# Investors Intelligence Introduction to Technical Analysis

## Why technical analysis?

By visiting this website, there is very good chance that you already use technical analysis in your investment decision making process. However, it is always worth re-evaluating your tools, by taking a moment to consider the nature of technical analysis and how we might use it.

### What is Technical Analysis?

Quite simply, technical analysis is the study of **investor behaviour** and its effect on the **subsequent price action** of financial instruments. The main data that we need to perform our studies are the price histories of the instruments, together with time and volume information. These enable us to form our views, based on objective facts.

### Technical Analysis versus Fundamental Analysis

Fundamental Analysis concerns itself with establishing the **value** of stocks and other instruments. The fundamental analyst will concern himself with complex inter-relationships of financial statements, demand forecasts, quality of management, earnings and growth, etc. He will then make a judgement on the share, commodity, or other financial instrument, often relative to its sector or market peers and form a judgement whether it is over- or under-valued.

The majority of stock research from brokers or investment banks will be based on company fundamentals. At Investors Intelligence, while we admire much of this work we take a more pragmatic approach; we monitor and analyse the ways in which investors interpret this mass of fundamental data and how they then behave. This **behaviour** is collectively called **sentiment**. ***Our view is that investor sentiment is the single most important factor in determining an instrument's price.***

We believe that **technical analysis holds the key to monitoring investor sentiment**. Some investors and market "experts" believe that fundamental analysis and technical analysis are mutually exclusive. We disagree. We think they are highly complementary and should work together to tell you **what** to buy or sell and **when** to buy or sell. Many successful traders use a combination of fundamental stock selection procedures and technical analysis timing filters with excellent results.

### Brief history

It is probably reasonable to assume that where commerce has flourished in civilisations so have the traders who have paid close attention to prices and their movements. However, rather than dwell upon the wonders of the Phoenician market for olive oil forwards, or the ancient Japanese and Chinese history of rice trading, our story starts with one Charles Dow, inventor of the first stock market index in 1884.

Charles Dow invented point and figure charting after he noticed that by the time important corporate news entered the public domain, the share price had already moved, due not least to insider trading. Therefore he watched the open outcry 'curb market', writing down prices in a notebook, looking for clues to trending market action. Finding a page of price changes confusing, not surprisingly, he decided to plot price action in graphic form.

Mr Dow also wrote a series of articles for the Wall Street Journal in the latter years of the 19th century. This body of work became known as "Dow Theory" and formed the initial basis for what we know as technical analysis today. While we will not dwell on the finer details of Dow Theory in this section, the most important concepts that Mr Dow recognised were that prices reflect the current balance of **supply and demand** (i.e. the hopes and fears of investor). And

most importantly, an imbalance of supply and demand causes prices to form recognisable **trends,** up and down.

Certainly, the concept of studying price action was fairly well established by the early 20th century. By the 1940s to 1950s additional pioneers of technical analysis such as Bill Jiler, Robert Edwares, John Magee, Alexander Wheelan and Abe Cohen were making steady progress, not only in the types of charts used to depict trends, but also techniques for analysing price action.

However the acceleration in technical research techniques commenced in the late 1970s with the introduction of computers. This made it possible for hypotheses and indicators to be calculated and back tested as to their efficacy. While this has greatly expanded the body of theoretical work available on price studies, many seasoned chart readers maintain that at least 90 percent of what they need to know about prices is revealed by the price action alone.

## Types of charts

There are many ways to display price charts. Each has its own benefits, but at the end of the day it is up to the individual to decide which provides the clearest visual picture and is likely to be of most in identifying trends at an early stage. We will look at the most popular four types used by subscribers to Investors Intelligence:

### Line Charts

This is the simplest chart format and is generated by using a line to join the data points. The most common use for line charts is for indicators that only have a single daily value (rather than high/low) such as momentum or moving averages.


*The daily line chart is perhaps the simplest of charts available, showing only the closing price of each day.*

## Bar Charts

As their name suggests, bar charts use vertical bars to represent price action for that day, drawn from the lowest price to the highest price.

High Price

The left hand “notch” represents the opening price and the right hand “notch” represents the closing price.

Low Price

One of the advantages of bar charts is that a longer time period can be viewed by changing the scale from daily to weekly or monthly bars.


This is a daily “HLC” bar chart: each bar showing the day’s ‘high’, ‘low’ and ‘close’ prices.

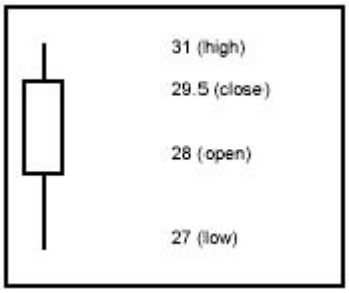
The period viewed is 6 months from November 2003 to April, 2004.


This is a weekly bar chart: each bar showing the weekly high, low and close.

The period covered is two years, from April, 2002 to April, 2004, and shows the movement in the daily chart (bottom right area) in its longer term context.

## Candlestick Charts

Candlestick charts provide a more sophisticated visual representation of bar charts. The opening price is included in the chart and a day's activity would be represented as follows:




Note: an **up** day is signified by a white (or empty) box.

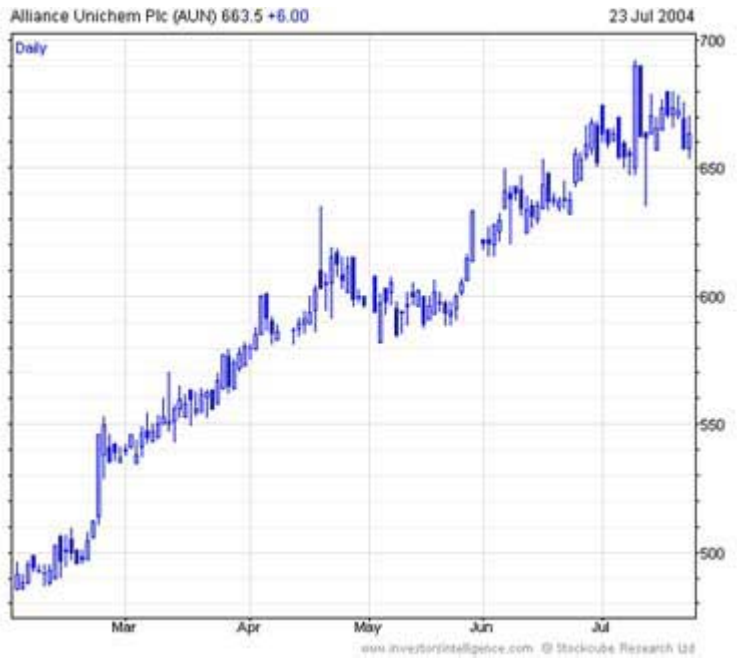
A **down** day is represented by a black or shaded box.

