

Lecture № 8 Trend analysis

In this lecture we shall be learning about the methods of technical analysis. Considering the market analysis from a technical point of view, trends appear to be a key concept. All the analysis and assessment toolkits used by an analyst - support and resistance levels, price models, moving averages, trend bounds - are destined to carry out one task. Using these facilities the analyst defines and estimates the trend to follow during any further trading. All of us have faced epigrams such as “trade only within the trend,” “never go against the tendency,” “the trend is your best friend.” In the previous lectures we were discussing the concept of trends, so let’s give a definition of trends and classify them into several categories.

Broadly speaking, a trend or a tendency is a movement direction of the market. In real life no market moves in a straight line. The market dynamics take a zigzag course resembling a wave succession: rise and fall, rise and fall. These dynamics fluctuations determine the market trend.

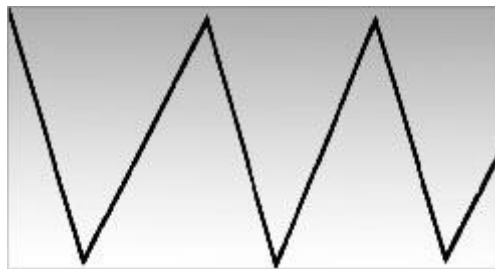
The dynamic direction of these ups and downs with the ascending, descending or horizontal trends shows the market tendency behavior. So, if every additional tick up or down is lower than the previous one, it is a descending trend. If these adjustments remain at the same level, we have a horizontal tendency (see picture 4.1 a-d).



Picture 4. 1a. Example of a rising trend with the ascending peaks and recessions



Picture 4.1b. Example of a descending trend with the descending peaks and downturns



Picture 4.1c. Example of a horizontal tendency, where the top and bottom lines are at one level

Such markets are often called trendless.



Picture 4.1 d. On the left side of the graph we can see the growing trend representation, on the top – a flat-dipping line and decreasing movement on the right.

A trend has three directions

It is no coincidence that we have introduced ascending, descending and flat-moving trends. Many people suppose that the market follows one certain line – increasing or decreasing. But in actuality the market moves in three directions - up, down or remaining still. This must be well-learned, as according to conservative estimates, about one third of all time is spent on bottom-up adjustments when the peaks and recessions stay approximately in the same range. This model of horizontal price movement is called trading or market range. Such vibrations show the equilibrium price period when the supply and demand ratio is almost changeless. For a technical analyst this kind of market turns out to be a trap.

Most technical instruments and systems are oriented to the tendency, in other words, they are focused on how the market moves – upwards or downwards. In a trendless mode they become inefficient or altogether useless. Especially these “sticky” periods of a flat market bring a lot of disappointments for the technical system traders, resulting in significant losses. For the trend following system to be efficient, first of all there must be a trend. So the heart of the matter is not in the system, but in the trader trying to use it under conditions not suitable for it. Each trade, operating on the financial market has three options: buy (take up a long-term position), sell (short-term position) or do nothing (wait). If the market goes up, it's better to buy; if it goes down – to sell. But if the market is flat/trendless, the most reasonable decision would be not to undertake anything.

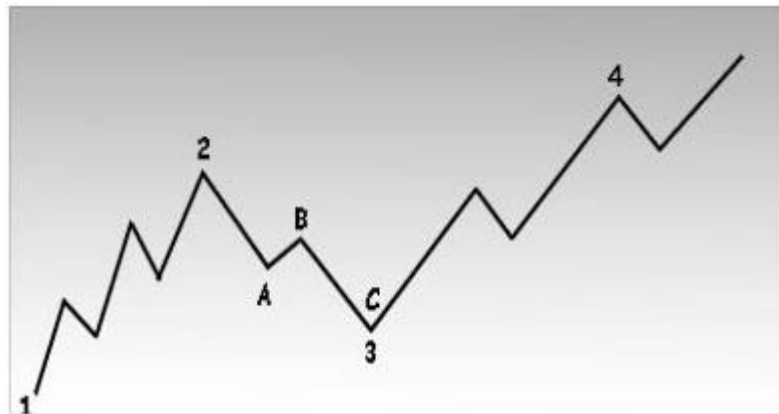
Three trend types

In addition to the fact that a tendency can follow the three scenarios mentioned above, it can also come in three forms: long-term, mid-term, and short-term (or small). Actually, the quantity of trends operating and crossing each other is almost endless. There are some trends able to exist for just a few minutes, as well as those which can last several hours, but there are also super giants – the existence period can continue for 50 or even 100 years. However, most chartists are inclined to the traditional classification and distinguish three tendency types, although one term does not include the same concepts.

For instance, Dow Theory determines the main trend as existing after 1 year. But due to the fact traders operate in much shorter time lines, the main market trend is that which

holds on not less than half a year. According to Dow's definition, a mid-term tendency lasts from 3 weeks up to 3 months. And a small or short-term trend – less than 2-3 weeks.

Each type appears to be a part of another, larger trend. For example, a mid-term tendency represents a correction or adjustment against the larger one. In a long-term rising trend the market can switch to a holding pattern to adjust the situation during a couple of months. This mid-term correction in its turn will involve a range of shorter rises and falls. And all this goes round and round. A tendency is some kind of a Russian nested doll (Matryoshka): it is a part of a larger trend, but at the same time it also contains some small elements (see picture 4.2a and b).



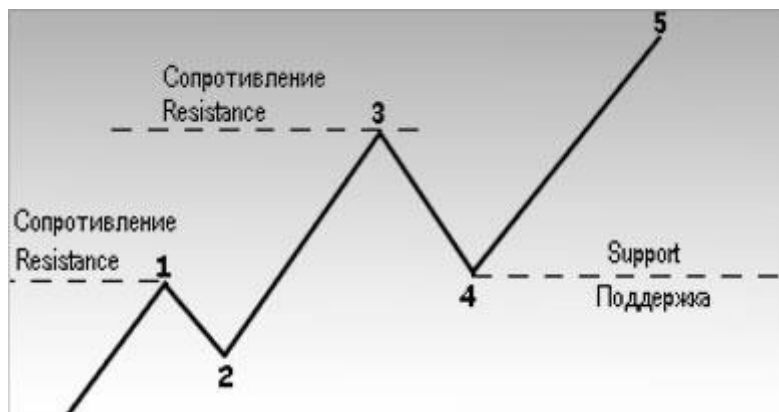
Picture 4.2a Example of the three tendency types: long-term, mid-term and short-term. Points 1, 2, 3 and 4 signal the long-term ascending trend. The wave 2-3 represents a mid-term correction within the long term one. In its turn, each mid-term (secondary) wave divides into smaller short-term trends. For example, the mid-term wave 2-3 consists of the smaller waves A-B-C.

