AUSTRALIAN TECHNICAL ANALYSTS ASSOCIATION

JOURNAL

September/October 2002

See inside for more…

Your Board of Directors

President	Ken Henderson 0403 817 188
Vice President	Tony Reeves 02 9299 6780
Vice President	Larry Lovrencic 02 9299 6785
Secretary	Paul Hatfield 02 9667 0983
Treasurer	Greg Tolpigin 0413 861 858
Director	Susanne Fraser 02 9651 4703
Director and IFTA Liaison	Colin Nicholson 02 9436 1610

Assisting the Board

CD-ROM	Phil Alt 02 9874 3266
Financial Manager	Ken Connolly 02 9953 7092
Journal Editor	Colin Nicholson 02 9436 1610
Newsletter Editor	Ken Henderson 0403 817 188
Webmaster	Susanne Fraser 02 9651 4703
Sydney Meeting Logistics	Paul Hatfield 02 9667 0983
Conference Chairman	Larry Lovrencic 02 9299 6785
Education & Data	Colin Nicholson 02 9436 1610
Print Manager	John Stanley 02 9337 5673
Secretary Assistant	Anna Vozzo 02 9667 0983
Video Librarian	Greg Manning

State Councils

ACT

President	Llois Cutts 02 6295 6851
Past President	Garnett Znidaric 02 6254 5023
Council	Clyde Morton 02 6215 2082
	Lee Taylor 02 6252 6377
	Andrew Warnes 02 6281 4124
	Robert Gardner 02 6263 4460

NSW

Newcastle Sub-Committee

Chairman	Paul Polychroniadis 02 4962 3835
Committee	Stuart Wrightson 02 4959 3368
	Tom Williams 02 4963 1086

Queensland

President	Jason Sidney 0409 051 047
Vice President	Shane Langham 07 5538 6922
Past President	Clive Roydhouse 07 3711 9112
Council	Pam Stokes 07 3348 6561
	Steven Dotto 07 3406 6730

Toowoomba Sub-Committee

Committee	Hugh Robinson 07 4638 5348
	Jeff Rollinson 0407 110 930
	Quentin Lewis 07 4696 5203
	John Williams 07 4635 0743

South Australia

President	Charles Browne 08 8353 6669
Council	Peter Balawejder 08 8234 5039
	Peter Kentish 08 8337 2416
	Neil Videon 08 8344 7733

Victoria

President	Paul Ash 03 9629 4233
Council	David Finn 03 9877 5192
	Mary Kane 03 9328 8238
	Sonia Lonsdale 03 9390 1932
	Michael McCullough 03 9580 9935
	Arthur Ranken 03 9787 5605

Western Australia

President	Jeff Clark 08 9330 3541
Vice President	Glen van Ooran 08 9486 4888
Council	Dianne Godson 08 9204 2041
	Lesley Hewett 0407 776 099
	Neil Husband 08 9402 4347
	Benzie Pikoos 08 9375 1178

Contributions to the Journal

The Australian Technical Analysts Association Journal is published by the Australian Technical Analysts Association (ATAA) ABN 53 071 513 203. It is a vehicle for the interchange of ideas and information about technical analysis of markets. This forum is available at the discretion of the editor for the views of members, guest speakers and guest writers. Contributions to the ATAA journal are encouraged and will repay your efforts by expanding and sharpening your analytical ability. The emphasis of the journal is on original articles, although consideration may be given to material of interest previously published in other publications. Journals are published each January/February, March/April, May/June, July/August, September/October and November/December. The deadline for copy is the last day of the previous month: i.e. December, February, April, June, August and October.

The Australian Technical Analysts Association (ATAA) is a member of the International Federation of Technical Analysts and exchanges newsletters and journals with other member organisations. Under a reciprocal agreement ATAA has given a general permission to these member organisations to reproduce any article which appears in our newsletter and journals. Articles may be reproduced in full, summarised or translated into another language. It is a condition of the agreement that the article be attributed to the source and author. ATAA acknowledges that copyright (if any) in material submitted for publication may belong to the author. By submitting material for publication with this knowledge of the foregoing you are waiving your claim to copyright to the extent necessary to permit reproduction as disclosed. Material accepted for publication is only accepted on this basis. If you do not agree to waive your claim to copyright to the extent required or if for legal reasons you are unable to do so please bring this to our attention when you submit your material.

Disclaimer

This publication is issued on the understanding that (1) the ATAA is not responsible for the results of any action taken on the basis of information in this publication, nor for any errors or omissions, and (2) the ATAA and the editor expressly disclaim all and any liability to any person in respect of anything done or omitted to be done by any person in reliance, whether whole or partial, upon the whole or any part of the contents of this publication; and (3) if legal advice or expert assistance is required, the services of the competent professional person should be sought; and (4) the views expressed in this publication are those of the contributor and not necessarily those of the ATAA. Any sponsorship of this journal does not imply any endorsement of the sponsors product or services by this Association.

ATAA **GPO Box 2774, Sydney NSW 2001**

If you would like to discuss your contribution, please email in the first instance **president@ataa.com.au**. Our media preference is for submitted articles to be emailed or sent by post on IBM floppy disc or CD-ROM. Text and graphics should be supplied as seperate files; Text as ASCII.txt files, Rich Text format (RTF) or plain (without embedded graphics), MS Word.doc files; Graphics as either .bmp or .jpeg files seperate from the Text file. Reference any graphs in the text as "*** Insert figure 1 here***". By all means send a .pdf file as well to indicate your preferred formatting.

