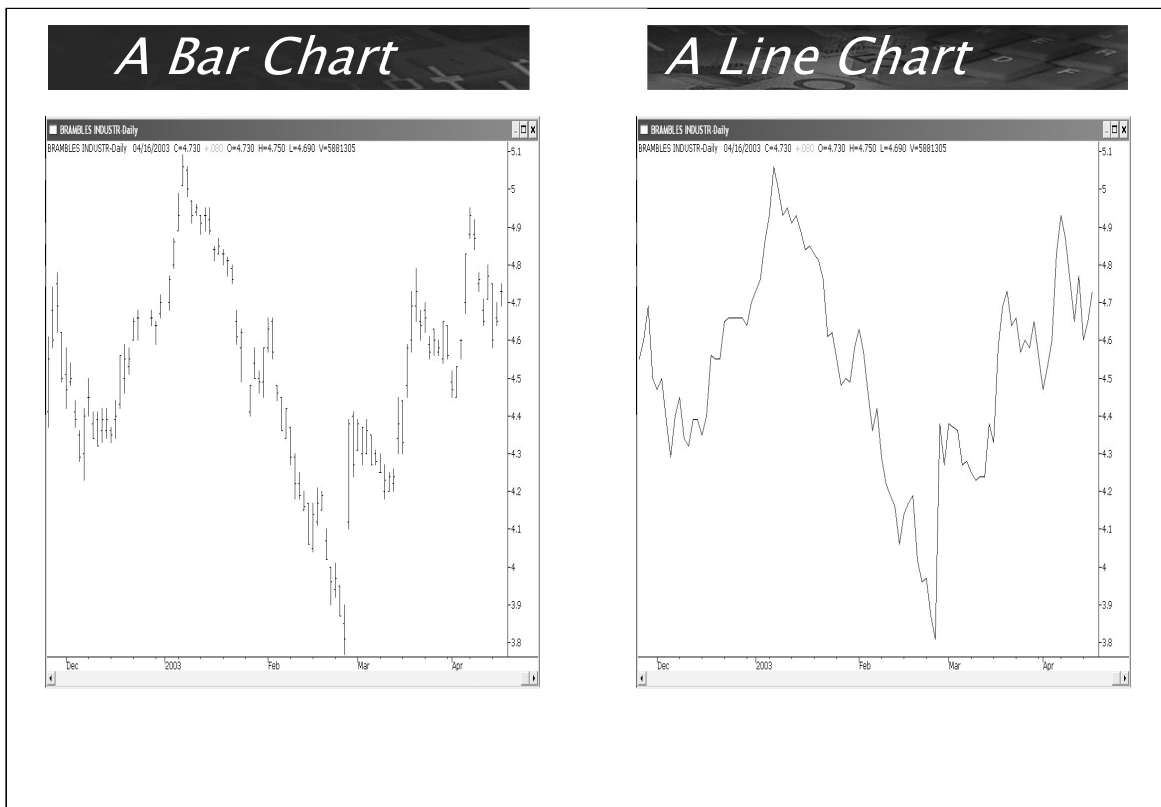


1-line Candle Patterns



A Bar Chart shows the Open, Close, High and Low for that session. A period or a session consists of the unit of time shown on the chart, e.g. 30-minute, daily, weekly, monthly etc.

A Line Chart connects the _____ prices with a line.

The disadvantage with a Line Chart is that it does not show _____, or the _____ of trading for a particular session.

Appendix A at the end of the course notes contains a glossary of sharemarket terms. If you are uncertain regarding a definition, have a look at the glossary first.

