Description and Example of Trends, Indicators and Patterns (Technical Analysis)

Name: Ze Liu

RUID ID: 174007753

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Technical analysis①②:

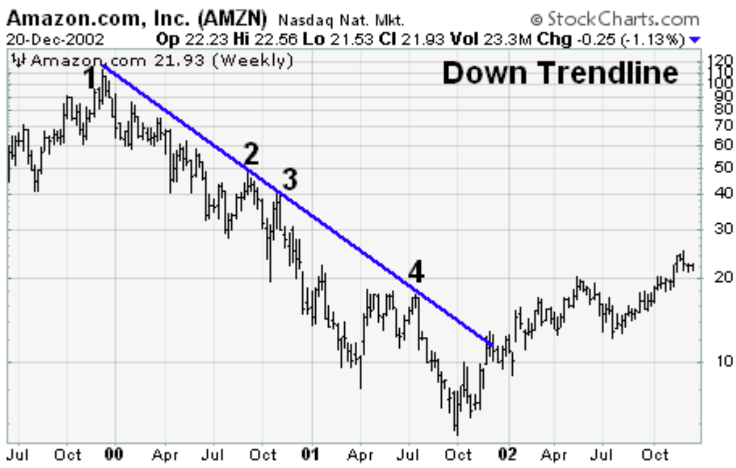
In finance, technical analysis is an analysis methodology for forecasting the direction of prices through the study of past market data, primarily price and volume. Behavioral economics and quantitative analysis use many of the same tools of technical analysis, which, being an aspect of active management, stands in contradiction to much of modern portfolio theory. The efficacy of both technical and fundamental analysis is disputed by the efficient-market hypothesis which states that stock market prices are essentially unpredictable. Namely, technical analysis is also a trading tool employed to evaluate securities and attempt to forecast their future movement by analyzing statistics gathered from trading activity, such as price movement and volume. Unlike fundamental analysts who attempt to evaluate a security's intrinsic value, technical analysts focus on charts of price movement and various analytical tools to evaluate a security's strength or weakness and forecast future price changes.

I am going to introduce some examples in technical analysis, focus on the description of trends, indicators, and patterns, so as to make reader understand them easily.

Trend Lines and Channels③:

- Trend Lines: An important tool in technical analysis for both trend identification and confirmation. A trend line is a straight line that connects two or more price points and then extends into the future to act as a line of support or resistance. Many of the principles applicable to support and resistance levels can be applied to trend lines as well. And the trend lines can be divided into Uptrend Line and Downtrend Line. And I take the stock EMC Corp. (EMC) in NYSE and Amazon.com, Inc. (AMZN) as an example to define two lines.
    - Uptrend line: It has a positive slope and is formed by connecting two or more low points. The second low must be higher than the first for the line to have a positive slope. Note that at least three points must be connected before the line is considered to be a valid trend line. Uptrend lines act as support and indicate that net-demand is increasing even as the price rises. A rising price combined with increasing demand is very bullish and shows a strong determination on the part of the buyers. As long as prices remain above the trend line, the uptrend is considered solid and intact. A break below the uptrend line indicates that net-demand has weakened and a change in trend could be imminent.

- Downtrend Line: It has a negative slope and is formed by connecting two or more high points. The second high must be lower than the first for the line to have a negative slope. Note that at least three points must be connected before the line is considered to be a valid trend line. Downtrend lines act as resistance and indicate that net-supply is increasing even as the price declines. A declining price combined with increasing supply is very bearish and shows the strong resolve of the sellers. As long as prices remain below the downtrend line, the downtrend is solid and intact. A break above the downtrend line indicates that net-supply is decreasing and that a change of trend could be imminent.



- How to draw a trend line④: The very first thing to know about drawing trend lines is that you need at least two points in the market to start a trend line. Once the second swing high or low has been identified, you can draw your trend line. People will buy shares when price touches bullish trend line three times while sell shares when it touches bearish trend line. There will be a big trade volume. This can be applied over any time scale.

- Channels⑤: In some cases, you can draw a line parallel to the uptrend or downtrend line to form a trading channel, providing some boundaries within which the trend unfolds. In an up-trending move, the straight line across the reaction lows reveals the trend, and a parallel line across the highs defines the channel. In a down-trending market, the straight line across the highs determines the trend and a channel line is drawn across the lows. Channels make the trend clearer and offer clues for positioning trades. In an uptrend, if prices approach the upper channel line, it may suggest the market is due for a short-term correction. Traders who want to be long may want to wait until prices return to the major trend line. Breakouts below the trend line or above the channel line can provide signals to initiate or exit positions. There will be a big trade volume. This can be applied over any time scale.