The "box" shows the open to close range.

The "wick" displays the full day's range.

Candlestick charts are generally plotted over a one-day period but technical analysts also use weekly and monthly candlestick charts to provide a valuable picture of the longer-term price action.

Candlestick charting is one of the oldest methods of technical analysis, with both Japanese and Chinese both claiming that rice traders were using candlestick charts over 4000 years ago, although this is not proven. Its appeal lies in its ability to give a clear visual representation of the price action during a period, leading to easy-to-recognise pattern recognition.




*The candle chart displays a wealth of price information, with open, high, low and close.*

There is a separate article on candlesticks in our University section.

## Point & Figure Charts

Point & figure charts have a devoted following, particularly amongst Wall Street operators. They are unique in several ways:

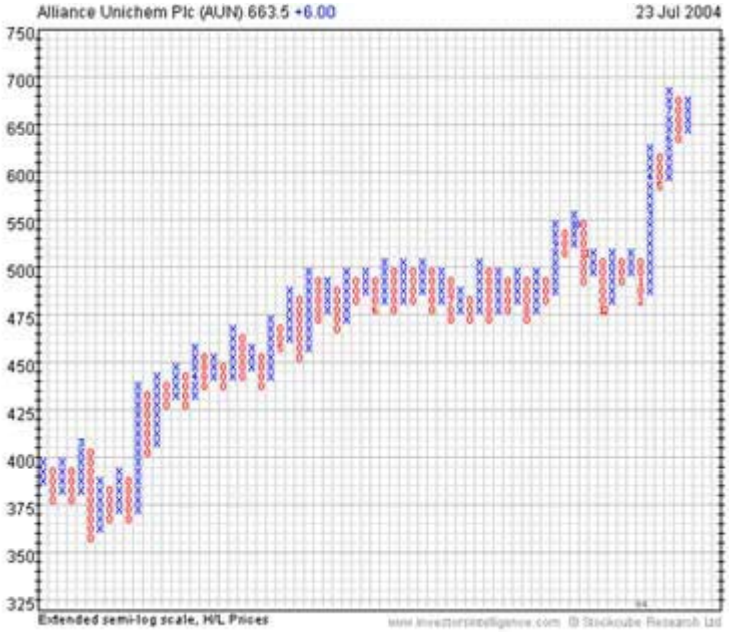
a) They have no time scale, only registering changes when significant price action occurs.

b) P&F charts box scale serves as a "noise reduction" system thereby eliminating minor

movements so that the primary trend characteristics are revealed to the user.

c) They quickly filter out the most consistently trending stocks or financial instruments from erratic and trend-less ones.

Areas of congestion on the charts define the key areas of supply and demand for a security (commonly known as support and resistance).




*The p&f chart differs from the previous two charts in that it displays price data without any time input, giving an accurate depiction of trend.*

There is further discussion on point & figure charts in our University section.

## Support and Resistance

Understanding the concepts of support and resistance is vital in developing a disciplined trading strategy. Prices are dynamic, reflecting the continuing change in the balance between supply and demand. By identifying the price levels at which these balances change we can plan not only the price level at which to purchase but also the level at which we can subsequently sell (and vice versa for a short trade). Whilst these levels may be created by the markets subconsciously they represent the collective opinions of the participants in the markets.

**Support** represents the level at which buying pressure is strong enough to absorb and overcome the selling pressure. At price support levels buyers step into the market mopping up the imbalance between supply (sellers) and demand (buyers) and when this happens the price will halt its decline and will potentially rise.

**Resistance** is the opposite of support and is the level at which the volume of selling (supply) outweighs the volume of buying (demand). These mini-levels can change frequently but over time a clear pattern emerges and firm levels become established.


*The above chart clearly shows the sideways trading range in Smith & Nephew during 2003.*

### The conditions for a change from a sideways trend to an uptrend

The above scenario describes a sideways trading range. However, market conditions change (it may be due to improvements in the earnings estimates for a stock, a newly released crop report for a commodity or economic data for a currency or bond).

Let's say, for example, that market conditions improve. This will alter the balance between supply and demand. The bears (the supply or sellers) will be less keen to sell and will generally become less pessimistic. The bulls (the demand or the buyers) will be more keen to add to positions. The next time the price approaches the previous level of resistance, there will be less bears than before and prices will push above the previous resistance and, possibly, mark the start of a 'break out' into a new trend.

Not all the bulls and bears will have changed their opinion. This is because most investment related news is open to personal interpretation and of course, not all investors may have spotted it in the first place. It is the reaction of the investors who didn't change their view at the time that will establish a new trend :

- Some of the short traders (who have sold stocks) will no doubt have set stop losses above the prior resistance level to close out if the price rises to limit these losses. These 'limit orders' will be triggered and they will have to buy stock to satisfy their earlier sales contracts creating more demand and more upward momentum to the price action.
- Other investors who had previously decided not to participate and remain out of the market will notice that the sideways range has been broken and may decide to now take a position – this will create even more demand and push prices higher still.


*Looking at the above chart, notice how the resistance at around 430p was broken in October 2003. Also notice how this level became the new support and that the price has developed a persistent uptrend.*

### Conditions for a new level of Support

This is where it gets interesting. The previous level of resistance will now become a level of support. This is because not everyone got the chance to act immediately that the price broke resistance; some people may have decided to monitor the situation for a while, others may simply have not been watching.