In picture 4.2a, the long term tendency is upwards, as the highs and lows are rising (points 1, 2, 3, 4). The correction phase (section 2-3) is a mid-term adjustment of the long-term rising trend. But pay attention to how wave 2-3 divides into 3 smaller waves (A, B and C). At point C an analyst can conclude that the long-term tendency continues going up, however, the mid-term and small trends are descending at this time. At point 4 all three tendencies will be ascending. It's necessary to understand the difference between three trend types. In case somebody asks what the current market tendency is, it's essential to find out which one he/she is referring to before answering. Most likely in answering this question you

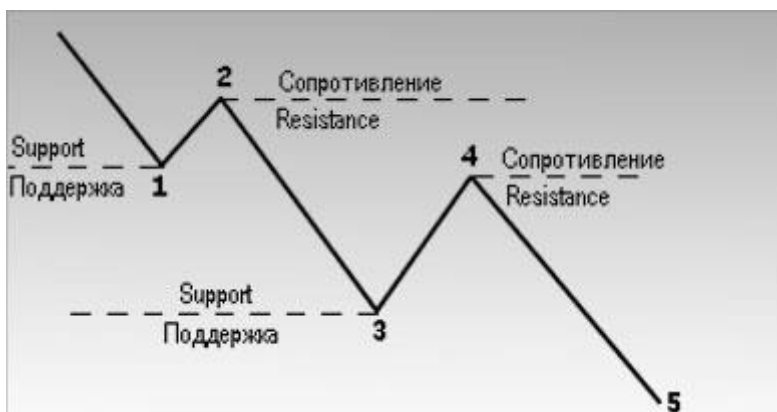
will have to apply to above mentioned classification and describe each of the three tendencies operating in the market at that time. As a rule, the most analytical approaches acting in the trends of the financial markets are mostly oriented to the mid-term tendency, which can last several months. Small or short-term trends are usually used for defining a certain moment of opening or closing the positions. Let us say if the mid-term tendency ticks up, the short-term drop can be used for taking a long position. If, however, the mid-term tendency goes down the short-term jump can be useful for taking a short position.

Earlier we noticed that a price movement is a range of surges and declines, and their direction determines the market trend. Now, let us give names to these upward and downward movements. Thus we arrive at the concepts of “support” and “resistance.” The previous decline levels are called support. As it comes from the famous trading book, support is a level or zone at the graph below the market rate, where the purchase ambition is rather high and can stand against the dealer’s pressure. As a consequence, the pace of decrease is slow and prices rise up again.

Normally, the support level can be defined in advance by analyzing the previous drop. In the picture 4.3a the points 2 and 4 are in line with the support levels in the ascending trend (see picture 4.3a and b).



Picture 4.3a On the graph are depicted the support and resistance levels in a rising tendency. The points 2 and 4 are the support levels. Usually, they match the previous downturns. The points 1 and 3 are the resistance levels, which to come in line with the preceding peaks.



Picture 4.3b Resistance and support under a descending trend.

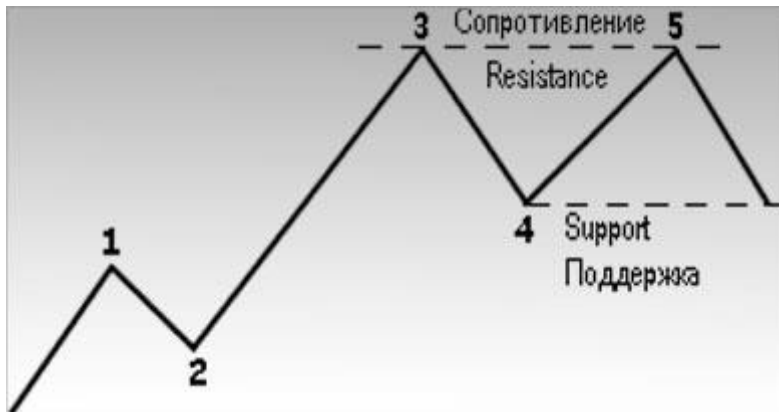
Resistance is the opposite of support (above market rate level) where the sellers' pressure overtakes the buyers'. In consequence, the price growth eases and changes to a decrease. Usually, the resistance level comes in line with the previous top. In the picture 4.3a the points 1 and 3 fit with the resistance levels. Here is illustrated an ascending trend chart, where the support and resistance levels are rising.

Picture 4.3b shows a declining tendency graph, where the rises and falls are downward. In this case, points 1 and 3 turn out to be the support levels, 2 and 4 – the resistance levels.

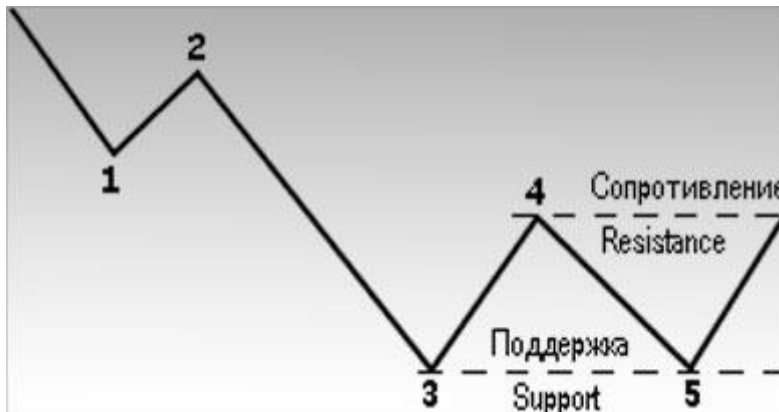
If the tendency moves up, the resistance levels signal the intervals during the development period when it is possible to overcome them and advance further.

If the tendency goes down, the support levels cannot stop the price from lowering, but they are able to hold it for a while.