In this Issue

Welcome to New Members

ACT
Philip Brown

NSW
Budi Cahyadi
Regine Duke
Corey Gibson
Drew Keenan
Matthew Leeson
Robert Londale
Robert MacIver
Damian Miller
Eva Nagy
Edward Overs
Joyce Petrie
Terry Skinner
Colin Slupik

QLD
Michael Ajao
Kenneth Aylett
Peter Benson
David Champion
Vanessa Champion
Don Clarke
John Farrell
Kym Irving
Paul Kerr
Hamish Moody
Jonathan Moore
Peter Noordink
Tim Saddington
Stephen Swan
Frank Tomasich

VIC
Les Brain
Benjamin Carmichael
Paul Chow
Peter King
Terry Lawley
John Nankervis
Eric Josef Rudzyn
Edmund Wong

WA
Ross Gardiner
Anne Tollefsen

INDONESIA
Rob Erskine-Smith

SINGAPORE
Chin Wei Lam

On behalf of the ATAA Board, the Editor apologises for any names which have inadvertently been omitted.
Please let the Editor know of any omissions

Apologies for Late Journals

The board apologises for the lateness of this Journal. All efforts are being made to get the November/December Journal to you in January and the January/February Journal to you in February, after which Journals should be published on time.

John A. Bollinger CFA, CMT - Market Master

By Neil A Costa

John Bollinger is a modern-day market master. Unlike many traders who started their working life studying economics or engineering, John graduated with a degree in visual arts, majoring in cinematography. He later moved into the field of market analysis and was one of the pioneers of technical analysis using a computer, after buying his first microcomputer in 1977.

John Bollinger is today one of the world's most respected technicians. He is President of Bollinger Capital Management and is a Chartered Financial Analyst and a Chartered Market Technician.

The Birth of Bollinger Bands

Contrary to what many people believe, the Bollinger Bands technical indicator was not named after the champagne drunk by an ecstatic trader while closing out a big winning trade. In fact, it was named after its developer, John Bollinger.

The Bollinger Bands indicator was created in the early 1980s. It was created in an attempt to overcome the problems associated with trading envelopes which were very popular at that time; particularly the problems associated with determining the most appropriate bandwidth to use with these fixed-width bands.

Bollinger noted that the most appropriate bandwidth for a particular market would change with time. He therefore explored ways in which the bandwidth could be determined automatically.

John Bollinger combined the measurement of volatility (standard deviation) with a moving average. The result was a set of two variable-width trading bands that would automatically adapt to the volatility of the market.

What Are Bollinger Bands?

There are literally hundreds of technical indicators that are used by technical traders to help them to analyse and trade markets. Many are of little use, many give similar indications to other indicators, and a few are of great value. Bollinger Bands is one such 'great value' indicator.

Whereas trading envelopes surround the market action with two bands which are drawn a fixed percentage above and below a moving average of the market's closing price, Bollinger Bands expand and contract as the market volatility increases and decreases.

For intermediate-term trends, Bollinger Bands consist of a series of three bands:

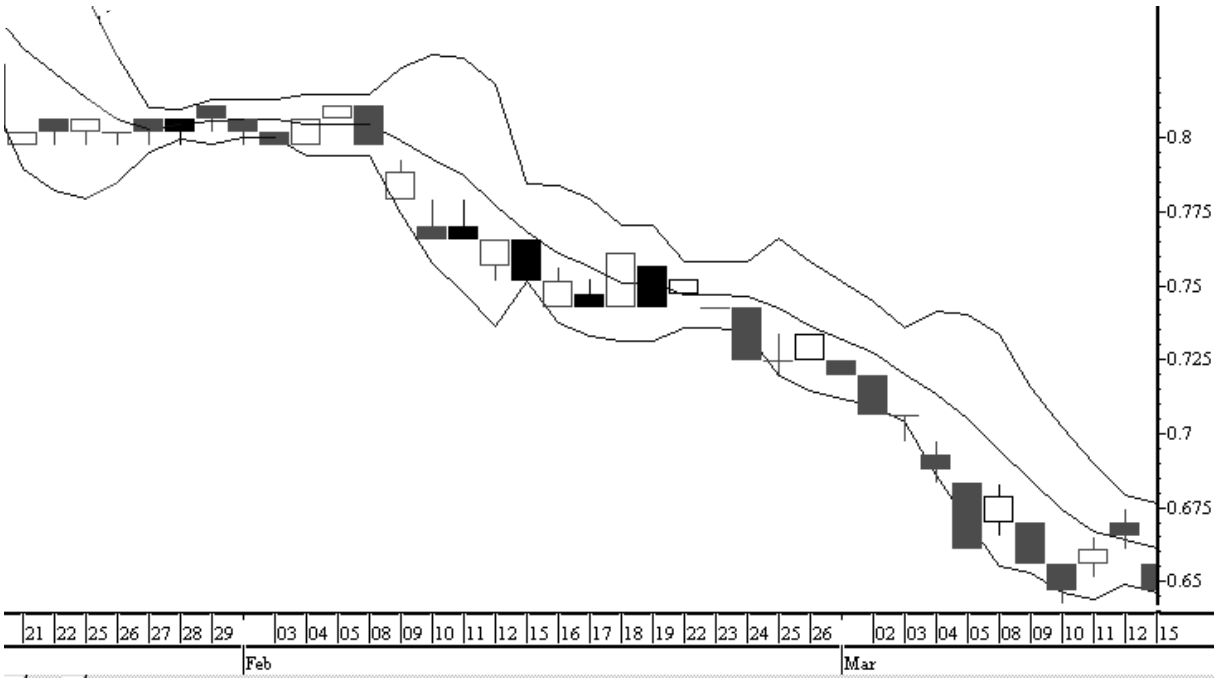
- The middle band is a 20-day simple moving average of a market's closing price.
- The upper band is drawn by adding two standard deviations to the middle band.
- The lower band is drawn by taking two standard deviations away from the middle band.

