Lecture № 9, part 1

Graphical Patterns Analysis

This lecture will be devoted to price patterns which determine the market, as well as the rules of pattern-matching.

It would be a mistake to suppose that any changes in trend dynamics can occur in a single moment. A transition period is necessary for major changes on the market. Transition periods and their analysis for market forecast bring us closer to the theme of price patterns. First of all, let us define what those are. Price patterns are figures or units which appear at the stock price or commodity assets' charts. These figures, or units, are divided into groups and can be used for market dynamics' forecast.

All price patterns are divided into two big groups – reversal patterns and continuation patterns. Judging by the name of the pattern, one first indicates that an important fracture is present in the trend dynamics. The pattern of a continuing trend testifies that the market paused. Probably the trend was developing too fast and was temporally overbought or oversold. Then after an intermediate correction it will continue its movement in the previous direction. The main point here is to distinguish one pattern from another; this should be done as soon as possible, during the pattern formation.

Let us consider the reversal pattern first.

Before proceeding to a detailed consideration of every major reversal pattern, let us point out some general conditions which are typical for any of these patterns:

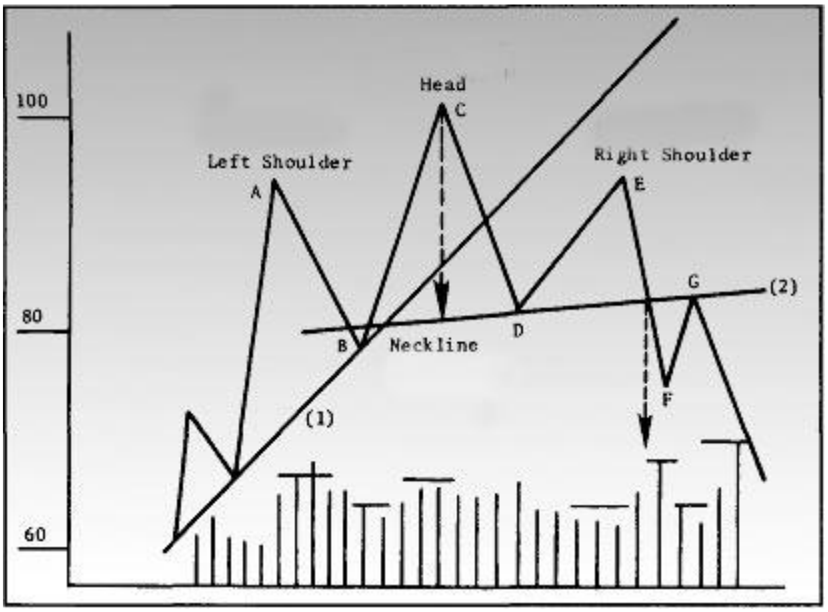
1. The prerequisite for appearance of any reversal pattern is the previous trend.
2. The first signal of an upcoming fracture often can be a break in the important trend line.
3. The larger a pattern, the more important the future market movement will be.
4. Top patterns as a rule are more changeable and short in time than bottom patterns.
5. Bottom patterns are characterized by a smaller price change and it takes more time for its modeling.

HEAD-AND-SHOULDERS REVERSAL PATTERN

Now we are going to look at the most famous and reliable pattern – the *head-and-shoulders pattern.* We will pay attention to this pattern not only because it is very important indeed, but also in order to consider all possible nuances connected with reversal pattern analysis. Most of the other reversal patterns are just variants of the head-and-shoulders model and do not need such a detailed consideration.

This main reversal pattern like others is a direct logical continuation and development of the points connected with the trend, which we talked about in the last lecture. Imagine a situation where an upward trend's consecutive rising highs and lows gradually slow down. As a result, stagnation appears in the upward trend's dynamics. At the moment the forces of supply and demand are considered in balance. When this phase ends, the support level which goes under the horizontal trading range will break. At this moment a downward trend starts. Consequently it is formed by descending highs and lows.