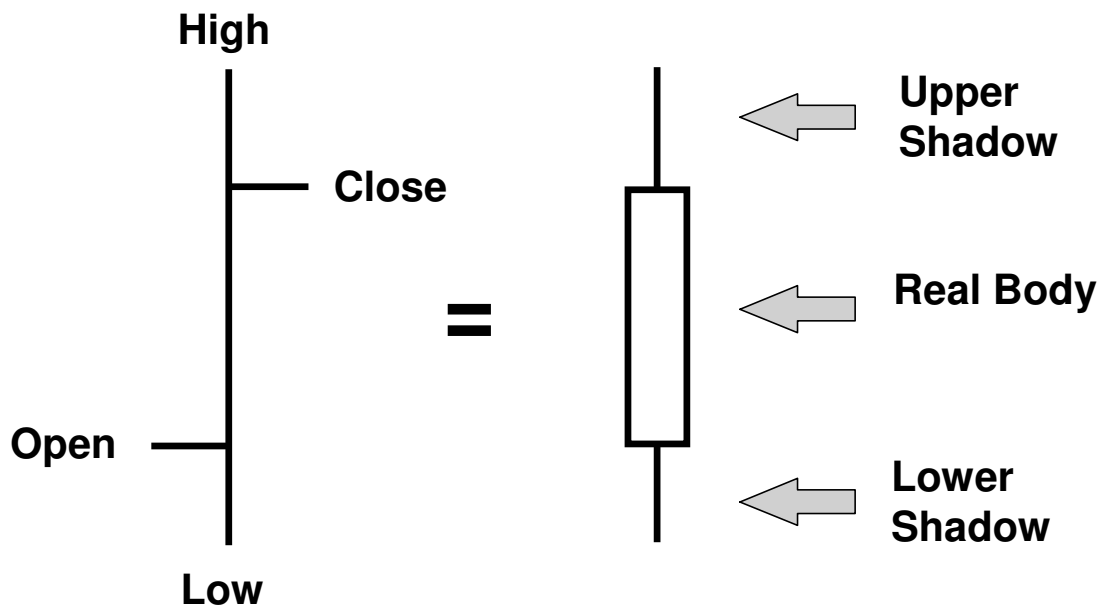
A Candlesticks Chart



Candlestick analysis is useful when looking at intra-day,

They work best if the share has good levels of _____

Green/White Candlesticks



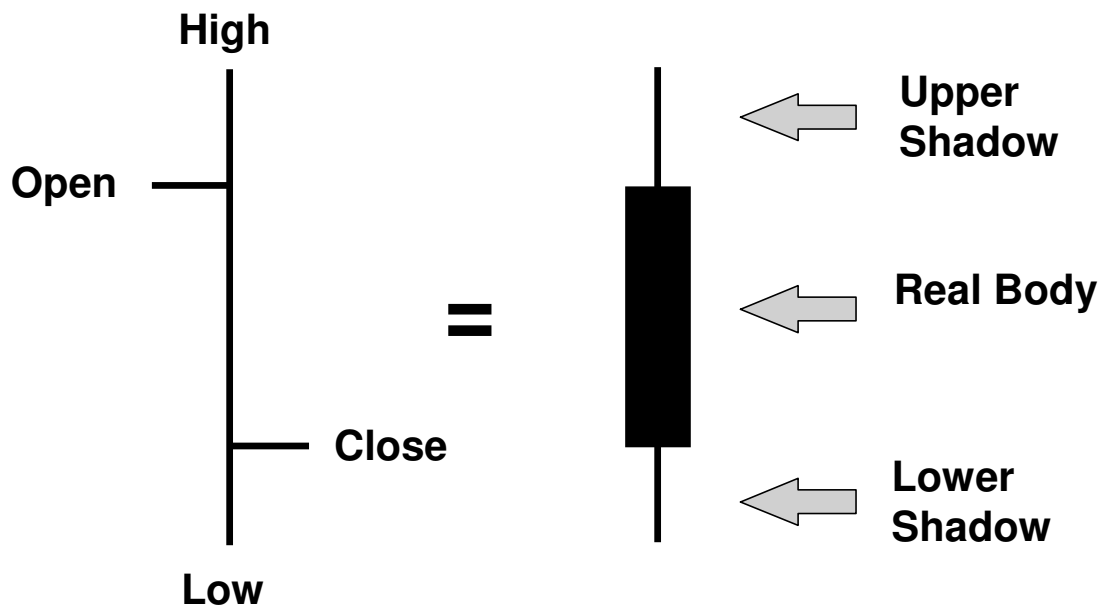
A bullish candle may be empty, or coloured green or white, depending on the charting package you use.

A single candle covers the trading activity within one session or period e.g. daily, weekly or monthly, depending on the chart you use.

_____ tend to open the market, _____ tend to close the market. For this reason, the _____ and _____ are the most emotionally charged points of the day. The high and the low show the extremes of the bullish or bearish impulses for that day.

When _____ is greater than _____, the price will be driven upwards.

Red/Black Candlesticks



A bearish candle may be filled, or coloured red or black, depending on the charting package you use.

A red candle shows selling pressure and a green candle shows buying pressure.

Reversal Patterns



→ Reversal Patterns are predictive if they occur once the share is trending.

→ These patterns may indicate a flattening, or a complete change of direction.

Elements of the Candle

- Candle Colour
- Candle Range
- Candle Body Size
- Shadow Location
- Shadow Size
- Candle Development
- Candle Location

Candle Colour - White has bullish implications, and black indicates bearish selling pressure.

Candle Range - The range from the high to the low, or the peak of the upper shadow to the base of the lower shadow is a general indicator of the level of volatility for that period.

Candle Body Size - The size of the real body can provide a clue as to the level of conviction of either the bulls or the bears. The presence of a long candle in relation to the most recent candles of previous days holds special significance, especially if accompanied by heavy volume. A small bodied candle shows indecision by the bulls and the bears.

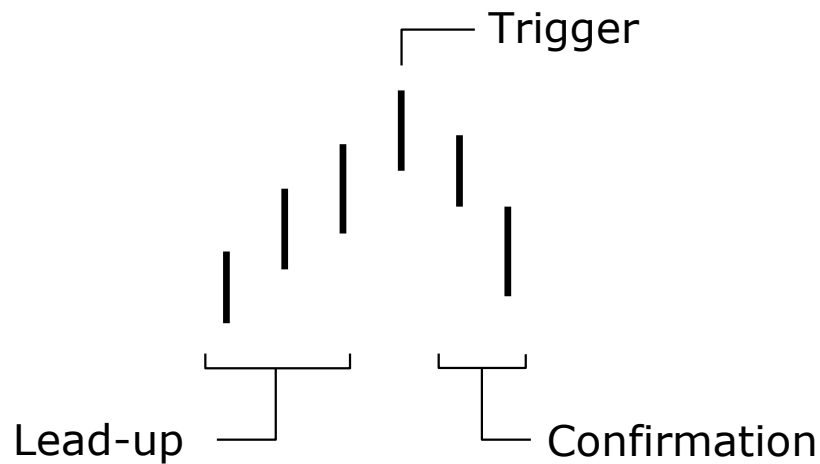
Shadow Location - The shadow provides an indication of buyer or seller strength.

Shadow Size - The longer the shadow, the greater the market rejection of the price levels being tested by that share.

Candle Development - How the candle is formed

Candle Location - the *lead-up*, the *trigger* and the *confirmation* phase.

Pattern Effectiveness



The **lead-up** to the appearance of a candle pattern must be examined in order to assess the potential strength of the reversal or continuation pattern. The lead-up consists of the activity of several preceding candles.

