

Technical Analysis What is it really?

Presentation to the
Melbourne ATAA meeting
8 October, 2009



"The share market can seem mystical and almost like black magic; but with the right support and assistance, it just seems like magic."

Robert Brain

Rev 7 pub
1

Australian Technical Analysts Association

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ATAA – Member Benefits (WIIFM?)

Both potential members, and existing members, are reminded of the benefits of being a member of this very useful Australia-wide organisation:-

1. Regular opportunities for networking with peers, including international affiliations (IFTA).
2. Extensive free video and DVD library on many Technical Analysis topics.
3. Access to web-based INO-TV for streaming audio and video presentations.
4. Extensive ATAA website resources — many past journal articles, presentations from past meetings and more.
5. Lots of member discounts — bookshops, email newsletters, memberships, etc.
6. Learn about Technical Analysis, including:-
 - ✓ risk assessment and money management
 - ✓ market entry and exit timing
 - ✓ market timing and cycle analysis
 - ✓ complementing different trading styles
 - ✓ trade and strategy back-testing
 - 10 trading and investment psychology.



Get-to-know-you — Who is who?

Gauge the experience of the audience:

1. Experienced (hands-on) traders/investors?
2. Experienced with Technical Analysis (T.A.)?
3. Existing ATAA members?
4. New ATAA members? (ie. recent sign-ups)
5. Prospective ATAA members?

About this presentation

1. Who is the “Total Expert” in T.A., really?
2. All ATAA members collectively — large pool of knowledge
3. Draw on expert experience from this audience
4. Interactive session 
5. Broad overview of Technical Analysis
6. Limited in time (will skip some slides). 

But WHY?

How do you like your coffee?

- black / white 
- latte 
- mocha 
- iced 
- cappuccino 
- espresso 
- long / short
- arabica
- robusta 
- instant
- decaf
- soy

There are many different variations!...

Technical Analysis Introduction

Technical Analysis — not simple

- Technical Analysis has many variations
- A very broad topic, covering many aspects
- It can take a few years to work out what's included

Experienced Technical Analysts might relate to this?

- The challenge for “newbies”:- to work out which aspects to focus on, and which aspects to ignore.

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Technical Analysis Introduction

About the presenter

1. Learnt good lessons in 1987 crash (about financial advisors)
2. Share Market – active 8+ years
3. Trader / trainer / presenter / conference facilitator
4. Technical Analyst (ATAA member).

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Technical Analysis Technical Analysis — Overview

Click to add title

Technical Analysis

(price chart interpretation)

Overview

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Technical or Fundamental?

Two main approaches to analysing markets and company shares:

- **Fundamental analysis** — financial and economic theory, company financial performance, etc., etc.; and studying the cause of market movements.
- **Technical analysis** — examines past price action ... and effects of market movements.

This presentation will only cover T.A.

Fundamental or Technical?

Question:
Should I go with fundamental or technical analysis?

Fundamental or Technical?

Question: *Should I go with fundamental or technical analysis?*

There is not one right answer:

- Personal preference
- Whatever “feels” best for you
- Learn about both and try them out

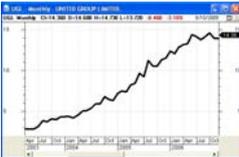
Maybe a blend of both!

- One possibility:- F.A. to select quality companies, and T.A. to time the entry & exit.

Technical Analysis **Technical Analysis — Overview**

Is Technical Analysis useful?

- Study price charts (of stocks or the market indexes) to get **good clues** about the state of the market.
- Understand if a **price trend** is under way, and
- Aim to **take advantage** of it at an appropriate point.



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Technical Analysis **Technical Analysis — Overview**

Technical Analysis — What is it?

What is it?

What “things”?



Input please!

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Technical Analysis **Technical Analysis — Overview**

Technical Analysis — What is it?

- Dow Theory
- Price charts
- Chart patterns
- Candlestick patterns
- Indicators
- Fibonacci
- Elliott Wave
- W.D.Gann
- Cycles

• **Anything else?**

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Technical Analysis – Also considers:

- Price charts in **different time periods**: intraday, daily, weekly, monthly, quarterly, etc.
- **Volume** — number of shares traded
- **Number of Trades** — transactions
- **Value of shares traded** — ave.price x volume



Note: We are offering no comment on this chart.

Technical Analysis — A definition?

How about a definition?

Not now — maybe later...

The “holy grail” (of indicators)?

Technical Analysis is not a precise science.

- It is not 100% guaranteed.
- But it does improve your chances of success.
- Many people start out in search of the single indicator that is 100% right — 100% of the time.
- BUT! — there is no such thing as the ideal / perfect indicator.