Let us consider now how a reversal scenario will look at the peak of the market, presented by the head-and-shoulders pattern (pictures 1 and 2). In point A the uptrend continues its development without any insinuation to the top. Prices form a new maximum, the volume is increasing. Everything is like it should be. Then an intermediate downside occurs (point B). In point C the accurate analyst can notice that the trading activity was lower than in the previous uptrend period while the price breaks above A. This event does not have any importance on its own, but is serves as an alert signal in the analyst's mind. Prices start falling down after that until point D and then something more serious occurs. Prices fail to take out the previous peak in point A. Let us remember that during an upward trend every previous peak should be like a support level relative to the intermediate downsides. It does not happen in our case. Prices fall below point A almost to the level of the previous downsides (point B). It is one more alarm: seems like the uptrend has weakened.

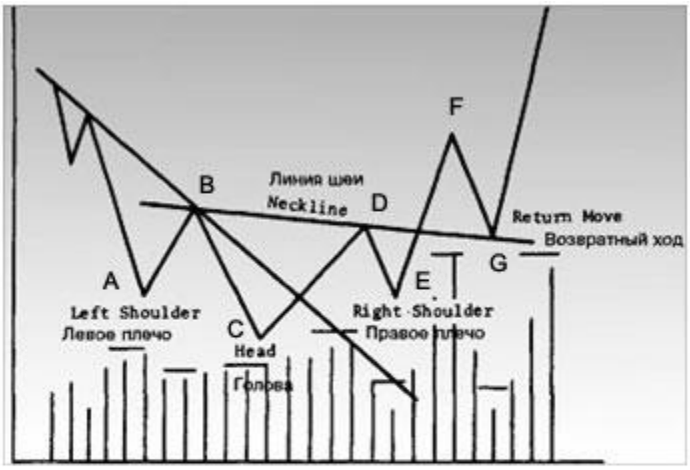


Picture 1: Pattern example for a market top. The left and right shoulders (A and E) are almost on the same level. The head (C) is higher than any shoulder. The pattern is completed when the closing price is fixed below the level of the neckline (line 2). The neckline is built from point B – first below the pattern formation, through point D – the second downside. The minimal target can be calculated by measuring the distance from the head to the neckline. During the next increase the price returns to the neckline but prices are not able to go above it.

Picture 2: USD/GPY, weekly chart. Head-and-shoulders top. Pay attention to the three peaks where the head is above the shoulders. The main upward trend line was broken before the right shoulder was formed. Look also to the prices which rise to the neckline after the breakout of the uptrend.

INVERSE HEAD-AND-SHOULDERS PATTERN

The head-and-shoulders bottom or inverse head-and-shoulders is a mirror image of the top pattern we have just discussed. In picture 3 we can clearly see that there are three pronounced downsides. Meanwhile the head is lower than the shoulders. If the neckline is broken by the closing price, the pattern is complete. The price targets assessment is made according to the same principles as for top patterns. There is an insignificant distinction in that the probability of a reverse price movement to the neckline after a bullish break is higher in the bottom pattern.



Picture 3: Inverse head-and-shoulders pattern example. The bottom pattern is a mirror image of the top pattern in this case. The neckline is formed from point B – the first peak of the figure formation, through point D. A reversal price movement to the neckline after the break is more typical of the bottom patterns.

The difference here is that market can “fall down” due to inertia. An absence of demand and purchase requirement is enough to urge the market down. However, it is impossible to make it move upwards by inertia. Prices will grow only if demand exceeds supply - if buyers are more active and energetic than sellers.

The price increase from the head point in the bottom pattern should be followed by an increase of business activity but often its level exceeds the volume which falls on the previous spike from the left shoulder’s point. A slope to the right shoulder leads the volume to decrease. The most critical moment falls on the break point of the neckline. This signal should be accompanied by a real explosion of traffic if the break is not false. It is the main difference between the top pattern and the inverse (bottom) pattern. For the latter, a large traffic during closing is an absolutely necessary component. The reverse price movement is more typical of the bottom pattern and should be followed by a small trading volume. However, during the next restoration of the steady uptrend the volume should rise.

