# Brainy's
# Technical Analysis Introduction Handbook

## To accompany Robert's Technical Analysis Introduction seminar

**(a 4-hour introduction to technical analysis)**

# Handbook

Edition 2+

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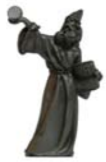

*market can seem mystical and almost magic; but with the right support and it just seems like magic.”*

***Robert Brain***

More information on the web:
[www.robertbrain.com](http://www.robertbrain.com)

# ABOUT THIS BOOK AND SEMINAR(S)

This reference book accompanies Robert's Technical Analysis Introduction-level seminar. It is intended for those people who already have some understanding of the share market, and share price charts, and who want to learn more about how to "read" price charts to interpret market mood and sentiment. This also allows the future direction of share prices to be interpreted with some degree of confidence.

This seminar handbook is designed to be very useful for ongoing reference. But the sad news is that there are some key bits of information not included here. To get this information you need to attend the live seminar.

The seminar presentation closely follows the handbook. If you are using the handbook in the seminar, then feel free to follow the seminar in the book and make notes in it for your own future reference.

Other seminars and workshops are also available for those people who might be interested in more details on various aspects.

One final comment about shares versus other financial instruments (eg. CFDs, warrants and options), and investing long versus investing short. In this book we focus on the very broad field of technical analysis, and reference to financial instruments only relates to shares, and on buying long. This is for simplicity for the early investor and trader.

More information about the various seminars and workshops, including registration for upcoming events, or even to order another copy of this Handbook, please visit the web site:

**www.robertbrain.com**

## Important Notice (and disclaimer)

There is no intention with any of these seminars or this handbook to provide investment advice. None of the information presented takes into account the investment objectives, financial situation and/or particular needs of any person or class of persons. The information is strictly for education only.

This handbook does not contain any advice.

## Acknowledgements

All share price charts shown herein are produced using the Australian BullCharts charting software, made in Sydney, Australia. More details: www.bullcharts.com.au

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# ABOUT THE AUTHOR

Robert has a tertiary qualification in Mechanical Engineering, and 30+ years experience in various industries (including: automotive design and manufacture, cigarette manufacture, food manufacture, retail, and consulting), using specialist skills and knowledge in the ICT field — Information and Communications Technology. He is a computer power user, and very proficient in a variety of desktop software products (including BullCharts charting software).

Robert became interested in the stock market at about the time of the tech crash (early 2000, just after the Y2k activities), and he has been studying and applying Technical Analysis since then. He helped to set up the Melbourne BullCharts User Group in 2006, and has been the Group's convenor since inception. He also helped to get the Brisbane BullCharts User Group up and running in mid-2008. With the computer background, he is very knowledgeable in both the BullCharts software and technical analysis.

Armed with the useful skills and knowledge described above, Robert has set up his web site to both remind himself of key information and to help other people understand more about two topics — the share market, and the use of computers at home and in business.

Robert now runs a business providing ongoing support and tuition to share market investors and traders, and specialising in supporting BullCharts software users. Robert's seminars and workshops currently include: the Share Market Boot Camp seminar (6 hours), a hands-on trading workshop, a seminar entitled "The 10 Key Lessons from the GFC for Investors and Traders", as well as this Introduction to Technical Analysis seminar. Robert also runs a series of BullCharts workshops to help users make greater use of the software.

Robert also offers chunks of useful information on 3 topics by monthly email on subscription: Technical Analysis, Share Trading and BullCharts charting software How-To documents.

Robert's core business activities include:

- Preparing and running training sessions, seminars and workshops to do with stock market investing, technology, and software usage.
- Monthly eNewsletters for subscribers, writing under the nom de plume of Brainy (an old high school nickname) to differentiate his products and services from others in this field.
- Assisting people with the use of technology, in particular contemporary PCs and PC software. This includes: installation and setup of software, on-site training in particular software packages, help with using Microsoft Windows and various Windows software, and general PC trouble-shooting. And more recently working with supporting non-Microsoft (Open Source) software. This includes: assisting with internet set up, access and use, including: modems, ISPs, and searching the Internet. Also: assistance with network installations, including LAN and WAN systems and helping with their installation and support. Advising business on the safe and proper use of technology including: proper computer backups, proper power supply filtering and UPS equipment, and contingency planning (in case of disaster). Helping businesses to future-proof their investment in technology.