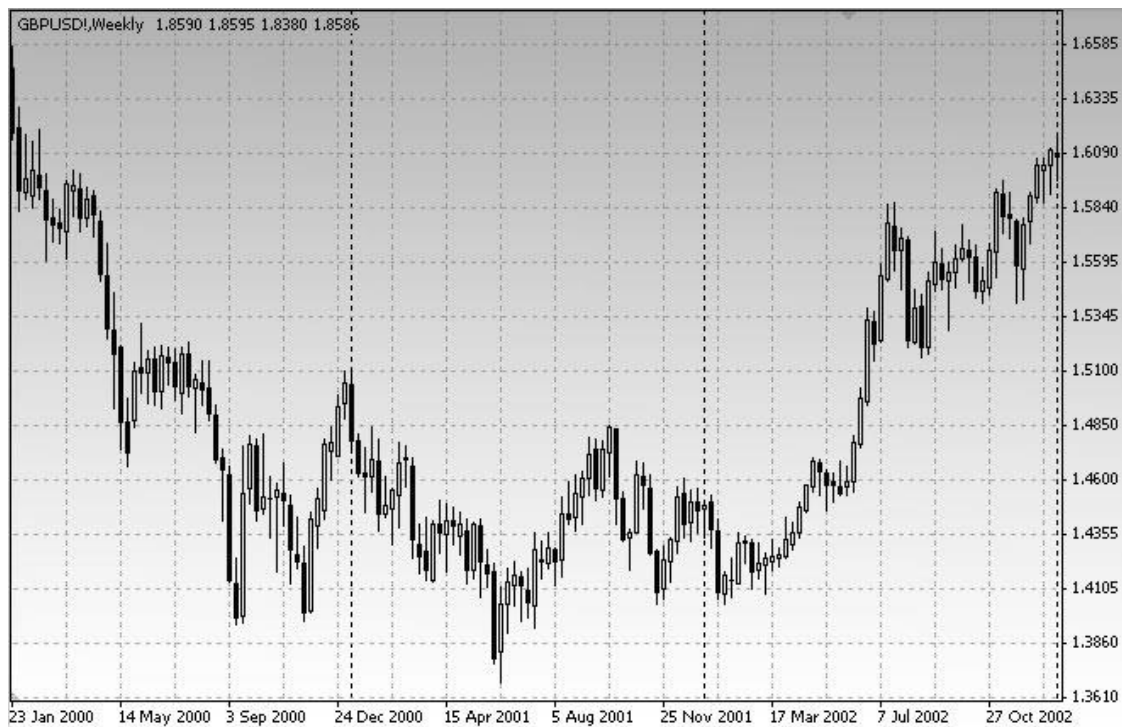
To understand the core of the tendency, it is essential to grasp the support and resistance terms. To say that the rising trend continues it is necessary for each sequent recession (support level) to be higher than the previous one. Consequently, each next peak (resistance level) must be higher too. If a correction drop touches the previous rate, it may be the first sign of possible end to the ascending trend or a switch from a rising tendency to a flat one. If the prices manage to surmount the support levels, the changeover from ascending to descending movement becomes most probable.



Picture 4.4a Example of a reversal in the tendency dynamics. At point 5 the prices did not overcome the previous maximum 3, and moved lower the preceding decline 4. This signals a changeover to a downside trend. Such models are called “double top.”



Picture 4.4b Example of a downward trend reversal. Usually, the first sign that the prices have reached their bottom limit appears to be their ability to fix at point 5 above the previous falling rate in 3. The next price outbreak above the top 4 confirms the descending trend closing.



Picture 4.4c Classical example of a downward trend reversal. Try to memorize this picture, because we will return to it in the next lecture when we study price models.

Each time the preceding resistance peak goes through testing, its outcome can turn out to be a sign for an upside trend. If the prices are not able to overbear the last spike in the rising motion or the last low on the downside, it may be concluded that the current trend adjustment will take place soon. In the next lecture concerned with price models we will demonstrate how after a retest of support and resistance levels in the charts certain configurations appear signaling a tendency reversal or a break in its movement.

Pictures 4.4a-c illustrated the classical examples of reversal in the trend dynamics. Pay attention that in the graph, in picture 4.4a at point 5 the prices did not manage to overcome the previous spike 3 and then fell below the last drop (point 4). In this case, the reversal in the trend dynamics can be determined by monitoring the support and resistance levels.

How the support and resistance levels change roles

Up till now the term “support” used to mean the previous low, while “resistance” – the previous high. However, it’s not always like that. We have reached one of the most interesting and least known aspects of support and resistance – the fact they can change roles. Every time the support or resistance outbreaks significantly, they change places – that is to say, they turn into the opposite of themselves (the resistance level becomes the support and vice versa). To conceive this transformation mechanism we have to discuss the elements causing the support and resistance levels - the psychological aspect of these concepts.

Psychology of support and resistance

To exemplify it better, let us classify all market participants into three categories: those who take long positions, the ones who take short positions, and the so-called unjoined. Long positions are taken by those who had already bought an asset. Unjoined are the traders who had left the market closing all the positions or those who had not decided yet how to enter the market and which side to take.

Let us imagine that the prices were wobbling around the support range, and then the market began to advance upwards. A percentage of “long” players who bought at support level prices are exiting but regretting at the same time that they did not buy more. If the market could follow the previous support level and slip a little bit lower, they could buy much more. A part of the “short” players recognize at last (or are beginning to recognize) that their tactics were wrong (the extent of their pessimism is directly proportional to how far the market is from the support level - we will return to this later). The most desirable option for them is for the market to go down to the level at which they took the short position, in order to leave the market exactly at that point where they entered (this is the so-called breakeven point).

Those who are in the “holding pattern” can be also divided into two groups: the first group of traders did not take any positions, while others closed their long positions in the support level zone. The latter would regret their decision because they rushed with the sale, looking for a chance to open the long positions at the selling price.

So what about those who could not make their choice regarding which side to take? They already understood that the prices spiked up following the upside trend. Thus, all 4 groups of the market participants firmly intend to buy in the time of nearest recession. For all of them the support level below the market rate is the number one priority. Needless to say, if the prices spike down to that level, a sudden surge of buying would boost the prices again, forcing them to run upwards.

The higher the trading activity in the support range is, the more essential this area becomes, as more participants are materially interested in it. The trading activity level in the support or resistance zone can be defined using three methods - looking into the timeframe during which the prices were in that range, the trading volume, and the existence time of this area. The longer the time period during which the prices were fluctuating around the support and resistance, the more important this band becomes.