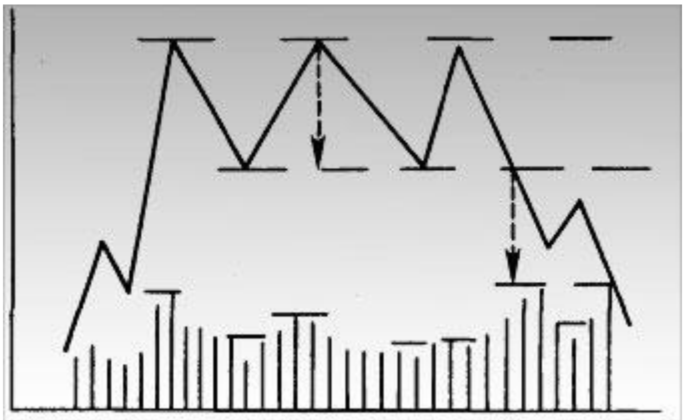
Picture 4: GBP/USD, weekly chart. Head-and-shoulders bottom pattern example. The left shoulder was formed in September, the right one – in December. The head which formed in April makes up for a lower bottom. At the end of March the price broke the neckline which had existed for more than a year. Thus the main bullish signal was given for the market.

To open a position in a top pattern or bottom pattern, it is necessary to wait until the neckline break. Only after the break of this support or resistance line is the pattern complete. After prices cross the neckline and finish the formation of a head-and-shoulders pattern, *they should not cross the neckline again.* If we have a top pattern then after the neckline was broken, any following price closing above the neckline is a serious warning that the first break was false. Failed head-and-shoulders patterns do appear. In the beginning these patterns look like a classic reversal pattern and then at some development level (before the neckline break or after it) prices suddenly start moving in the previous trend.

TRIPLE TOP AND TRIPLE BOTTOM

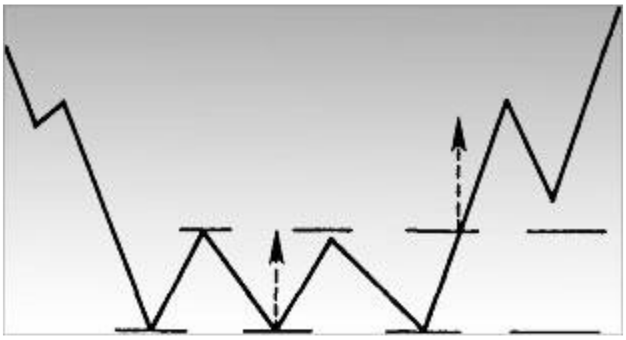
Many of the conditions we talked about in our head-and-shoulders pattern discussion can also apply to other reversal patterns (picture 5). The t*riple top and bottom* pattern is rarer than the head-and-shoulders – it is just a variety of it. The main difference is that all three peaks (or slope) are on the same level in the triple top and bottom pattern (picture 7). Technical analysts often disagree on what they see: head-and-shoulders or triple top. This argument has mostly an academic character because both patterns present almost the same market.

The trading volume decreases along with every following peak in a top pattern and should increase in the break point. The pattern is not complete until the support levels passing under two previous slopes are not broken. Consequently, the closing prices should break the resistance level passing above the previous two peaks. Only after this is the pattern complete. As an alternative strategy you can consider the closest peak or slope level break as a signal of trend reversal. A very important factor for completing the bottom pattern is an increase in trading volume.



Picture 5: Triple top. It seems like a head-and-shoulders pattern with the exception that all three peaks are on the same level. Every other peak should be followed by a trading volume decrease. The pattern is complete when the prices overcome both slopes' levels with a present volume increase.

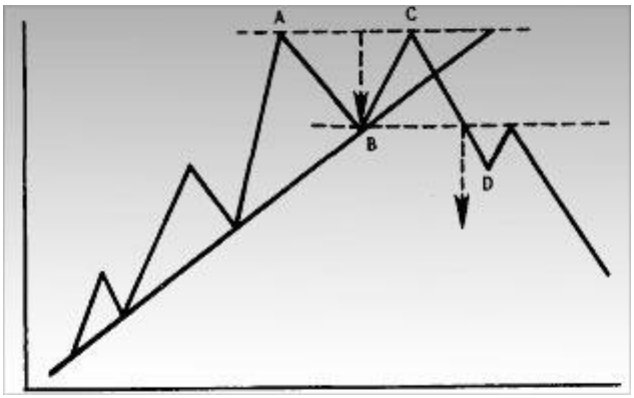
Picture 6. Triple top of a reversal pattern. Pay attention to the three peaks formed in June. Take notice of how the support level turns into a resistance level after the break.