Support and resistance⑥:

Support and resistance are the next major concept after understanding the concept of a trend. You'll often hear technical analysts talk about the ongoing battle between bulls and bears, or the struggle between buyers (demand) and sellers (supply). The proverbial 'battle lines' can be defined as the support and resistance levels where the most trading occurs. Support levels are where demand is perceived to be strong enough to prevent the price from falling further, while resistance levels are prices where selling is thought to be strong enough to prevent prices from rising higher.

Below is an example of Price Channel – Source: StockCharts.com. The price channel from the previous section, the bottom trend line represents a key support level while the upper trend line represents a key resistance level. The arrows near the top and bottom trend lines show the levels where the price seldom surpassed until it broke out higher. After the breakout, the upper trend line transitioned from a resistance level to a support level for the new trend.

Major Trend Reversals⑦:

A reversal is a change in the direction of a price trend, which can be a positive or negative change against the prevailing trend. On a price chart, reversals undergo a recognizable change in the price structure. A reversal is also referred to as a "trend reversal," a "rally" or a "correction."

Trading a trend reversal requires an entry point and a stop loss to limit risk in case the reversal doesn't materialize. Downtrends are reversed by the price either making a higher high followed by a higher low, or a higher low followed by another move higher. Uptrends are reversed by the price either making a lower low followed by a lower high, or a lower high followed by another move lower. The Figure shows the price making a strong move higher, which recovers the ground lost during the prior wave of the downtrend. This strong up-move indicates the downtrend is in trouble. Following this strong move wait for a pullback (lower), and assuming that pullback makes a higher low, buy when the price breaks above the trend line of the pullback. Place a stop just below the recent low.

The same concept would apply if it was an uptrend being reversed. A sharp down move is strong enough to erase the progress of the last uptrend wave. This indicates the uptrend is in danger. Wait for a pullback higher; as long as that pullback makes a lower higher, sell short when the price breaks below the pullback trend line. Place a stop just above the recent high.

Sometimes the trend weakens before it reverses. When this occur we apply a similar strategy.

Besides, Figure below shows an initial downtrend which is followed by a higher low. The higher low indicates the downtrend is in trouble. Wait for the next pullback, and then buy when the price breaks above the downward sloping trend line of that pullback. Place a stop just below the recent low. This will typically keep risk very small, relative to the potential profit should an uptrend develop.

The same concept applies to an uptrend reversal. The price is making higher highs and higher lows, but then it makes a lower high indicating the uptrend may be in trouble. Wait for a pullback (up) and sell short when the price breaks below the pullback trend line. Place a stop just above the recent high.

Target price⑥:

A trend reversal signals a major change in direction, potentially over the long-term. So a specific target is not provided. Active traders may wish to exit a portion of their position at multiples of their risk.

For example, if you buy 1000 shares and your stop is $7 below your entry price, look to exit some of your position at a profit of 2x your risk, then 3x risk or 5x your risk (decide on several multiples and then stick to them). Therefore, targets would be placed $14, $21 and $35 from your entry price. This method provides defined exits, but also compensates you well for the risk you are taking should the price continue trending in your direction. Another option for less active traders is to hold the trade until a signal in the opposite direction occurs. A signal in the opposite direction indicates the trend you are participating in is likely over. This exit method is less active but requires continual monitoring.

Head and shoulder⑧:

The head and shoulders (HS) is a reversal pattern signaling the prior trend is reversing or has already reversed. The HS top alerts traders that an uptrend is over and the price could head lower, while the HS bottom notifies traders that the downtrend could be over the and the price will head higher. And HS can be divided into two versions: Head and Shoulders Top and Head and Shoulders Bottom.

- Head and Shoulders Top: It is formed when the price makes a high, pulls back, makes a higher high, pulls back, and then makes a lower swing high. This creates three peaks, with the one in the middle being the highest. The topping pattern is typically only relevant if seen after a substantial advance. Connect the two lows within the pattern with a trend line. This is the "neckline." If the neckline is angled up, traders will often enter short positions, or sell long positions, when the price falls below the trend line after the third peak. If the neckline is flat or angled down, traders will enter short positions, or sell long positions, when the price falls below the latest pullback low. When the price falls below the neckline, or latest pullback low, it is called a breakout. The breakout indicates the pattern has completed and the price will likely proceed lower.