Technical Analysis **Technical Analysis — Overview**

Two main branches

- Primary Analysis — pure price data
- Secondary Analysis — modified, processed

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Technical Analysis **Primary Analysis (charts and patterns)**

Click to add title

Primary* Analysis

(as opposed to Secondary)

charts and patterns



* — Refer: "The Business of Share Trading", Leon Wilson

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Technical Analysis **Primary Analysis (charts and patterns)**

Primary analysis?

Leon Wilson explains:

Primary analysis is based directly on price-related information

- Using the raw price data (open, high, low, close, volume, trades, etc.)
- No manipulation of price
- No indicators.

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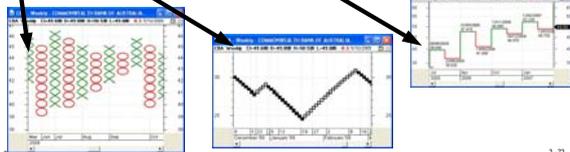
First, a word about chart types

- Line charts
- HLC bar charts
- OHLC charts
- Candlestick charts
- **Are there others?**



Other chart types

- Point & Figure
- Gann swing
- Kagi
- Renko
- Three Line Break
- Equivolume
- Candlevolume
- Stepped
- Points
- Pretzel



Don't forget — Volume!

The simple bar chart in the lower portion of the window.

- The number of shares traded.
- Note relative heights of Volume bars in this sample:- ~0.5 Million for the first four, and ~1.3M for the very last one.



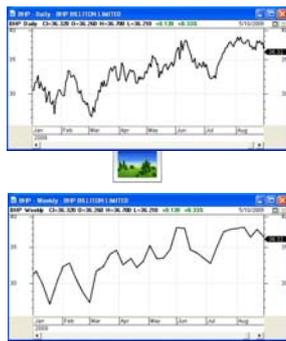
Oh! and — Semi-log chart

- The vertical (price) scale is often shown in linear form;
- But can be shown in logarithmic form;
- It is easier to see “same percentage amount increases”.



Time periods – Daily and Weekly

- **Daily chart** is common;
 - **Weekly** is popular for longer term traders/investors;
 - Weekly removes the “noise” from the Daily;
- Everyone should use a couple of time periods.*



Time periods – Weekly, Monthly, Quarterly

- Other time frames are very useful!
- Can display in Line chart form, or Bars or Candles
- Should review *at least two*.



Zoom out because the market is like an elephant.



Another time period — intraday chart

- Can display lines, bars or candles
- Can generally display any of:
 - hourly; half hourly; quarter hourly
 - 10 minutes; 5 minutes; 2 or 1 minutes
 - each "tic" or sale.

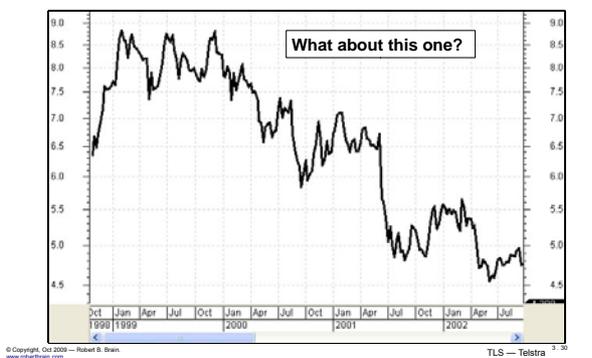
Trends

Would you have been tempted to buy this stock?
(Up 81% in 40 weeks — if only we could spot these in advance)



Trends

What about this one?



Support and Resistance

- A very basic and important tool for interpreting price charts
- Used by many professional traders
- Generally a horizontal line (not always)
- Can be a "zone".

Support and Resistance

- **Support:**
above which the price moves up and down, bouncing up off the line (like a floor)
- **Resistance:**
below which the price moves up to the line and retreats below it again (ceiling)
- Indicates emotion and psychology in the market.

Support and Resistance



Chart Patterns (on a line chart)

Chart Patterns?

What are we talking about here?



Input please!

Chart Patterns

- Triangles
 - Symmetric
 - Ascending
 - Descending
- Flags
- Pennants
- Wedges



• **Others?**

More chart patterns

- Rounding top (and bottom)
- Head and shoulders top (and bottom)
- Double bottom
- Double top
- Saucer

• **More?**



Candle Patterns (on a candlestick chart)

Candle Patterns?

What are we talking about here?