They will have seen the price jump ahead strongly after breaking resistance and many will be buyers if the price retraces to this level: the short sellers who put on a position just below resistance (this strategy had worked for them several times before so they may have upped the stakes) will want to cover with a small loss if the price gets back to this level – this exposes market 'fear'.Traders who had been long but taken profits at resistance will want to re-join the party and purchase as near to where they previously sold as possible – exposing market 'greed'.

Apart from a new level of support developing from prior resistance as discussed above, there will also be a new level at which the buyers want to take profits i.e. a new resistance level will develop as earlier buyers reach their targets and start to sell. This action is the first stage in the development of successive higher support and higher resistance levels which brings us to the Concept of Trend.

## The Concept of Trend

Charles Dow is probably best known as the founder of the Dow Jones Industrial Average. However, it was during his time as editor of the Wall Street Journal that he produced a series of articles examining stock market behaviour, and it was from these editorials that "Dow Theory" evolved.

Dow theory provides us with a clear definition of trend. Dow described how prices did not rise or fall in a straight line but moved in a series of zigzags which resembled waves and it was the relative positioning of the peaks and troughs in these waves that defined the trend.

For a stock to be in an uptrend, it must make successive higher peaks (highs) and higher troughs (lows). For a stock to be in a downtrend, it must make lower peaks (highs) and lower troughs (lows).


**Uptrend - higher highs and higher lows**


**Downtrend - lower highs and lower lows**

By identifying these peaks and troughs, we can not only describe the current trend and put it in its historic context but, just as importantly, *determine when it is changing*. We do this by looking at the patterns formed by the peaks and troughs and this is covered in the next section (Major Reversal Patterns).

## Price Patterns

### The Double Bottom

The chart below shows the Italian MIB30 index.

The red blotches from 2000 to 2002 mark the succession of lower peaks (or highs) and lower troughs (or lows) that provided confirmation that a severe downtrend was in place. Each trough represents a temporary level of **support** and each peak a level of **resistance** which suggests that in this case, investors are continually lowering their expectations i.e. they are lowering the levels are which they are prepared to buy (the support level) and consequently the price keeps making lower lows.

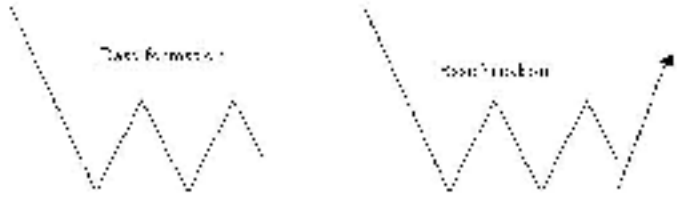

### A Glimmer of hope in March 2003

From the above chart, we can first identify a *potential* change in trend in March 2003 (the blue blotch). At this point, although the index remained in a downtrend, it made a double bottom, or did not make a lower low, i.e. investors were prepared to **support** the price at the same level as in October 2002 (the previous low) which was a clear signal of an improvement in sentiment.

This equal low represented a first sign that a change was possible but it was not until mid-2003 that the price broke above the prior high (the last red blob) that we could suggest a change to an uptrend when the previous **resistance** of late 2002 had been breached.

The above formation can also be referred to as a "**base formation**" with the price moving between support (at the lows) and resistance (at most recent highs) in a trading range. Once resistance is broken, we can refer to this as a "**base breakout**" and look for further comfort when the price manages to find support above the prior resistance (remember the rule: resistance becomes support and vice versa). You can just see this happening in the above chart.

Of course, it's always easier to spot a trend change in hindsight ! But if we follow the rules rigorously [and accept what the charts tell us] we will be able to observe and predict price trend changes.



## The Triple bottom

Another rule to remember is that the more times a price finds support at a particular level, the stronger that level of **support** is (vice versa for **resistance**).

Let's have a look at another example. The chart below shows the US S&P 500 index over five years (weekly bar chart).

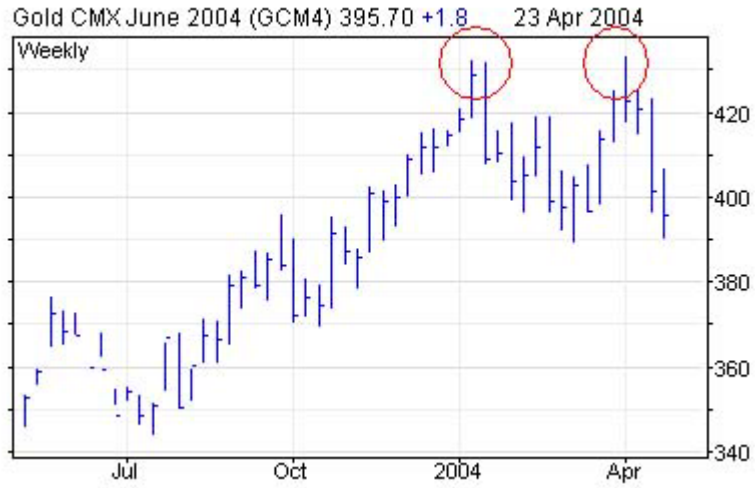
Notice the chart action from mid-2002 to March 2003 around the 800 level. Each time the price bounces from a particular support level, more investors will identify this level and build it into their trading strategy. This is the direct application of human behavioural observation.


Notice also that once the index has cleared previous highs or resistance at just below 1000 (the top green line) that this level turns into support (the last blue blotch).

## The Double top

Not surprisingly, the double top formation is the inverse of the double bottom.

In this case, the price fails to make a new high i.e. investor demand is no longer expanding and reaches equilibrium with supply at the *same* level rather than a *higher* level.

