat (wave Y) and so on. A so-called double or triple three is also a Combination, but this pattern combines Flats separated by X waves.

Rules and guidelines

- All types of corrective patterns can combine to form a bigger corrective pattern.
- The rules and guidelines, as mentioned for other corrective patterns apply.
- A triangle in a Combination should normally occur at the end.
- Corrective patterns in a Combination normally show alternation.

In which wave

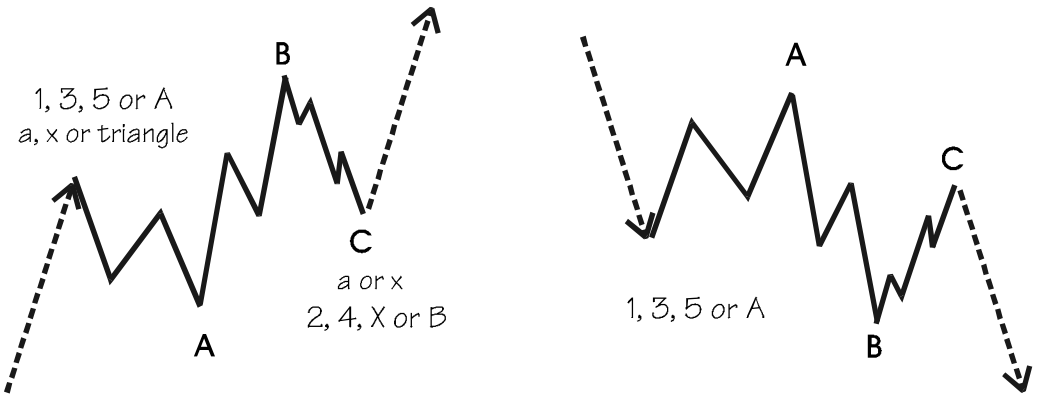
Generally a Combination occurs mostly in B, X and 4, it is less common in A and rare in 2.

Internal structure

For example a Zigzag, followed by a Flat, followed by a Triangle has the following internal structure: 5-3-5(Zigzag)-5-3-5(X)-3-3-5(Flat)-3-3-3-3-3(Triangle).

e. Running Flat

Pattern



Description

The Running correction is a rare special form of a failure. This pattern is a kind of Flat, with an elongated B wave and a very small C wave. According to theory wave C should be so short that it doesn't get to the price territory of wave A. *ELWAVE* does not except a C wave that fails to reach the price territory of wave A.
Instead of a running correction this could in theory be an extension in an impulsive wave, where the wave has subdivided in two (or more) 1,2 combinations. If the B is a clear three wave, then it is a Running correction, otherwise an extension. In practice there will not be any difference in market direction: in both scenarios the market will explode in the direction of the B wave, therefore *ELWAVE* prefers to label it as an extension. For the sake of correctness we have included this pattern, it has been implemented in the **CLASSIC RULES**, not in the **MODERN RULES**.

Rules and guidelines

- The B wave must be composed of three waves.
- The C wave must be composed of five waves.
- Wave C must be very short and normally will not reach the price territory of A.

- Wave C must not retrace more than 100% of wave B but more than 60% of wave A.

In which wave

Most of the time it should occur in wave 2 or B.

Internal structure

It is a three-wave structure. The internal structure is 3-3-5.

X wave

Description

An X wave is an intermediate wave in a more complex correction. This wave is always corrective and can take many forms like a Zigzag, Double Zigzag, Flat, Expanded Flat, combination and a triangle.

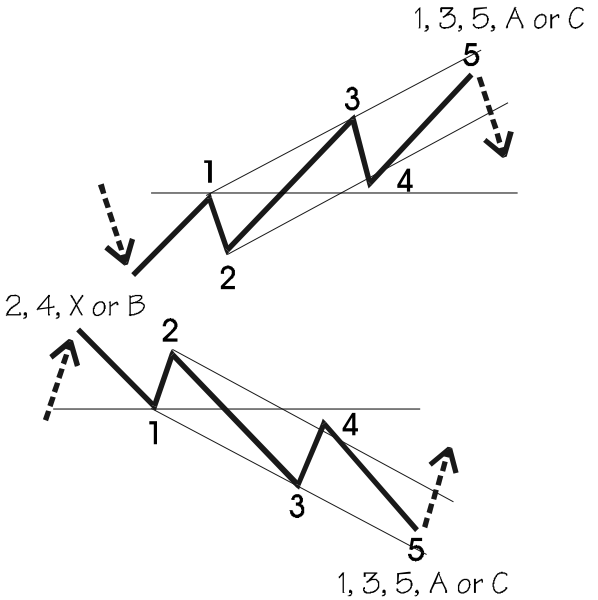
Modern Elliott Wave patterns

In our **MODERN RULES** engine we have defined extra patterns that are mostly hybrid patterns derived from the known patterns that have existed from the beginning. In addition, we allow for the occurrence of more patterns in some waves. For example, wave 1 may also contain a diagonal1, diagonal2 and impulse 2 pattern, in addition to the other trend patterns, that a classic interpretation accepts.

I. Trends

a. Impulse 2

Pattern



Description

An Impulse 2 is an uncommon pattern that resembles a normal impulse considerably. In our Automatic analysis we allow for a maximum retracement of 51.5% for wave 4 in an impulse or other trend pattern. Of course sometimes the retracement of wave 4 could be 51.6% and an impulse would then be eliminated, in spite of the fact that the limit was exceeded by 0.1% only. Naturally the Elliott Wave does not apply this strictly and the Impulse 2 pattern corrects for this problem. Apart from this, we have witnessed a retracement up to 62% for a wave 4 frequently in intra day charts.

Rules and guidelines

The same rules and guidelines apply as with a normal impulse except for the following:

- Wave 4 is allowed to retrace between 51.5% and 62%, without penetrating the region of wave 1.
- As a guideline, wave 4 very often is a Zigzag.

In which wave

Impulse 2 patterns mostly occur in waves 1,A or C, never in a wave 3!