- Head and Shoulders Bottom: The head and shoulders (HS) bottom, or inverse head and shoulders, occurs after a downtrend, and signals an uptrend may be starting or underway. The pattern is created by a swing low, followed by a rally, a lower swing low, a rally, and then a higher low. If the neckline is flat or angled down, long positions are often taken when the price moves above the neckline. This is the breakout point and signals the pattern is complete. If the neckline is angled up, enter long when the price moves above the latest rally high (the most recent of the two) within the pattern. Place a stop loss below the low of the right shoulder. Once the price breaks out it may not always proceed immediately in the expected direction and having a stop loss below the right shoulders helps reduce the chance of being stopped out as the price oscillates around.

Flags and pennants⑨:

They are continuation patterns. They are traded in the same way, but each has a slightly different shape. The terms flag and pennant are often used interchangeably. A flag or pennant pattern forms when the price rallies sharply, then moves sideways or slightly to the downside. This sideways movement typically takes the form or a rectangle (flag) or a small triangle (pennant), hence their names. Draw trend lines along the highs and lows of the sideways price action. The sharp price rise preceding the flag or pennant is called the flag pole. The sideways period is often followed by another sharp rise. This is where the trading opportunity comes in. Once the flag pole and a flag or pennant have formed, traders watch for the price to breakout above the upper flag/pennant trend line. When this occurs, enter a long trade.

The above pattern is bullish, because the pattern started with a sharp rally. There are also bearish patterns, where the price drops sharply then forms the flag or pennant. With this pattern, watch for the price to break below the flag/pennant.

If a short trade is taken on the downside breakout, place a stop loss above the high of the flag/pennant (not the flag pole). If a long trade is initiated on an upside breakout, place a stop loss below the low of the flag or pennant (not the flag pole).

Triangles⑩:

The triangle can be a continuation or a reversal pattern. Although, more often it is a continuation pattern. There are three types of triangles: symmetric, ascending, and descending. For trading purposal they are all the same, the just look different. A triangle forms when the price action narrows over several price swings. If trend lines are drawn along the highs and lows of the price action, the trend lines converge towards each other. This creates the appearance of the triangle. And there are three types of triangles: Symmetric triangles, ascending triangle and descending triangle.
Symmetric triangles are created when both trend lines are moving towards each other.

An ascending triangle occurs when the lower trend line is rising while the upper trend line is horizontal. This shows that swing lows are rising but the rallies are stopping near the same resistance level.

A descending triangle is when the upper trend line is sloped downward, while the bottom trend line is horizontal.

Personal Perspective:

After introducing many examples of technical analysis, I want to discuss three tips for it: Direction, Speed and Distance. These tips are based on my stock technical analysis experiences.

Direction: It's easy to see trends once they're over, but the only way you can profit is to identify the direction of the trend before it has run its course. That's why traders look for bullish trend reversals and bearish trend reversals. As the names imply, a bullish trend reversal signals an uptrend, and a bearish trend reversal signals a downtrend. The rule of thumb is to go long on a bullish uptrend, and either go short or close your position on a downtrend.

Speed: That's determined by looking at Elliott Waves, which indicate two basic types of waves: motive and corrective. The motive waves occur in groups of 5 waves labeled 1, 2, 3, 4 and 5, and corrective waves occur in groups of 3 waves labeled A, B and C. A motive wave is an impulse that moves prices in the direction of the underlying trend. You know you're in a motive wave when waves 1 and 4 do not overlap, that is, the prices in wave 4 do not retrace any of the prices in wave 1. Typically, wave 3 of a motive wave is the fastest of all the waves. A corrective wave, on the other hand, occurs when prices move against the underlying trend. The result is that wave 4 will overlap wave 1. Or in other words, retrace some of the prices in wave 1. It's very important to identify waves correctly, or you'll end up losing a lot of money.

Distance: This is measured by chart patterns. Chart patterns were identified decades ago in the form of geometrical shapes such as triangles. The shapes are plotted with the highest and lowest points of five wave structures in the chart. Two examples would be an expanding triangle, which originates at a point and makes higher highs and lower lows, and a contracting triangle, which makes lower highs and higher lows, and eventually comes to a point. It doesn't matter whether it's a stock, an index, an ETF or a commodity. Patterns are patterns. All they do is measure distance. The success and failure of them all depend on what the primary trend is. If you're trying to play a bullish pattern in a bearish market, the chance of that playing out successfully significantly decreases

Last but not the least, there are some other patterns, such as Cup And Handle(similar to a rounded bottom, except that with the cup and handle the price stalls near the breakout point and moves sideways or lower for a period of time) and Gaps(empty space between one price bar and the next). What we are supposed to do is to make full use of these patterns while doing some technical analysis.

Reference：

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