TECHNICAL ANALYSIS

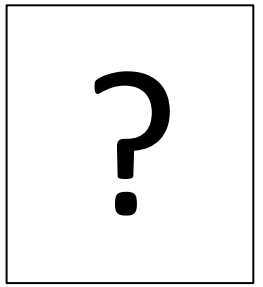
① The price of stocks is determined by supply and demand → Supply and demand are driven by rational and irrational behavior

② Using information about volumes and prices, technical analysts analyze changes in supply and demand

③ The prices of securities move following trends that persist for long periods, and that repeat themselves in a predictable manner

Fundamental Analysts	Technical Analysts
Try to find the intrinsic value of the Company (the correct value of a company irrespective of its market value) using estimates of future cash flows and financial results	Try to predict future prices using information about past trades (volumes, prices trends, etc…)

ADVANTAGES OF TECHNICAL ANALYSIS



① It is based on trade data that is **actual** information. Fundamental analysis is based on accounting information that are often estimates

② Can be used to value assets that don't generate the needed cash flows to the DCF valuation (commodities)

③ Accounting acumen is not needed for technical analysis, and also useful in the presence of accounting fraud

DISADVANTAGES OF TECHNICAL ANALYSIS

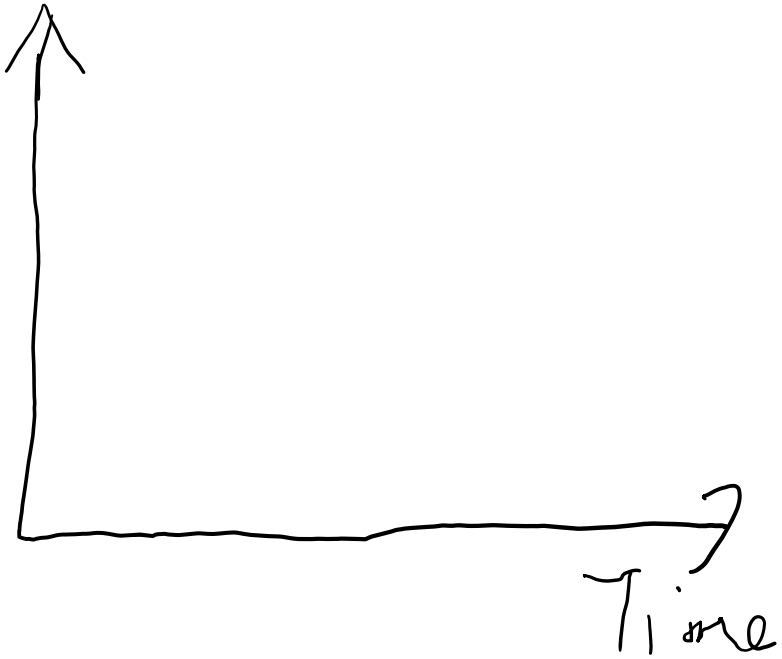
① It may not work in markets with reduced liquidity

② It may not work in markets that are subject to potential manipulation (central bank interventions for currency appreciation/depreciation)

③ It may not work in analyzing companies in or nearing bankruptcy, since their price is zero or close to zero, but short covering may create positive technical patterns

④ It will not work at all if the markets are weak-form efficient

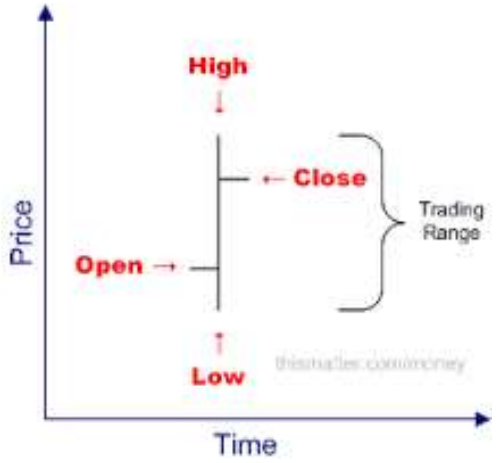
CHARTISTS



- Technical analysis mainly uses use charts that give information about volumes and price.
- The majority of the used charts include the time variable on the horizontal axis. The time interval included in the graph (i.e. monthly, weekly, daily, or intraday) takes into consideration the time horizon of the analyst.
- It is common practice to start with a longer term (monthly/weekly) and afterwards move to daily or intraday data analysis.
- A logarithmic scale is preferable to a linear scale if the price of the underlying asset has changed exponentially