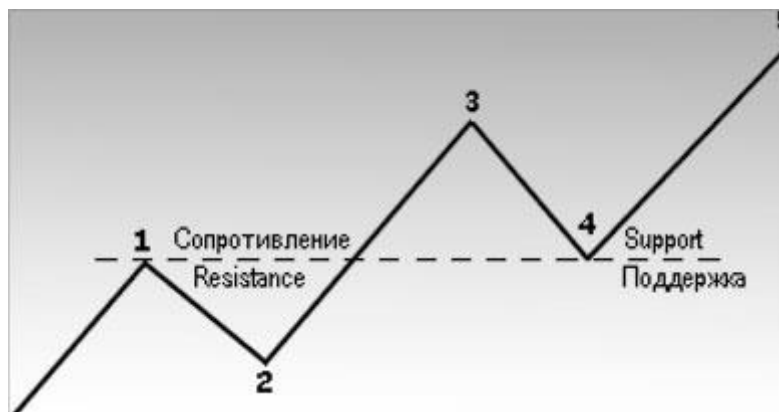
For example, if in a certain range of flatness the prices were wobbling down for three weeks and then moved upwards, then this support band is more crucial in comparison with similar fluctuations that happened within a 3-day period.

One more relevant indicator of support and resistance is it is too far away from the present moment. As far as we are dealing with traders responding to the market behavior and the positions they had already taken or had not managed to do yet, it is clear that the sooner the event takes place and is reacted to, the more notable this event would be.

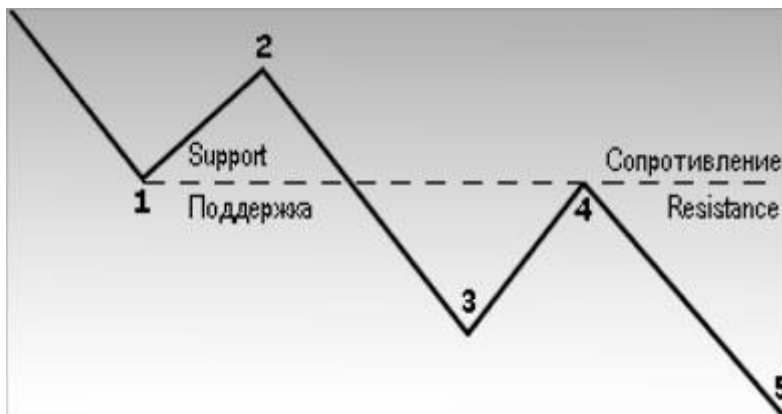
Now let us consider the opposite situation. Suppose that instead of going up, the prices slumped. In the previous example the prices were rising, so all the market participants started buying the asset during each correctional fall (setting up the new support levels). However, if the prices slide down and stay below the support rate, the response of the market participants will change in quite the opposite way. Those who were buying at the support rate clearly realize what a mistake they have made. Finally, the brokers will frantically start requiring additional collaterals. Because of this in the dealing process appears so-called “lever effect” - a trader cannot blame themselves for losses too long. He just has to increase the collateral or cancel the loss-inducing position.

Do you remember the example with the support level shaping? The purchase orders are below the market rate. And now all the previous purchase orders turned out to be sale orders above the market rate. In this way the support evolved into the resistance. Consequently, the more essential the previous support level was or the closer it was to the present moment, depending on the deals quantity, the more important the resistance level will be. All the factors which contributed to the support level formation by the efforts of the three categories of market participants – long players, short players, and unjoined traders, now will aim to set a top for the future surges and price rally.

After it has been overcome significantly, the support level turns out to be a resistance and vice versa. Pictures 4.5 a-c are very similar to 4.3a and b, except for one detail. Note how in picture 4.5a in the rising trend process the action at point 4 stops at peak 1 or slightly higher. Thus the previous resistance level (peak 1) turns into support, as the wave 3 overcame it significantly. All the sales of the wave 3 range (forming the resistance level) transform into the purchases below the market rate. Picture 4.5b shows that the market prices drift down. The point 1 (the former support level below the market rate) becomes a resistance above the market rate, i.e. begins to play the role of a “price cap” (point 4).



Picture 4.5a: Following the upturn trend, the resistance level changes into a support after having been jumped over by a large amount. Pay attention to how when the resistance was surpassed at point 1 it turned into a support. The preceding highs act a part of the support in the next corrections.



Picture 4.5b. Following the downturn trend, the support level, after its breakthrough, transforms into a resistance for the future price pickups. Notice the way the previous support (point 1) becomes a resistance (point 4).

As it was mentioned earlier, the prices movement size depends on the resistance or support increases. This is especially true when the prices overbear the support or resistance, and they change roles with each other. For example, we discussed that they do it only in case the prices overcome this range by a significant extent. But what exactly can be considered as a “significant” extent? In this case, the estimate will be rather subjective. As a significance test most analysts use the 10% price outbreak, particularly for the support and resistance of the main tendency. If we are talking about the support and resistance of a shorter trend, then the outbreak size is lower - 3-5%. In practice, each analyst must decide exactly what he will consider as a significant outbreak amount.

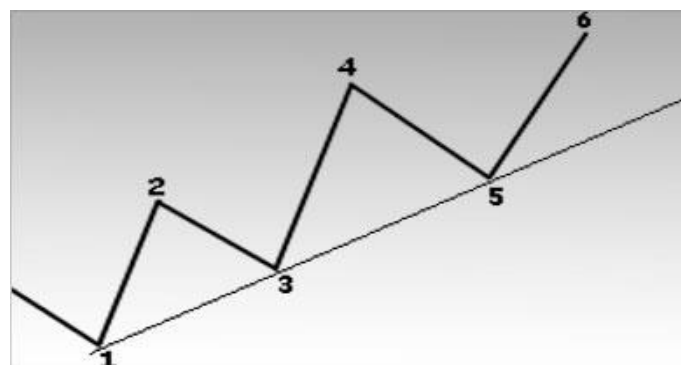
Therein it is necessary to remember that support and resistance exchange their roles only in case the market adjustments are rather significant so that the players could assure themselves that they have made a mistake. The farther the market moves, the clearer their slippage.



Picture 4.5c Pay attention to how the support which was laying off the market all May becomes a resistance barrier in June. Support turns into resistance.