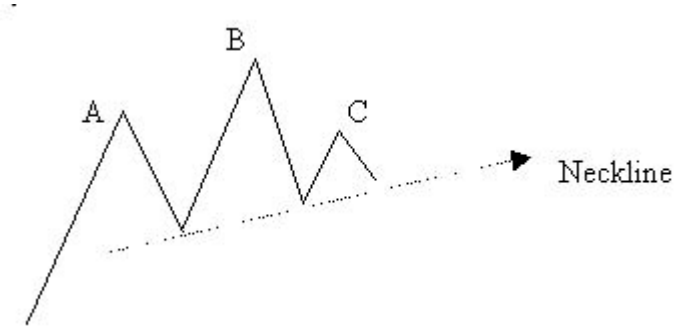



Double top formation in Gold Futures in April 2004.

## Head and shoulders formation

Another formation which is widely referred to is the head and shoulders formation. This differs from the double top in that the first evidence of its development is the generation of a lower high rather than an equal high; in other words, sellers are beginning to appear at lower levels than they did previously and the buyers no longer have the same appetite at these higher levels as before.

The diagram below is an example of the head and shoulders top. The high A is referred to as the first “shoulder” and the high B as the “head”. The most recent lower high C is referred to as the second “shoulder”. A trend line can be drawn below the recent lows and this is referred to as the "neckline". The change of trend is signalled by a decisive break below the "neckline".




## Bullish Reversals

The previous examples use the relative positioning of peaks and troughs (Dow theory) to determine changes in trend and these can take weeks or months to develop. The V reversal is a much more dramatic event and unlike double bottoms, there is no higher low to alert us to a potential signal and generally we cannot identify this signal until the day after the reversal.

Before a bullish reversal, prices will begin to accelerate downwards. This action suggests that there is fast becoming a bearish consensus i.e. the vast majority of investors are bearish and the price drops faster and faster as the few remaining bulls throw in the towel and liquidate their long positions – this phenomenon is also known as “capitulation”.

Analysts who are alert will flag this chart and comment that it is looking “overextended” or oversold. Momentum indicators define this oversold status further (covered later in this tutorial).

The reversal signal culminates when the price makes a new low but then reverses up sharply the same day and actually closes higher than the previous day; this is also known as “a key day reversal”.

Let’s try and look a little closer at what is happening to investor sentiment during a bullish reversal. As discussed above, we know that immediately prior to the reversal, investors have capitulated i.e. the last few bulls have vanished into thin air and that virtually everyone is now bearish. However, the majority of those who want to sell will already have sold on the way down so, eventually, the supply will dry up. All it takes now is for one short trader to take some profits (buy back) or a few bulls to do a bit of bargain hunting and we have an imbalance i.e. the supply (the bears or sellers) have dried up and we have an increase in demand (bulls or buyers). This will create a reversal and the sudden up-move will trigger other short sellers to close out positions and further bargain hunters to step in causing further upward pressure.


*This reversal is identified by an emphatic reversal of price action, where in an uptrend the instrument opens up but then closes below the low of the day before.*


*This is identical to the key day reversal but on a weekly chart. When this occurs it is a very strong reversal signal.*

## Bearish Reversals

The bearish reversal is the inverse of the bullish reversal as discussed above. It is a dramatic top formation and develops when prices have accelerated higher and become overextended on the upward side. It is characterised by a new short term high followed by the price closing the day lower.


*Nickel accelerated up to a new historic high in January 2004. However, on the 6th January it reversed to close the day sharply lower.*

*The reversal in January signalled the top and Nickel prices have moved steadily lower since this time.*

It is not uncommon for an instrument to regain composure after a reversal and revisit the level at which the previous reversal took place. However, it is more than likely that this level will have become a powerful level of support or resistance and may generate a further reversal signal.

## Buying & Selling Climaxes

The above example of Nickel can also be referred to as a “buying climax”.

Investors Intelligence uses this term to describe a more specific event which occurs over a one week period.

- A buying climax is where a stock makes a new 52 week high but then closes below the previous week’s close.
- A selling climax is where a stock makes a new 52 week low and then closes above the previous week’s close.

The reason that we use such a rigid definition for climaxes is that this enables us to classify accurately and consistently what is and what isn’t a climax. This is important as we maintain historic records of the climaxes generated each week and have noted that important market

turning points are often accompanied by a sudden rise in the number of buying or selling climaxes.

**A great example of this was in October 2002 when the Dow Industrials made its final low. At this point, our US Market Timing Service observed a massive increase in the number of US stocks generating selling climaxes. By communicating this to subscribers, we were able to provide a good early indication that a bounce was on the cards.**

## Moving averages

The moving average (often shortened to "ma" in our research) is one of the most popular indicators and is used by technical analysts for a variety of tasks:

- to identify areas of short term support/resistance
- to determine the current trend
- as a component in many other indicators such as the MACD, or Bollinger bands.

The main advantages of moving averages is firstly that they smooth the data and thus provide a clearer visual picture of the current trend and secondly, that m.a. signals can give a precise answer as to what the trend is. The main disadvantage is that they are lagging rather than leading indicators but this should not be a problem to longer term investors.

There are two main forms of moving average:

The **simple moving average** (as the name suggests) calculates the average price over a specified moving time period. For example, a 20 day simple moving average will calculate the average mean price from the last twenty days closing prices and so on.

The **exponential moving average ("ema")** also averages the last x days closes but assigns a greater weight to the more recent prices making it more sensitive to current price action and thus reducing the lag effect.

### Determining short term support and resistance

The chart overleaf shows the Nasdaq 100 index with a 50 day exponential moving average (ema).