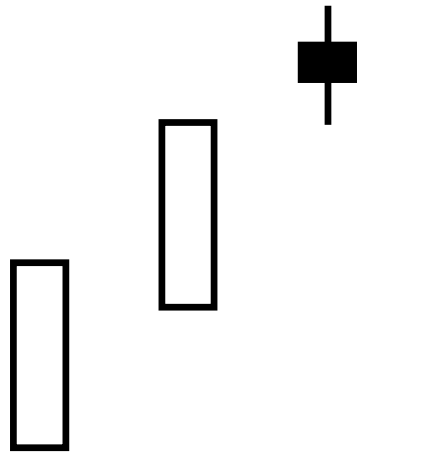
The **trigger** candle pattern is the actual appearance of a reversal or continuation pattern. For a one-line candle, the trigger will be represented by one session only. For more complex two-line patterns, the trigger will be made up of two sessions etc.

Confirmation regarding the effectiveness of the candlestick is also an essential component of using this method of analysis.

Back-testing

When back-testing to see which candles a share is responsive towards, look for the *frequency* of pattern occurrence, the *immediate responsiveness* to individual patterns, and the longer-term *effectiveness* of these formations.

Indecision



Small Bodies after a Significant Move

These candles have a short real body with small or negligible shadows. These candles personify indecision. They may indicate confusion about whether the bulls or bears are in control, or perhaps that the speculators are biding their time prior to an announcement. The ultimate short candle is the doji.

The next page shows a picture of a shaven candle. The first appearance of a shaven candle after a share has been trading in a defined range is incredibly significant. If a share breaks out of a trading band, with a shaven candle, on heavy volume, this is a powerful indication that the direction of the trigger candle is likely to continue within subsequent trading periods.

Decision



or



- Candle opens and closes at extremes of price action
- Long if low volume, Dominant if high relative volume
- High impact if a shaven candle pushes through support or resistance on heavy volume
- These are known as shaven or marubozu candles

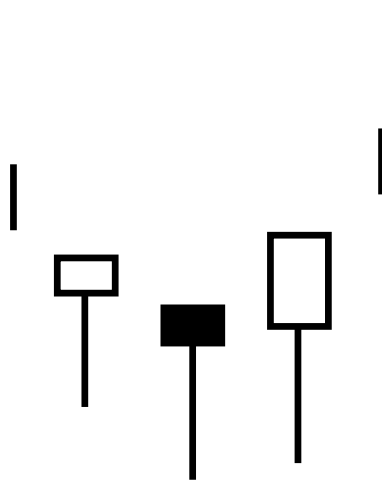
These long candles generally have no shadows on either end.

Dominant vs Long Candles

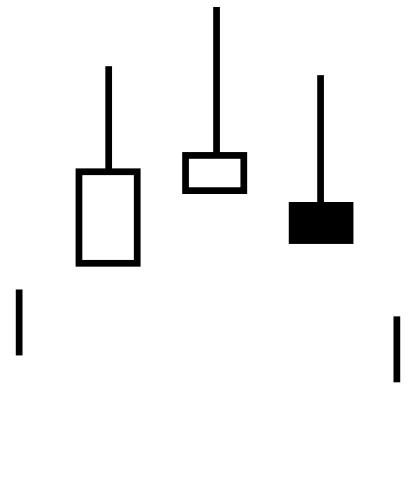
A long candle shows a large real body in relation to previous trading sessions. Any long white or black candle with significant volume levels (relative to the previous levels of volume within the most recent trading periods) is considered to be dominant and has important implications. If a candle fitting this description breaks above a previous resistance level (in the case of a white candle), its base, top or mid-point may become a key indication of future support levels. If a black dominant candle punctures a previous level of support, its base, top or mid-point may act as a future resistance level.

The mid-point is defined as being the 50% level of the candles' upper shadow to lower shadow range. Some candles are more receptive to mid-point analysis than others. Shaven candles that represent long or dominant days are the most likely candidates. Any candle with a significant shadow is unlikely to be receptive to this type of analysis.

Rejection



**Rejection - Bullish
Long Lower Tails**



**Rejection - Bearish
Long Upper Tails**

Rejection – Bullish Long Lower Tails

Rejection occurs when several shaven real bodies and/or low's for an instrument experience support at approximately the same price level. The prices of the shares have become low enough to encourage buyers to enter the market. The ensuing price action is usually bullish.

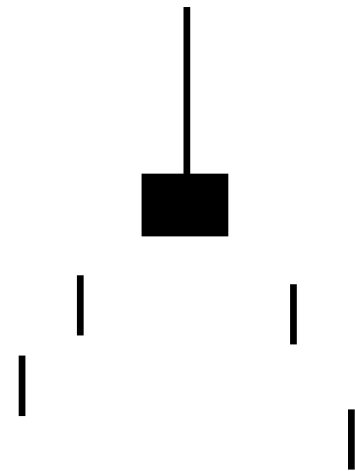
If there is only one lower shadow which punctures a previous level of support, prior to the share trending up again, this pattern is known as a **spring**. Two tails at the same price point are known as **tweezer bottoms**.

Rejection - Bearish Long Upper Tails

This pattern is evident when several shaven real bodies and/or high's for that instrument experience resistance at approximately the same price level. This form of rejection usually results in subsequent bearish price action. The buyers are rejecting higher prices, and the seller's efforts to sell at higher levels are ignored. The buying demand at higher prices has dried up.

If there is only one upper shadow which pushes through a previous level of resistance, prior to the share trending down again, this pattern is known as an **upthrust**. Two tails at the same price point are known as **tweezer tops**.

Shooting Star



- Tail is at least two times length of body
- Gaps increase intensity of signal
- Either colour, but red is more bearish

Candle Location

The *lead-up* to the shooting star candle is that the underlying instrument must be in an uptrend.

Ideally, a gap will be present before and after the shooting star. However, even if a gap is not present, the shooting star still represents a powerful reversal signal.