Robert also has access to a network of people who are specialists in their own right. If there is something that he cannot handle, then he refers one of his colleagues.


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# Technical Analysis Introduction Handbook

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***** CAUTION *****

- Investing in the share market can result in loss of funds.
- There is no guarantee that any particular trading strategy might work or not work.
- Success in the share market does rely on an appropriate attitude and psychology.


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# 1 Introduction

This Technical Analysis seminar and accompanying handbook has come about because of a couple of reasons:

- Anybody who is relatively new to technical analysis might take quite some time to come to grips with exactly what it is about, and to understand at least a little of all of the aspects that it encompasses. It is easy to wish that a newcomer could have a crash course to assist their progress with this challenge.
- The share market in Australia experienced a fantastic bull run from 2003 until late 2007, during which many people easily made a lot of money. They did this trading in shares, or CFDs, or various financial instruments. With a severe market correction taking place over the many months following October 2007, many people lost a significant amount of money. Many people saw their superannuation holdings lose significant value due to this bear market. Many now feel that they need to be better informed about the share market, and the players in the market. So they are looking for help to better understand the share market, and to improve their chances of minimising risk and losses for future investing. Technical analysis is certainly a good way to go to address this.

## *1.1 The seminar series*

This Technical Analysis seminar is just one seminar in Robert's series of seminars, and runs every month or two. The first one in the series is the *Share Market Boot Camp*. And there are more advanced seminars on topics like share trading, and charting software usage.

## *1.2 Technical analysis introduction seminar — outcomes*

At the end of this *technical analysis introduction* seminar, or by the time the reader of this handbook has completed reading through the book, the following outcomes should be achieved:

1. Gain a broad understanding of the topic of technical analysis.
2. Understand the difference between fundamental analysis and technical analysis.
3. Understand the various types of price charts, as well as chart time frames.
4. Understand how to interpret various features of share price charts, including a variety of chart patterns.
5. Gain an understanding of some key technical indicators.
6. Be able to apply key indicators to a price chart.
7. Gain a brief understanding of various aspects of share trading.
8. Gain an understanding of different charting software tools.

## *1.3 This reference handbook*

This handbook is a close reflection of the seminar content and presentation slides; but it is designed and structured so as to be easy to refer to later. It has a detailed Table of Contents in the front, and a good Index in the back, to help find information easily.

By the way, this document has been prepared using the Open Office software called Writer (Open Source software that directly competes with Microsoft's software; but which is free to buy).


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### *1.4 Further reference*

The subject of technical analysis is very broad. It is common for a technical analyst to pursue a specific branch, and ignore others. That is quite all right, because the amount of material that is available is very extensive and wide-ranging. If someone set out to learn most of what technical analysis is about, it would require several (or many) text books, plus perhaps some training courses, and a lot of time.

The reader of this book, and the seminar participant, are encouraged to seek out further details on this subject. There are many information sources available. Unfortunately, not all of them should be accepted at face value. Some should be used with caution. Most of the available resources tend to focus on specific aspects of technical analysis, making it difficult to maintain the perspective on the total subject.

Some of the readily available resources include various web sites and companies as follows (but this is not a recommendation or endorsement of any):

- The author's own web site: www.robertbrain.com
- The “Lotsa Web Sites” (or “Supplementary Resources”) hand-out available at the seminar and from Robert's web site.
- Specialist text books from specialist book shops (eg. The Educated Investor bookshop in Collins Street, Melbourne can be endorsed and recommended – tell the shop staff that Robert Brain sent you).

### *1.5 Price charts and charting software*

Throughout this handbook, the Australian BullCharts software is used for all price charts. For more information on BullCharts, visit their web site: http://www.bullcharts.com.au or contact the author directly.

Why does the author like and use BullCharts?