For short-term trends, a 10-day moving average and a standard deviation of 1.5 is more appropriate. For long-term trends, a 50-day moving average and 2.5 standard deviations are usually used.

The Market Analyst chart on page 5 shows Bollinger Bands on BHP Billiton Limited. We interpret the market's action relative to the bands as follows:

- When the market action moves above the top band or below the bottom band, it suggests that the present trend shall continue.
- If a market moves from one band towards the moving average, it is likely to continue to the other band.
- Powerful moves often commence after the market's volatility has become very low and the bands have tightened around the market action (as happened in early February).

BHP Billiton Limited - 1 Day - Candlestick Chart



What Do the Bands Tell Us?

Bollinger Bands allow us to see, at a glance, if prices are high or low in relative terms. Because the bands track market volatility, prices are relatively high when prices are at the upper band and relatively low when they are at the lower band.

John Bollinger has also derived two indicators from Bollinger Bands:

The first one is %b, and tells us where we are within the band - at 1.00, we are at the upper band, and at zero, we are at the lower band. At 0.5, we're dead in the middle. The second indicator is bandwidth. It is the upper band, minus the lower band, divided by the middle band.

(Gapalakrishnan, J., *John Bollinger of Bollinger Bands Fame*, 'Technical Analysis of Stocks and Commodities Magazine', May 2002, p. 58.)

Trading With Bollinger Bands

Bollinger Bands give us valuable information about whether or not prices are relatively low, or high. They can, however, be used in conjunction with price action and reaction, and other technical indicators, to give traders high probability trading signals. The powerful signals that usually follow Bollinger band squeezes make Bollinger Bands an important tool for all traders, but option traders in particular.

Conclusion

John Bollinger is a modern-day market master. His ongoing contribution to technical analysis has assisted many traders to gain a more realistic view of the market they are trading. In particular, his Bollinger Bands indicator has been a technical tool that continues to be of immense value to many traders.

Neil Costa *has been a trader for more than 30 years. He has trained, or overseen the training of more than 10,000 traders. Neil is Managing Director of Market Masters Pty Ltd. He can be contacted at neil@marketmasters.com.au or www.marketmasters.com.au.*

Introduction to Indicators - Part 1

By Colin Nicholson

The Difference Between Using Indicators and Price

When we look at classical charting, we are concerned directly with the analysis of price and, to a lesser extent, volume and open interest. When we move into the area of indicators, we cease to look at price directly, but look at using mathematical constructs which are derivatives of price. This difference leads some technical analysts into error.

The error is to regard indicators as a superior tool compared to direct analysis of price. In other words, that classical charting is somehow only an introduction to the more advanced tools called indicators. Such an extreme view is unwise. In most ways, indicators only serve to clarify what should be already obvious on the price chart. Where an analyst takes this view to the extreme that the indicator is relied upon in the face of conflicting information in the raw price chart, it is plain stupid.

The intelligent analyst uses indicators as a secondary tool to add value to the basic chart analysis. Where this is most important is that any signal given by the indicator should not be acted upon unless there is a confirming signal on the price chart. In other words, the price chart has priority over the indicator until such time as the price confirms the indicator.

In saying this, it should be recognised that some indicators give late signals, coming after the price signal, while other indicators give leading signals, coming before the price signal. It is these leading indicators where care must be taken not to anticipate price action.

Types of Indicators

A great number of mathematically based indicators have been developed in the last few decades. Some have broken new ground, while many are simply variations on a theme. It is impossible to consider them all in this series of articles. It is also unnecessary, since many of the variations do essentially the same thing. What we will endeavour to do is to look at the two basic types of indicators and some of the more useful of the indicators in each category.

Classical charting, using line and bar charts, are often criticised as being subjective. This element of subjectivity is seen as an evil. However, as we have already seen, subjectivity has both negative and positive aspects.

The availability of personal computers has allowed the evolution of a series of mathematical and statistical indicators. The objectives in developing these indicators are:

- To make a precise definition of some concepts in mathematical terms.
- To formulate unambiguous rules for trading with these indicators.
- To define new ways of analysing price action - especially for short-term trading.

In large part, indicator analysis is a way of approaching the problem of the interaction of the psychology of the analyst with the processes of analysis. There is always a very real risk that analysts will find what they are looking for when they examine a chart or an indicator. However, because indicators are created to give signals based on the crossing of two lines or when a line turns up or down, the signals can be identified without the application of judgement and some of this problem is removed.