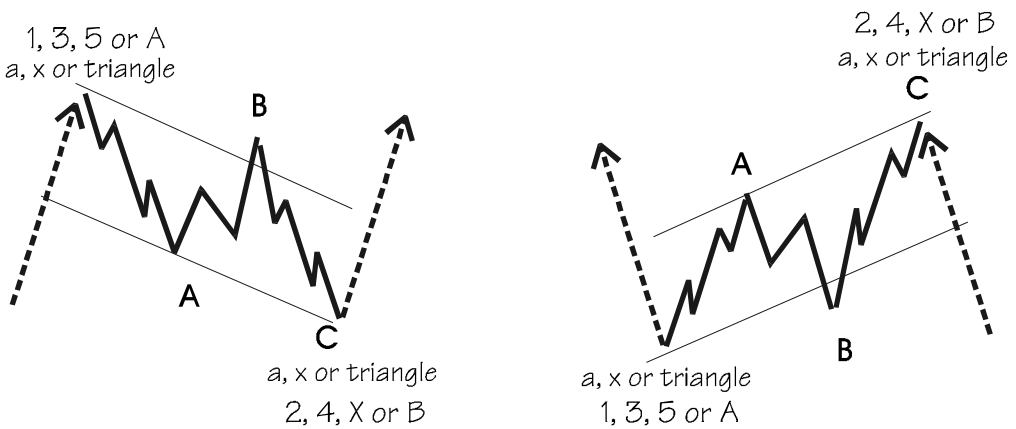
Internal structure

It is composed of five waves. The internal structure of these waves is 5-3-5-3-5. Note that the mentioned 3s are corrective waves, which could be composed of 5 waves in a corrective triangle.

II. Corrections

a. ZigzagFlat

Pattern

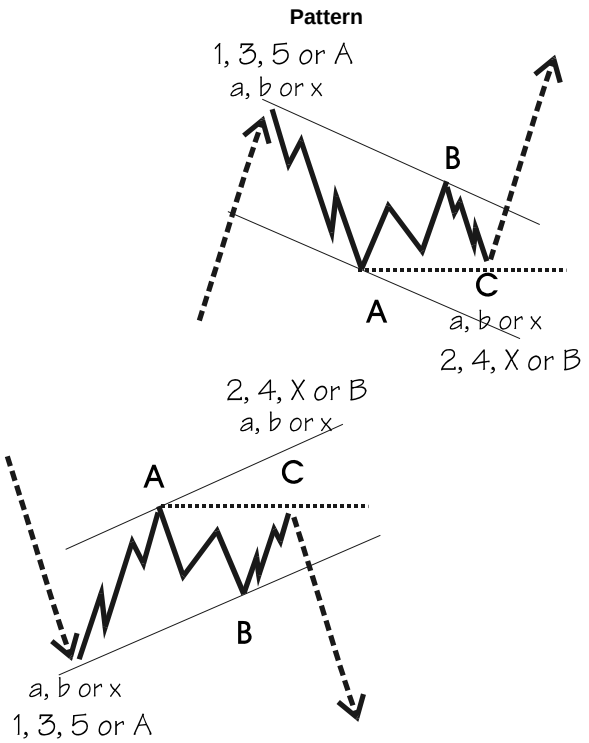


Description

It is a common pattern that is exactly the same as a Zigzag, except for the fact that the B wave is allowed to retrace more than 61.8% of wave A.

b. Running Zigzag

Pattern



Description

Apart from contracting Triangles, a failure in a corrective pattern happens when the C wave is shorter than wave A and fails to go beyond the end of A. This mostly happens in Running Flats and or in Zigzags. It indicates strength in the direction of the main trend.

Rules and guidelines

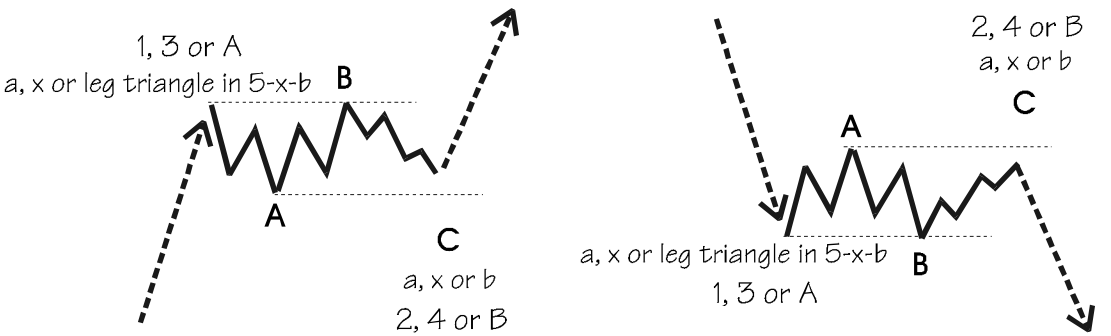
- The rules as mentioned with other corrective patterns apply.
- Wave C fails to go beyond the end of wave A.

In which wave

Failures can occur in a C wave of wave 2, in a C or E wave of wave 4, in a C wave of wave B or X.

c. Failed Flat

Pattern

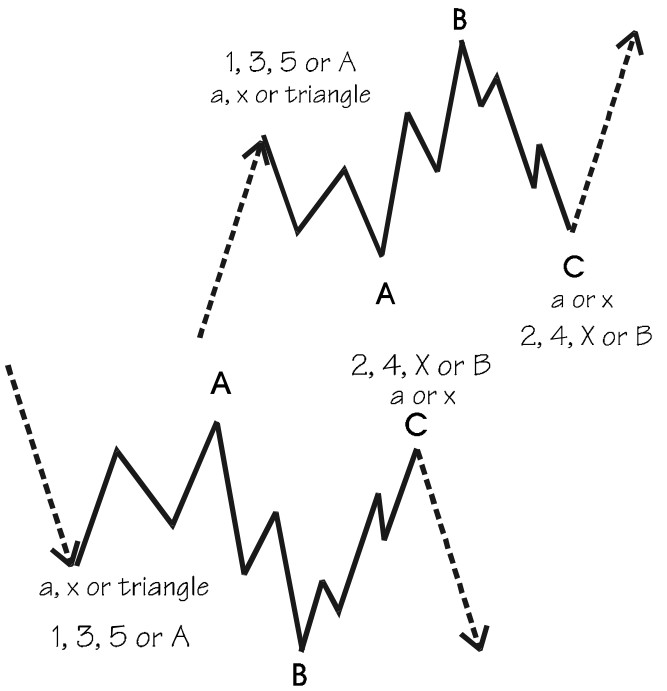


Description

This pattern is exactly the same as a Flat, except for the fact that wave C does not reach the end of wave A and therefore is shorter than wave B.