- General information:
  - Australian designed and developed software. Company based in Sydney (Australia).
  - User support is available by email or phone.
  - User Groups around Australia (Melbourne and Brisbane).
  - Online information available for users at the BullCharts Yahoo Forum.
- Software features:
  - Charting tools are great.
  - Many Indicators (more than 250).
  - Easy Scan of the market. That is, create and run a special set of selection criteria and search through a selected group of stocks to find those that match your criteria. The resulting list of stocks is available for you to research further for share purchase consideration.
  - Many scans are already supplied with the software (more than 100).
  - Scans are very easy to modify, or to create your own. Uses drop-down boxes and selection lists — no programming required. (Much easier to use than competitive products — without mentioning any names.)
  - If you have very unique or special requirements, you can use the supplied programming language (BullScript) to customise Scans or Indicators, or to write your own.
  - Author Strategies — The trading strategies of many famous authors are implemented in both the scans and the available indicators.
  - Back-testing features are available using the TradeSim software (from CompuVision Australia Pty. Ltd. — http://www.compuvision.com.au ) with good integration with BullCharts.
  - Printing of price charts is clear and crisp.

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- Support is available:
  - User group support in Melbourne with monthly meetings.
  - User support via the Bulls and Bears Network in Sydney — http://www.bullsandbearsnetwork.com.au/
  - Training is available — contact the User Groups for details or Robert Brain directly — http://www.robertbrain.com/ .
  - BullCharts "How-To" information documents available via Brainy's monthly e-Newsletters from Robert's web site.
  - Tuition is provided in Melbourne by Robert Brain, either one-on-one, or in small groups.

## *1.6 Your own notes*

At various places through this handbook there are places where you can make your own notes. Of course, you can make notes anywhere you like on your own copy of the handbook. That would make it more useful for future reference. But the following lines are a prompt to remind you that this is encouraged.

*Your own notes and comments*: ......................................................................................

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***** CAUTION *****

- Investing in the share market can result in loss of funds.
- There is no guarantee that any particular trading strategy might work or not work.
- Success in the share market does rely on an appropriate attitude and psychology.


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# 2 Technical Analysis — brief overview

A definition:
Technical analysis is based on the belief that the value (or worth) of a company's shares is already reflected in the share price. This can be determined by viewing and analysing the share price chart.

Within the field of technical analysis there are many, many aspects that can be considered, including the following (most of which are covered in a little more detail in subsequent sections):

- Price charts on different time frames (eg. intraday, daily, weekly, monthly, quarterly).
- “Patterns” on the share price chart.
- The Volume (number of shares bought/sold) in each period.
- Number of trades in a period (eg. day, week, etc.).
- Indicators (eg. Moving Average, MACD, Momentum, RSI, P-SAR, Stochastic, RSC, MMA).
- Cycle analysis, Elliott Wave, Fibonacci, W.D.Gann.

The down side is that technical analysis is such a very broad field that it is not possible to cover all aspects within this volume. There are many more indicators.

## *2.1 What is Technical Analysis, really?*

Right from the start, let's not kid ourselves — the subject of technical analysis is a very broad and complex one. The field of technical analysis covers a lot of things, and there are varying definitions, but technical analysis basically centres on the study of the share price chart, and includes:

(a) Identifying a trend (either up trend, or down trend, or even a “non” trend).

(b) Identifying specific patterns that have occurred in the past and which might occur again with a somewhat predictable outcome (eg. Support and Resistance – see below).

When studying technical analysis, because the topic is so broad and complex, it is a little difficult to work out how to structure and present the information. The major headings in this study are structured as follows:

- Technical Analysis — a brief overview, including concepts and terminology
- Primary analysis:
  - price charts and chart types
  - trends and trendlines
  - support and resistance
  - volume
  - chart patterns
  - candle patterns
- Secondary analysis and indicators:
  - trend indicators (moving average, regression line, Parabolic SAR)
  - volatility indicators (Bollinger Bands, Average True Range)
  - momentum indicators (RSI, MACD, ADX/DMI, Coppock)
  - volume indicators (rate of change, volume oscillator)
- Advanced topics:
  - Cycles
  - Fibonacci
  - Elliott Wave
  - Gann
- Share trading — a very brief introduction to related aspects
  - sample strategies using technical analysis


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The thinking behind this structure is as follows.

