Volatility in the stock market has a significant impact on all finance-related fields. As an important part of stock data, the adjusted closing price often reflects the attention of market funds to a stock, helping predict the market movement of the next trading day, especially for short-term investors. With the development of artificial intelligence technology, the machine learning algorithms are widely applied to predict stock trends. However, the noisy, nonlinear, and chaotic nature of stock price changes makes the prediction not accurate enough.

For example, analysing trends in volume can help you validate patterns if you are an active investor that incorporates charts and trends into your strategy. Technical analysts believe that volume precedes price; to confirm any trend, volume should increase in the direction of the trend. technical trading patterns that incorporate volume include the head and shoulders and flag and pennant patterns:

* In a **head and shoulders pattern**, volume usually decreases with each successive peak. If it does not, a trader might not expect the reversal pattern to complete. If volume does decrease with each peak and the pattern completes, the bearish breakout (i.e., a move lower) should then occur on increasing volume.
* In **flag and pennant patterns** (short-term patterns completed in 1 or 2 weeks that are initiated by sharp and nearly straight-line moves), volume usually decreases during the pattern. If it does not, the pattern may not continue as expected. If the pattern completes, the breakout should then occur on increasing volume.