However, it does not solve it completely. There remains an arbitrary element in the mathematical approach, because choices still have to be made about parameters such as the number of time periods over which to calculate an indicator and the levels for overbought and oversold etc. Analysts try to overcome this by optimising these levels through back-testing numerous alternatives using past data. However, this is at best a partial solution, because over-optimising parameters means the indicator is fitted to the past data, a disadvantage because markets are constantly changing.

A more insidious problem is that not all indicator signals are equally effective as a trading tool. Thus, the idea of divergence, which we will look at in a later article, is a powerful one, but only some divergences lead directly to trend changes. The same applies to other indicator signals from time to time. There is therefore scope for the analyst to override or filter the indicator signal where it is contrary to the preconceived view of the analyst. Where multiple indicators are used, there is also the temptation to ascribe weight to each indicator, depending upon how well it is confirming the analyst's view.

Indicator analysis has approached the task of analysing the markets from two directions, giving rise to the two types of indicators:

- Firstly, there is a group of indicators that seek to define trend objectively. These are called **trend following indicators**. Essentially, this group of indicators is designed to smooth price data so that a trend can be represented as a line. They tend to be trailing indicators. By far the most important group of trend following indicators is moving averages. Their purpose is to detect the beginning and ending of trends.
- Secondly, there is a group of indicators that seek to measure the speed at which prices are changing. These are called **momentum oscillators**. The concept here is that momentum can be measured, allowing us to detect changes in the speed or direction of price change. They tend to be leading or coincident indicators. By far the most important group are constructed as oscillators. They are so designed in order to detect the swings of price within a trading range or a trend. Their purpose is to time trades as price swings between under and over valuation.

As their name implies, trend following indicators are only useful in trends and will give poor results, or even losses, in trading ranges. Momentum oscillators can also be used to trade the swings within, and to warn of the end of, trends. However, their main use is in trading ranges, where trend following indicators are too slow to detect the shorter-term swings.

Generally, the value of a trend following indicator is expressed in the same units as price. It is often, but not exclusively, drawn as a line on the price chart itself. Some signals are derived from the interaction of the price and the trend following indicator line.

On the other hand, a momentum oscillator will generally swing either side of a centre or zero line. Its value is always different to the price scale. It is almost always drawn in a separate sub-chart. Some oscillators consist of one line, with signals generated by patterns it forms or by it swinging above and below reference values. Other oscillators consist of two lines and the interaction of the two lines generates some of the signals.

Most indicators will fall into one or other category, but there is one important exception. That exception is the Moving Average Convergence Divergence (MACD). This is usually classified as a trend following indicator. However, it is a sophisticated indicator that is also an oscillator, although it does not swing between any set maximum and minimum levels. The MACD can be used as both a trend following indicator, and a momentum oscillator.

For many years, indicators were calculated by hand and drawn on or below the price chart. However, in the past decade, the personal computer has been replaced hand drawn charts. Its principal advantage is the speed with which many charts can be constructed and mathematically complex calculations made. Its principal disadvantage is that much of the "feel" for the market that was developed through keeping hand drawn charts over time has been lost.

In practice, indicators will be calculated and drawn by a computer and an analyst should be able to accept the integrity of the software used. The important thing is to understand what the indicator is measuring and how the indicator is interpreted. For that reason, we will not spend time on the calculation of most indicators. However, in this and the following articles, we are going to devote some time to the calculation of one trend following indicator and one momentum oscillator because it will assist in understanding the concepts involved.

Calculation of a Moving Average

The classical technical analysis approach to trend definition involves analysis of highs and lows in the short term and of peaks and troughs over a longer time frame. To this was added one of the earliest 'indicators' in the form of a trend line. One of the problems with high/low analysis, peak/trough analysis and trend lines is that these techniques involve an element of subjectivity. Analysts have therefore turned their minds to other ways

of determining trend mathematically. The most important of these approaches is the moving average in its many forms. We will use a simple moving average to demonstrate the idea of a trend following indicator.

The concept behind a moving average is the smoothing of the closing price to form a line that represents the trend of prices. Instead of charting the price directly, the average closing price for a number of periods is charted. The moving average may be calculated as a simple moving average, an exponential moving average, or as a weighted moving average. In this article, we will confine our discussion of its calculation to simple moving averages.

In calculating the moving average the closing price is usually used. However, there are numerous variations such as using the average of the range (high + low ÷ 2) or charting a moving average of both the high and the low separately, to give a moving average band or envelope. For this article we will confine ourselves to moving averages of the closing price.

