A beginner's guide to charting success

# Charting, made simple

### SIMPLE, EASY TO UNDERSTAND STRATEGIES ANYONE CAN USE FOR SUCCESS!



#### **Roger Kinsky**

Best-selling author of Teach Yourself About Shares

## Charting made simple



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#### **Preface**

Following on from the positive reception by readers of my book *Shares Made Simple*, my publisher and I decided that the 'made simple' paradigm could ideally be applied to charting (or technical analysis). Technical analysis can be an elusive and often difficult-to-understand method shrouded in a certain amount of mystique that deters many would-be traders or investors from using it. That's a great pity, as technical analysis can improve profitability when used on its own or in conjunction with fundamental analysis by both longer term investors and shorter term traders.

My aim is to explain the most important aspects of technical analysis in the simplest possible way, so as to make the book easy to understand for those who hitherto have only tinkered with the method or avoided it altogether. Although the book is aimed primarily at beginners, I trust that more experienced readers may obtain some new insights of value to them.

The book contains many solved examples to highlight the principles. To allow readers to practise their skills and reinforce understanding some examples are in the form of self-test exercises where my interpretation is given in the appendix rather than in the body of the chapter. There's an element of subjectivity in technical analysis that's an inherent part of the method so interpretations can vary and there is no single correct solution. I've included many tips and suggestions, but please remember that they're my personal preferences and they mightn't always be appropriate for you so you need to use your own discretion. In addition, bear in mind that because technical analysis is not an exact science, tools and indicators don't always give reliable outcomes and even with the best interpretation not all your trades will be profitable. The aim is to improve the likelihood of success and maximise your overall trading profitability.

There are well over 50 different charting tools and indicators available, so clearly I had to decide which to include and which to exclude. Because CommSec is by far the most widely used online trading site in Australia, I decided to include all the tools and indicators available on this site, with the exception of the stochastic indicator. I excluded this indicator as I feel it's a rather advanced tool suitable for an experienced technical analyst and not really appropriate in an introductory text. In some cases I've included some tools or indicators not available on the CommSec site when I think these are important and worth including.

Every effort has been made to ensure the book is free of errors but in the real world perfection is difficult to achieve. I welcome feedback from readers who may have any constructive comments or suggestions for improvement. Please email me at <rkinsky@bigpond.com> or <rkinskyl@bigpond.com> or <rkinskyl@bigpond.com> or contact John Wiley & Sons, who will forward any correspondence to me. I will promptly reply to any emails or letters I receive.

#### Preface

Finally, I'd like to wish you every success when using technical analysis with your share investing or trading, and I trust that this book will assist you in achieving good outcomes.

Roger Kinsky Woollamia, NSW January 2011

#### **Acknowledgements**

I would like to thank CommSec and Incredible Charts for giving permission to reproduce charts and web pages included as examples in this book.

#### chapter 1

# Introducing technical analysis

In this chapter I'll describe technical analysis and outline its purpose and the reasons why you should use it, as well as the limitations of the method. I'll also show you how to calculate profitability and how you can set yourself up so you can start using technical analysis. In later chapters I'll describe in more detail technical analysis tools and techniques you can consider using.

#### **Technical analysis**

Technical analysis is the analysis of trade prices to detect historical trends and trend changes to allow you to predict the most likely future scenario. The best way to analyse price action is with a chart, so technical analysis is also known as charting.

#### The purpose of technical analysis

Historical analysis is interesting, but is of little use unless you can use the analysis to look forward as well. Of course

no-one can predict the future, but your aim in using technical analysis is to forecast the most likely (or probable) future price moves and to identify the best times to buy or sell. You're not dealing with certainty or aiming for infallibility; rather you're trying to swing the probabilities in your favour. That's to say, the fundamental purpose of technical analysis is to give you a trading edge allowing you to maximise trading profits and minimise losses.

#### Tip

Studying technical analysis is good mental gymnastics to keep your mind active, but there's little point to it unless your endeavours allow you to predict the most probable future price action and help you to identify times when you should buy or sell.