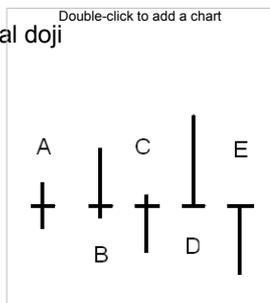
Input please!

Candle Patterns (on a candle chart)

- bullish
- bearish
- doji
- Shooting Star
- Hammer
- Harami
- engulfing
- piercing
- hanging man
- evening star
- dark cloud
- three black crows
- three white soldiers
- **Others?**

Candle patterns — Doji

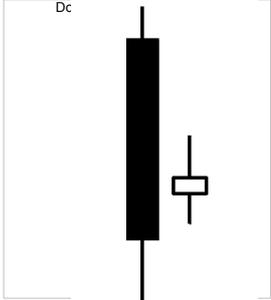
- A — common symmetrical doji
- B — buyers present
- C — sellers present
- D — Gravestone doji
- E — Dragon fly doji



Technical Analysis **Primary Analysis (charts and patterns)**

Harami candle pattern

Signals a possible change in trend.



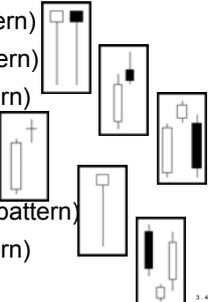
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Technical Analysis **Primary Analysis (charts and patterns)**

Candle patterns — small bodies

- With or without a gap from previous candle.
- Hanging Man (2-candle pattern)
- Shooting Star (2-candle pattern)
- Evening Star (3-candle pattern)
- Doji Star (2-candle pattern)
- Hammer (1-candle pattern)
- Inverted Hammer (1-candle pattern)
- Morning Star (3-candle pattern)



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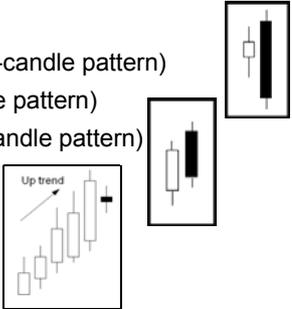
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Technical Analysis **Primary Analysis (charts and patterns)**

Patterns — engulfing and piercing

In UP Trends:-

- Engulfing Bearish (2-candle pattern)
- Dark Cloud (2-candle pattern)
- Harami Bearish (2-candle pattern)



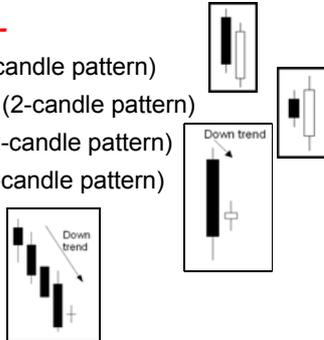
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Patterns — engulfing and piercing

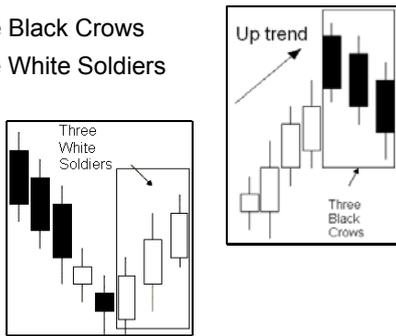
In DOWN Trends:-

- Piercing Line (2-candle pattern)
- Engulfing Bullish (2-candle pattern)
- Harami Bullish (2-candle pattern)
- Harami Cross (2-candle pattern)



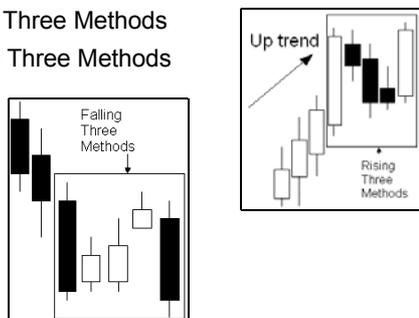
Patterns — 3-candles

- Three Black Crows
- Three White Soldiers



Multi-candle continuation patterns

- Rising Three Methods
- Falling Three Methods



Candle patterns — Final word

Learning to read candle patterns
(market psychology and emotion)
can be very useful.

- Candle basics — open, high, low, close
- Length of body — long or short?
- Length of tails — or absence of tails
- 2- or 3-candle pattern
- Can suggest possible trend change

Some Gems

- *The market is like an elephant!*
- *Only invest in something that you understand.*
- *Never bet the whole house.*
- *Up by the stairs, down by the elevator.*



Another tip

- Volume:
 - Watch for increasing volume as a confirmation of a signal
- Indices:
 - Watch the overall market index, and the relevant sub-index or sector index —
“a rising tide lifts all boats”.