Picture 7: Triple bottom. It is analogous to the inverse head-and-shoulders pattern with the exception that all three slopes are on the same level. It is a mirror reflection of the triple top model with the only difference of volume as a confirmative factor being more important during the break upwards.

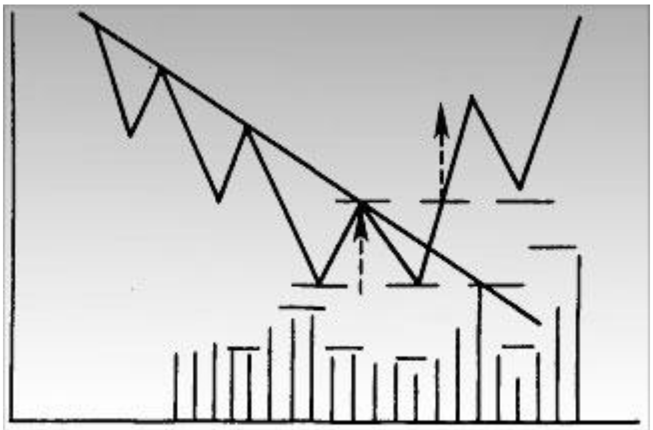
DOUBLE TOP AND DOUBLE BOTTOM

This reversal pattern is more widespread than the previous one. It is the most familiar after the head-and-shoulders model (picture 8). In pictures 8 and 10 a top and a bottom patterns are drawn. Pay attention to how the double top model resembles the letter M, while the double bottom resembles W. They are often called this way. The general characteristics of the double pattern align with the characteristics of the head-and-shoulders and triple top patterns, except it has two peaks instead of three. Volume changes cause the double top. It is assessed in ways similar to those we considered above.



Picture 8. Double top example. This pattern has three peaks (points A and C in the chart), and they all are at the same level. The pattern is complete when closing prices overcome the slope level B, located between the two peaks. As a rule, the second peak C is followed by a smaller trading volume but in breakpoint D the volume increases. During pickup prices can rise up to the bottom line.

Picture 9: Double top example. Pay attention to the fact the peaks are almost at the same level, while the real interpretation of the pattern price level difference is acceptable and even desirable because ideal models seldom happen. When the closing prices crossed the level 136.35, the model was complete. The support level after the break turns into a resistance level, which is one more proof of the pattern's completion and a strong signal for a short positions opening.



Picture 10: Double bottom example. It is a mirror image of a double top pattern. However, as it happened before, the volume is very important for the break upwards. A reverse price movement is more typical of bottom models.

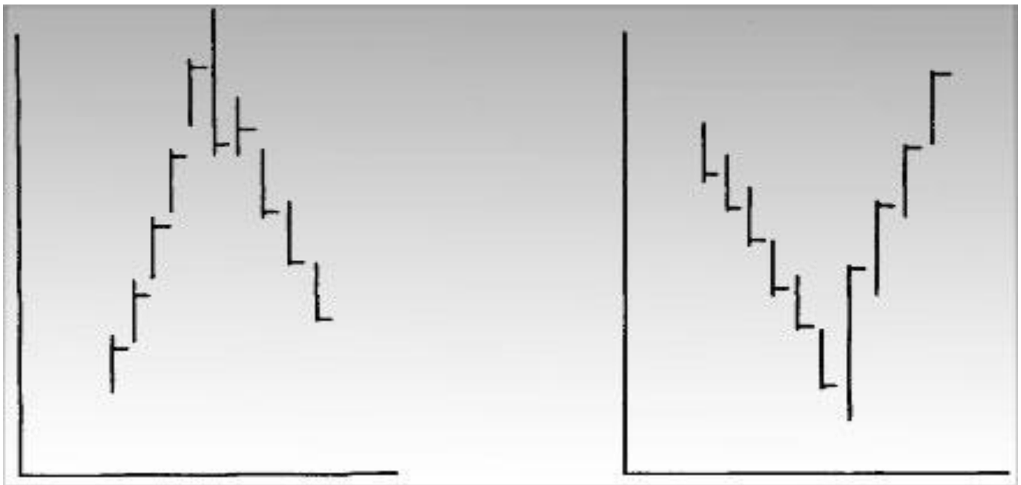
Picture 11: Example of a double bottom pattern. Pay attention to the sharp delineated double bottom. When closing prices broke through the pullback level the pattern was complete and a reverse to the uptrend occurred. Backward motion confirmed the conversion of a resistance level into a support level, which gave a strong signal for long positions opening.