#### Technical analysis tools

There are many tools you can use to help you analyse charts and form your conclusions. Tools that provide indications are known naturally enough as indicators. The most valuable indicators are primary ones, but you can also use secondary indicators—known as filters—to refine the primary indications. Indicators can provide trading signals, which are significant markers that you can use for trading purposes; that is, to indicate a good time to trade.

Various mathematical formulas and procedures—known as algorithms—are used to calculate an indicator. Like prices, indicators are presented in chart form, and indicator trends can provide trading signals when viewed in conjunction with price trends.

If you understand how an indicator is calculated it will help you to interpret the indicator. If you're not mathematically inclined, don't despair. I'll do my best to explain how each indicator is derived as simply as possible, but you don't really need to understand the mathematical procedures

to use an indicator. It's rather like using a prescription medicine—while it's good to know the ingredients and how it's made, that's not vital. What you really want to know is its purpose, how to use the medicine properly and the benefits and risks associated with it. In the same way you can use technical analysis tools and indicators without fully understanding the mathematical calculations, provided you understand the purpose of each one, how to use it and its benefits and limitations

#### Tip

To use technical analysis tools and indicators to best advantage you need to know the purpose of each one, how to use it and its benefits and limitations. If you can also understand how each one is derived, so much the better

#### **Understanding technical analysis**

Some investors regard technical analysis as being of little value or too complex and hard to understand, and therefore disregard it. Others subscribe to some whiz-bang proprietary program that's claimed to make a fortune for those who use it. There are many websites and specialist programs that cater for this market and require users to subscribe and pay to access the charts and analysis algorithms.

My aim is to demystify the complexity and to provide you with the knowledge and skills that will enable you to use a sound technical analysis system that will guide you in making good trading decisions without relying on a user-pays system. I'll show you how to obtain charts and technical analysis tools that are available to all from websites that don't charge their users a fee.

Most chapters include worked examples to assist your understanding, as well as some where I haven't provided my interpretation in the chapter but in the appendix. This will

enable you to try your hand at technical analysis without distraction and then compare your interpretation with mine. Each chapter concludes with a summary of the main points.

#### Tip

You can understand and use technical analysis without relying on the expertise of others or subscribing to a user-pays system.

#### Technical analysis versus fundamental analysis

Technical analysis is very different to another important method of investment analysis known as fundamental analysis. Fundamental analysis considers factors such as products and markets of a business, the length of time it's been in operation, its size and market capitalisation, as well as financial statistics including profitability (earnings), dividends, assets and liabilities. The basic principle underpinning fundamental analysis is that businesses with sound fundamentals should prove to be good investments in the long run. Fundamental analysis is primarily used by investors who want to identify sound longer term investments.

On the other hand, technical analysis isn't the least bit concerned with fundamentals, and indeed you don't even have to know anything about the business. The only important consideration driving technical analysis is price action. While the three P's of property investment are position, position, position, the three P's of technical analysis are price, price, price.

#### Tip

The three P's of technical analysis are price, price, price.

#### Time frame of an investment

The value of fundamental and technical analysis is related to the planned time frame of an investment, as shown in figure 1.1.

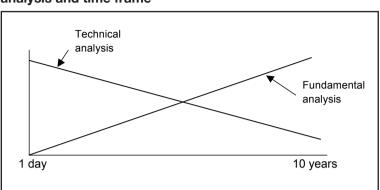


Figure 1.1: relationship between fundamental and technical analysis and time frame

This diagram shows that as the time frame increases, the importance of technical analysis decreases while the importance of fundamental analysis increases. Technical analysis is most valuable in the short term but loses relevance as the time frame increases because price action is dynamic and ever-changing and this makes long-term price predictions too uncertain to be useful. On the other hand, businesses with sound fundamentals might experience short-term setbacks but in the longer term should recover and prosper and conform to expectations.

#### Tip

Technical analysis is most valuable in the shorter term, whereas fundamental analysis is most valuable in the longer term.

