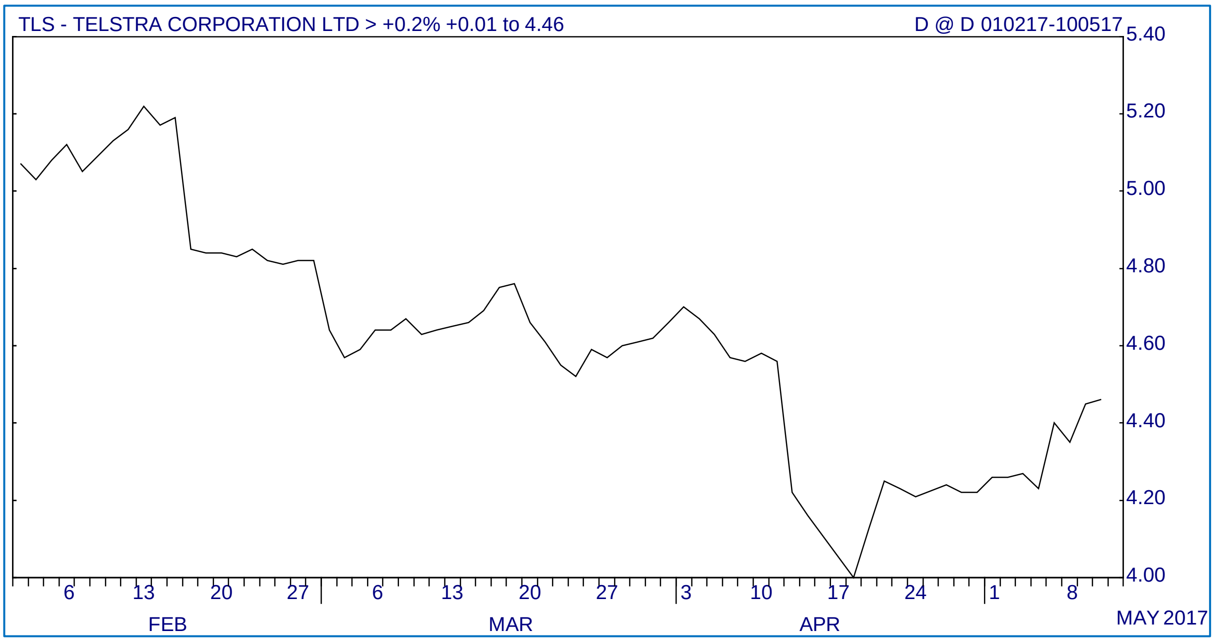
Bar Chart Basics

The simplest way to visually represent share prices is to use a line chart. The line chart will be familiar from various sources and is seen almost every day in the media graphing various economic data.

In share price charting, the vertical axis always represents the share price, while the horizontal axis always represents the time period for each share price.

A line chart is constructed by plotting the price for each time period and joining all the plots together with a line.

A simple line chart of Telstra Corporation is shown in the chart below:



The line chart gives us a graphical picture of the flow of prices over the period of the chart. It is usually drawn using the last price at which a share sold on the day. This price is only one of many prices at which the stock might have sold during the day. The last price for the day is where the market finished trading for the day. It is commonly the only price that the general population is aware of.

However, there are some other important prices at which a share will have traded on the day. Most stock markets provide analysts with the four key prices for each day:

The first price at which a share traded on the day – called the "open"