d. Running Flat (modern)

Pattern



Description

This pattern is exactly the same as a Running Flat, except for the fact that it must retrace more than 60%, if not *ELWAVE* considers it to be a normal Running Flat. This distinction is necessary, because normally a Running Flat is rare. But if it retraces more than 60% and still fails to reach the end of wave A, it suddenly becomes a much more probable the pattern will occur. In which case it will get a much higher score.

e. Ascending and descending Triangles

Description

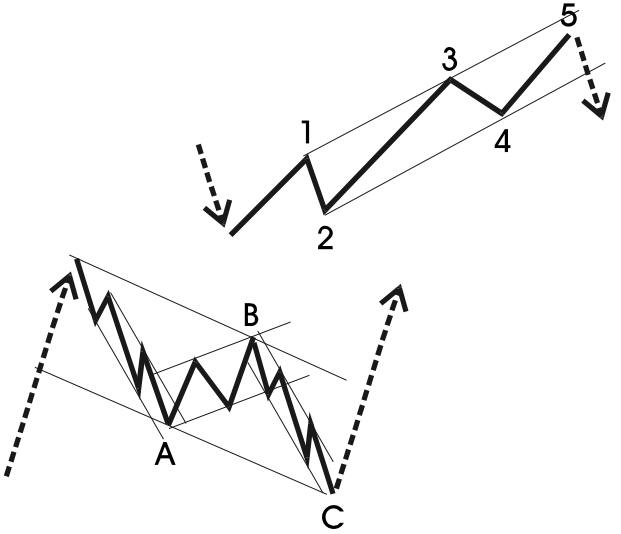
These are mentioned under the Triangles description in the Classic patterns section. Basically these patterns are the same as common contracting triangles, except for the fact that ascending and descending triangles slope up or down.

4. Channeling

Channeling is an important tool not only to determine which sub waves belong together, but also to project targets for the next wave up.

Channels are parallel lines, which more or less contain the complete price movement of a wave. Although the trend lines of a Triangle are not parallel lines, they will also be considered as a channel. Underneath you see an example of a channel in an impulsive wave and all channels in a corrective wave. Note that all patterns in the section "Patterns" show their channels.

The picture of the corrective structure labeled A, B, C shows clearly how channels indicate which waves should be grouped together.

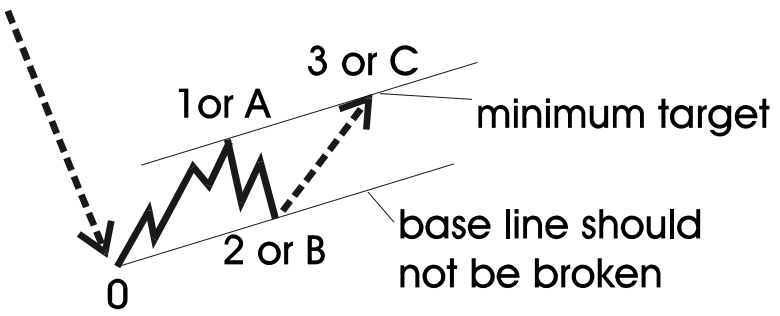


Waves of the same degree can be recognized by drawing channels. Especially this is the case for Impulse (5) wave structures, Zigzags and Triangles. If these waves do not equate properly, you have a strong indication to search for an alternative count.

Next you will learn how to draw channels and how to project targets using channels.

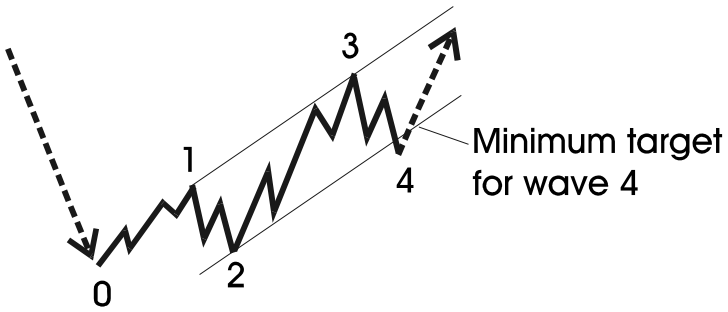
Targets for wave 3 or C

To begin with you should draw a channel as soon as waves 1 and 2 are finished. Connect the origin of wave 1, which has been labeled as zero, and the end of wave 2. Then draw a parallel line from the top of wave 1.
Generally this channel is regarded as not being very useful, but it is. First of all, the parallel line serves as an absolute minimum target for the 3rd wave under development. If the 3rd wave can't break through the upper line or fails to reach it, you are probably dealing with a C wave instead of wave 3.
Furthermore the base line from 0 to wave 2 serves as a stop. When this base line gets broken, there is a strong probability that wave 2 (or B) gets more complex, thus wave 3 or C has not begun yet.
Keep in mind that wave 3 is normally the strongest wave and often will go far beyond the upper trend line.



Targets for wave 4

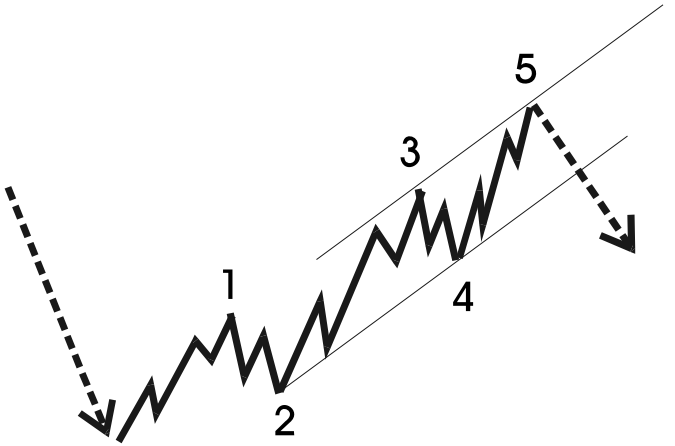
As soon as wave 3 is finished you can draw a channel by connecting the end of wave 1 and wave 3 with a trend line and drawing a parallel line from the end of wave 2. In this way you can project a target for wave 4. Keep in mind that normally the base line from wave 2 will be broken slightly by the price action of wave 4. The base line serves as a minimum target for wave 4. If wave 4 doesn't come near the base line at all, this is a sign of a very strong trend. You are probably still in wave 3 or you should get ready for a blow off in wave 5.