#### **Technical analysis and market sentiment**

Technical analysis uses mathematical algorithms to identify and predict price moves; nevertheless, the most important factor driving prices is market sentiment. Market sentiment is the consensus opinion of those trading the market.

Consequently, another way of looking at technical analysis is to view it as a tool that aims to detect traders' sentiment and changes in sentiment. These sentiments apply to a single business entity or to the market as a whole. They include:

- ⇒ *optimism:* a positive outlook based on the opinion that all's well and prices will rise. Optimistic traders want to buy and are known as bulls. If there's enough of them to drive most prices higher, the market as a whole will rise and is known as a bull market
- ⇒ *pessimism:* a negative outlook based on the opinion that all's not well and prices will fall. Pessimistic traders are looking for the exit (want to sell) and are known as bears. If there's enough of them to drive most prices lower, the market as a whole will fall and is known as a bear market
- ⇒ profit desire: sometimes referred to as 'greed', but I don't like this description as it implies excessive desire for profit. In my view all traders have a right to make as much profit as they can; after all, they're risking their money and using their wits in the process, so the better they are at it, the more profit they're entitled to make
- ⇒ loss avoidance: also referred to as 'fear' of loss, but again I don't like this description and prefer to think of this sentiment as the desire to avoid a loss or protect profits and cash them in before they could evaporate or turn into losses. Interestingly, psychological experiments indicate that most people's motivation is more influenced by the desire to protect what they have rather than the desire to make more profit.

The sentiments of optimism and pessimism, profit desire and loss avoidance are conflicting ones, and the way prices move depends on the dominant sentiment at the time. This in turn can be influenced by a whole host of factors, including—believe it or not—the weather! It's also the case that

traders influence one another, and a move by a few traders can gather pace and accelerate as other traders join in. This effect is known as momentum, and it can cause prices to reach irrational levels—either overbought or oversold. I'll discuss this important phenomenon in greater detail in later chapters.

#### Tip

Technical analysis can't analyse human sentiments but it can analyse market action and infer how sentiments are changing.

#### How reliable is technical analysis?

Technical analysts can give the impression that the method can be used by anyone to make a trading fortune provided that the necessary knowledge and skills are acquired and applied correctly. It follows that if you use the method unsuccessfully it's your fault: you didn't have the necessary skills or knowledge. In reality, no charting tool or indicator is foolproof; that is, none are 100% reliable. No matter how well you understand or apply a tool or indicator you won't win all the time. All tools and indicators can give good signals in some situations but not in all, because markets have an element of unpredictability that's an inherent part of the process.

Inherent unpredictability in market price movements doesn't mean technical analysis should be disregarded. I liken technical analysis to weather forecasting because there's also an inherent unpredictability in the weather. Many factors can affect it, and small and unknown changes can build up and multiply in chaotic and essentially unpredictable ways. But that doesn't mean that because weather forecasting isn't an exact science we should disregard it. The forecasts mightn't always be right but they're more often right than wrong. Nowadays it would be foolish to ignore weather forecasts when planning any activity where the weather could affect the outcome.

#### Tip

No technical analysis tool or indicator is foolproof, and you shouldn't adopt the mindset that there's a fully reliable system or method to use if only you can discover it. Don't be discouraged when your trades aren't always profitable—some losing trades are inevitable.

#### **Trading instruments**

Trading instrument is the general term used to describe something of value (an asset) that's tradeable; that is, there's a free market with willing buyers and sellers for it. Some trading instruments are physical commodities such as sugar, corn and oil, whereas others are financial assets such as shares or currency (forex—foreign exchange). Other types of trading instruments are derivatives (or synthetic instruments); the instrument itself doesn't have any actual physical presence but is a financial creation that's based on the underlying asset of value. Derivatives include rights, options, warrants, CFDs (contracts for difference) and index futures (contracts where the underlying asset is a share price index). In these cases the buyer (or taker) of the instrument doesn't actually own the asset but enters into a contract to buy or sell it at a certain price at some time in the future.