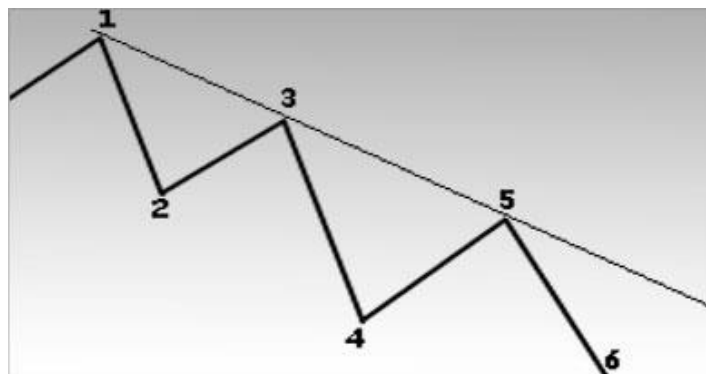
Trend lines

Now that we understand the support and resistance terms, it is time to include one more element in our technical instruments arsenal – a trend line (see pictures 4.6a, 4.6c). The main trend line represents one of the simplest technical instruments used in graphic analysis. Despite its simplicity, it is an extremely valuable item for the futures market analysts. A rising trend line is a sequence of smaller lines that go up, from right to left. In picture 4.6a it is depicted as a continuous straight line.



Picture 4.6a: An example of a rising trend line. It is depicted under the sequential rise and fall points. A trial trend line may be traced through two fall points, one of which is higher (points 1 and 3), but for this line validity confirmation, the third line is required (point 5).

A downward trend line is traced down from left to right and passes through a sequence of lowering peaks (see picture 4.6b).



Picture 4.6b. A downward trend line is traced above a sequence of descending peaks. An experimental trend line can be constructed with two points (1 and 3), but it will be considered accurate after there are three such points (point 5).

Trend line construction

As any aspect of graphical analysis, trend-line designing is a skill. Usually to trace out the right line you have to practice a little bit and construct it several times. Here are some handy tips to create the correct line. First of all, there must be trend occurrence signs. This means that to design an ascending trend line, at least 2 slumps are required, and the second drop must be higher than the first one. Obviously, to build the right line you will need two points. For instance, you can confidently say there is an upside trend in picture 4.6a only after the price dip stops at point 3 (higher fall) and the prices continue advancing.

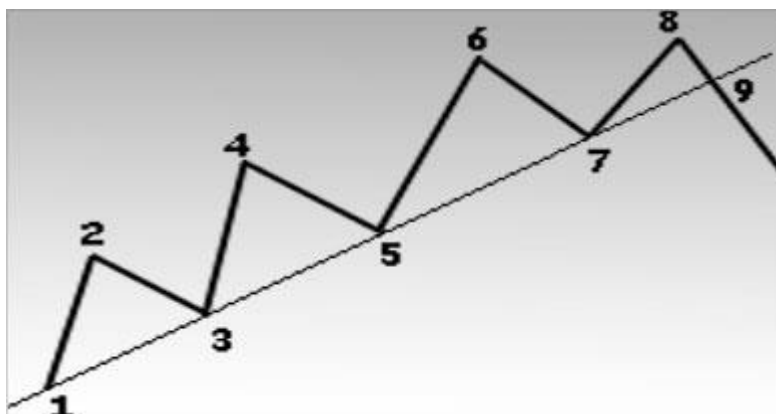
Only after this is it possible to trace a sample trend line under the points 1 and 3. Some analysts prefer to wait for the prices to overcome the peak 2 level in the next upturn period for an affirmation of an ascending trend. Others are satisfied with the fact that the upturn area touches half of the 2-3 leg distance or reaches the peak 2 range. As it is seen, the criteria can be different. However, it is essential to remember one thing: each analyst wants to be sure that the intermediate price dip is over so he can mark the real downturn point. After two sequential drop points are marked on the graph, where the latter point is higher than the

previous one, they are connected with a straight line traced from left to right. For confirmation of the sample trend line's validity the prices have to touch it for a third time, and starting out from there move upwards.

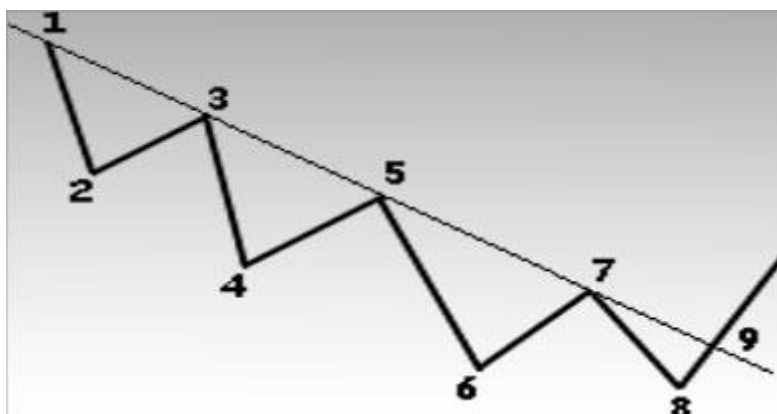
How to use the trend line

Let us say we are dealing with an up-going tone. In this case, inevitable correctional or mid-term recessions will come very close to the upside trend line or be tangent to it. As in the rising trend, the trader relies on buying at the declines. The trend line may serve as a support bound below the market rate, which can be used as a purchase zone. If the tone is downward-going, the trend line can be used as a resistance level for sale.

Currently, there is no reversal in the trend line dynamics; it can serve for purchase and sale zones determination. But at point 9 in picture 4.7a and 4.7b such a reversal takes place. This signals that all the positions opened in the previous trend direction must be liquidated. Oftentimes, the trend line outbreak is the first reversal signal in the tendency behavior.



Picture 4.7a: As soon as the rising trend line is set up, the next drops reaching the line can be used as purchase ranges. The points 5 and 7 on this graph can serve for opening new or additional long positions. The trend line outbreak at point 9 proves the reversal in the trend behavior: probably it goes downwards. That is why it is necessary to cancel all long positions at point 9.



Picture 4.7b Points 5 and 7 can be used as a sale zone. The trend line outbreak (point 9) signals a possible trend reversal increase.