Because the technical analysis subject is so broad, it is important to provide some sort of introduction in the early stages to help put all the bits into context, before they are elaborated on in the later sections.

Leon Wilson, in his book "*The Business of Share Trading*", talks at length about primary and secondary analysis. He describes primary analysis tools as those directly derived from, or based directly on, price action or liquidity. This is basically the raw price chart. On the other hand, secondary analysis tools are derived from the raw price data. Most indicators are derived by some sort of calculation or manipulation of the share price. This distinction is a good one to make, and helps to group together the material in this Technical Analysis Introduction handbook and seminar.

**BUT NOTE:**

- When properly applied, technical analysis can give an indication of the likely future price action.
- But, there is no guarantee. It is not 100% reliable (or everybody would do it).
- If you follow "the rules", and if you manage your money and risk properly, and if you minimise your losses, and if you enforce stops,
  then you might be able to have a success rate of roughly 30% to 70% (ie. winning trades),
  and you might be able to have only small losses, and large profits.
- If you can do all this, AND test your strategy by back testing and/or paper trading before you do it for real, then you might be able to be successful.

## *2.2 Is technical analysis useful?*

Many people ask if technical analysis is useful, and how it compares to fundamental analysis. Let me answer this with the following:

- If you want to trade shares for profit, then there are advantages in using both fundamental analysis and technical analysis. Many people use fundamental analysis to select a list of quality companies, and then use technical analysis to time their entry and exit. This way they reduce the chances of buying a stock with poor management, or poor fundamentals.
- Technical analysis is not 100% perfect (and neither is fundamental analysis).
- If used wisely, with proper and sound trading rules and methods, technical analysis can result in a successful trade (ie. a win) in at least 40% of the time, and often much more. And technical analysis can be used to identify a potentially losing trade and cut it short to minimise losses. By minimising losses and letting profits run, even with just a win/loss ratio of 40%, profits can be made.

## *2.3 The Holy Grail — the perfect indicator*

Many people start out with technical analysis searching for the perfect indicator — the one that is 100% reliable. And they experiment with different trading strategies searching for a 100% win rate.

Unfortunately, they are wasting their time. Technical analysis is not a precise science. There is no such thing as the perfect indicator. And a 100% win rate is not achievable.

Some people use some aspects of technical analysis (eg. chart patterns and support and resistance), and no indicators. Some people like to use a couple of indicators. There are many variations, and many people will claim to have success over time using a very different set of technical analysis tools.


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It is best to aim for no more than 2 or 3 indicators (even though some experts claim to use many more than this). And don't rely just on the indicators, seek out some way to get “confirmation”.

## *2.4 Dow Theory — A brief introduction.*

Dow Theory is the term that is used to refer to a body of knowledge compiled by several people, but based on the editorial writings of Charles H. Dow (1851-1902, journalist, founder of the Wall Street Journal, and co-founder of Dow Jones and Company). The Dow Theory comprises several basic tenets. It is beyond the scope of this book to detail Dow Theory, except to summarise the principles as follows (refer http://www.Wikipedia.org):

1. The averages discount everything (ie. the US major indices). That is, the stock market discounts all news, and stock prices quickly factor in all news as it becomes available.
2. The market has three movements — a “main movement”, a "medium swing", and the "Short swing".
3. Trends (primary movements) have three phases — accumulation with little price change (phase 1), strong price change (phase 2), and rampant speculation with distribution (phase 3). **[NOTE!]**
4. Stock market averages must confirm each other (a reference to the two major US market indices of the day — the Dow Jones Industrial index and the Dow Jones Transport index).
5. Trends are confirmed in Volume. **[NOTE!]**
6. Trends exist until definitive signals prove that they have ended. **[NOTE!]**

It should be said here that some of these ideas are fundamental to much of the study of technical analysis and will crop up through our discussions.