Technical Analysis **Primary Analysis (charts and patterns)**

Price charts interpretation — Summary

- The general trend — if there is one
- The Volume relative to earlier periods
- Any chart patterns?
- Any candle patterns?
- Apply an indicator?. . . (next section)
- View another time period (daily → weekly → ..)

*The market is like an elephant,
so view at least 2 different time periods.*



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Technical Analysis **Secondary Analysis (indicators, etc.)**

Click to add title

Secondary Analysis

(ie. chart indicators)

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Technical Analysis **Secondary Analysis (indicators, etc.)**

Secondary analysis

Leon Wilson explains:

***Secondary analysis tools use info
derived from
the raw price data***

Most indicators are derived by some sort of calculation or manipulation of share price.

***Primary analysis is
based directly on
raw price data***

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Secondary analysis

- Indicator **types** (don't use all the same type!):
 - Trend indicators
 - Volatility indicators
 - Momentum indicators
 - Volume indicators
- Indicator **parameters** (eg. 14-period MA)
 - choose carefully and test thoroughly.

Trend indicators

Name some trend indicators?



Input please!

Trend indicators

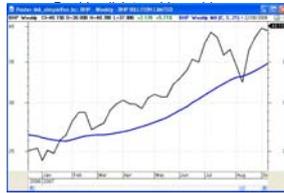
Give an **indication** of the **presence** of a trend, and / or the **strength** of a trend.

- Linear regression.
- Moving Average (details next slide).

Moving Average (MA)

A very important tool

- eg. 21 day MA is the average of all prices for the last 21 price bars*
- Can indicate a trend
- Can be used to interpret buy/sell signals.



* - A "bar" - can be a daily bar on a daily chart, or a weekly bar on a weekly chart, etc. On a Line chart is just the Close prices.

Trend indicators — more

- MMA — Multiple Moving Average
- GMMA — (Daryl) Guppy MMA
- Hull MMA — (Alan) Hull MMA
- Moving Average High and Low
- MACD — Moving Average Convergence Divergence
- P-SAR — Parabolic SAR
- ADX / DMI — Directional Movement

MMA example



MACD example

Moving Average Convergence Divergence

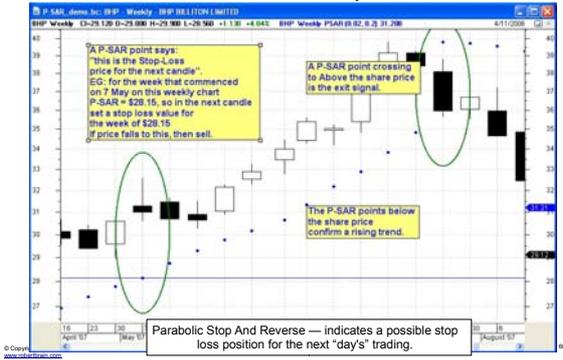
- (1) The "fast" line.
- (2) The "Signal" or "Trigger" line.
- (3) The Zero line about which the MACD indicator oscillates.
- (4) The MACD line crosses "Above" the signal line — a potential buy signal.
- (5) The MACD line crosses "Below" the signal line — a potential sell signal.

NOTE: There is a lot more to MACD than just this.

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P-SAR example



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ADX / DMI example



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Volatility indicators

Name some volatility indicators?



Input please!

Horizontal lines for writing answers.

Volatility indicators

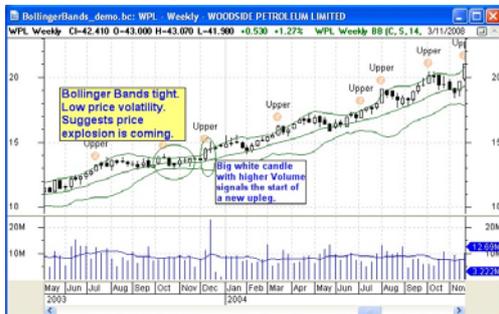
Give an indication of price volatility (ie. the range or variation in price):

- Bollinger Bands
- ATR — Average True Range
- Also applies to index charts (eg. XJO)

XJO = S&P/ASX 200
XAO = All Ordinaries

Horizontal lines for writing answers.

Bollinger Bands example



Bollinger Bands — a moving average, and an upper and lower band that encompass most of the price action.

Horizontal lines for writing answers.

RSI example

- Can be used as over-bought / over-sold indicator with levels at 20 to 30, and 70 to 80.
- Useful to look for divergence with price.