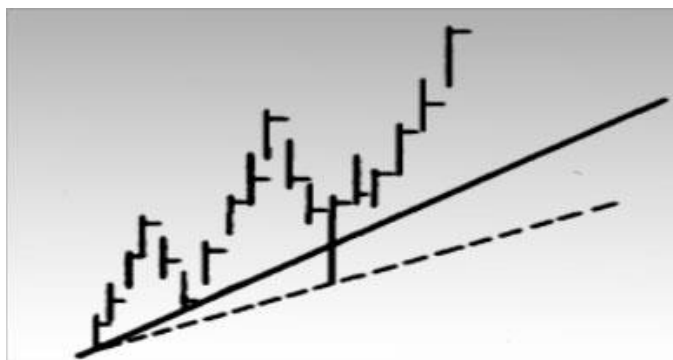
How to determine the trend line's meaningfulness

Let us puzzle out some nuances of the trend line's practical usage. Above all, you need to find out what defines this line's significance. The answer is dual. On the one hand, the trend line's meaningfulness depends on its validity period. It also depends on how many times it was tested. If, for example, the trend line stands eight tests, each of which has confirmed its validity, then it is more significant than a line which was touched by the price only three times. Aside from this, a line which asserted its validity for nine months is much more important than one that existed for about nine weeks or days. The higher the trend validity, the more reliable it and its outbreaks are.

How to deal with low-level outbreaks of trend lines

During the day prices break through the trend line, but by the closing moment everything resumes its natural course. This is a dilemma for analysts: was there an outbreak (see picture 4.8)? Is it necessary to trace a new trend line in accordance with the new data? Was the slight breakdown of the trend line just a short gap or was it stochastic? This situation is shown in picture 4.9. During the day the prices dipped below the upward trend line, but they turned out to be above it by the closing. Does the trend line need to be redesigned in this case?

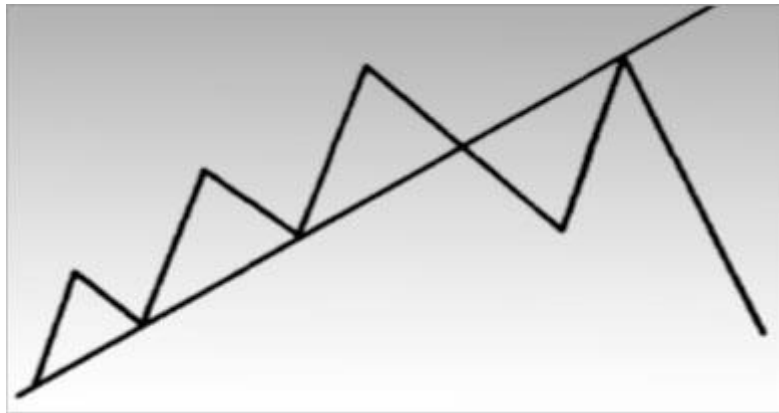
Unfortunately, it is next to impossible to have a sure answer to all of life's emergencies. Sometimes you may set aside such a breakout, especially if further market movements prove the initial trend line's validity. In some cases a compromise is required, when the analyst traces a new sample trend line which is designed as a dotted line in addition to the first one (see picture 4.8). In this case, two lines at once are at the analyst's disposal: the original (solid) and the new one (dotted). As a rule, experience shows that if the trend line's outbreak is relatively insignificant and takes place within one day and by the closing moment the prices level off and reach a reading above the trend line, then the analyst can neglect this blowout and continue using the initial trend line. As in many other market analytics fields, here it is better to rely on experience and intuition. In times of doubt they will be your best advisors.



Picture 4.8 Sometimes the trend line's runout within one day poses a dilemma for the analyst: to keep the initial trend line, which is still valid, or to trace a new one? A compromise is necessary, in which the first trend line remains, but on the graph the new line is designed as a dotted one. Time will show which one is correct.

The trend lines reshape themselves

It was mentioned earlier that after a breakthrough, the support and resistance change places. The same is true for the trend lines (see pictures 4.9 a-c). In other words, the upward trend line (support) turns into a resistance after a substantial breakout. The downside trend line (resistance) in its turn may become a support after runout. That is why on the graphs it is strongly recommended to prolong all trend lines from left to right as much as possible, even if they are overcome. It is amazing how the old trend lines appear as the support or resistance lines in future, already as the opposite items.



Picture 4.9a: Sample of how the upward-going support line becomes a resistance. Usually the support line turns into a barrier resistance for future spikes after a clear break down.



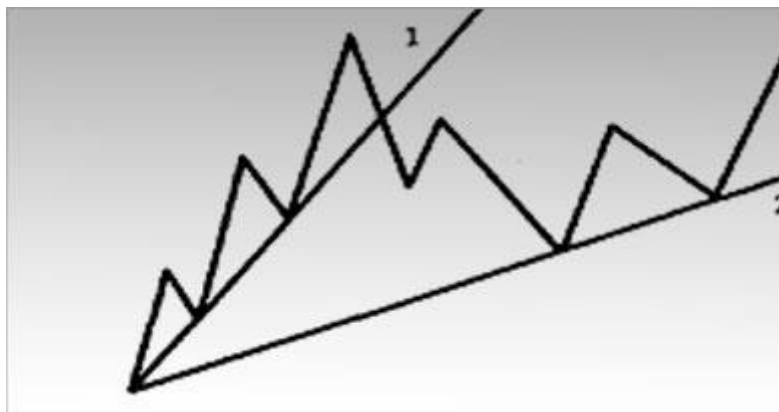
Picture 4.9b More often than not, the descending trend line becomes a support after a tick up.



Picture 4.9c: Pay attention to how the most downward trend line becomes a support after a break out and upward reversal.

How to correct the trend lines?

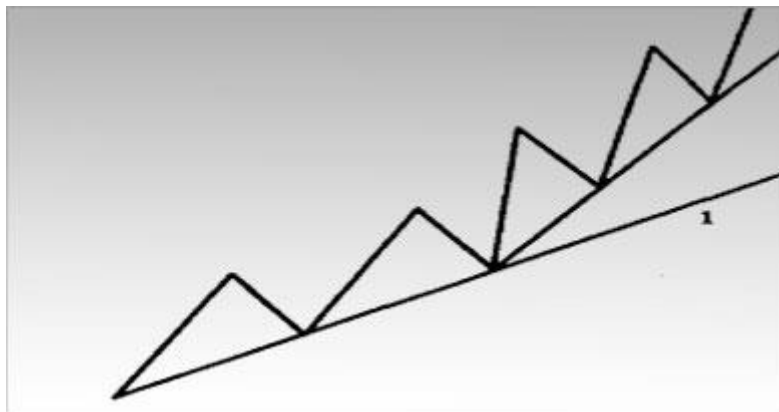
From time to time trend lines need to be corrected in accordance with the trend improvement pace adjustments - whether it goes faster or slower (see pictures 4.10 and 4.11). Take our previous example: if the trend line is overborne, it is necessary to trace a new, flatter one. If the line is too flat, it is necessary to draw it anew under a steeper slope. Picture 4.10 displays a situation where a breakthrough of an abrupt trend line (line 1) led to the necessity to shape a new, flatter line (line 2). In picture 4.11, on the contrary, the primary trend line is very flat (line 1), so a new one has to be depicted under a steeper slope (line 2). The rising trend's pace accelerated, demanding a more rapid trend line. A trend line which is too far from the real price movement configuration in the market has no value for the tendency analysis.