To construct a five period moving average, we first need price data for a minimum of five periods. When we have the data for the fifth period, we can calculate the first plot. This is a simple average as follows:

Period	Closing Price	Total Last Five Periods	Average Last Five Periods
1	100	N/A	N/A
2	102	N/A	N/A
3	106	N/A	N/A
4	104	N/A	N/A
5	102	514	102.8

To calculate the moving average for the sixth period, we can either add the closing prices for periods 2 to 6 or we can subtract the closing price for period one from our five period total and add to it the closing price for the sixth period. This is then divided by five:

Period	Closing Price	Total Last Five Periods	Average Last Five Periods
6	108	522	104.4
		OR	
6	108	(514 - 100 + 108)	104.4

This average for the last five periods is our moving average. For subsequent periods, we continue in the same way to either add the closing prices for the last five periods and divide by five or, take the total for the last five periods, subtract the oldest closing price in it, add the latest closing price and divide by 5.
The calculations for the ensuing periods in our example would be as follows:

Period	Closing Price	Total Last 5 Periods	5 Period Moving Average
1	100	N/A	N/A
2	102	N/A	N/A
3	106	N/A	N/A
4	104	N/A	N/A
5	102	514	102.8
6	108	522	104.4
7	110	530	106
8	113	537	107.4
9	119	552	110.4
10	114	564	112.8
11	112	568	113.6
12	111	569	113.8
13	116	572	114.4
14	118	571	114.2
15	122	579	115.8

The usual way to draw a moving average is to plot it on a bar chart as a line, as shown in Figure 1.

However, to see how the moving average is 'smoothing' the closing price, look at the same moving average line against a line chart of the closing price, as shown in Figure 2.

Figure 1: Five Period Simple Moving Average Drawn on a Bar Chart

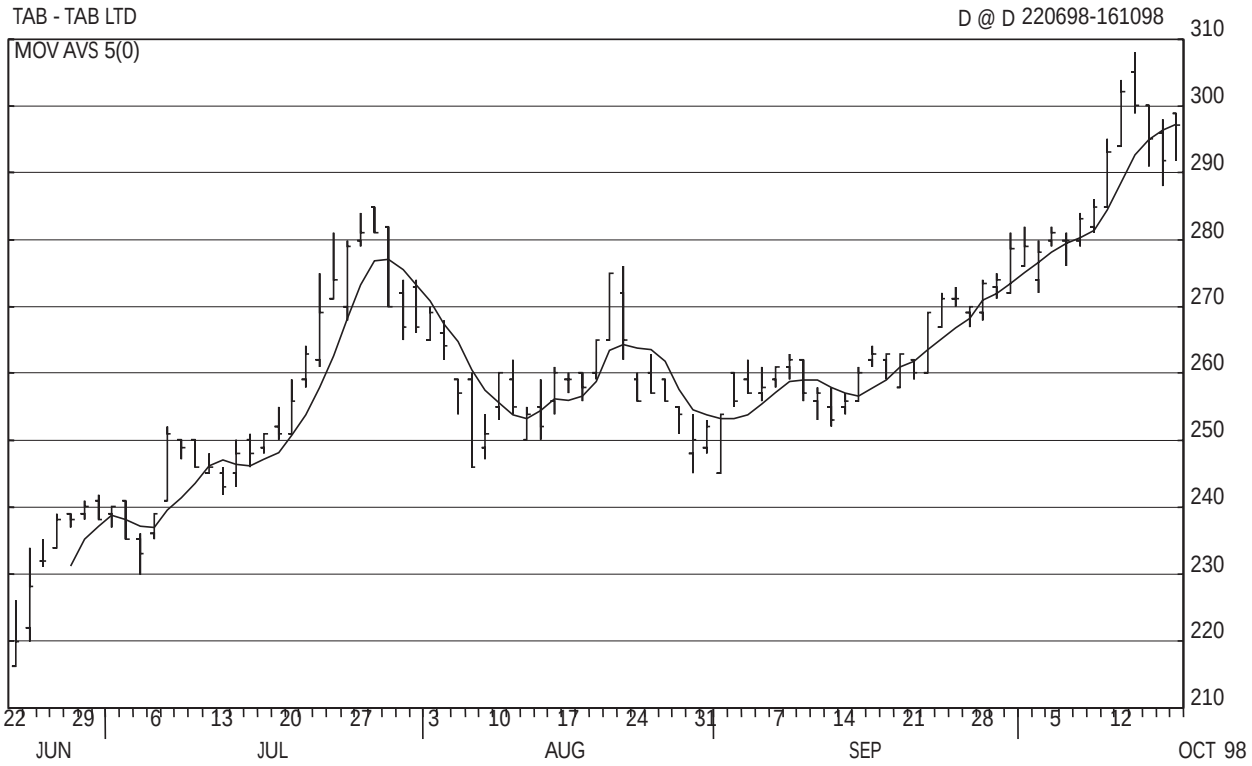
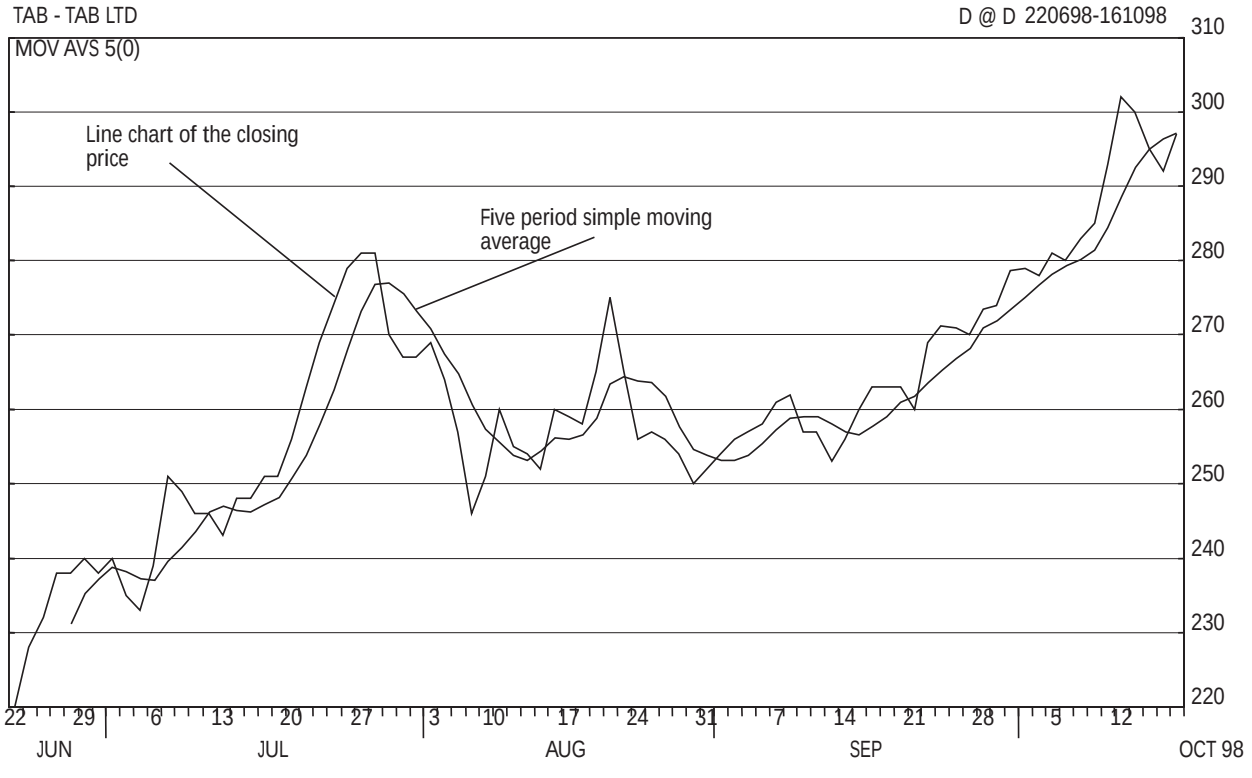