The *confirmation* required is that the upper shadow and the real body of the candle following the trigger must be completely underneath the entire trading range of the shooting star.

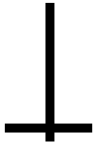
Psychology

In the *lead-up* phase, the market has been in uptrend. At the beginning of the period that forms the trigger candle, it seems that this bullish sentiment will continue. There is usually a gap from the previous candle, and the price begins to rise in relation to its opening value. At some time throughout the day, sellers decided to take profits. This rejection of higher price levels meant that the bulls were unable to continue driving share prices upwards. The rally of that period could not be sustained.

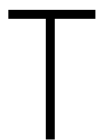
Doji



→ Extremely small real body - ie open & close at same price



→ More important if there are few other Doji on chart



→ Top and Bottom Reversal

Candle Location

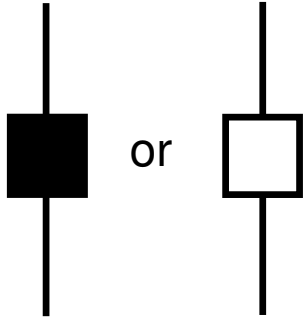
The *lead-up* to the doji is that the share must be trending prior to the trigger candle. If a doji appears, often the share will reverse its upward direction and begin to downtrend, and vice versa. Gaps between the lead-up and the trigger candle would be ideal, but not strictly necessary. If the doji is successful in reversing the trend, the result will be immediate.

The *confirmation* is preferably a counter-trend gap away from the trigger candle, which involves the entire range of the subsequent candle.

Psychology

The reason for the awesome strength of the doji is due to the psychological importance of its message. A doji is suggesting a *balance* of demand and supply.

Spinning Top

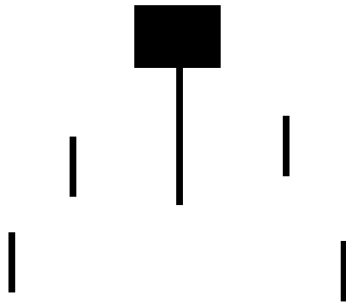


- Small real body
- Tail length unimportant
- Red or Green
- This represents a tug of war between bulls and bears
- Top and Bottom Reversal

This pattern is very similar to the doji, but there is a greater range from the open to the closing price which forms a slightly thicker body. This greater range ensures that the spinning top is not quite as powerful as the doji, but it is still an incredibly important signal.

The principles regarding to candle location and the psychology of the doji are applicable to the spinning top.

Hanging Man



- Long lower shadow. No (or very short) upper shadow
- Confidence is shaken
- Red or Green, but red is more bearish
- Top Reversal

Candle Location

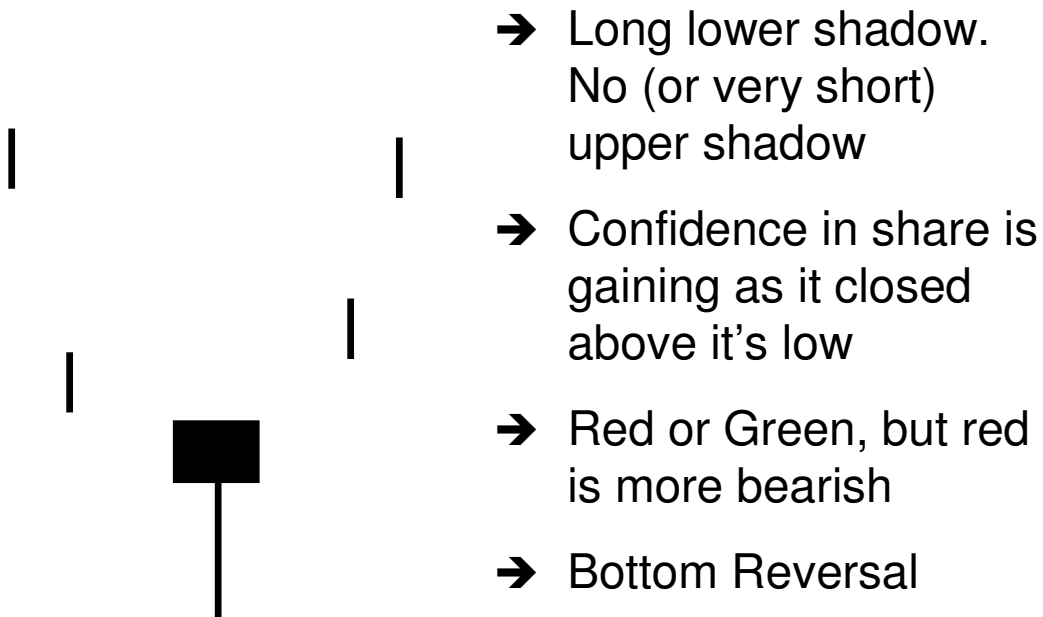
In relation to the candle location, everything that you have learned about the shooting star is relevant also for this pattern.

Psychology

In the *lead-up* phase, the market has been in uptrend. The hanging man tested some lower prices, which has shaken the confidence of the bulls. Faith in the instrument has diminished, leaving the share vulnerable to bearish pressure. For a share to continue a sustained rally, investor confidence is essential. If confidence is shaken in any way, a decline in prices is likely to occur. Traders who are in profit may be vulnerable to selling pressure.

It does not display the classic upper tail of rejection, so it is not considered to be as powerful as the shooting star pattern. Tails pointing upward usually suggest future bearish price action.

Hammer



This pattern always appears as a bottom trend reversal, rather than at the top of a trend. The translation of the Japanese name is "trying to gauge the depth of the water by feeling for the bottom". The other concept behind this name is that the market is trying to hammer out a base before progressing to new higher prices.