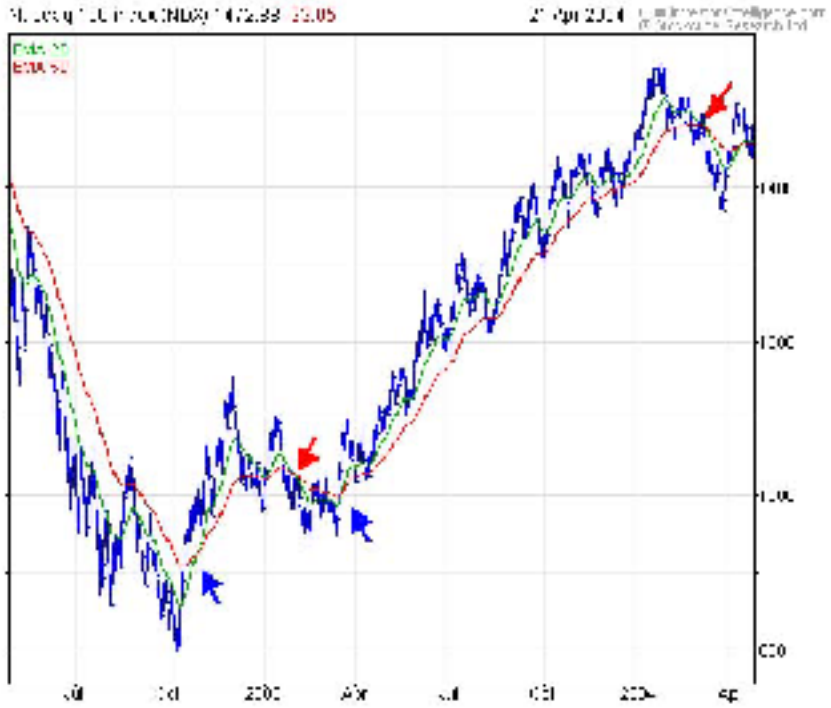
The index is making higher highs and higher lows in a consistent manner through most of 2003 and the 50 day ema provided a good indication of where these troughs would be i.e. where to initiate trading long positions. One could of course try a slightly longer period moving average to ensure all troughs remained above the average but from experience we have found the 50 day ema does the job well.

### Generating trading signals

The crossover method generates a fairly reliable automatic trading signal when a shorter term average cross above a longer term average.

In the example below we have shown 20 and 50 day ema's for the Nasdaq 100 index. The crossover method would buy the index when the more sensitive 20 day ema (green line) crosses above the longer term 50 day ema (red line) and would sell the index when the 20 day ema crosses back below the 50 day ema.

We have marked buys with blue arrows and sells with red arrows – this rule of thumb system would have kept us in the market from approximately 1000 to around 1500.



## Momentum studies

Momentum indicators are used to monitor the underlying "health" of a particular trend. They do this through a variety measurements and most commonly by assessing the rate at which a stock or financial instrument is advancing or declining.

Changes in the rate of advance/decline are useful in determining the level of investor enthusiasm: for example, an uptrend "losing momentum" suggests investors are no longer prepared to buy as much stock at current prices demand pull had run out of steam and we could reasonably expect a period of consolidation before enthusiasm returns.

### The Relative Strength Index (RSI)

Relative Strength Index or "RSI" was developed by J. Welles Wilder in 1978 and was later discussed in his book *New Concepts in Technical Trading Systems*. The name "Relative Strength Index" is slightly misleading as the RSI does not compare the relative strength of two securities, but rather the strength of a single security to past data.

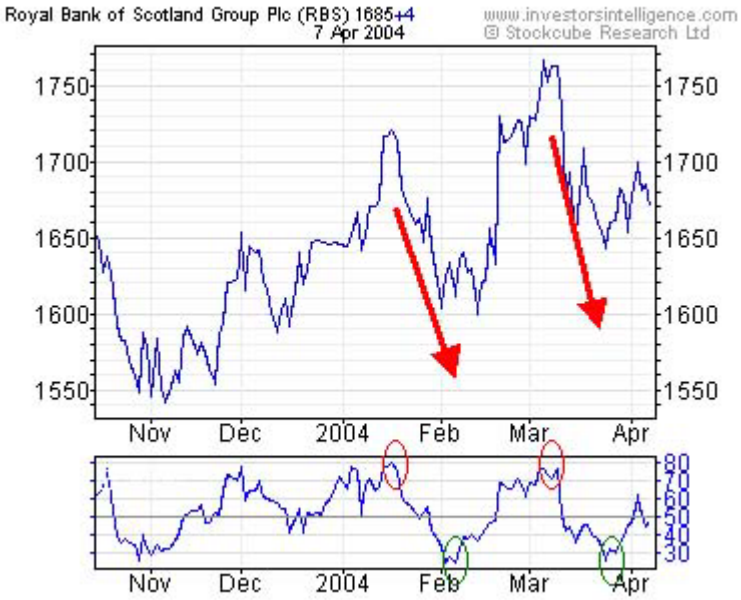
It is calculated by measuring the ratio of average price gains against average price losses over a specific rolling period. We have set our default period at 14 days as recommended by Wells Wilder but this can be varied to suit particular stocks or futures.

The RSI is an oscillator that ranges between 0 and 100. There are two main signals that can be generated from this indicator:

**Oversold/overbought signals**

When the RSI turns up, developing a trough from below 30, it suggests the price is oversold and likely to rally. Conversely, when the RSI turns down, making a peak above 70, it suggests that the price is overbought and likely to drop.

*The example chart shows the uptrend in Royal Bank of Scotland (RBS) this year.*




*Using top and bottom signals in the RSI and trading out of the stock when the RSI turned down from above 70 and repurchasing when it turned up from below 30 would have been beneficial in this case – see red and green circles.*

*This strategy would have enabled the technician to dodge some fairly sharp pull-backs which are marked with red arrows.*