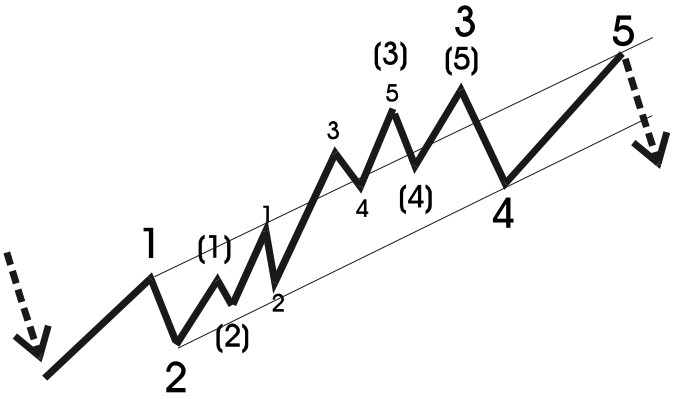
Targets for wave 5

Method 1

As soon as wave 4 is finished you can draw a channel connecting the end of wave 2 and wave 4 with a trend line by drawing a parallel line from the end of wave 3. In this way you can project a target for wave 5. In most cases wave 5 will fail to reach the upper trend line, except when you are dealing with an extension in wave 5 or when wave 3 has been relatively weak. In an extension, which is also indicated by high volume and momentum indicators, a throw over can occur.

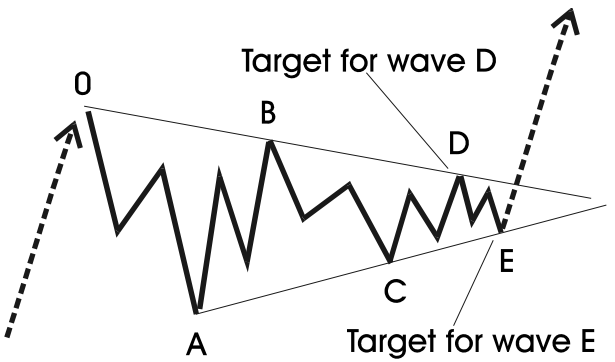


Method 2
Mostly wave 3 is the strongest wave showing a very fast acceleration relative to waves 1 and 5. If wave 3 indeed shows a nearly vertical rise or decline, then draw a trend line connecting wave 2 and 4 and draw a parallel line from wave 1(!). This parallel line will cut through wave 3 and will target wave 5. Experience shows this to be a very valuable channel.



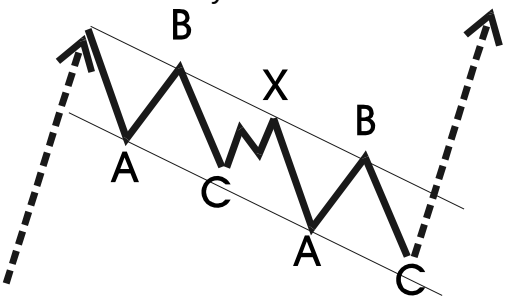
Targets for wave D and E

As soon as wave B is finished you can draw a trend line connecting the origin of wave A and the end of wave B to get a target for wave D, provided a triangle indeed is developing. This is more certain after completion of wave C. As soon as wave C is finished you can draw a trend line connecting wave A and the end of wave C to get a target for wave E. Wave E almost never stops at the trend line precisely, it either never reaches the trend line or it overshoots the trend line fast and temporarily.



Targets in a Double Zigzag

Drawing a channel is very useful to separate Double Zigzags from impulsive waves, which is difficult since both have impulsive characteristics. Double Zigzags tend to fit a channel almost perfectly, while in an impulsive wave the third wave clearly breaks out of the channel.



5. Fibonacci ratios

The Fibonacci series are a mathematical sequence in which any number is the sum of the two preceding numbers. The sequence goes as follows: 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144 and so on. The properties of this sequence appear throughout nature and also in the arts and sciences. Most notably the ratio of 1.618, the "Golden Mean", is very common, a relationship already discovered in ancient times. This number can be approached by dividing a Fibonacci number by its preceding number as the sequence extends into infinity. Besides, ratios of .618, which is the inverse of 1.618 are very prominent when analysing Fibonacci relationships.

Elliott didn't discover the Fibonacci relationships himself, but this was brought to Elliott's attention by Charles Collins. The wave counts of the impulsive and corrective patterns (5 + 3 = 8 total) are Fibonacci numbers, and breaking down wave patterns into their respective sub waves produces Fibonacci numbers indefinitely.

Analysing Fibonacci relationships between price movements is very important for several reasons.

First you can control your wave analysis. The better the Fibonacci ratios of your wave count, the more accurate your count is, because in some way or the other, all waves are related to each other. Secondly you can project realistic targets once you have defined the wave count correctly or you have distinguished different scenarios, which point in the same direction.

Since Fibonacci ratios manifest themselves in the proportions of one wave to another, waves are often related to each other by the ratios of 2.618, 1.618, 1, 0.618, 0.382 and 0.236. This fact can help you in estimating price targets for expected waves.

If, for example a wave 1 or A of any degree (or time frame) has been completed, you can project retracements of 0.382, 0.50 and 0.618 for wave 2 or B, which will give you your targets. Most of the time the third wave is the

strongest, so often you will find that wave 3 is approximately 1.618 times wave 1. Wave 4 normally shows a retracement, which is less than wave 2, like 0.236 or 0.382. If wave three is the longest wave, the relationship between wave 5 and three often is 0.618. Also wave 5 equals wave 1 most of the time.
The same relations can be found between A and C waves. Normally C equals A or is 1.618 times the length of A.
You could even combine waves to find support and resistance zones. For example the net price movement of wave 1 and 3 times 0.618 creates another interesting target for wave 5.
It is worthwhile to experiment a lot with your wave count, Fibonacci will help you to solve the rhythm of the markets.