The principles of technical analysis are applicable to any trading instrument where there's historical price information available, but in this book I'll consider ordinary Australian shares only. If you're interested in trading other instruments the principles apply in the same way but you'll need to investigate the special trading conditions involved.

#### Tip

Technical analysis can be applied to any tradeable instrument where prices are determined by free market competition between buyers and sellers. However, trading

conditions and contracts vary between the different instruments.

#### **Trading terminology**

Trading is a general term used to mean either buying or selling an instrument. A completed trade is known as a transaction. With shares and most assets that have a physical presence there are only two sides to the coin: you either buy or sell. Of course you can also hold, and this term is used to mean that you take no action; you don't buy or sell but if you've already bought you continue with your current shareholding.

With some of the more sophisticated trading instruments other types of trades and terminology are used. These include:

- ⇒ go long: buy, or hold what you've bought
- ⇒ *go short (shorting)*: sell, or reduce your exposure
- ⇒ open a position: take up one side of a contract
- ⇒ *close a position:* take up the opposite side of the original contract
- ⇒ write: create a contract
- ⇒ *take*: become a party to a contract by conforming to the terms and conditions that apply.

Because I'm concentrating on ordinary shares in this book I'll use the terms 'buy' and 'sell' to denote the two basic types of trades involved with shares.

#### **Profiting in bull and bear markets**

Trading profits derive from capital gains which are obtained by selling at a higher price than the original purchase price (including transaction and holding costs). This principle applies to all trading instruments. Most profits are made in bull markets (when prices are rising), and in this case the buy

transaction comes before the sell transaction: you buy first and sell later.

It's also possible to make profits in a bear market—that is, when the price is falling—by short selling shares or by trading options, warrants or CFDs. For example, you can buy put options, write call options or short sell. Short selling is a special type of trade where the sell transaction comes before the buy transaction: you sell first and buy later. In this transaction you can profit from falling prices because you buy back later at a lower price than your original selling price. Short selling of ordinary shares in Australia is tightly regulated by the Australian Securities & Investments Commission (ASIC), and is a facility provided by only a restricted number of brokers. CommSec (Australia's largest online share broker) doesn't have the facility. Short selling with CFDs is straightforward, and this is one reason why some traders prefer to trade CFDs rather than shares.

#### Tip

If you're interested in learning more about trading the more sophisticated instruments, a good place to start is my book Online Investing on the Australian Sharemarket as it contains more information about this type of trading.

#### **Trading versus investing**

An investor is primarily concerned with medium- to long-term profitability. Short-term price movements are of little interest and are regarded as ripples caused by changes in day-to-day buying and selling sentiment. Share investors want to buy and hold sound businesses that have a proven track record and good fundamentals, so they use fundamental analysis to identify these businesses. Investors profit over the term of the investment by receiving dividends and from capital gains if eventually they decide to sell. Because investors don't need to trade frequently, they don't need to

follow the market closely. Indeed, some employ a 'bottom drawer' approach by buying and then holding and paying little attention to market movements. They consider selling only if some dramatic adverse change has taken place.

Share traders are interested in price movements and market sentiment only and aim to make short-term profits by trading. Dividends aren't a consideration for traders and profits primarily derive from capital gains (a trader will of course profit from a dividend if it is paid while the shares are held). The underlying value of the shares is of no concern to a trader, who isn't interested in fundamentals. Therefore traders rely principally on technical analysis and ignore fundamental analysis. They often trade speculative or risky shares that would be avoided by an investor. Indeed, from an experienced short-term trader's viewpoint, the more risky the better—can you see why? The reason is that speculative and risky shares are volatile; that is, there are large short-term movements in price. Short-term traders can use these price changes to make quick trading profits. Always keep in mind though that the higher the volatility the higher the risk, so vou can also make quick losses.

Nowadays computers process share trades, and because computers operate so rapidly trading time frames can be very short—as little as one or two seconds, or even fractions of a second. Naturally, price changes in such a short time period will usually be small—perhaps fractions of a cent—but because large sums of money (parcel values) can be involved the profit can still be substantial if trading costs are low.