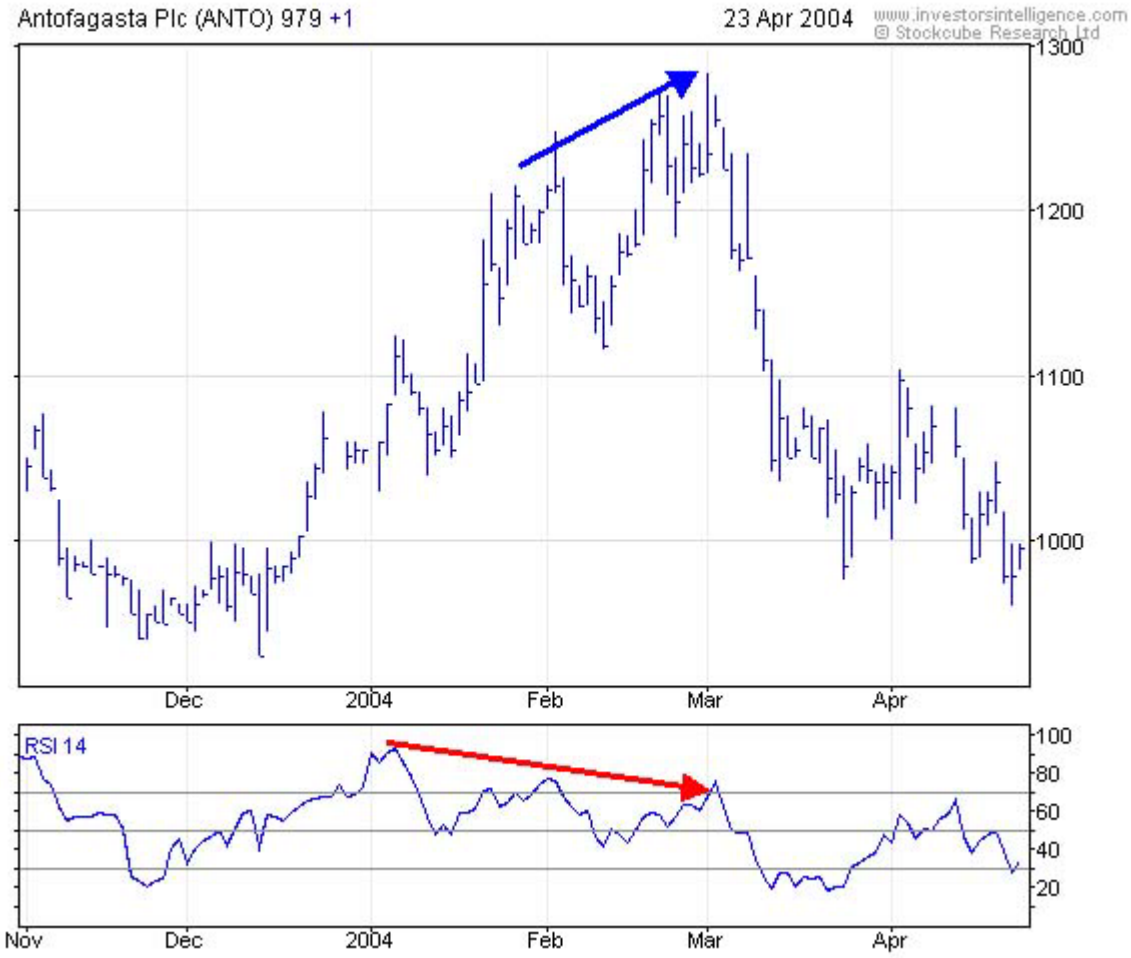
One point to make is that one should put this indicator into perspective: the fact that it has risen above 70 cannot be construed as entirely bearish, rather it is telling us that the security is making consistently higher closes - a sign of strength. I like to think of the basic "overbought" signal as more of a warning that there is, in the short term, a higher *probability* of a pull-back or profit-taking rather than a sell signal. The RSI divergence signal below has greater longer term consequences for trend.

### RSI Divergence signals

Divergence occurs when the price makes a new high (or low) that is not confirmed by a new high (or low) in the RSI.

Prices usually correct and move in the direction of the RSI. In this case, the RSI is acting as a leading rather than a lagging indicator giving early indication of future price movement.

*The example below shows Antofagasta, the UK Mining stock in 2004. The price makes a new high in early March but this high is not confirmed by the RSI indicator which makes lower highs.*




**The above signal has much more significance than the basic "overbought" signal as it is suggesting that on each successive higher peak in the Antofagasta share price (in Jan, Feb, and March) the underlying "health" of the uptrend is deteriorating as depicted by the lower peaks in the RSI indicator.**

## Stochastics

The stochastic indicator was developed by George C. Lane in the 1950's. It measures the position of a price within its range over a specified time period using the closing price relative to the high and low prices over a period.

It is expressed as an oscillator and signals are somewhat similar to the RSI as one can use both overbought/oversold and divergence. What differentiates the stochastic indicator from the RSI is that the stochastic uses a moving average as a signal trigger.