Targets for wave 1

The first wave, a new impulsive price movement, tends to stop at the base of the previous correction, which normally is the B wave. This often coincides with a 38.2% or a 61.8% retracement of the previous correction.

Targets for wave 2

Wave 2 retraces at least 38.2% but mostly 61.8% or more of wave 1. It often stops at sub wave 4 and more often at sub wave 2 of previous wave 1. A retracement of more than 76% is highly suspicious, although it doesn't break any rules yet.

Targets for wave 3

Wave 3 is at least equal to wave 1, except for a Triangle. If wave 3 is the longest wave it will tend to be 161% of wave 1 or even 261%.

Targets for wave 4

Wave 4 retraces at least 23% of wave 3 but more often reaches a 38.2% retracement. It normally reaches the territory of sub wave 4 of the previous 3rd wave.

In very strong markets wave 4 should only retrace 14% of wave 3.

Targets for wave 5

Wave 5 normally is equal to wave 1, or travels a distance of 61.8% of the length of wave 1. It could also have the same relationships to wave 3 or it could travel 61.8% of the net length of wave 1 and 3 together. If wave 5 is the extended wave it mostly will be 161.8% of wave 3 or 161.8% of the net length of wave 1 and 3 together.

Targets for wave A

After a Triangle in a fifth wave, wave A retraces to wave 2 of the Triangle of previous wave 5. When wave A is part of a Triangle, B or 4 it often retraces 38.2% of the complete previous 5 wave (so not only the fifth of the fifth) into the territory of the previous 4th wave. In a Zigzag it often retraces 61.8% of the fifth wave.

Targets for wave B

In a Zigzag, wave B mostly retraces 38.2% or 61.8% of wave A. In a Flat, it is approximately equal to wave A. In an Expanded Flat, it usually will travel a distance of 138.2% of wave A.

Targets for wave C

Wave C has a length of at least 61.8% of wave A. It could be shorter in which case it normally is a failure, which foretells an acceleration in the opposite direction.
Generally wave C is equal to wave A or travels a distance of 161.8% of wave A.
Wave C often reaches 161.8% of the length of wave A in an Expanded Flat.
In a contracting Triangle wave C often is 61.8% of wave A.

Targets for wave D

In a contracting Triangle wave D often travels 61.8% of wave B.

Targets for wave E

In a contracting Triangle wave E often travels 61.8% of wave C. It cannot be longer than wave C!

Targets for wave X

Wave X minimally retraces 38.2% of the previous A-B-C correction; a retracement of 61.8% is also common.

1. General

The Elliott Wave Principle provides you with the most objective and disciplined method available for trading. Only a handful of patterns exist, sometimes easy to recognize especially in strong impulsive waves. The still validated patterns tell you where the market is heading, in what way (or structure) this will happen and under what circumstances the pattern will produce a stronger probability. Also the pattern will tell you when it is no longer valid due to the occurrence of an intolerable price action. This makes it possible to exactly determine your entry and exit points, which is an outstanding characteristic of the Elliott Wave Principle.

The key to forecasting markets with *ELWAVE* lies in determining the probabilities of alternative scenarios. If you find several alternative counts pointing in the same direction, you have found an excellent trading opportunity.

Some people, mainly those who can not successfully apply the Elliott Wave Principle themselves, will tell you either it is too complex and subjective or that the waves don't exist at all, suggesting the market follows a random pattern.

Obviously the Elliott Wave Principle can get very complex- especially in corrective waves- since you will have to look for patterns, which contain patterns, which contain patterns etc. etc. But it will never lose its objectivity if you apply the rules and guidelines. The only problem is that sometimes it is not totally clear if the internal structure of a wave is a 3 wave or a 5 wave. In that case you will have to determine alternatives for both internal wave structures and look for other confirmations, such as channels, indicators and Fibonacci ratios.

Below we mention the key steps for Elliott Wave analysis and supply basic trading patterns to search for.

2. General directives for trading

Now you can use the Automatic Analysis, to trade profitably. The more probable an outcome the better the opportunities. The more the alternatives point in the same direction the more certain that the market will move accordingly.
The Automatic analysis will generate an ever objective and consistent wave count and will always present the most probable outcome first, through applying objective rules and guidelines and through implementing a true Elliott Wave model.

Those who **really would like to learn the Elliott Wave Principle** must study the ins and outs. In the following, we offer some directives. These directives come from our own experience as well as from many publications on this subject. Of course every trader or analyst should find his own path to success.

Study the patterns mentioned under the section "Basic theory"

- Know the rules and guidelines.
- Learn the internal structure of the patterns, which will enable you to recognize a pattern within a pattern.
- Remember that only waves 1,3,5, A and C can be impulsive waves.
- All other waves are corrective, against the trend, and show overlap in their internal structure.

Design alternative scenarios by labeling a chart

1. Start labeling a chart by taking into account the following rules and guidelines:

    - Separate impulses from corrections. An impulse normally shows **acceleration and no overlap**, a correction shows a sideways pattern.

- Waves of the same degree should have the same **proportions**, which is especially important for waves 2 and 4. A minuscule 4th wave cannot belong to a big wave 2 and so on.
- **Wave 2 can never retrace more than 100%** nor go beyond the origin of wave 1.
- **Wave 3** normally is the **longest** wave and shows the most powerful acceleration.
- In wave 3 there is never an overlap between wave 4 and 1, as occurs in fifth waves (and first or A waves.
- Label the **big picture**, is it a three or a five?
- Label more in **detail,** by labeling the smaller wave degrees initially, then go back to the large wave degrees, changing your labels if necessary.
- Check if the required **internal structure** of your waves, comply with the rules and guidelines. For example a B wave never can consist of five waves and so on.
- Check if the **internal structure of the internal structure** is correct. For example an (expanded) Flat consists of a 3 wave, again a 3 wave and a 5-wave structure. If this is not true, change your labeling.
- Check your wave count for **alternation**, especially with waves 2 and 4. If wave 2 showed a simple Zigzag, wave 4 should show a complex pattern.
- A corrective pattern mostly minimally carries into the **territory of the 4th wave** of the previous impulse wave.
- Within a 5-wave impulse, two waves will tend to **equality**. If wave three is the longest, wave 5 will tend to equality with wave 1.
- Use momentum **indicators** and volume to support your wave labeling. Wave 3 should have the highest momentum and volume (if it is the longest wave).