Short-term traders need to follow the market closely; if not continuously, at least by checking prices on a frequent basis each day. Some are day traders; that is, they buy and sell in the course of a day's trading. Day traders are usually reluctant to hold open positions overnight and will try to close out all open positions before the market closes each day.

The distinction between share investing and trading is summarised in table 1.1 (overleaf).

Table 1.1: share investing versus trading

	Investing	Trading
Time frame	Medium to long	Short
Source of profit	Dividends and capital gains	Primarily capital gains
Monitoring frequency	Weekly to monthly	Very often (possibly continuously)
Investment instrument	Good-quality shares	All listed shares and share derivatives

#### Investor/traders and trader/investors

While there's a distinction between investing and trading, it doesn't necessarily follow that everyone who buys and sells is either an investor or a trader. Many investors can be regarded as investor/traders because they trade with some of their investing capital. For example, they might invest 80% of their capital and trade with 20% of it. On the other hand, many traders may also invest some of their capital over the medium to long term and they could be regarded as trader/investors.

#### Tip

If you're a long-term investor and you have the time and inclination, it's possible to improve your profitability through short-term trading with some of your capital.

#### Should an investor use technical analysis?

From what you've read so far perhaps you've formed the impression that if you're investing for the longer term you should use fundamental analysis and if you're trading in the shorter term you should use technical analysis. But that's too simplistic, and I believe that investors as well as traders can use technical analysis to improve profitability. Fundamental analysis is a valuable tool for identifying sound shares

for investment, but technical analysis can identify market sentiment and the best time to buy (or sell) those shares. It's counterproductive to buy good-quality shares as an investment if you buy them at the wrong time; for example, when the price is falling. In addition, technical analysis is very useful for investors when monitoring price performance of shares in their portfolio.

#### Tip

Investors as well as traders can use technical analysis to improve profitability.

#### When to use technical analysis

There are three different times when you should consider using technical analysis:

- when monitoring and reviewing your share portfolio.

  Apart from keeping yourself up to date, the main purpose of monitoring and reviewing is to identify underperforming shares so you can decide whether to continue to hold or whether selling some (or all) of them is a better option. Technical analysis is an essential part of the monitoring and reviewing process as it highlights price trends and trend changes
- ⇒ to identify the best times to invest. You do this when you have some capital available and have identified shares you want to buy but you want to make sure you're buying them at the right time. You can also use technical analysis when you're considering selling and rebalancing your portfolio and you're investigating more attractive investing opportunities
- ⇒ for shorter term trading. Technical analysis is a vital aid when you're trying to make trading profits in a relatively short time frame as it allows you to identify price trend changes and opportunities for trading profits.

#### Tip

Technical analysis is a valuable method you can use when monitoring and reviewing or when identifying investing or trading opportunities.

#### **Return on capital**

When you make a trading profit the dollars involved aren't as significant as the return on capital; that is, the profit as a percentage of the capital you've outlaid. For example, if you make \$200 profit on \$1000 capital outlay that's significant as it represents a 20% return on capital. However, if the capital outlay is \$10000 then the same \$200 profit is a mere 2% return on capital—not enough to even keep up with inflation

You also need to take into account the time frame (or term) involved. In my previous example \$200 profit in one year for \$1000 capital outlay is 20%, but if the profit accrued over 10 years then you're averaging only 2% per year. You can take into account the time frame by calculating an equivalent annual return. This enables you to compare apples with apples, because for a certain amount of profit, the shorter the term the higher the equivalent annual return.

I'll now show you how to calculate equivalent annual return. For the purpose of this calculation, I'll consider a trading year to consist of an average of 50 weeks with five trading days per week.