Candle Location

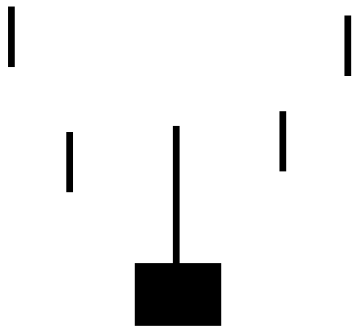
The *lead-up* to the hammer is that the share must be in downtrend prior to the trigger candle. Gaps between each candle would be ideal, but not strictly necessary.

The *confirmation* is either a gap up from the trigger candle which involves the entire range of the subsequent candle, or just the real body. Obviously, the greater the gap, the greater the bullish significance, especially on good relative volume.

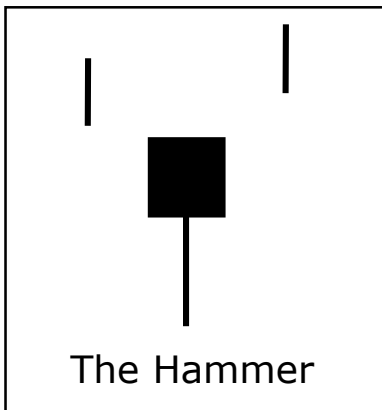
Psychology

In the *lead-up* phase, the market has been in downtrend. The bears have established dominance. If they have been dealing with this share at all in recent times, traders have been shorting, rather than buying the actual share.

Inverted Hammer



- Long upper shadow.
No (or very short) lower shadow
- Higher prices have been tested
- Red or Green
- Bottom Reversal

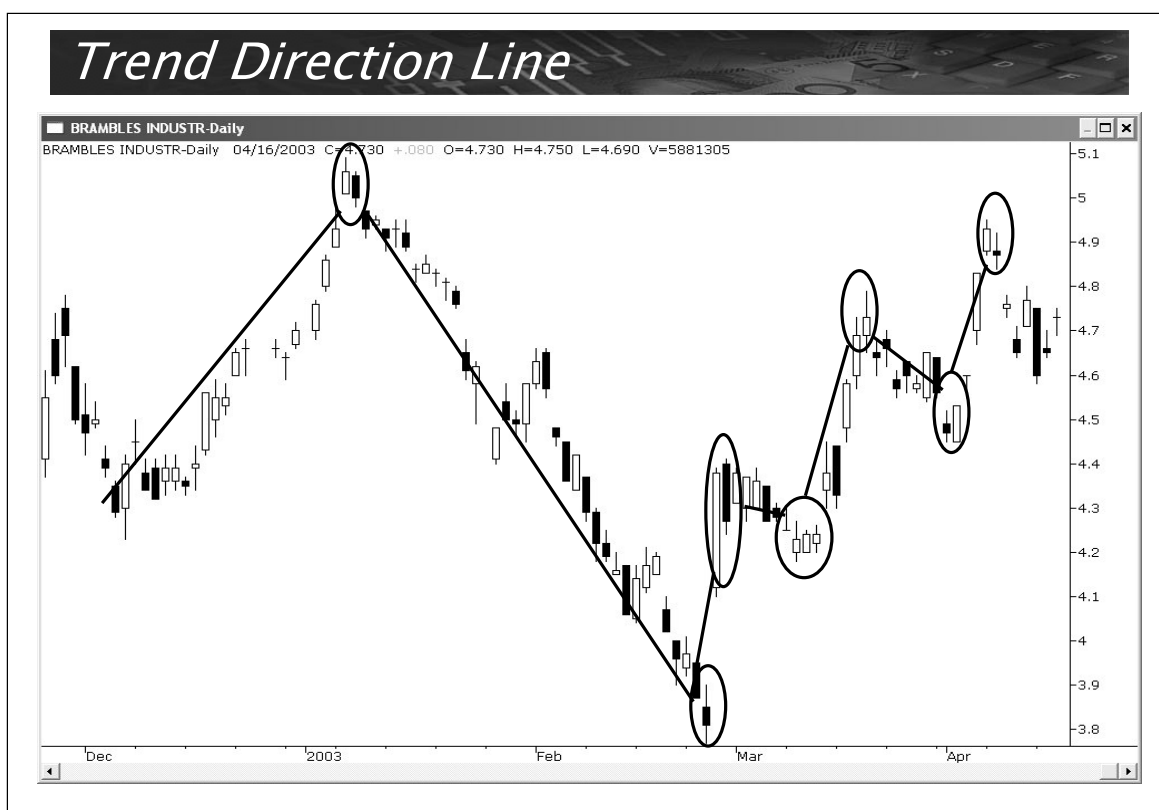


The inverted hammer pattern is not as strong as the hammer. Why?

The hammer is a bottom reversal pattern and can be either colour, although green is more bullish. Gaps either side of the pattern increase the effectiveness of this pattern, as well as the inverted hammer. Ideally, an increase in volume will occur to confirm the break of a downtrend. The inverted hammer is similar to the hammer, but it appears upside-down on a candlestick chart. As with the hammer, this inverted version will often lead to a downtrend reversal.