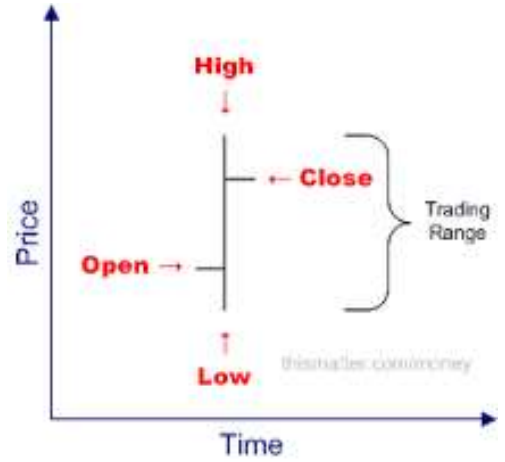
Line Chart

Bar Chart

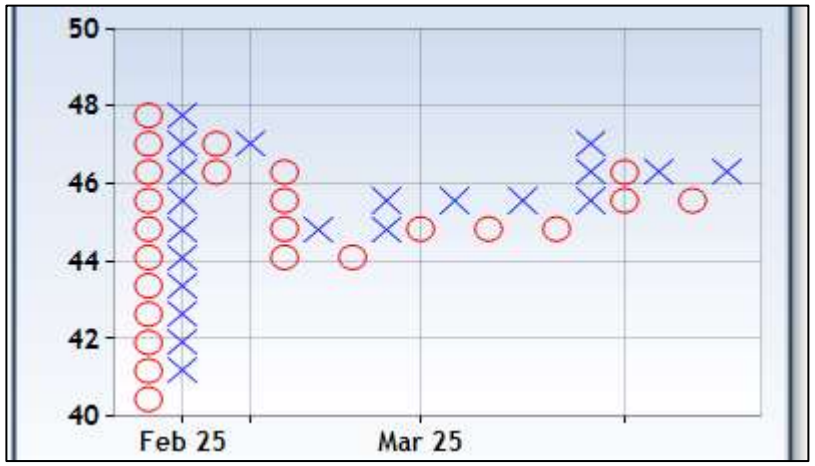


Candlestick Chart

Bar Chart



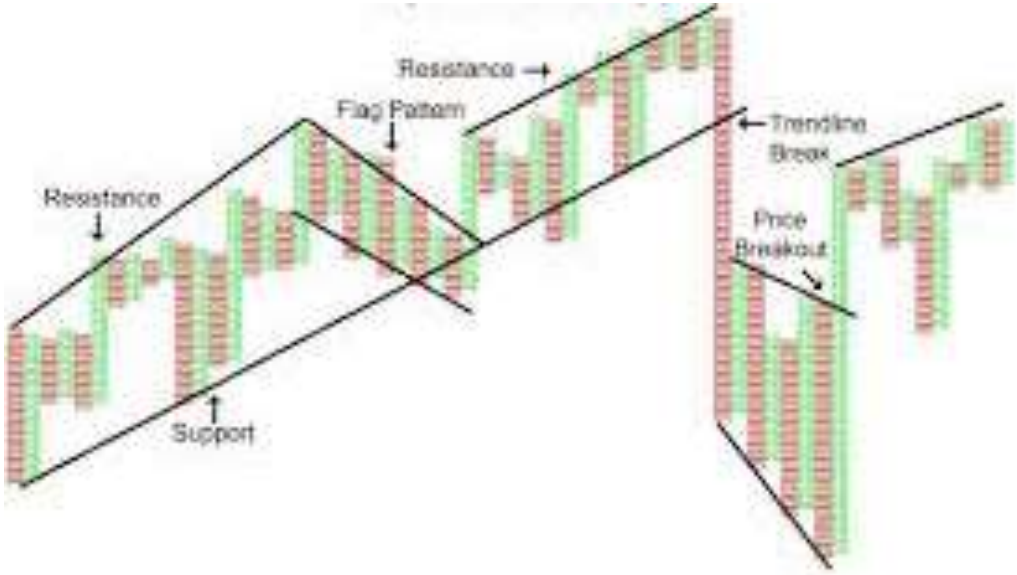
Point and Figure Chart



- Useful for identifying changes in price directions.
- Price is in the y-axis.
- Unlike the vast majority of charts used in technical analysis, the x-axis does not include constant units of time, but the nº of changes in the price direction.
- The X symbol is included when the price goes up, and the O when the price goes down.
- If the price move is larger than one box size, multiple Xs or Os are included.
- If the price continues in the same direction in the next periods, the analyst will continue filling in the same column.
- When the price changes its direction, a new column is included

Volume Chart

- Technical analysts use not online prices as sources of information but also volumes.
- Therefore, volume data is usually displaid in charts too. It is common that volume data is displayed below price charts with each period's volume shown as a vertical line