Relative Strength Index — Compares upward movements of closing price with downward movements. Compares the relative strength of current price to past prices.

Volume indicators

To understand the **amount of volume** relative to recent periods.

- The simple Volume bar chart
- Moving Average on the Volume
- EquiVolume chart
- Volume Rate of Change
- Volume Oscillator.

Indicators — Summary

- Indicator **types**:
 - Trend indicators
 - Volatility indicators
 - Momentum indicators
 - Volume indicators
- Indicator **parameters** — choose carefully and test thoroughly.

Click to add title

“Advanced” Topics

Cycles, Fibonacci,
Elliott Wave, W.D.Gann

Cycle analysis

- Markets and stocks move in cycles
- Can be studied and analysed
- Rather complex and can be subjective.
- Examples:
 - season cycles
 - US presidential cycles (4 years)
 - longer term economic cycles.

Fibonacci

Number sequence:

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, ...

- Devised by 13th century Italian mathematician Leonardo Fibonacci
- The sum of any two consecutive numbers in the series is the next number in the series.

Fibonacci (cont)

- The ratio of consecutive and alternate numbers gives a special ratio, and **percentages**:

23.6, 38.2, 50, 61.8,
100, 161.8, 261.8, 423.6

- **Very uncanny** how often share price movements fit into these same ratios.
- See samples on next screen ... /

Fibonacci Extension



Fibonacci Retracement



Elliott Wave Theory

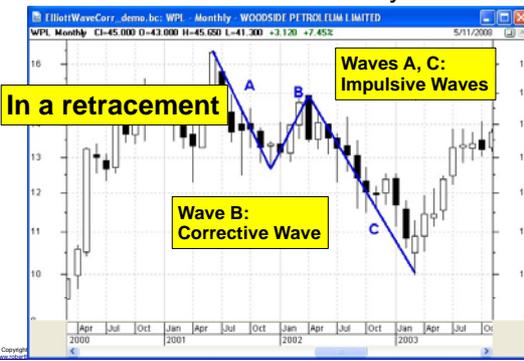
“Markets move in cycles which are predictable patterns”

- Ralph Nelson Elliott (1871-1948)
- The cycles are made up of smaller cycles with similarly predictable patterns
- The time duration of these cycles varies
- Impulsive and corrective waves.

Elliott Wave Theory



Elliott Wave Theory



W.D.Gann

Believed there is a relationship between price and time, with a degree of predictability that can be used to effect.

- William Delaware Gann (1878-1955)
- Mathematician
- His work covered an extensive and broad range of technical analysis topics, as well as numerology and astrology
- Geometric forms, and “squaring price and time”.

Advanced topics — Summary

- Cycle analysis
- Fibonacci
- Elliott Wave Theory
- W.D.Gann



Any others?
Input please!

Technical Analysis — A definition?

How about a definition?



Input please!

Technical Analysis — 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.

Quick recap

- Brief Overview of Technical Analysis
 - A very broad subject.
 - Identifying a share price trend. *(The trend is your friend)*
 - Identifying share price patterns.
- Primary Analysis — no manipulation
 - Chart patterns, candle patterns, etc.
- Secondary Analysis — indicators
- Advanced topics:
 - Cycles, Fibonacci, Elliott Wave, W.D.Gann



Now where to?

- Explore the options
- Look for help:- tuition, support, special interest group, reputable club or association to join, software user group, etc.
- *Proceed carefully!*  *(it's too easy to lose money)*
- Join the ATAA www.ataa.com.au
Australian Technical Analysts Association



Technical Analysis Summary & Wrap up

Next Steps?

- Share trading is a journey!!
- Good Bookshop (eg. "Educated Investor", Collins St, Melb)
 - www.educatedinvestor.com.au
- Good software (all charts in this presentation — BullCharts)
 - www.bullcharts.com.au
- Someone to help you: www.robertbrain.com
 - Brainy's **Share Market Toolbox** web site
 - arsenal of weapons to tackle the market
 - monthly e-Newsletter Articles
 - individual tuition, support



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Technical Analysis Summary & Wrap up

These presentation slides

- This presentation:
 - is available in full (all slides)
 - for ATAA Members to download
 - from the ATAA web site.
 - and from the Members Section of Brainy's **Share Market Toolbox** web site.
 - www.robertbrain.com

This presentation is a cut-down version of Robert's 4-hour, **T.A. Introduction** seminar, next running on Saturday 7 November 2009.



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Technical Analysis Technical Analysis — What is it really?

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THE END
THANK YOU

(backup slides follow)

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THE END

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(backup slides follow)