## *2.5 EMH — Efficient Market Hypothesis*

Efficient Market Hypothesis basically says that financial markets are "informationally efficient". That is, the price of stocks already reflect all known information. The EMH states that it is impossible to consistently outperform the market using any information that the market already knows (except by good luck). (EMH was developed by Professor Eugene Fama at the University of Chicago Graduate School of Business in the early 1960s).

Without going into a lot of detail, it should be said that many people do not agree with this concept. It is mentioned here only so that the reader has a more complete view of the world of the share markets.

Whether you subscribe to this theory or not is your call. Some people totally disregard this view of the market.

## *2.6 Market psychology and emotions*

Some people believe that share trading, and the share market, can easily be devoid of emotion; but this is farthest from the truth. In reality, there is a lot of emotion and psychology at play in the market. For one to be a successful trader, one needs to be very aware of their own emotions, and in control of their emotions.

And the market itself is mostly driven by two basic emotions — fear and greed. But this is more complex than it sounds.

This subject is so detailed and complex that I won't even try to cover it here. But it is important that any potential share trader be aware that this is important, and they should endeavour to understand more about it.


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## *2.7 Concepts*

There are some important concepts that are assumed throughout the rest of this material. So it is important to cover them off here.

### 2.7.1 Price data

Typically in charting software, the following end-of-day values are available to display, and to be used in indicators:

- Open price, High, Low and Closing price for the day;
- Volume — the number of shares transacted in the day;
- Trades — the number of buy/sell transactions in the day.

Because the end of day values are available, the end of week and end of month values can be calculated.

### 2.7.2 Fair value and market worth

How much are the shares of a company really worth?

Firstly, fundamental analysis can be used to determine the theoretical share price value (or intrinsic value). (Refer to any notes on fundamental analysis for further explanation of this.)

But, on the share market, the actual share price might be very different to the calculated theoretical share price value. The actual share price on the market is closer to what we call “fair value”.

Strictly, by definition, “fair value” is said to be the price that would be received to sell an asset (or paid to transfer a liability) in an orderly transaction between market participants. Another definition of fair value is the rational and unbiased estimate of the potential market price.

For a company's share prices where the shares are trading frequently on good volume, we could say the following. If the price is fluctuating widely in any period, then what we call “fair value” is probably some where within the actual “range” of recent share prices. If the price has moved very little, then the share price could be very close to “fair value”.

The important point here is that the share price being paid might be very different to the theoretical price that is calculated using fundamental analysis.

### 2.7.3 Market cycles / phases / stages

The market tends to move in both cycles, where extremes are observed, and within the cycles there can usually be found phases or stages.

In terms of market cycles, these are easily observed as bull markets — when the market is rising strongly — and bear markets — when the market is falling. The duration of these bull/bear cycles varies, and the amount of rise and fall in the market in these cycles can vary. But having said that, some technical analysts believe they can readily confirm changes in market cycles utilising some special technical analysis techniques.

Regarding stages, Stan Weinstein talks in his book in Chapter 2 about the four stages of the market (and stocks) and stage analysis — the basing area (accumulation phase), the advancing phase (rising market), the top area (distribution), and the declining phase.

In the ideal situation, the amount of rise and fall in these periods would be minimal. However, because human nature is what it is, and the market is what it is, the rises and falls can be quite significant, and can overshoot the ideal position.


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### 2.7.4 Overbought / Oversold

Because markets and stocks exhibit cycles, and stages (as briefly explained above) then it is natural for the cyclic swings to overshoot the so called ideal position. For example, a stock's share price should perhaps stay close to fair value; but they tend not to do this. At times the share price might fluctuate wildly above or below fair value.

When a stock is trading at a very different value to its fair value, it can be said to be either overbought or oversold. If the price is perceived to be too high, then it is said to be overbought. Likewise, if it is perceived to be too low, then it is said to be oversold.

Some of the technical analysis indicators are oscillators that fluctuate up and down and indicate overbought and oversold conditions. These are possible buying opportunities.

### 2.7.5 Bulls and bears

In talking about the share market, there is often reference to the bulls and bears, and to bullish and bearish conditions.