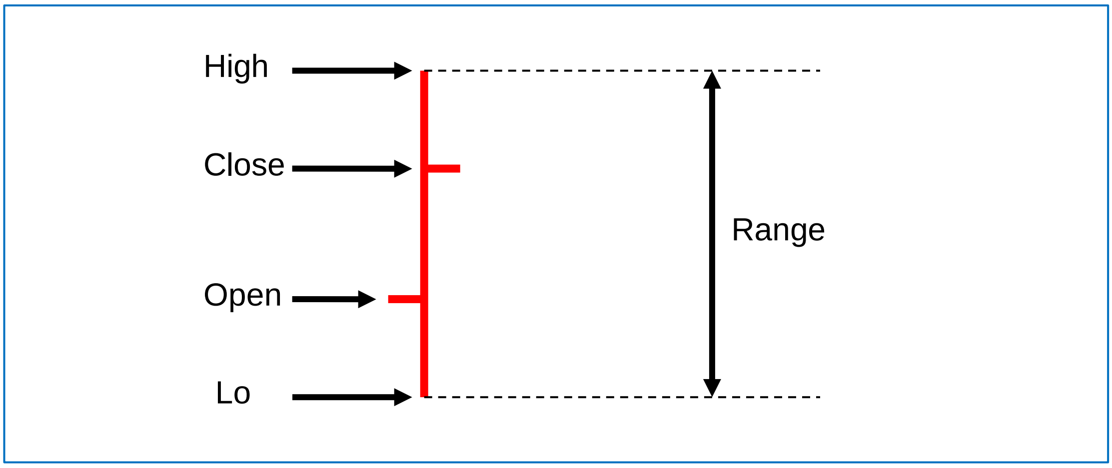
The highest price at which a share traded on the day – called the "high"

The lowest price at which a share traded on the day – called the "low"

The last price at which a share traded on the day – called the "close"

Each of these prices gives us important information about the day's trading, on their own, in relation to the other three prices, and in relation to prices at which a share has traded on previous days. These relationships cannot be seen and analysed on a line chart of the close, so most analysts use a bar chart.

In a bar chart, each day is represented not by a single point, but by a vertical line, or "bar". The four component prices of a bar are arranged as shown below:



The top of the bar is placed at the high price

The bottom of the bar is placed at the low price

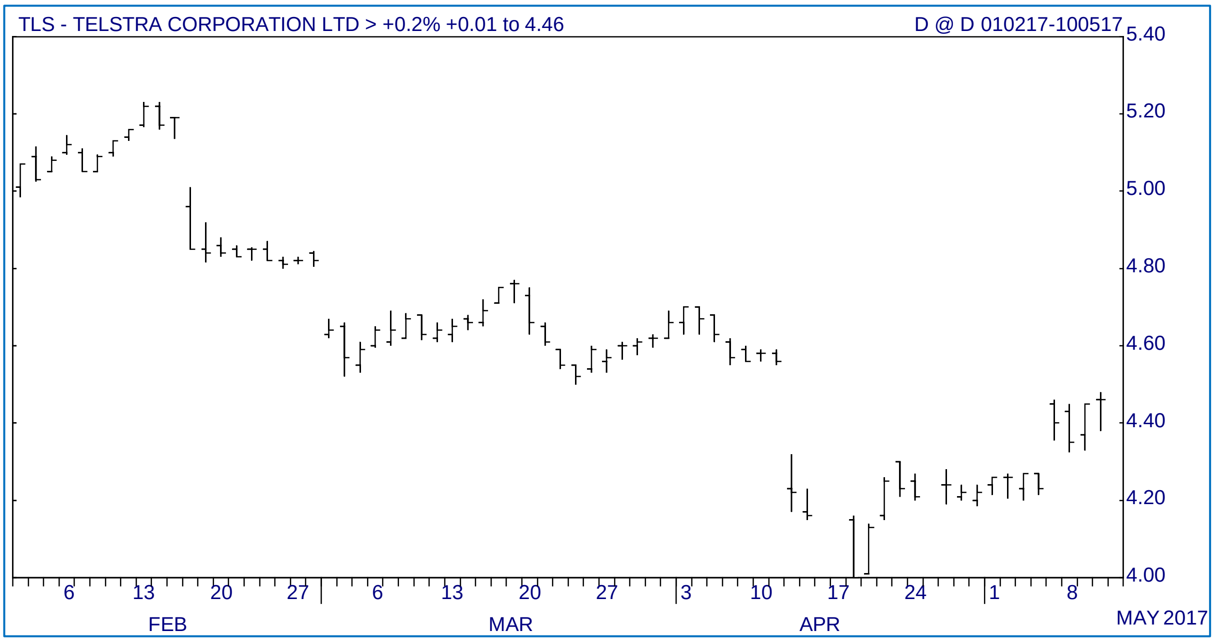
A vertical line is drawn between the high and the low

A short tick is drawn to the left of the bar at the open price

A short tick is drawn at the right of the bar at the close price

Another important dimension of the bar is the distance over which the price has moved during the day, the difference between the high and the low – called the "range".