Psychology

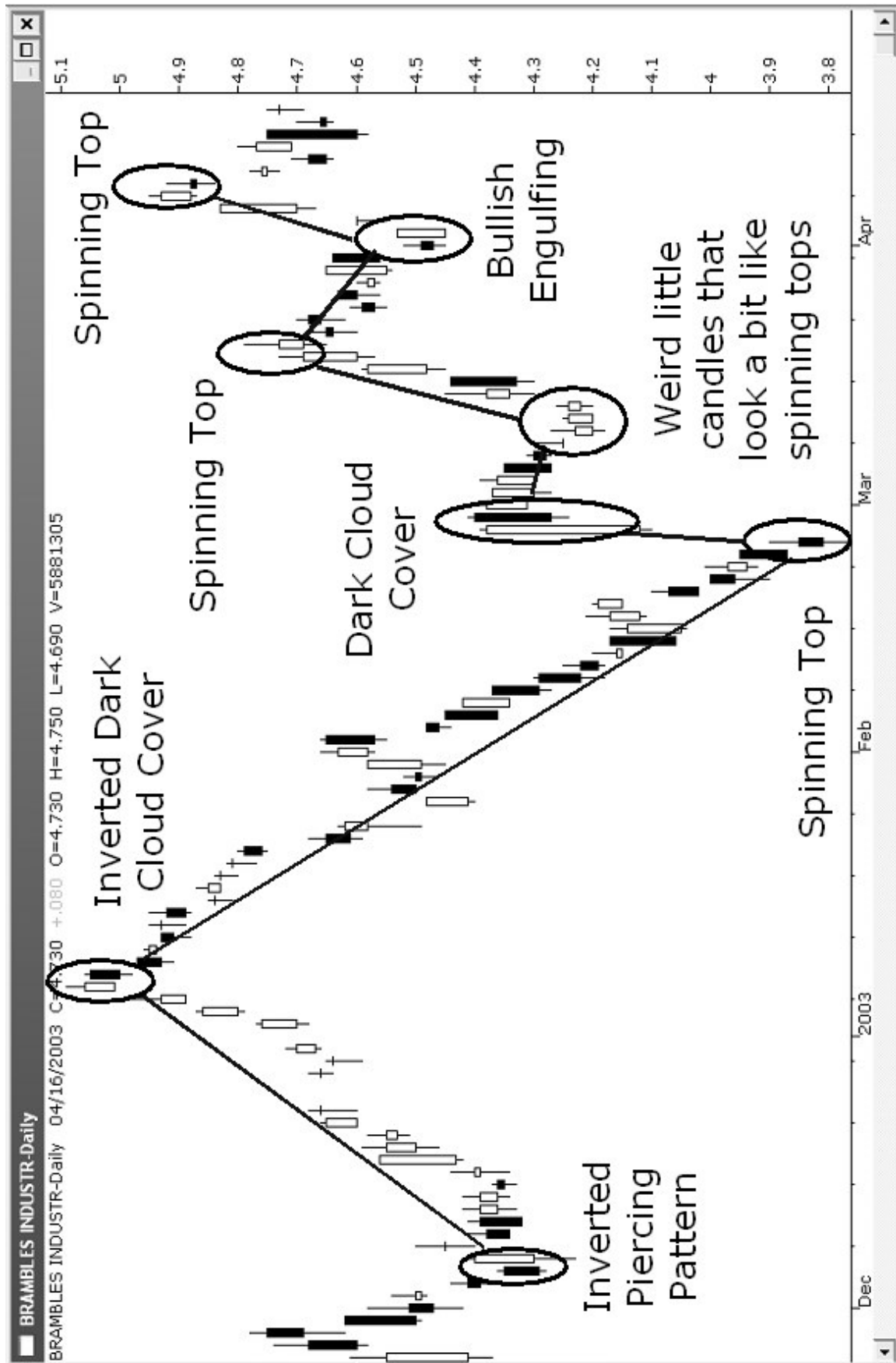
In the *lead-up* phase, the market has been in downtrend. The bears have established dominance. When the inverted hammer forms, the market 'tests' prices at a higher level. The hammer is a typical rejection pattern.



It may be helpful to run a line through the general direction of the trend, by connecting the approximate mid-point of each of the candles present - a *trend direction line*. It is not actually a trend line. (A traditional trend line will connect the highest highs for a downtrend, and the lowest lows for an uptrend. The purpose of a trendline is to show when a trend is in place, and to watch for a break in the trend which will be apparent when the share prices cross over the line.)

A suggested analysis of this share is included for you on the next page.

Here is the suggested analysis of this share chart.



Appendix A - Glossary

Ask: See *bid*.

Average True Range: is the average of the true ranges over the past x periods (where x is specified by the user). See *True Range*.

Average down: Buying more of a security that is not co-operating with your initial view. For example, buying more of a downtrending share. You are trading against the trend. Only ever buy more of uptrending shares.

Average up: To buy more of a share that is co-operating with your initial view.

Bar Chart: This is the standard form of chart utilised in Western technical analysis. A single bar consists of an open price, a high, a low and a close price for a particular session.

Back-Test: A method of testing an indicator's performance by applying it to historical data.

Bear/Bearish: A trader with a negative expectation of the market or share. Some texts use this phrase is used to signify a sideways trending market as well as a downtrending market.

Bid: The price at which the buyers have registered their interest in a share. A real-time screen will show the buyers that are queuing to buy the share as bids, and the sellers queuing to sell their shares as asks.

Black Candle: A bearish session showing the close lower than the opening price.

Breakaway Gap: See *gaps*.

Breakout Trade: An entry into a long position in an instrument in an existing uptrend after a significant level of resistance has been bullishly transcended.

Bull/Bullish: A trader with a positive expectation that prices will rise in the market or for a particular share.

Candlesticks: A 17th century Japanese technique that uses the same information as contained in a Western bar chart, but provides a different graphical representation. Candlestick patterns of 1, 2, 3 or more candles (bars) provide an excellent timing/confirmation tool when used in conjunction with other indicators.

Candle Body Size: The size of the real body can provide a clue as to the level of conviction of either the bulls or the bears. The presence of a long candle in relation to the most recent candles of previous sessions holds special significance.

Candle Range: The range from the high to the low, or the peak of the upper shadow to the base of the lower shadow is a general indicator of the level of volatility for that period.