Picture 4.10 Example of a sharp trend line. The initial upside trend line turned out to be extremely rapid. Often a breakthrough of such a line is just a switch to a more moderate and, consequently, more sustainable rising trend pace.

If we are dealing with an accelerating tendency, several trend lines may emerge on the graph with steady growing inclination angles. In such cases some analysts use bent trend lines. However, we know from experience that if a necessity arises in sharper trend lines, it is better to switch to another instrument – moving average, which looks like a curvilinear trend line.

The advantage of having access to different technical indicators is that you are always able to choose the most suitable one for any situation. All methods of technical analysis can work better or worse, depending on the conditions. If a technical analyst has a total toolbar, s/he can select the most effective instrument for a certain moment. The moving average is more convenient than a range of trend lines with a greater sloping angle when we have a tendency of advancing development pace.



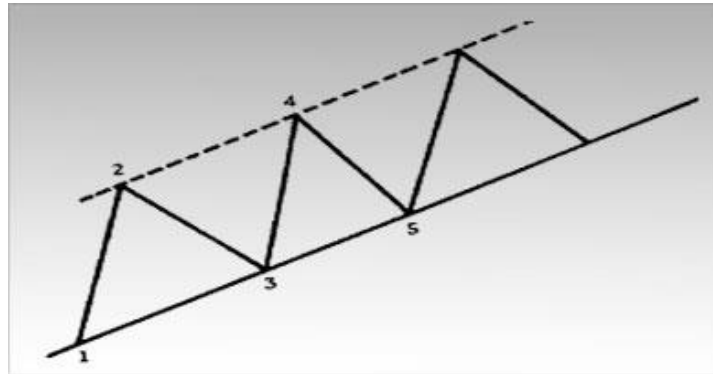
Picture 4.11 Example of an upward trend line that is too flat (line 1). Line 1 happened to be extremely flat (slow), while the improvement pace quickened. In this case you need to trace a new, sharper trend line which would correspond better to the advancing tendency.

The channel line

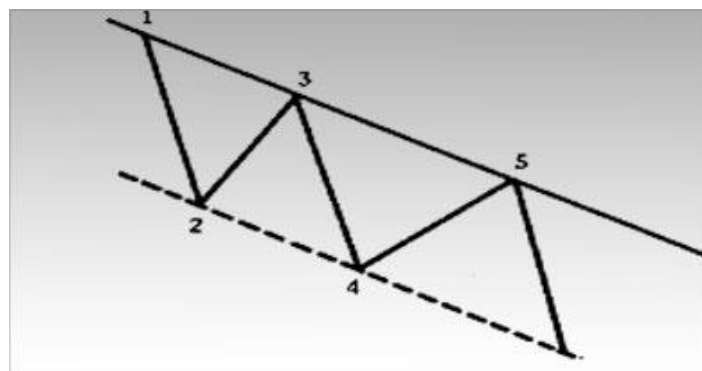
A channel or a return line can serve as one more example of trend line usage. Sometimes the prices fluctuate in the ranges bounded by two parallel lines - the main trend line and the channel line. If the technical analyst manages to discern a similar channel occurrence, s/he will be able to turn use it to their advantage.

The trend line's construction isn't too complex. If we are dealing with a rising trend (see picture 4.12a), it is necessary to design the main growing trend line. It will pass through the fall points. Afterwards, we depict the dotted line which is parallel to the major increasing trend line. The dashed line gets through the first significant top point (point 2). Both lines go bottom-up from left to right forming a channel. If during the next upturn the prices touch the

channel line and jumping from it decrease again, that means that the channel possibly exists (point 4). If during a decline the prices dip to the origin trend line level (point 5) the probability of a channel occurrence increases. All that was said earlier can be applied to the descending motion (see picture 4.12 b).



Picture 4.12a Example of a trend channel. After you depict the main mounting trend line on the graph (through points 1 and 3), you may map the channel line or the reversal line (dashed line). It will stretch parallel to the major growing trend line through the first peak point 2.



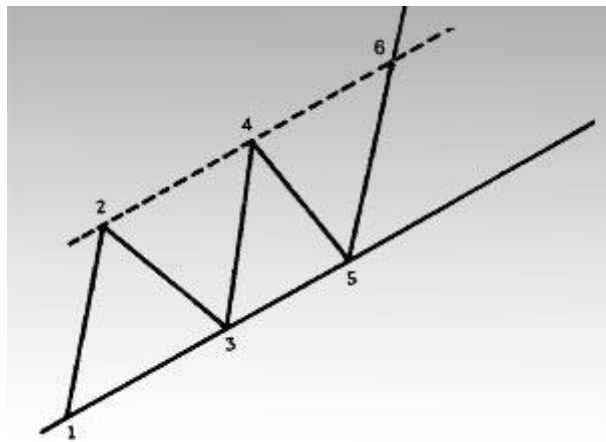
Picture 4.12b Trend channel in the course of a descending movement. The channel line is projected down and passes through the first drop point (point 2) along with the downward-moving trend line marked through the spike points 1 and 3. The price fluctuations often take place within a similar trend line.



Picture 4.12c Pay attention to the way the upward motion fits well between the parallel trend lines. The main upward trend lines (bottom lines) are always more essential. Nevertheless, the channel lines can help determine the upper resistance boundary.