Our earlier line chart of Telstra could have been represented as a bar chart as shown below:



Clearly there is more information on the bar chart than the line chart. We can immediately see that on some days Telstra's price moved over a larger range than on other days. We can also see that the open and close prices were in different parts of the bars. Moreover, there are gaps on the chart where the range of the next day was outside the range of the preceding day. These and other observations can tell the trained eye a great deal about the structure of the market for Telstra.

Most people will readily agree that bar charts logically present more information than line charts. However, they tend to miss most of the meaning of that information. A bar chart can reveal whether buyers or sellers are in control of the market. Even more importantly, the chart can give indications about whether that control is getting stronger or getting weaker. It can also reveal when the control may have changed.

This is because a bar chart is not simply a simple record of prices. It is a distillation of the price action for each period into a visual record of the prices that resulted from the combined actions of all the buyers and sellers active in the market. That picture shows us what buyers and sellers did and the critical points at which their actions changed.

Most people who have not had exposure to charts think that analysts can study a chart and predict what is going to happen. This is akin to reading tea leaves. There may be people who think they can do that, but the intelligent use of charts is to use them to identify what buyers and sellers have done. This tells us the condition of the market. Once we know the condition of the market, we can start to devise strategies to profit from the opportunities we see or to protect our holdings from risk.

Sometimes the condition of the market may have changed dramatically. This may give us clues that the direction of the market is likely to change. This can be very useful in deciding to protect our holdings from increased risk or to take advantage of the opportunity to profit from the change in direction.

It should be fairly obvious why this is important to short term traders. They will live or die on their ability to read what is happening in the market from day to day and adjust their strategies and tactics accordingly.

Investors may think that it is of less relevance to them. This is not so for two reasons:

Firstly, when investors are looking to buy, they will be trying to place their orders at a price and time that gives them a good chance to get the cheapest price they can. Likewise, they will be looking to get the highest price they can when they are looking to sell. They will be placing these orders in the short term and competing against the traders. It is very useful to know when to act decisively and when to be patient.

Secondly, for their major decisions, investors will probably use weekly or monthly bar charts. These are constructed the same way as a daily bar chart, except that the open, high, low and close prices on each bar will be for a week or a month instead of only a day. Everything that can be observed about the actions of buyers and sellers in the short term can also be applied to the longer term on weekly and monthly bar charts.

Short term analysis is therefore important for all traders and investors, no matter what the time frame in which they make their decisions and expect to achieve their results. However, there is a far more important aspect to short term analysis. It introduces the concept that charts are a way to see the changing structure of the market. It is not about identifying patterns with strange names, but about understanding from them what people, be they buyers or sellers, have done in the market.

The bars that we will analyse will not be simply a picture of the data. They will be an arrangement of the data that tells a story of how the chart was formed. Charts will have far greater meaning than they did previously, because we will have the ability to understand the psychology of buyers and sellers. Understanding what the other participants in the market are doing will help us to make better decisions in our own trading and investment.

Who Moves Prices?

The starting point for analysing bars is to understand how bars are formed.

Some people come to the stock market wanting to acquire shares. We call them buyers. Other people come to the market wanting to sell shares. We call them sellers. Bars are formed by the interaction of buyers and sellers.

Either on their own, or with the assistance of their advisers, buyers will form an opinion of how much they think a stock is worth. Because value is not an objective concept, many buyers will arrive at the market with a range of prices that they think is reasonable for a share. In the absence of any sellers, they would probably place their orders in the market, at the prices they have determined, to buy the shares that they want. These orders are called bids – the prices they are bidding to buy shares in the market.