Trend Lines

Upward Trend

Higher highs

Higher lows

Downward Trend

Lower highs

Lower lows

SUPPORT AND RESISTANCE

Support

It indicates the price level where the buying pressure limits a downward trend

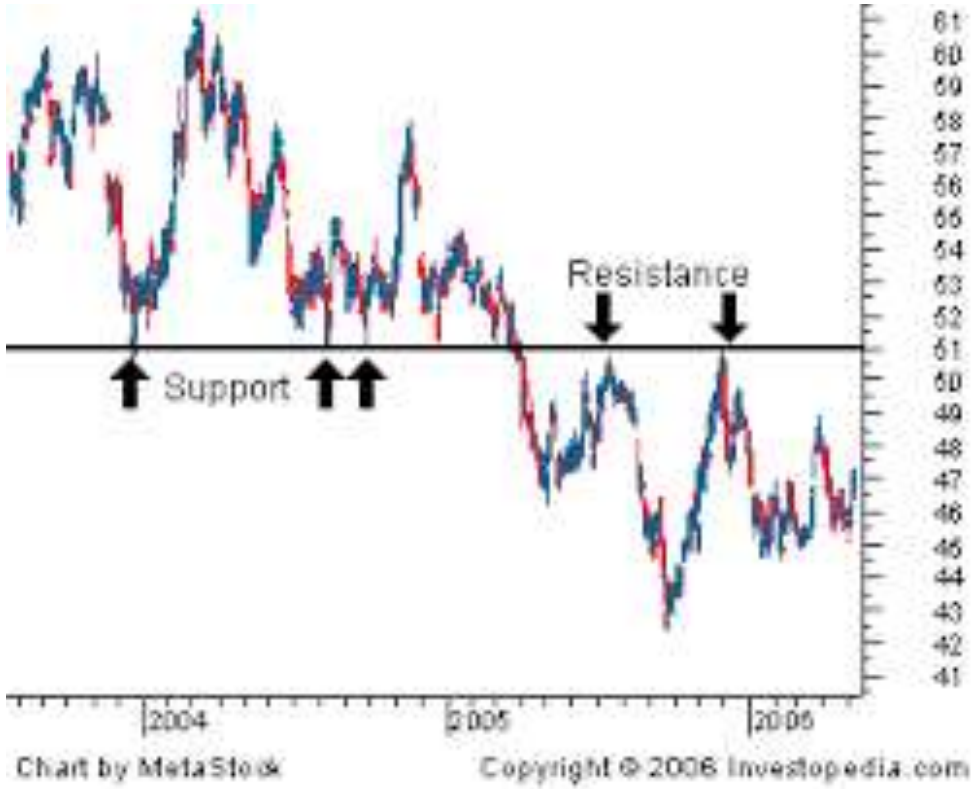
Resistance

It indicates the price level where the selling pressure limits an upward trend

Trend lines

Old highs, old lows