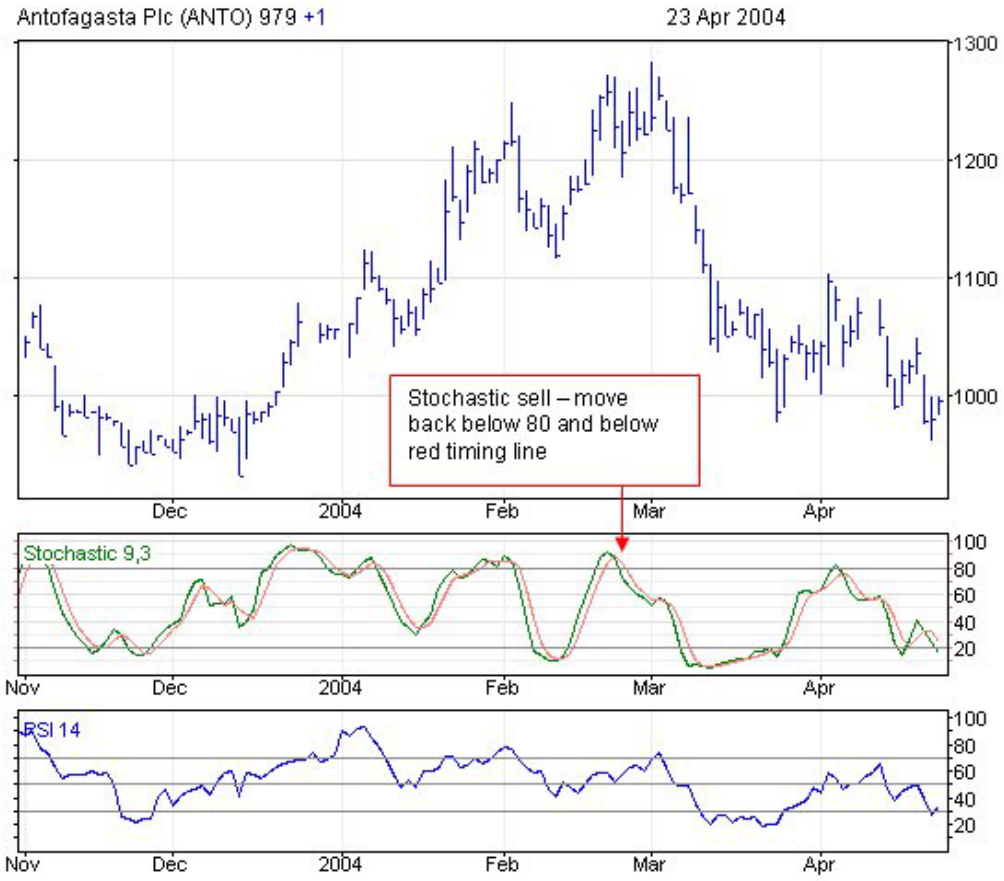
## Stochastic settings

The main stochastic line is known as %K, and is calculated over a specified number of days (default is 9). A short term moving average (default 3) is applied to %K and this timing line is known as %D. As you will see from the momentum settings screen, there is a third variable which is used to "slow" or smooth the %K line by displaying it as a moving average. (Our default is 3).

## Applications

The most reliable buy signal is to look for divergence in oversold territory (below 20) and then trade when %K the green line moves back above %D. The most reliable sell signal is divergence in overbought territory above 80 and the %K moving below %D.

We have used the stock example as for the RSI. Note that in this case the stochastic sell was generated before the RSI.




## MACD Indicator

The MACD was developed by Gerald Appel and set out in his book "*The Moving Average Convergence Divergence Trading Method*".

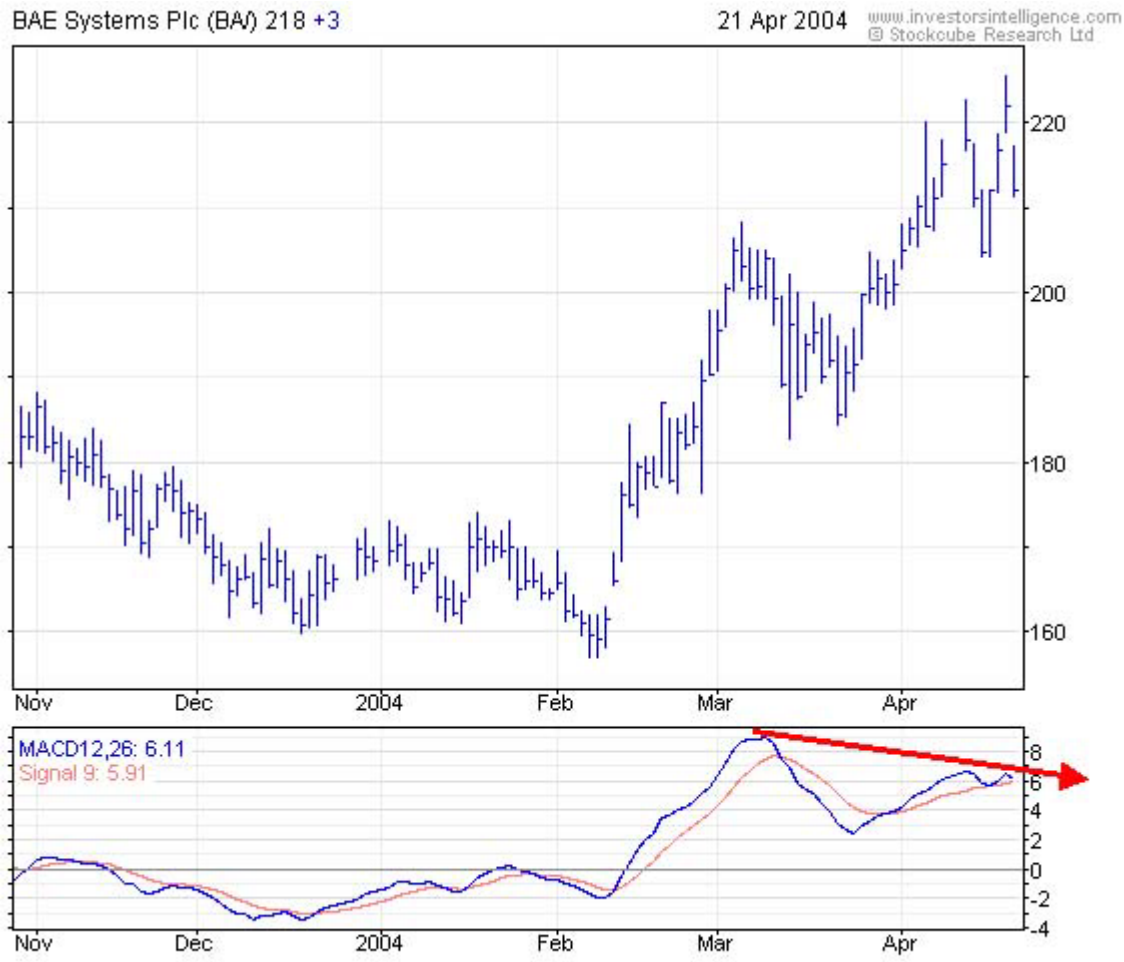
The MACD indicator is the difference between two exponential moving averages (12 and 26 as default) and also has a signal trigger or timing line (9 day ema as default).

When values of the MACD indicator move above the zero level, it is similar to a moving average crossover signal described previously to identify uptrends.

However, many investors do not wait for the indicator to move above zero as a buy signal but instead look for divergence i.e. for the price to make a lower low and the MACD to make a higher low.