A bullish market is one where there are more buyers than sellers. The existence of more buyers than sellers means that there is a bidding process by the buyers, not unlike a house auction. Where there are many buyers who want to make a purchase, then the price can be bid upwards in the auction process. In this situation, the bulls are said to be in control, and winning in the market, and the share price rises.

Conversely, if there are more sellers than buyers, the sellers might find that if they really want to sell, they will need to drop their offered price in order to tempt the buyers. This condition is considered bearish, and the sellers (or bears) are in control, and the bulls are considered to be losing, and the share price falls.

### 2.7.6 The market auction process

It is important to remember that the share market is little more than an ongoing auction process. For any one listed company, there might be people who want to buy shares in the company, and there might be current owners of shares who are willing to sell for a particular price.

Some potential buyers might want to buy the shares at any price, whilst others might have an upper limit for what they believe is a fair price to pay.

Likewise, some potential sellers might want to sell the shares at any price (for whatever reason), whilst others might have a lower limit beyond which they would rather hold the shares.

During market opening hours (usually 10am to 4pm Australian EST for the Australian market), there is essentially a separate auction process under way for every listed stock in the market (unless the company is suspended from trading for whatever reason). During this auction process, potential buyers nominate their intended purchase price (a bid) and the potential sellers nominate their intended selling price (the offer). If there is a match between a buyer and seller, then a trade is made. This process is visible on screen in the Market Depth screens.

1. If there a no buyers waiting in the market, then a seller will not be able to sell their stock. The shares in some companies might trade as little as 2 or 3 times each day (number of “trades”), with maybe only hundreds or thousands of shares (“volume”) trading hands. These are considered “lightly traded”, or “thinly traded”.

### 2.7.7 Trends — the trend is your friend

One of the most basic principles with share trading is to follow the trend. Once a stock is in a confirmed trend (either up or down), there is a greater chance of the trend continuing,


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than of it not continuing (research shows the chances are roughly about 70%). Once a trend is confirmed, then that trend continues until it is confirmed to no longer be trending (this is Dow Theory).

The simplest of trading strategies relies on (and in fact many trading strategies rely on) the confirmed presence of an up trend, in conjunction with other criteria. If a stock is not in a confirmed trend, then it is “ranging”. The trend can be your friend, and this is covered in more detail later.

#### 2.7.8 Long versus short

In the field of share trading, it is possible to “short sell” stocks. You could do this if you believe the share price is going to fall (it is the converse of going long due to rising share prices.) That is, you “borrow” some shares from someone (eg. a broker), and then you sell them to someone on the market. At some future point, you buy the shares back, hopefully at a lower price, and then you give them back to the broker. You make a profit by: selling them at a high price, and buying them back at a low price.

In this handbook (and seminar) we will keep it simple, and we won't consider the short selling strategy.

#### 2.7.9 Equities versus other instruments

In the big stock market world there are “things” other than just plain shares that you can buy and sell. In this handbook (and seminar) we will keep it simple, and we will only consider shares.

Just for the record, though, let it be said that the value of many of the other financial instruments is derived from the real value of specific shares, or an index of a group of shares. These are called derivatives (eg. CFDs, options, warrants, futures).

Other instruments that can be traded include: various commodities (eg. metals, grains, and various other products).

Technical Analysis can be applied to the price studies of just about all of these instruments. But in this seminar and hand book we will only consider shares.

### *2.8 Sample uses and applications*

Why should we get involved with technical analysis? What are some real practical applications? Later in this book after we cover off the technical analysis stuff, there is a section on sample trading strategies which gives an insight into practical uses. Until then, the material below provides some clues.

#### 2.8.1 How do people use price charts for stock selection?

Without trying to pre-empt the detailed content of this handbook, the following are some aspects of technical analysis that many people make use of on share price charts:

- Trends, and the up trend
- Moving Average
- Support and Resistance
- Price Breakout.

These chart features are just some of a very large range of features that can be used to determine what the price action might do in the near future.

Traders use some of these sorts of features to:

- identify a stock that might be worth buying; and
- identify a reasonable price point at which to make the purchase.

There are many more chart features.


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