Whole numbers, round numbers



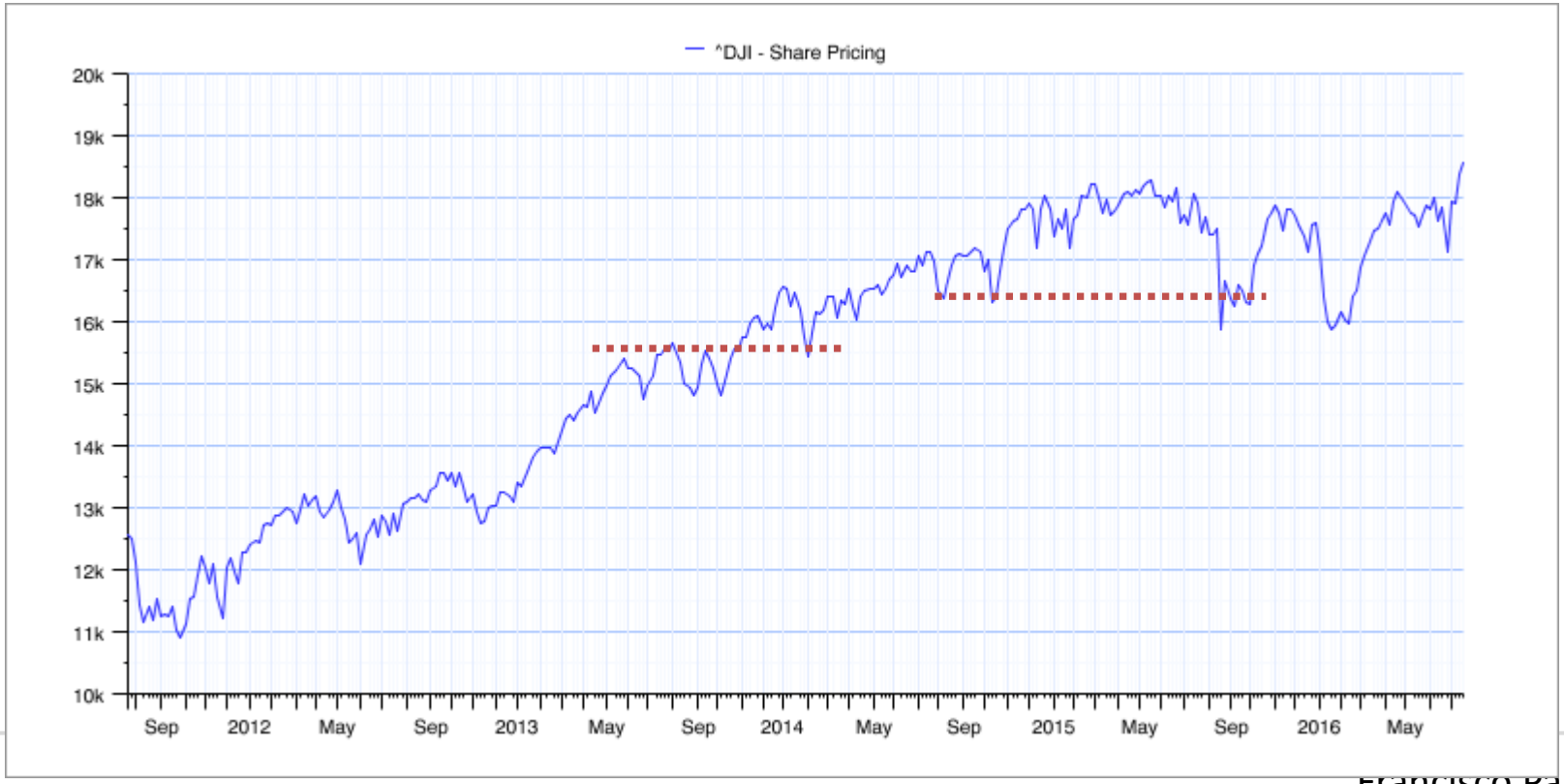
explain uses of trend, support, resistance lines, and change in polarity;

SUPPORT AND RESISTANCE

CHANGE IN POLARITY

A broken resistance becomes a support

A broken support becomes a resistance



REVERSAL PATTERNS

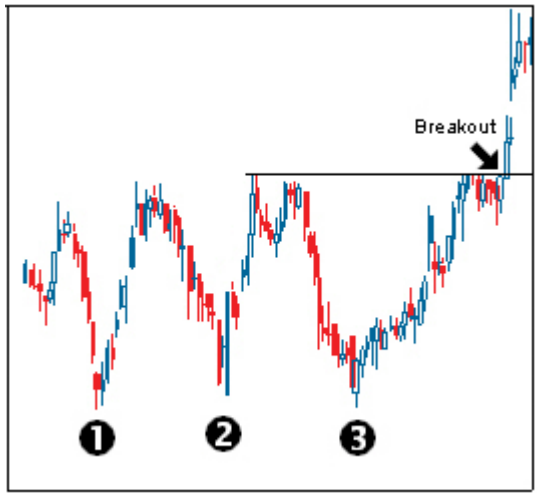
A prior trend that is expected to reverse direction