Call Option: A call option gives the buyer the right, but not the obligation, to buy a given security at a particular price up to and including the day of expiry.

Capital: The amount of equity or money that you have set aside to begin trading with.

Capitalisation: See Market Capitalisation

Confirmation: The activity of the share price action after the appearance of a *trigger* pattern. Some patterns require greater levels of confirmation than others.

Continuation Gap: See *gaps*.

Continuation Pattern: After the appearance of this pattern, a share is likely to continue in the direction of the predominant, established trend. These patterns imply a pause or consolidation within the prevailing trend.

Contracts: options are sold by the contract. One option contract provides exposure to 1000 shares. For example, five BHP options contracts would provide exposure to 5000 BHP shares.

Consolidation: See *sideways trend*.

Correction: A movement in prices against the general trend which typically occurs with little or no warning. For instance, the market periodically loses value as many of the underlying securities drop in price by several percent. This typically occurs with little or no warning.

Defensive Actions: These act a last resort when the share goes against the view you had when initially writing the option. Defensive actions are a way of removing yourself from risk and minimising your potential loss if the trade goes against you.

Delta: The sensitivity of option price to changes in share price.

Derivatives: A derivative is a financial instrument that has another asset as its underlying base, eg options, warrants etc.

Dividend: This periodic payment is a part of a company's net profit that is paid to shareholders as a cash reward for investing in the company's shares.

Double Top: This pattern is where price action on a chart displays that the price has rallied twice in quick succession and stopped at or near the same high. This pattern forms two prominent peaks in the share price action and often signifies that a downtrend is imminent.

Downtick: Any downward movement in price action. This downward movement can even be by the smallest available price increment available on the price scale eg one-cent.

Downtrend: Prices are making consistently lower highs and lower lows.

Downtrend Line: A straight line is drawn in at downward right slanting angle connecting the peaks of the share price action. Once the prices show evidence of rising above this line in a sustainable manner, it is likely that the downtrend has been broken. Ideally, this should be accompanied by a simultaneous increase in volume.

Equities: Another word for shares

Exchange Traded Options (ETO's): The options traded over shares in Australia are called 'exchange-traded options' or 'American options'. This type of option allows the option holder to exercise the option at any time during the life of the contract.

Ex-Dividend: The day after the shareholders have taken the dividend. This typically results in a share price drop.

Exercise: To exercise your rights as an option *buyer* means that the option has reached or is close to its strike price and you may exercise your *right* to buy or sell the shares covered by the option. You can do this at or before expiration. It is likely however, that you will exercise your rights only after the share price has transcended the strike price of the option, or if there is a vested interest to exercise due to the effect of an ex-dividend scenario.

Exhaustion Gap: See *gaps*.

Expiration Date: The final date of the option contract. The duration of each option contract will often be 12 months or more in advance. As a writer, you can chose to write contracts on options with 6 months to expiry, or 1 month to expiry. The choice is up to you.

Exponential Moving Average (EMA): The exponential moving average places more emphasis (on an exponential basis) on the most recent sessions and forms a moving average line. A moving average takes the closes of several periods and plots a point. When several of these points are connected, a moving average line is formed. Moving averages are most effective as trend-following tools. They smooth out the price action but incorporate a time lag. A moving average in a sideways moving market is less effective.

Exposure: As a writer, this is the total possible amount of money that you would be liable for, if the options were to be exercised.

Formation: See *pattern*.

Fundamentals: Fundamental analysis assists in detecting 'which' shares have a probability of increasing or decreasing in value based on the company balance sheet and profit/loss details. Economic supply and demand information is analysed rather than the market activity of price and volume action on a share chart.

Gaps: Gaps show that the price activity of the preceding period is completely above or below the next candlestick or bar apparent on the chart. Spaces or holes are left on the share chart when viewing candlestick charts or bar charts and these are called gaps. In Western analysis there are three main types of real gaps; *continuation*, *breakaway* and *exhaustion*. A continuation gap suggests that the prevailing trend direction is likely to continue. An exhaustion gap is a gap that occurs after a trend which signals that the trend direction is likely to end. These can often be observed prior to a reversal trigger candlestick pattern. A breakaway gap usually signals the beginning of a new trend. These gaps can often confirm the new trend direction after a reversal trigger candle pattern. There are also false gaps - gaps that occur on low volume. Suckers gaps are gaps that occur because of an ex-dividend situation.

Illiquid: Instruments with low levels of trading are considered illiquid and are best avoided. By trading in illiquid options/shares, if the trade goes against you, exiting from your open positions will be considerably more difficult.

Line Chart: This type of chart connects the closing prices for each period to provide a continuous line that depicts share price action.

Liquid: Shares or options with a significant number of buyers and sellers already participating in actively trading this instrument.

Long Candle: A candle showing a larger real body range than previous sessions on the chart.

Long or Going Long: This implies a bullish view of the sharemarket and describes when a trader purchases an instrument to initiate a transaction. When buying shares, traders have a long view of the market. When buying options, traders 'go long', even though a bought put implies that the trader is expecting a share price decrease in order to profit.

Market Capitalisation: the number of shares that have been issued in total, multiplied by the share price.

Margin: The amount of money retained in trust by the Options Clearing House or your broker, while you have an open written options position, a futures contract, or a short sold position. This insures your broker or the clearing house against a loss on your open positions.

Margin Loan: A sum of money that is available for you to loan in order to purchase a select group of stocks eg Top 100. Although specific firms allocations will vary, you may be able to borrow up to 70% of the value of the shares that you would like to purchase.

Momentum: The velocity of a price trend. These indicators show whether prices are declining at a faster or slower pace.

Moving Average: See *Exponential Moving Average*.

Naked Calls: Writing calls where you do not own the underlying security.