- Calculate the **Fibonacci** relationships. If your wave count reveals a lot of reasonable Fibonacci ratios, you have found an interesting count.
- Draw **channels** and determine if your wave count more or less fits these channels. The better the fit, the better the count.

2. Design as many scenarios as the Wave Principle allows, with regard to the wave degree or time frame you are analysing.
3. Do the same for shorter and longer time frames (or lower and higher wave degrees) and try to narrow down alternatives by fitting them to a multiple of wave degrees.
4. Assess the probabilities of these scenarios by studying their compliance with the permitted internal wave structure, the outcome of the Fibonacci ratios and the fit of the channels.
5. Draw the expected price action and pattern of each scenario you have designed, mark price levels where you get signals to enter or exit the market.

Design a trading system

- Determine what time frame (or wave degree) you would like to trade.
- Determine which patterns and alternative wave counts give the best trading opportunities, such as when several alternatives all produce a price movement in the same direction.
- Determine objective entry points based on patterns.
- Determine objective exit points, also based on patterns. You should for example exit a trade when a price movement makes your preferred wave count invalid.

Control your emotions

- Don’t be afraid to take a loss if your stop gets hit. This means you will have to admit you were wrong on this trade. Don’t be afraid of loosing the (little) profit you

have made and only exit if your system or wave analysis tells you to.

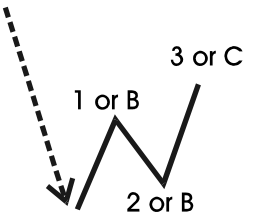
- Follow the rules of the Elliott Wave Principle and don't second-guess the market. Believe what *ELWAVE* tells you, your stop will protect you.
- Of course there will be loosing trades, a 100% score is impossible. But if you limit your losses (by executing your stop) and let your profits run, you should be very successful. So maintain your discipline and learn from all trades.

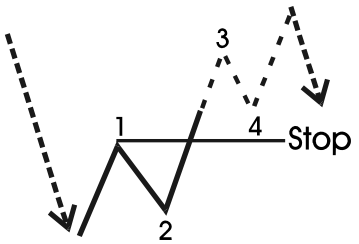
3. Trading example

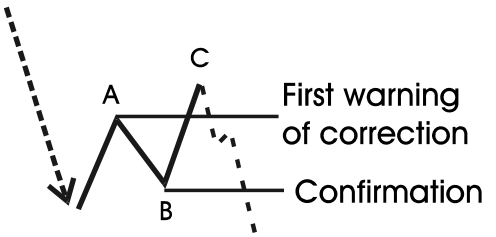
Theory

In this section you will be shown how to recognize an impulsive wave from a corrective wave. In the same way as these basic patterns are compared and analysed here, you can do it yourself with all other patterns.

Suppose the market has experienced a big sell off. From the low it starts to rise. Wave 1 (or A) and wave 2 (or B) have been completed and the market starts to rise again. The first picture shows two scenarios possible, either an impulse (1,2,3) or an A,B,C correction. The pictures thereunder demonstrate which price action to expect in an impulse or in a correction:



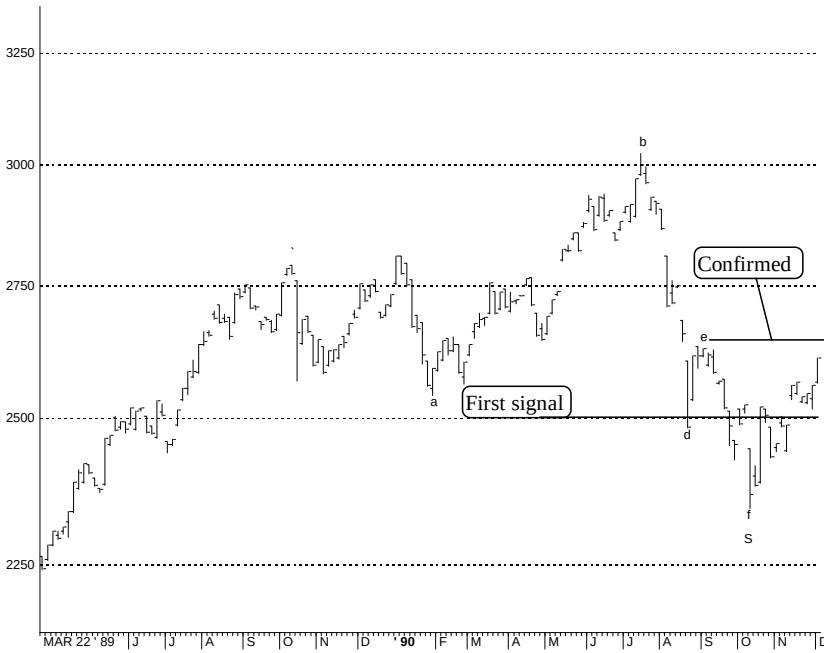




The pattern can be an impulse only if the 4th wave does not overlap the first, a level indicated by the horizontal “stop” line. As soon as the price drops under this line- **before wave 5 has been completed**- you have your first signal of a pending correction (picture above at the right). This correction will be confirmed when the price drops under the origin of wave C, which is the end of wave B. Provided it doesn’t drop under the “confirmation” line, it could still be an extended 3rd wave that subdivides. In that case the C or 3 wave is only wave 1 of the third wave! You will find the pattern called extension under the chapter “Patterns”.