A signal line in the form of a short term moving average (red line) is applied to the MACD which to provide the actual signal.

The example below shows Bae Systems, the UK defence contractor, which has recently made new multi-year highs. However, notice how the MACD does not confirm these highs (i.e. makes a lower high) providing potentially a good early indication of a trend change – the actual signal will be generated when the MACD (blue line) crosses below the signal line (red line).




## Index Relative studies

The relative indicator (not to be confused with the “Relative Strength Index” which is a momentum indicator) compares the performance of a particular stock against that of a relevant index. It is displayed as a ratio by dividing the stock price by the index price.

Traditionally it is used to determine how the stock is performing relative to the local stock market index of which it forms a part or relative to its industry or sector. It is part of a good investment discipline to check that our portfolio holdings are outperforming their local indices.

The relative indicator can also be used to help judge the likely reaction to a major level of support or resistance. For example, let's look at Rio Tinto (RIO) the UK mining stock. The stock has remained in a major five year medium term sideways range. However, the relative indicator (lower chart) confirms that this was, in fact, a very *tradable* range. Let's go through three periods on the chart.


**Point A:** We have marked the highs/lows on the relative chart to highlight the "relative base" that developed in late 2001.

This suggests that moves down to support at 900p were less than falls in the market around this time i.e. selling pressure was less for this stock than for the market and sentiment was improving.

**Point B:** the relative is now in an uptrend indicating that rallies in late 2001 and in late 2002 from 1000 to 1400 were stronger than the market rally i.e. sentiment is stronger than the market.

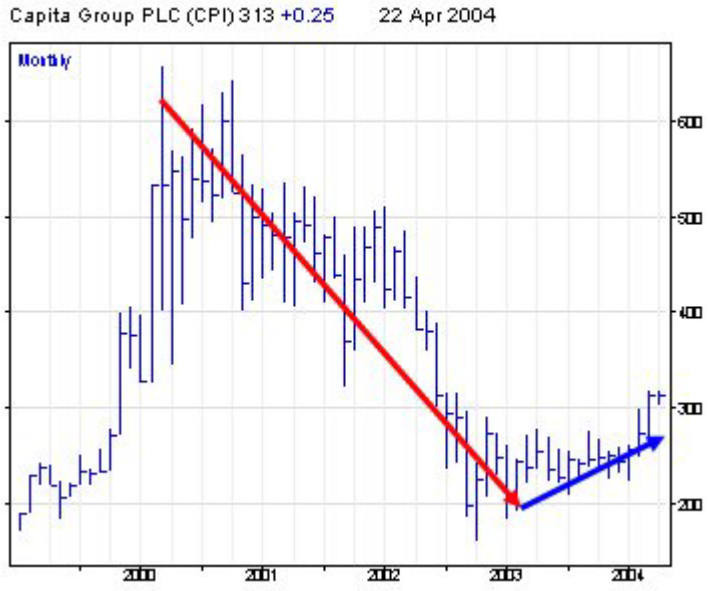
**Point C:** the stock price makes a new five year high! an event normally considered as very bullish but the relative has not made a new high suggesting that investors are no longer buying this stock with the same vigour compared to other stocks in the index. This suggests that sentiment is waning and a time to take some well earned profits.

## Volume studies

Changes in trend are often associated with sudden increases in trading volume and it is therefore well worth monitoring volume, particularly when a stock experiences a key day reversal.

Let's take a look at Capita, the UK services stock. Since 2000, it had been in a steep downtrend falling from 600p to just 1/3 of this value at 200p.

In hindsight, we know that the first few months of 2003 provided a great buying opportunity for most stocks, but could analysis of the volume have helped us back then ?




We have already discussed the concept of key reversals. The chart below shows the two day reversal back in January 2004 – this signal was confirmed by the large increase in trading volume at that time. Note the volume histogram has a moving average line to isolate days of above average volume.


## Putting it all together – a basic routine for investment

This tutorial aims to give a basic understanding of technical analysis and to at least whet your appetite to learn more. The good news is that there are many excellent books on the subject and these can be obtained by visiting our online Bookshop located on the top menu bar of the home page.

### How to apply this tutorial

Technical analysis can be applied as :

**- a means of identifying potential investments** which can then be investigated further using analysis of underlying fundamentals, newsflow etc.

- **a timing tool** to fine tune entry and exit points for an investment selected using other forms of analysis.

However you use technical analysis, a disciplined approach is essential. Try to develop a routine way of analysing your investments and follow this each time you review existing holdings or investigate new positions.

Here are some basic steps for looking at stocks:

1. Determine the current trend of the relevant stockmarket indices.
   - When did this trend last change?
   - Where is the major support and major resistance?
   - Is the market trend likely to aid or hinder specific stock trends?

2. Determine the current medium term trend of the stock (use a five year bar chart)
- When did this trend last change?
- Where is the stock positioned relative to major support and resistance?

3. Determine the current short-term trend of the stock (use p&f chart and 6 month bar/candlestick charts)
- Where is the short term support and resistance?
- have there been any important reversal patterns ? if so, do they re-enforce particular areas of support or resistance?

4. Do the moving averages confirm the above trends? is the price above its 50 day and 200 day averages and are the shorter term averages above the longer term ones (20 ema versus 50 ema).

5. Determine the relative performance of the stock
- Is the relative indicator suggesting outperformance/underperformance and has this changed recently?
- Is the stock in a strong sector relative to the market (view sector indices)

6. Are the momentum indicators positive and do they confirm the stock action?

7. Has there been any strong volume activity in the last six months and did this coincide with a likely trend change or help confirm an area of support or resistance?

By answering the above questions, one should develop a good background to the current technical strength of the stock in question. This will make it possible to compare it against other contenders for investment.

One should also be able to develop a strategy for investing in that stock. One can determine a potential price target at a previous level of resistance although this is more difficult if the stock is making new highs! One should also identify the level at which the trend will have been negated, the "stop" level at which one should seriously consider selling one's holding or at the very least re-appraising the situation.

**Dominic Hawker, July 2004**