Figure 2: Five Period Simple Moving Average Drawn on a Line Chart of the Closing Price



Notice how the closing price line jumps around and how the moving average line traces out a smoother curve, flattening out most of the short-term fluctuations in the price.

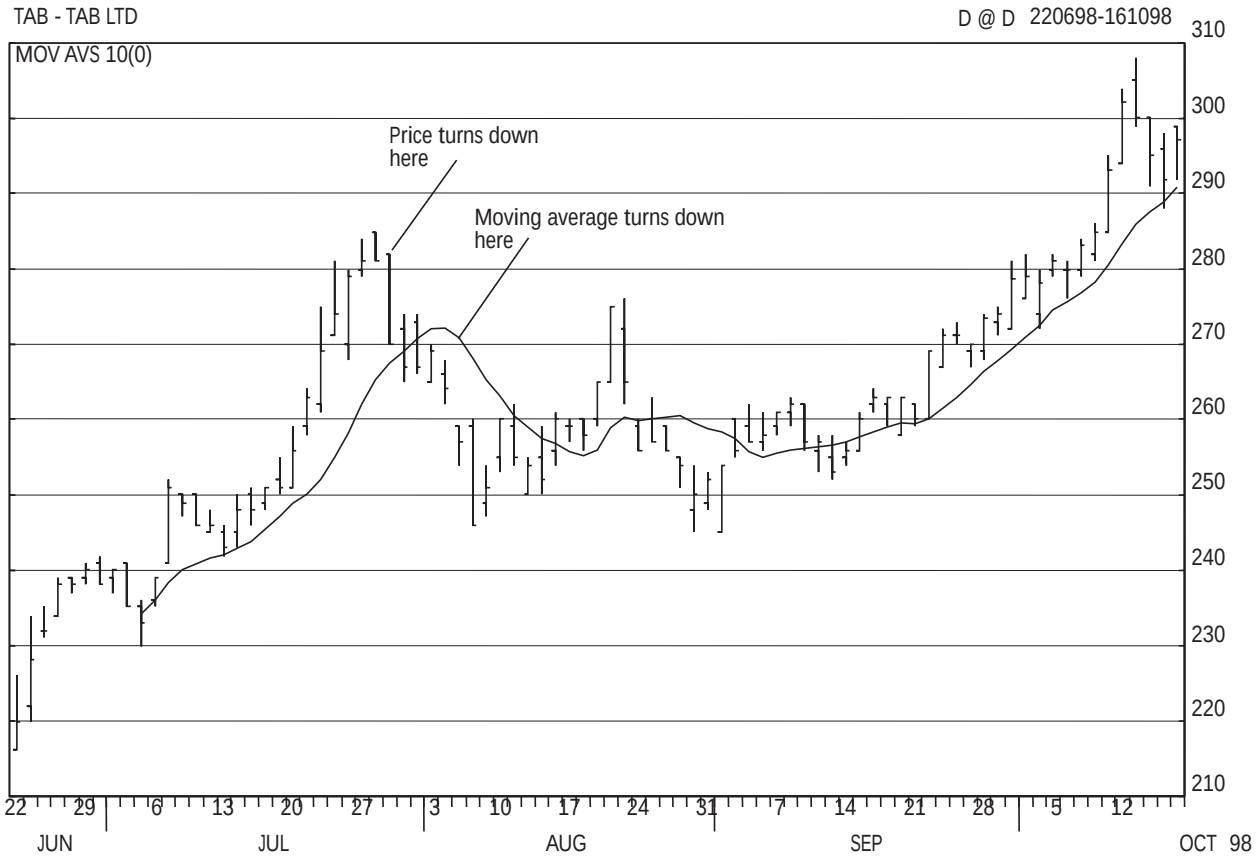
The number of periods used in a moving average can be varied to suit the purpose of the analysis. Figure 3 shows the same chart with a 10 period simple moving average:

Notice how the longer the period used to construct the moving average, the smoother the line, but the more it lags actual price movement.

Colin Nicholson BEc FSIA *is an honorary life member of the ATAA, principal lecturer in technical analysis at the SIA, writer and columnist for Shares magazine and the Shares Weekly online newsletter, teacher of technical analysis, trading and investment and a private share trader and investor.*

Web site: www.bwts.com.au
Email: colin@bwts.com.au

Figure 3: Ten Period Simple Moving Average Drawn on a Bar Chart



Trends and Calendar Effects in Stock Returns

By Thomas Hellström

Abstract

This paper presents statistical investigations regarding the value of the trend concept and calendar effects for prediction of stock returns. The examined data covers 207 stocks on the Swedish stock market for the time period 1987-1996. The results show a very weak trend behaviour. The massive better part of returns falls into a region, where it is very difficult to claim any correlation between past and future price trends.
It is also shown that seasonal variables, such as the month of the year, affect the stock returns more than the average daily returns. This is consequential for all methods, where the seasonal variables are not taken into account in predicting daily stock returns.

1. Introduction

This paper presents results from a statistical analysis of stocks of 207 major stocks from the Swedish stock market for the period 1987-1996. The purpose of the analysis is to examine the concepts of trend and calendar effects, since they are often claimed to exist and are often used in technical analysis.

2. Definitions

In the presentation of statistics we will use a few terms that will be defined in this section. The *k*-step return $R_k(t)$ is defined as the relative increase in price for the previous *k* days:

$$R_k(t) = 100 \cdot \frac{y(t) - y(t-k)}{y(t-k)} \cdot \qquad (1)$$

The basic statistical properties of $R_k(t)$ for 207 stocks from the Swedish stock market for the period 1987-1996 are listed in Table 1.

The values in the table are mean values for all stocks. Each column shows data for one particular value of *k*. The last six lines in the tables show the distribution of signs for the returns. "*Return* = 0" is the fraction of returns equal to zero. "*Return* > 0" is the fraction of returns greater than zero and "*Return* < 0" is the fraction of returns less than zero. "*Up fraction*" is defined as:

$$100 \cdot \frac{\text{“}Return > 0\text{”}}{\text{“}Return > 0\text{”} + \text{“}Return < 0\text{”}}, \qquad (2)$$

which is the positive fraction of all non-zero moves. "*Up fraction*" is a relevant measure, when it comes to evaluating the hit rate of prediction algorithms. Looking at one-step returns in the tables, the "*Up fraction*" for the for the 207 stocks is 50.6%. The "*Mean Up*" and "*Mean Down*" columns show the mean value of the positive and negative returns respectively. The fractions of zero returns in the data material are somewhat surprisingly high 23.4%. The zero returns must be dealt with in a proper way when evaluating hit rates for prediction algorithms. The "*Up fraction*" circumvents the zero returns by simply removing them before calculating the hit rate. In this way, the zero returns are counted as both increases and decreases, in equal proportions.
We suggest the following definition for the *k*-trend $T_k(t)$:

$$T_k(t) = \frac{100}{k} \cdot \frac{y(t) - y(t-k)}{y(t-k)} \cdot \qquad (3)$$

It is convenient to divide by *k* in order to get the daily increase in price. Trend values for different values of *k* can then be analyzed on an equal basis. To see if $T_k(t)$ is connected to future changes, define the profit $P_h(t)$ computed *h* days ahead as:

$$P_h(t) = 100 \cdot \frac{y(t+h) - y(t)}{y(t)} \cdot \qquad (4)$$

$P_h(t)$ is obviously equal to $R_h(t+h)$ (i.e. it is achieved by shifting the returns *h* days backwards). $P_h(t)$ can be interpreted as the profit gained, if buying a stock at day *t* and selling it at day *t+h*.