Overbought: This term and the following term are usually used in relation to momentum indicators. An overbought line may be constructed manually by looking at the historic high points on a momentum indicator, or it may be an integral part of the indicator and shown as an indexed number from 0 to 100. When a momentum indicator has risen to a historic or indexed high, it implies an overbought condition where the instrument may be vulnerable to a sell-off.

Oversold: An oversold line may be constructed manually by looking at the historic low points on a momentum indicator, or it may be an integral part of the indicator and shown as an indexed number from 0 to 100. When a momentum indicator has dropped to a historic or indexed low, it implies an oversold condition where the instrument may be likely to rally.

Pattern: A single or a number of separate trading periods that form the data for a defined candlestick formation, or other pattern based on technical analysis.

Period: The time increment on a share chart. For example, a daily chart would show each candlestick to be comprised of the open, high, low and close price for a day. The terms *session* and *period* are interchangeable.

Position Size: This shows you how many of a particular instrument to buy or sell. There are several methods to assist in this goal – the equal portions model, the capital allocation model, and the volatility-based model, for example.

Pyramid: To add more to your position as an instrument trends in the expected direction, eg to buy more of an uptrending share. To do this effectively, you should buy the largest parcel of shares first, and then add increasingly smaller positions to your initial position

Pullback: See *retracement*.

Put Option Definition: A put option gives the buyer the right to sell a given security at a certain price within a given time.

Rally: An upward movement of prices.

Rate of Change: A momentum indicator with manually derived overbought and oversold conditions.

Real Body: The thick part of the candle representing the range between the opening price and the closing price. This is considered to be of more importance than high and low prices for that period.

Relative Strength Comparison (RSC): The relative strength comparison takes the progression in price of one instrument and compares it to another. It is often displayed as an indicator in many of the more popular charting packages.

Retracement: A less significant version of a *correction*.

Retracement Trade: This is where an entry into a position is made, preferably on a candlestick bottom reversal, after the share prices have made a counter-trend reversal.

Resistance: A price level where sellers are expected to enter. It appears above the current price action and suggests that the price becomes resistant to making a higher high.

Selling Options: See *writing options*.

Session: See *period*.

Sideways Trend: A period of lateral price movement within a relatively narrow price range.

Shadow: Shadows are the thin lines above and below the candlestick representing the extreme high and low for that session. The shadow provides an indication of buyer or seller strength. *Tails* and *shadows* are interchangeable terms.

Shadow location: If there are long upper shadows at the top of an uptrend, this implies that the buyers have weakened and the sellers have begun to move in. If there are long lower shadows at the bottom of a downtrend, the price has dropped to a low enough level to encourage buyers to purchase the share.

Short, or Going Short: This implies a bearish view of the sharemarket where traders short sell the market, or sell to initiate a transaction. Selling shares and then purchasing them at a later date and a lower price can make substantial profits. Approximately 200 Australian shares can be short sold. 'Going short' with options suggests a written call or written put strategy, even though with the latter, the trader is expecting a share price increase in order to profit.

Sideways Trend: A period of lateral price movement within a relatively narrow price band between a level of support and a level of resistance.

Strike Price: The price at which you can buy or sell the underlying security as an option buyer. For example, you may receive a '30 cent premium' when writing a call option at a '\$12.50 strike price'.

System Design: Your entry, exit, and position sizing methods that should appear in a written trading plan.

Support: A price level where buyers are expected to enter. It appears beneath the current market price and signifies that the price is resistant to making a lower low.

Tail: See *shadow*

Technical Analysis: The use of price and volume action on a share chart to reach conclusions about the likely direction of future price activity.

Trading Plan: Your personalised business plan that depicts how you will go about trading the market. Entry, exit and position sizing procedures should be explicitly addressed and written down, before you initiate your first trade.

Trigger candle: This is the actual appearance of a reversal or continuation pattern. For a one-line candle, the trigger will be represented by one session only. For more complex two-line patterns, the trigger will comprise of two session's etc.

True Range: This indicator was defined by Welles Wilder to be the greatest of the following for each period:

- The distance from today's high to today's low
- The distance from yesterday's close to today's high
- The distance from yesterday's close to today's low

Uptick: Any upward movement in price action. This upward movement can even be by the smallest available price increment available on the price scale eg one-cent.

Uptrend: Prices are making consistently higher highs and higher lows.

Uptrend Line: A straight line is drawn in an upward left slanting angle connecting the troughs of the share price action. Once the prices show evidence of dropping below this line in a sustainable manner, it is likely that the uptrend has been broken.

Volatility: Choppy shares with greater distances from the peak to the trough of the share price are more volatile and will produce a greater candle range. For shares with a lower volatility level, the option premiums will also be lower. Shares that are illiquid will usually show heightened levels of volatility.

Volume: The level of trading in a particular instrument. If volume increases in the direction of the trend or breakout, this adds to the weight of evidence that the share price movement is sustainable. A volume increase to confirm an uptrend is very important.

Warrants: A certificate that gives the holder the right to purchase securities as a stipulated price within a specified time limit.

Weight of Evidence: Use more than one indicator to base your decision on the likely share direction. When several chart patterns and indicators point in the same direction, their signals are reinforced. If the weight of evidence of several indicators suggests that the share is uptrending, then the bulls have probably taken control of the market.

White Candle: This candle shows a session where the closing price was higher than the opening price. This is inherently bullish.

Wick: See *Shadow*.

Writing Options: Option writers collect a premium or fee from an option buyer and subsequently, they are obligated to fulfil the demands of the option buyer. In relation to call options, the writer must *sell* their shares or have their shares 'called away' from them, if the buyer decides to exercise their right. A put option writer is under obligation to *buy* the shares from a put option taker should they be exercised, ie have the shares 'put to them'.