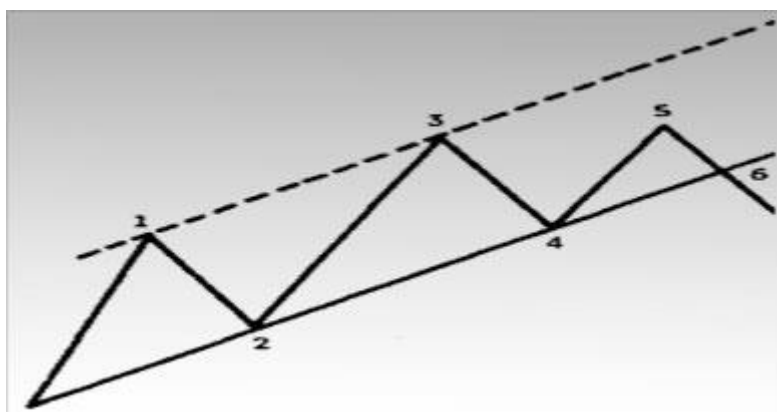
The main upward trend line may be useful for the opening of long positions. The channel line can serve as an orientation point to make profit within short-term operations. The traders inclined to risk can use the channel line to open short positions in a direction opposite to the main tendency, although playing against a dominative trend is always dangerous and, as a rule, unprofitable. As in the case with the key trend line, the longer the channel stands and the more checkpoints there are, the more essential and reliable this channel becomes.

The main trend line's outbreak is always a reversal approval in the tendency behavior. However, the ascending trend line's outbreak has exactly the opposite reading and shows the precipitation of existing tendency dynamics. A great many traders consider the upper bound breakthrough during the upward trend as a signal to open additional long positions.



Picture 4.12d Breakthrough of the rising trend line at point 6.

The channel can be helpful for the tendency's strength estimation. If the fluctuations don't reach the channel line bounds, it means that the movement is downward-directed. In picture 4.13 it can be seen that at the moment when the prices do not manage to touch the top channel edge (point 5), a trader can draw a conclusion about an upcoming breakup of the tendency. For the time being, it's just cautionary, but as likely as not, the second line (the base upwards trend line) will be broken through. Practice shows that if the price adjustments within a certain channel do not succeed in reaching one of its bounds, then this is a frank characteristic of the trend behavior changing, confirming that a breakthrough of the opposite channel bound won't be long in coming.

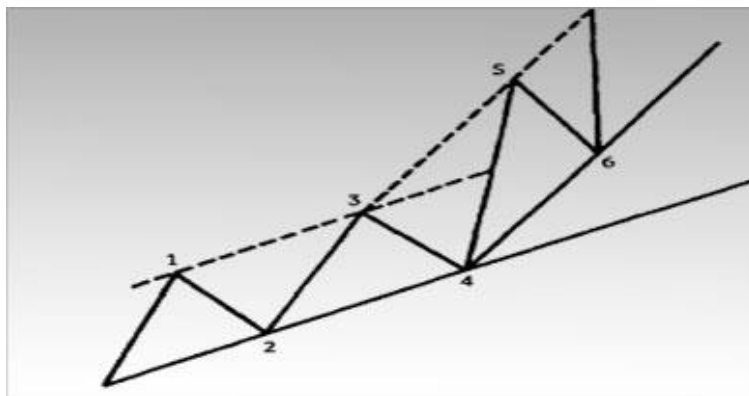


Picture 4.13 If the price adjustments cannot reach the upper channel bound – this is the first sign that the bottom edge will be dug through soon. Pay attention to how after a failed effort

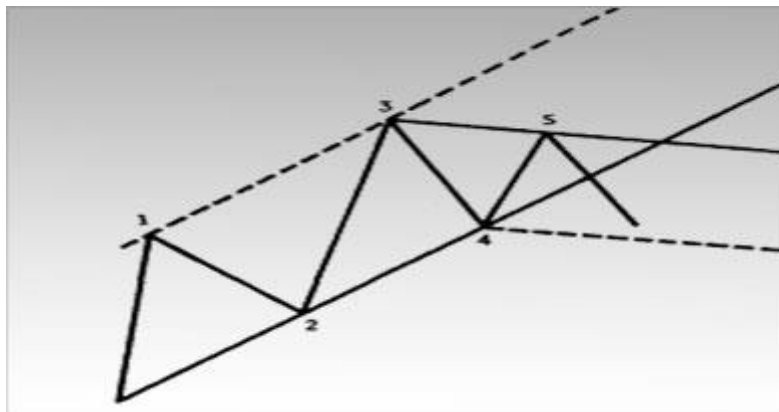
to increase to the upper bound level (point 5) a breakthrough of the main upside trend line (point 6) follows.

The channel can serve for the base trend line correction (see pictures 4.14 and 4.15). If the prices outstep significantly from the upper channel boundary it signals that the motion strengthens. Thereat, most analysts trace a steeper rising trend line. It is stretched from the last fall upwards, parallel to the new channel line (see picture 4.14). Frequently, a sharper support line is more efficient in practice than the old one which is flatter. The same can be concluded regarding the reversed situation. Let us assume that within the upside trend the spike could not climb to the upper channel's edge. That means that you have to design a new support line from the last drop point, parallel to the new resistance line which connects the last upticks (see picture 4.15).

The channel lines also serve the purpose of price targets determination. After a step-out from the existing price channel, as a rule, the prices pass a distance equal to the channel width. Thus, the user just has to measure the channel width and then project this size from the point of any trend line breakthrough.



Picture 4.14 After a breakthrough of the upper channel boundary (wave 5) most analysts shape a new growing trend line, paralleled to the new top channel line. Put it differently, the line 4-6 is traced parallel to the line 3-5. As the upward direction dynamics gathers pace, it is no wonder that the main upside trend line has to be sharper.



Picture 4.15 If the prices do not manage to amount to the upper channel bound and the descending trend line is traced through two sequent downward peaks (line 3-5), then it is possible to construct a test channel line. It will take its rise from the fall point 4 alongside with the lines 3-5. At times, this ground channel line is employed as an initial support level for the new tendency.

However, it must be borne in mind that among these two lines the main trend line is always the most essential and reliable one. Compared to it the channel line plays a small part. Despite this, the channel line usage can often be rather effective, and it is worth including it to the toolbar of the technical analyst.

Test questions:

1. What are the parameters for determining descending and ascending trends?
2. How is the trend line within a downward movement constructed?
3. What are the resistance and support lines?
4. What happens with the resistance level after its breakthrough?
5. Which price points link while tracing the up-going trend line?
6. What line is a channel line?
7. What event serves as a signal for opening additional long and short positions?