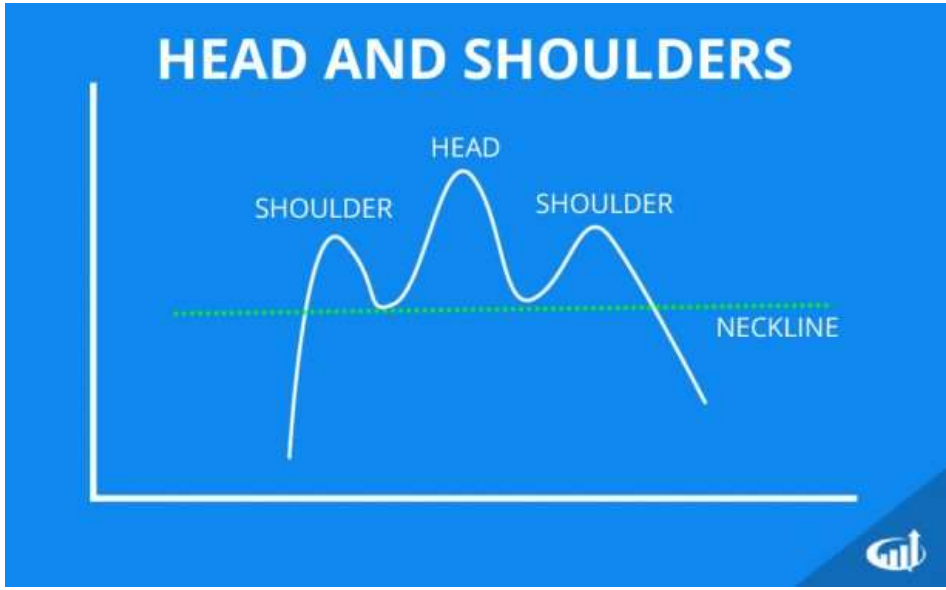
① Head and shoulders

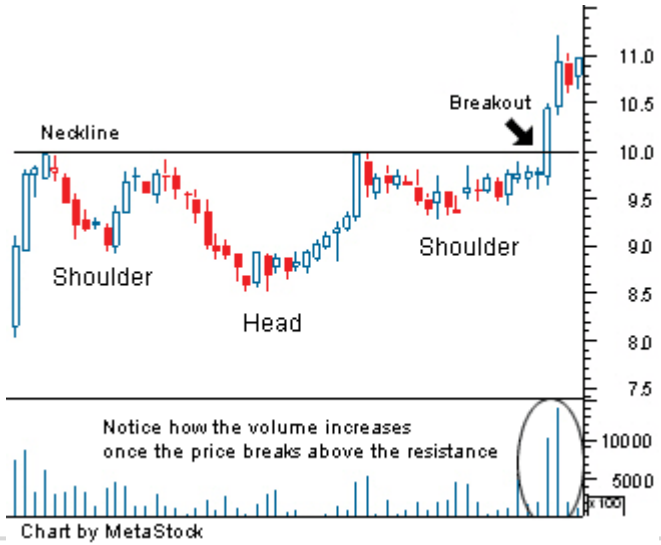
② Double top, triple top

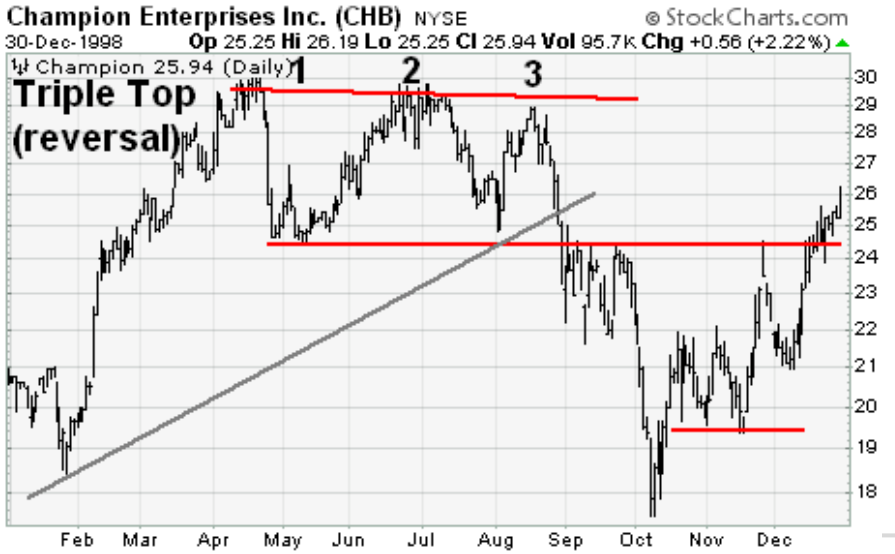
③ Inverse Head and Shoulders

④ Double bottom, triple bottom





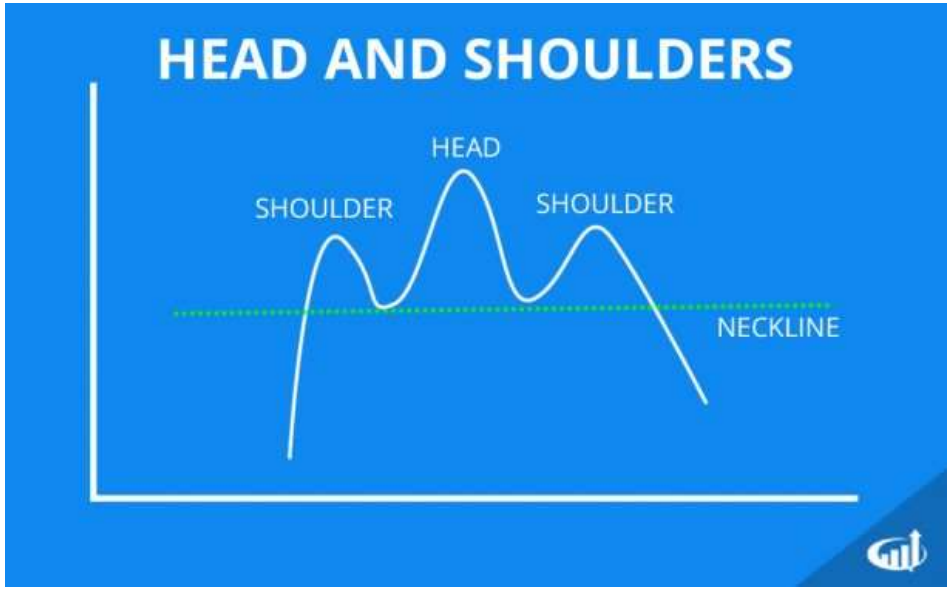




REVERSAL PATTERNS

A prior trend that is expected to reverse direction

① Head and shoulders



- The Head-and-Shoulders pattern indicates that the demand that has been pushing upwards the price is fading (especially if the highs in the pattern occur in tandem with declines in volume)
- An important metric is the size of the head-and-shoulders pattern.
- This size is used to project a price target for the ensuing downtrend and is the difference between the head and the neckline.
- If the price declines further from the neckline (after the right shoulder), the downtrend is expected to continue downwards by approximately the size of the head-and-shoulders pattern.

REVERSAL PATTERNS

A prior trend that is expected to reverse direction

① Head and shoulders

REVERSAL PATTERNS

A prior trend that is expected to reverse direction

② Double top, triple top

- As with the previous Head-and-Shoulders pattern, this one too indicates a decrease in the buying trend that was fueling the prior upward trend.
- In the same fashion as with the H&S, the price reaches a resistance that prevents the price from continuing upwards.
- As with the H&S, the size can be used to project a price target.