Practice

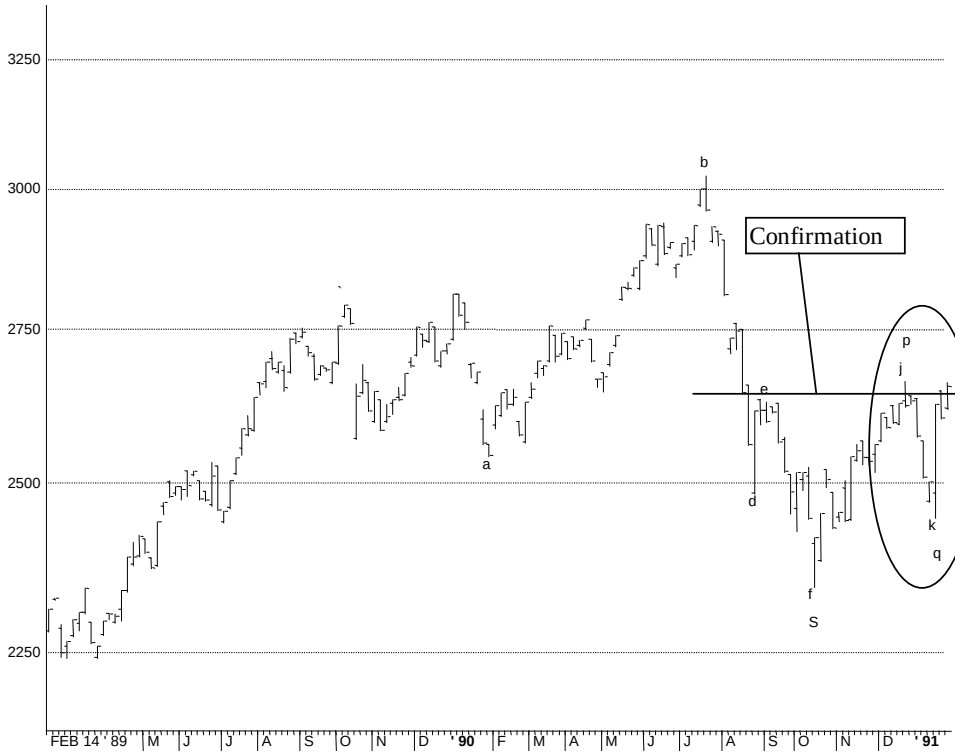
Now we will try to apply the theory above in practice, step by step.



The market has dropped significantly. Then prices start to rise again. Above 2500 -A- you have your first indication of a corrective pattern, above the high of B you have a very high probability of reaching a new high in this market, since then you know for sure the pattern is a 3-wave instead of a 5-wave.

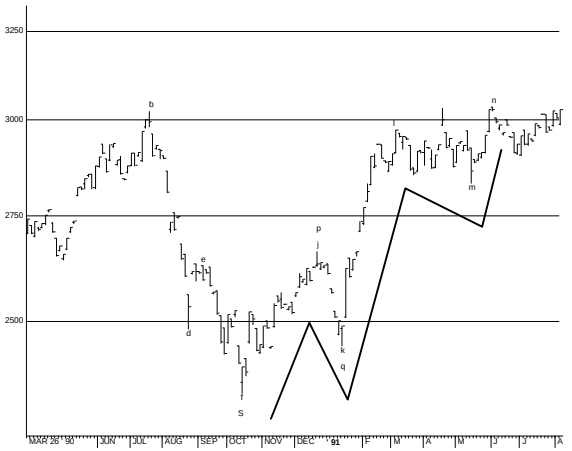
In the previous graph you have already recognized a structure consisting of three waves. Because there are three waves, we are dealing with a correction, which is a movement against the trend. Therefore the long-term trend is up and a new high will be reached.
Underneath will be shown what happened next. Basically there are two scenarios which could develop. Firstly the correction could be terminated at point C and (2), finishing a **Single Zigzag**. Secondly a **Flat or Expanded Flat** could be developing. Then this market at the minimum will reach its

high in a 3-wave structure, decline again to approximately point C and (2). Thereafter the larger uptrend will resume and the market will reach uncharted territory.
With the above in mind it is crucial to determine if the rise will have the form of a 3 wave or a 5 wave. Let's take a look at the picture:



Wave B has been surpassed, so this was a correction indeed! Minimum target is the old high, either as a Flat , or as a new impulse making new highs again and again, but then we have to see a 5-wave! The ellipse indicates that a 1,2 or a A,B has been set.

To conclude, let's take a look at the following price action:

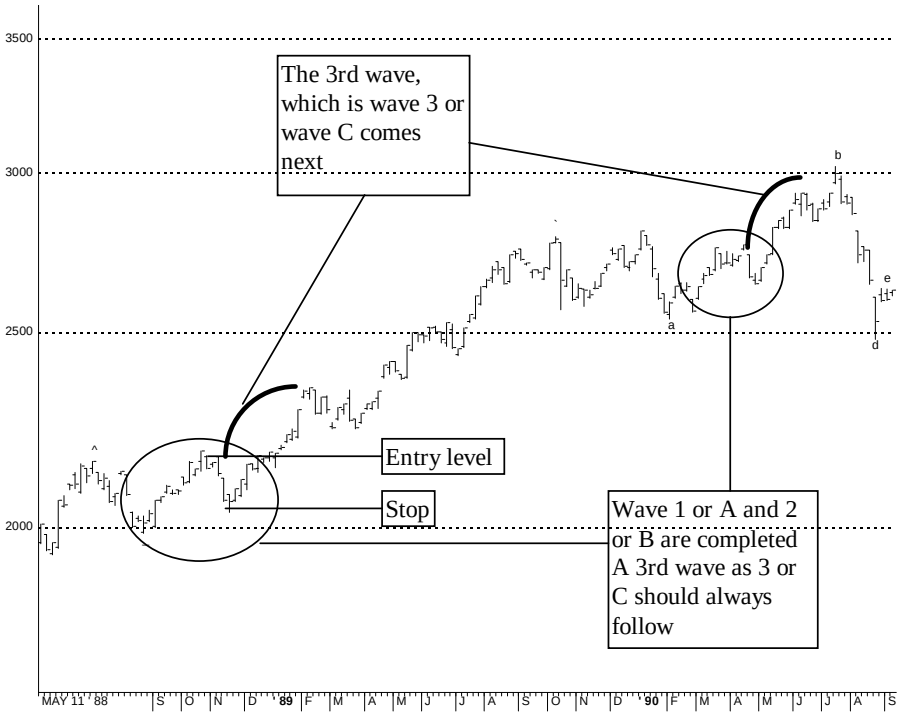


By just looking at its form- the pattern has no overlap, you can tell this definitely is a 5 wave, not a 3 wave and indeed it reached the old high at 3000.
This 5- wave is the first wave of a larger wave degree, also composed of five waves. Therefore a minimal price increase of 25% (the same as wave 1) for the larger wave 3 can be calculated, which projects a target of approximately 4000.