Either on their own, or with the assistance of their advisers, sellers will form an opinion of how much they think they can get for their shares. As with the buyers, many sellers will arrive at a range of prices they think to be reasonable to ask for their shares. In the absence of any buyers, they would probably place their orders in the market, at the prices they have determined, to sell the shares they want. These orders are called offers – the prices they are offering to sell shares in the market.

In reality, there is likely to be existing buyers and sellers who have already placed their bids and offers in the market. If there are buyers and sellers at a given price, transactions will take place until there is no longer agreement between buyers and sellers. At that point, there will be what is called a spread – a gap between the lowest price a seller is offering to sell shares and the highest price a buyer is bidding to buy shares.

When a new buyer comes to the market there will usually be a spread of one cent or more between the bids and offers already in the market. If the number of shares the buyer wants to purchase is already offered by the lowest seller and that price is at or below the price that the buyer had in mind, the buyer will accept the offer. However, the price that the buyer had in mind may not be realistic in terms of the market as it stands. It may be not only below the lowest offer, but it may also be below the highest existing bid. The buyer now has some choices:

- If the buyer is in no particular hurry to buy, the order could be placed at the price the buyer originally had in mind.

- If the buyer is a little keener to buy the shares, it may be decided that the original price was unrealistic. The order may therefore be placed in the spread – between the highest bid and the lowest offer. It becomes the new highest bid and narrows the spread.

- If the buyer is determined to buy at this moment and there are sufficient shares available at the lowest offer, then the order will be placed at the offer and a transaction will take place. In an active market where there are many buyers and sellers, this is likely to be at a higher price than the previous sale.

- If the buyer wants to buy urgently and wants more shares than are available at the lowest offer, then the order will be placed at a higher price than lowest offer. This will cause transactions at all prices between the lowest offer and the price that the buyer bid until the order is filled or there are no longer any shares offered at or below the price bid.

The general conclusion of this discussion of a buying order is that prices will rise in the market because of the actions of buyers. Moreover, the more anxious the buyers are, the more the price is likely to rise.

Now consider a new seller coming to the market. There will usually be a spread of one cent or more between the bids and offers already in the market. If the number of shares the seller wants to dispose of is already bid by the highest buyer and that price is at or above the price that the seller had in mind, the seller will accept the bid. However, the price that the seller had in mind may not be realistic in terms of the market as it stands. It may be not only above the highest bid, but it may also be above the lowest existing offer. The seller now has some choices:

- If the seller is in no particular hurry to sell, the order could be placed at the price the seller originally had in mind.

- If the seller is a little keener to sell the shares, it may be decided that the original price was unrealistic. The order may therefore be placed in the spread – between the highest bid and the lowest offer. It becomes the new lowest offer and narrows the spread.

- If the seller is determined to sell at this moment and there are sufficient shares available at the highest bid, then the order will be placed at the bid and a transaction will take place. In an active market where there are many buyers and sellers, this is likely to be at a lower price than the previous sale.

- If the seller wants to sell urgently and wants to dispose of more shares than are available at the highest bid, then the order will be placed at a lower price than highest bid. This will cause transactions at all prices between the highest bid and the price that the seller offered until the order is filled or there are no longer any shares bid at or above the price offered.

The general conclusion of this discussion of a selling order is that prices will fall in the market because of the actions of sellers. Moreover, the more anxious the sellers are, the more the price is likely to fall.

This discussion may seem to have been rather simplistic, but the conclusions are quite basic to the way stock markets operate. It is essential to understand that it is buyers who cause prices to rise and that it is sellers that cause prices to fall. It is suggested that if this is not clearly understood, that readers think through the possible situations, until they realise that it requires the actions of a buyer to move prices up and the action of a seller to move prices down.

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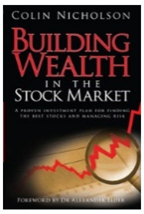

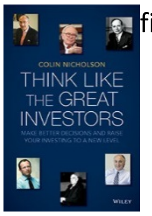

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