The trading profit formulas are:

- ⇒ Total cost = Buy price × Quantity + Trading cost
- ⇒ Total revenue = Selling price × Quantity Trading cost
- ⇒ Profit = Total cost Total revenue
- ⇒ Capital invested = (Total cost + Total revenue) ÷ 2
- $\Rightarrow$  Return on capital = (Profit ÷ Capital invested) × 100

- ⇒ Equivalent annual return on capital (short-term investments) = Return on capital × 250 ÷ Elapsed days
- ⇒ Equivalent annual return on capital (medium-term investments) = Return on capital × 50 ÷ Elapsed weeks

#### Note:

- ⇒ The elapsed days or weeks is the number of trading days or weeks between the buy and sell transactions (opening and closing the contract).
- ⇒ I've assumed no holding costs are involved because that's the usual scenario with shares, unless you've taken out a margin loan or are trading CFDs.
- ⇒ The capital invested is the average capital invested.
- ⇒ If you make a loss rather than a profit, all formulas still apply but your revenue will be less than your cost and profit will be negative.

For long-term investments the above analysis is only approximate because of the effect of compounding.

You might want to consider setting up a spreadsheet to do the number crunching automatically. A more detailed explanation of the profit formulas and the concept of average capital invested are given in *Teach Yourself About Shares*.

#### **Example**

You buy a parcel of 5000 shares for \$1.26 per share. You hold the shares for three weeks and three days and then sell them for \$1.33. Your trading cost is \$20 for each trade.

What is your equivalent annual return on capital?

#### **Solution**

Total cost =  $1.26 \times 5000 + 20 = $6320$ Total revenue =  $1.33 \times 5000 - 20 = $6630$ Profit = 6630 - 6320 = \$310

Capital invested =  $(6320 + 6630) \div 2 = \$6475$ Return on capital =  $(310 \div 6475) \times 100 = 4.79\%$ Elapsed days =  $3 \times 5 + 3 = 18$ Equivalent annual return on capital =  $4.79 \times 250 \div 18$ = 66.5%

#### **Conclusion**

You can see that while the return on capital is a modest 4.79%, because the elapsed time between buying and selling is only 18 trading days the equivalent annual return is an impressive 66.5%.

#### Tip

You can make large profits from relatively small price changes if the elapsed time between the opening and closing trades is short.

#### **Taxation considerations**

Capital gains are taxable income, and tax payable on this income reduces your net profit. However, you can write gains off against losses, and if the time frame is 12 months or more only half the capital gain is taxable. For short-term trades this relief is of no benefit, but for longer term trades it's an important consideration. For example, if you've bought shares and held them for 10 or 11 months, it may well pay to keep them for a month or two more rather than sell, even though the price may fall in the intervening period. Of course, do your calculations carefully to decide which is the best option.

#### Tip

Teach Yourself About Shares contains more information about taxation considerations (for both capital gains and dividends), as well as formulas and worked examples that help you decide whether to sell or hold.

#### **Stock codes**

All Australian Securities Exchange—listed trading instruments are given an alphabetic identification code. For ordinary shares this code is a three-letter code; for example, Commonwealth Bank is CBA and Woolworths is WOW. For options, warrants, hybrids and so on, additional letters are added up to a total of six. Market and sector indices are also given an identification code; for example, the code for the All Ordinaries index is XAO and the Energy sector code is XEJ.

Share codes and index codes can be found on the Australian Securities Exchange (ASX) website. Also my books Online Investing on the Australian Sharemarket and Teach Yourself About Shares have a complete listing and description of market and sector codes.

Tip

It's a great time-saver to keep a list of the codes of interest to you in a conveniently accessible place.

#### **Accessing technical analysis tools**

The development of personal computers with fast and ready access to the internet has revolutionised technical analysis and given all investors and traders the opportunity to use technical analysis in the comfort and convenience of their own homes. Depending on the sophistication of the charting software it's often possible to customise a chart in various ways, including choosing the format and time period of the chart. In addition, you will be able to select and plot indicators from those available. In some cases you can also draw trendlines electronically on the chart and save your marked-up chart for future reference. A fascinating aspect is the speed at which your request is processed. Your requested charts appear on the screen almost instantaneously after you have made your selection and pressed the enter key.