

## LESSON THREE: TECHNICAL ANALYSIS

### What is Technical Asset Analysis?

Technical analysis involves forecasting future financial price movements based on past price movements. Price movement (also called price action) is usually studied by technical traders using the various charts available for a stock. Starting with a basic candlestick chart, the trader can view the general movement of the stock. If the chart tends to rise over time, it is said to be in an upward trend. If it is moving down, it's called a downtrend.

This is an excellent time to discuss the candlestick chart. First developed by the Japanese, it is commonly called a Candlestick or K-line chart. It visually shows a security's critical price actions. Candlestick charts are brilliant because they can indicate the supply, demand, and even the emotions of other traders about the asset being charted. Here is how to read a candlestick chart.

### Color

If the candlestick is green, the asset moves up during the day. If it is red, it indicates that the opposite is accurate and went down. The Japanese also believed that the assigned color was a good indicator of the emotions of traders. In some charts, the colors are different than these. Check the charting software to make sure you understand the visuals.

### Timeframe

Candlestick charts are generated with a specific time in mind. If the time between the candlesticks is 5 minutes, the chart is called a 5-minute candlestick. If the difference is one day, it is a 1-day chart.

### Real Body

The thick part of the candlestick is the price range between the opening and closing prices. The width of the candlestick is irrelevant; only the distance between the top and bottom is.

### Wicks (or shadows)

Each candlestick will commonly be a lineup and down from the natural body. These show the highest and lowest prices given for that time.

### Patterns

Technical traders must be adept at understanding what they call chart patterns. These can suggest the near future price action of the asset. While there are numerous patterns, some common ones include the doji, engulfing, and hammer. Explanations of these require more time than we have here. There are countless books written about chart pattern reading.

On top of this chart, the trader can overlay various data, such as moving averages and more sophisticated graphs called chart studies. It is common for a technical trader to use two moving averages in the preliminary analysis, such as a short-term moving average and a longer-term moving average. For example, a chart might show a 50-day moving average over a 300-day moving average. The trader might look for where the short-term crosses the longer-term average. If the short-term average crosses from below to above, entering a long trade is an excellent point. The opposite is also true for a short trade. It is important to note that technical traders will use more than just one chart but rather many and look for them to build on one another.

Think of it as weather forecasting for the stock market. It doesn't provide absolute predictions, but it helps investors anticipate what is “likely” to happen to prices over time.

Here are the critical points about technical analysis:

#### Methodology

Technical analysis uses historical market data (price, volume, functions like data oscillators, and other available information) to predict future price movements. Traders and investors scrutinize a security's past price action to forecast its future direction. An excellent technical analysis requires the trader to be familiar with powerful charting software; otherwise, working through the vast amount of historical data needed to reach trading directions is impractical.

Even with suitable software and years of experience, technical analysis of a stock will only provide a suggestion of its future performance. This is because all technical analysis can do is look back on its historical performance. That said, technical analysis is the most common method non-professional traders use.

#### Application

One beauty of technical analysis is that it can be used with any asset class with available historical price action. It can help traders work with stocks, cryptocurrencies, and forex.

It can be applied to various tradable instruments, including stocks, indexes, commodities, and futures. The analysis focuses on price data (open, high, low, close, volume, or open interest) over specific timeframes (intraday, daily, weekly, or monthly).

#### Assumptions:

##### Liquidity

Technical analysis assumes that heavily traded stocks (with many buyers and sellers) allow quick trading. Thinly traded stocks, on the other hand, are more challenging to trade due to limited liquidity.

### No Artificial Price Changes

Splits, dividends, and distributions can artificially affect price charts. Adjusting historical data helps address this issue.

### No Extreme News

Technical analysis cannot predict extreme events caused by management changes, regulations, or geopolitical factors.

Remember, technical analysis provides insights into potential price movements but doesn't guarantee precise outcomes.

The next lesson will discuss the most recent developments in asset trading, Quantitative Analysis.