REVERSAL PATTERNS

A prior trend that is expected to reverse direction

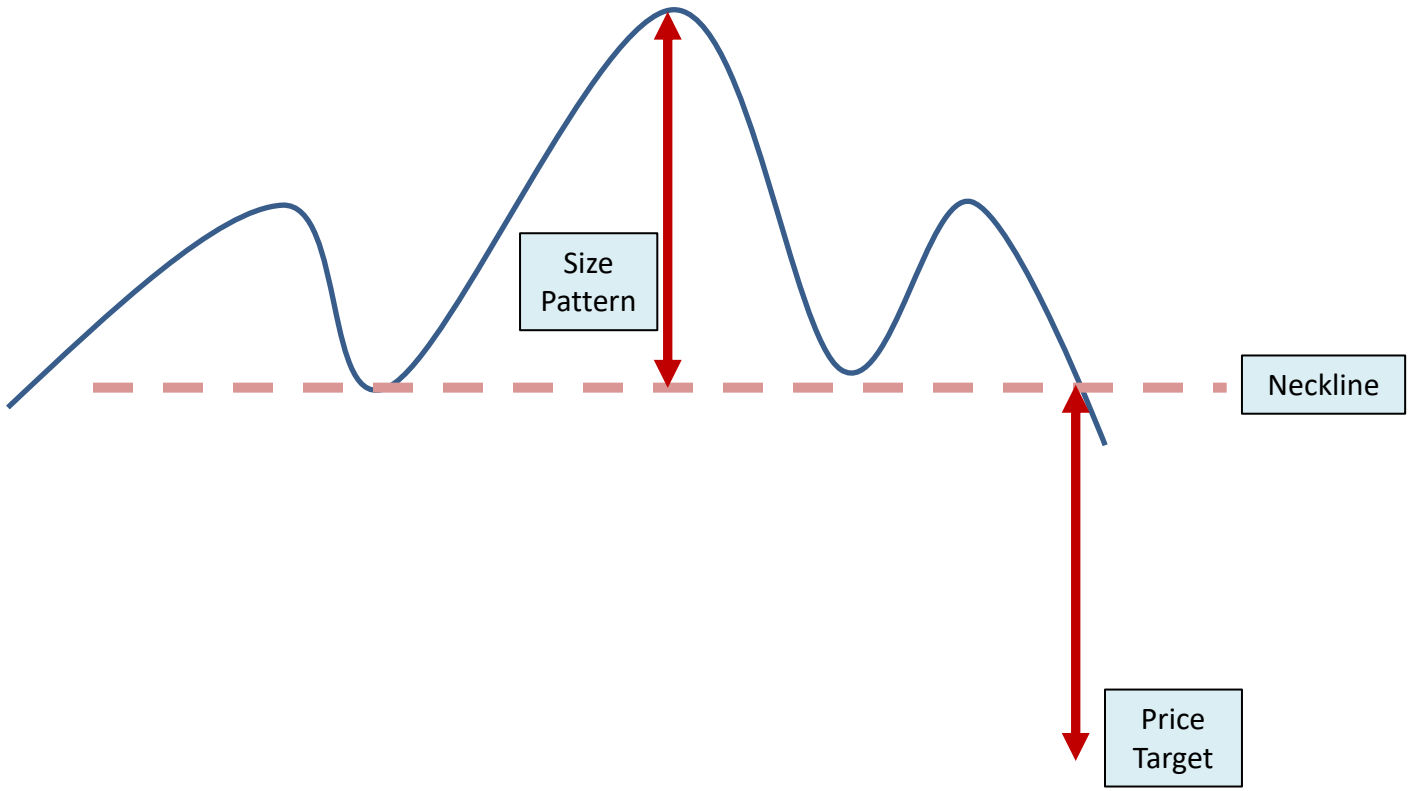
③ Inverse Head and Shoulders

④ Double bottom, triple bottom

- Inverse Head and Shoulders and Double bottom and Triple Botom are both reversal patterns for downward trends.
- They should be analized in the same fashion as H&S and Triple tops.

PRICE TARGET

We can calculate a price target using the trend and measuring the size of the pattern



CONTINUATION PATTERNS

A prior trend that is expected to continue direction after a pause

1. Triangles

2. Rectangles

3. Pennants — Triangles on very short term periods

4. Flags — Rectangles on very short term periods