As mentioned before, all of these models are just variants of the head-and-shoulders pattern, so trading tactic is the similar – the opening of long and short positions is executed only after a break through the neckline when the pattern is completed. The strongest signal confirming the pattern's formation completion and defining the moment for positions opening is the rebound from the neckline after testing it as a result of backwards motion. Now let us dwell upon the notion of the **price guidepost** which was mentioned during the lecture. There is a method of price levels assessment which is reached by the market after the formation of these models is complete.

This method is based on the *height of the model*. So let us measure the height from the top of the head to the neckline. Then protract the found length down from the breakthrough point of the neckline. Let us suppose that the peak point of the head is at level 100, and the neckline is at level 80. Consequently, the length of the segment will be equal to their difference, i.e. 20. Let us protract 20 pips downwards from the breakthrough point of the neckline and we get the minimum **price guidepost** where the market will come. This will be level 60. This method is universal for all of the considered patterns (taking the middle point between two peaks or slopes to the neckline).

V-SHAPED PATTERNS OR SPIKES

The last type of reversal pattern is difficult to recognize during formation but it occurs often. In fact, the V-shaped top or bottom (they are also called spikes) patterns are hardly recognizable because they are not patterns in the complete sense of the word. All the models we looked at before reflect gradual changes in the trend dynamics. Prices vacillate for some time in the framework of a horizontal trading corridor. The analyst can examine the market dynamics in this period, make a forecast about its future, and try to find some tips in the past or present. Almost all reversal patterns form by this scenario - all models except for the V-shaped ones. There is no hint of a gradual change in the trend dynamics. The turning point of the trend occurs quickly, often without any warning signal. This fracture is followed by a sudden quick price movement in the opposite direction. The V-shaped pattern can be hardly called a model because we can only estimate or understand it after it took place. So what should the trader do? How can he foresee such models, recognize them in their formation process and take measures? To answer all these questions let us first examine a V-shaped top pattern (picture 12).



Picture 12: Example of V-shaped tops.

First of all, we have the previous trend. Often a V-shaped fracture is preceded by a swift market development. There are no intermediate corrections or if there are any, they are insignificant. As a rule, there are several price gaps in the dynamics of such trends. It seems that the market situation goes out of control – the market overcomes all the possible (and impossible) expectations. Here the experienced traders know they should stay alert.

The main precondition for a V-shape reversal or spike is having a steep (swift) trend. Sometimes the only signal pointing to a trend reversal is a breakthrough unusually swift trend. Falling after the reversal as a rule reflects the previous uptrend (one third or 50%), and it occurs for a short period of time. The main reason for a sudden movement in the opposite direction is the absence of support and resistance levels in the previous trend (which does not have intermediate adjustments). V-shaped models appear on top as well as on the bottom of the market; the brightest examples are characters for the top.

Picture 13. V-shaped pattern on the top

Picture14. V-shaped model on the bottom of the market

We considered the most widespread major reversal patterns: head-and-shoulders pattern, double and triple tops and bottoms and V-shaped patterns (spikes). As a rule these patterns give signals about the fracture of the existing trend’s formation. That is why they are called “major reversal patterns.” However, there is one more set of models which are briefer by nature and indicate not the reversal but the consolidation of a trend - the *continuation* pattern. These will be considered in the second part of this lecture.

Test questions

1. Find and note the reversal head-and-shoulders pattern on a chart and indicate its timeframe and currency pair, as well as the maximum levels of this pattern (for instance, head maximum – 1.2530, neckline – 1.2400, etc.).

2. After what event is a reversal pattern double top completed and when does the signal for position opening appear?

3. Let us suppose the maximum point of a triple top pattern is 1.8050 and the neckline breakthrough was at 1.7990. Figure out the price guidepost the price will sink down to.

4. Indicate the reason for the swift backward movement during the spike model formation.