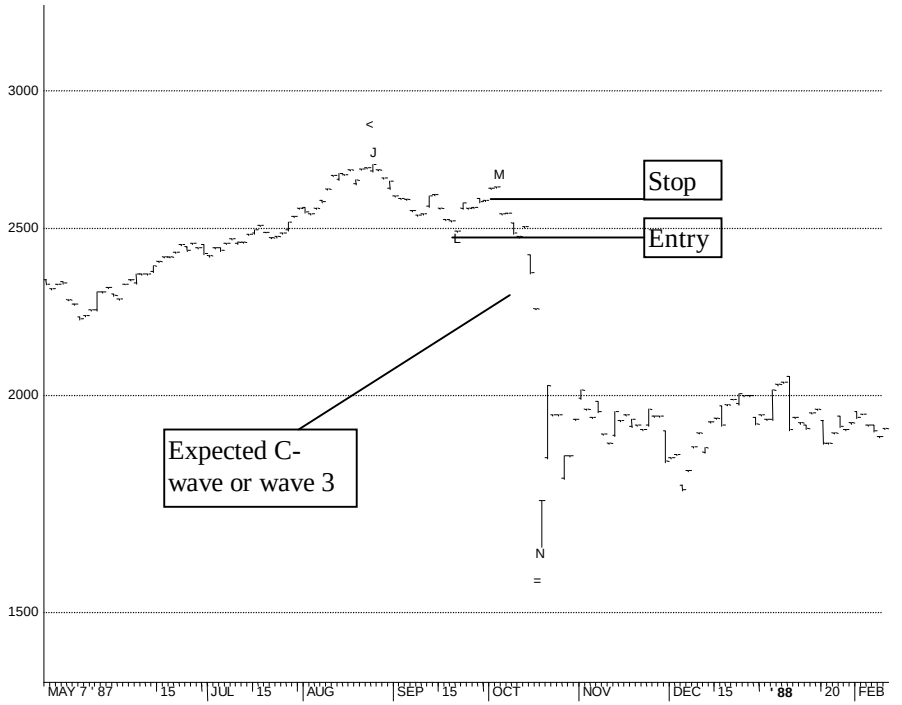
Since the above chart displays the price action of the Dow Jones, we all know what happened. The market corrected a bit, accelerated again and met a major resistance at 4000 as the following picture demonstrates. Around 4000 again a correction developed, indicating that the main trend was still up and projecting even higher targets.
The same patterns evolve over and over again, enabling you to forecast the markets and explain what happened afterwards.

4. Simple, but effective trading strategy

Since all patterns or their sub patterns are either 3 wave or 5 wave structures, it follows that at the minimum **always three waves** will occur, no matter what happens.
Therefore if you concentrate on the 3rd wave, which will be a wave 3 in an impulse or wave C in a correction, you have a strong probability of making a profit.
The charts in the following pictures give an example of this strategy in a rising, as well as a declining market.



The waves indicated in this chart could have been part of an expanded flat or an impulsive wave. In both cases the 3rd wave had to develop!



This chart pictures the crash which occurred in 1987. Since only one wave down from the top to 2500 had occurred, a 3rd wave (C-wave or wave 3) was required to complete the pattern.

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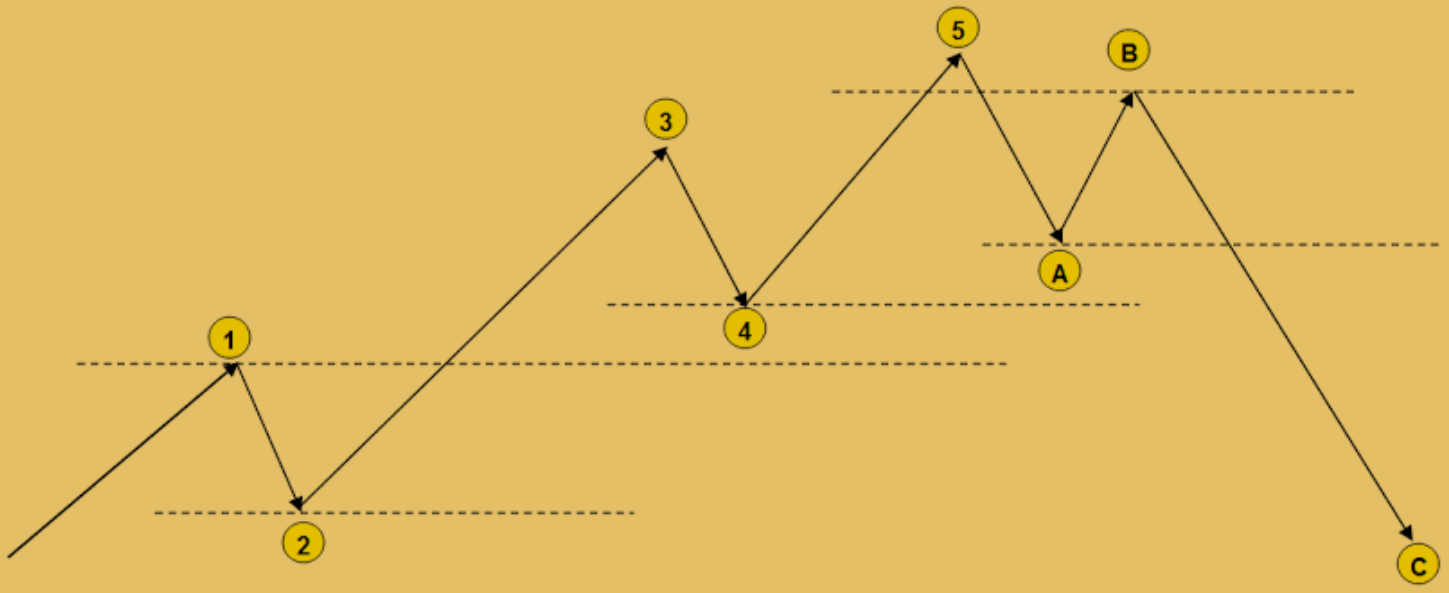

ELWAVE

Elliott Wave Theory