Table 1: Mean *k*-step returns for 207 Swedish stocks

	k						
	1	2	5	10	20	50	100
Mean	0.143	0.274	0.585	1.058	2.007	4.584	8.651
Median	0.000	0.007	0.060	0.248	0.946	2.895	5.148
Std. dev	3.02	4.15	6.15	8.42	11.80	18.82	27.80
Skewness	0.79	1.06	1.02	0.93	0.83	0.78	0.82
Kurtosis	15.78	16.49	11.55	9.27	7.58	5.99	5.59
No of points	1367	1363	1356	1347	1333	1306	1259
Returns=0 (%)	23.4	17.0	10.8	7.5	4.9	2.7	1.9
Returns>0 (%)	38.7	42.0	45.6	48.5	52.1	56.1	57.6
Returns<0 (%)	37.9	41.1	43.6	44.1	43.0	41.2	40.5
Up fraction (%)	50.6	50.6	51.1	52.3	54.7	57.6	58.7
Mean Up	2.7	3.5	5.2	7.1	10.1	16.8	26.5
Mean Down	-2.3	-2.9	-4.0	-5.3	-7.3	-11.3	-15.5

3. Following the Trend

A trend-following trading strategy means buying stocks that have shown a positive trend for the last days, weeks or months. It also suggests selling stocks that have shown a negative trend. In this section the relevance for such a strategy is tested statistically.

In Table 2, the mean profit $P_1(t)$ (Eq. 4) is tabulated as a function of the trend $T_k(t)$ (Eq. 3), i.e. 1-day-forward profit versus k-step-backward trends. Results are presented for the 207 stocks for the years 1987-1996. Table 3 shows the "*Up fraction*" (Eq. 2). Table 4 shows the number of observations in each table entry.

The label for each column is the mid-value of a symmetrical interval. For example, the column labeled **0.00** includes data with the *k*-day trend in the interval [-0.25 0.25[. The intervals for the outermost columns are open ended on one side.

To ensure that found patterns reflect fundamental properties of the process generating the data, and not only idiosyncrasies in the data, the relations between trends and future returns are also presented in graphs, in which one curve represents one year. The left diagram in Figure 1 shows 1-step profits $P_1(t)$ versus 1-step trends $T_1(t)$. The right diagram shows 5-step profit P5(t) versus 5-step trends T5(t).

Figure 1: Profits versus returns for 207 Swedish stocks. Each curve represents one year between 1987 and 1996.

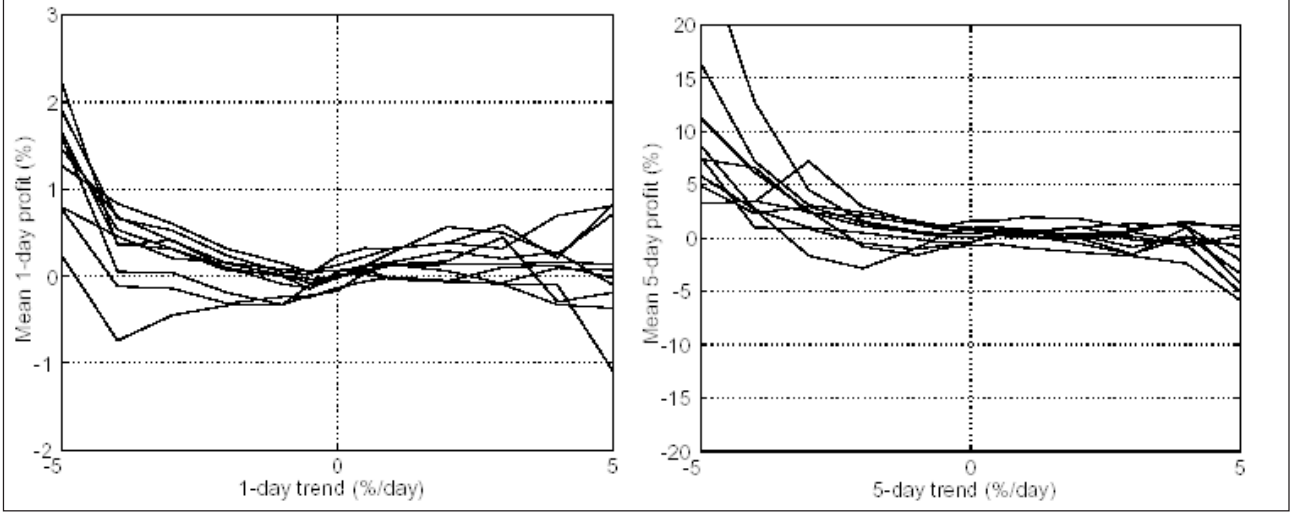


Table 2: Mean 1-day returns

	k-day trend (%/day)												
k	-5.00	-4.00	-3.00	-2.00	-1.00	-0.50	0.00	0.50	1.00	2.00	3.00	4.00	5.00
1	1.42	0.40	0.30	0.09	-0.02	-0.07	0.02	0.09	0.11	0.14	0.15	0.16	0.06
2	2.35	0.75	0.44	0.22	0.06	-0.00	0.02	0.06	0.09	0.13	0.06	0.10	0.05
3	3.38	0.95	0.62	0.35	0.12	0.01	0.02	0.07	0.11	0.11	-0.00	-0.12	-0.12
4	4.47	1.36	0.65	0.45	0.14	0.04	0.02	0.07	0.12	0.04	-0.00	0.07	-0.03
5	5.06	2.21	0.87	0.40	0.20	0.04	0.04	0.10	0.10	0.05	-0.07	-0.03	-0.01
10	8.28	5.02	1.88	0.57	0.24	0.08	0.06	0.10	0.11	0.13	0.18	0.58	-0.89
20	40.22	11.58	2.43	1.84	0.26	0.05	0.08	0.11	0.16	0.15	-0.10	-0.02	-1.07
30			8.07	3.41	0.38	0.09	0.08	0.10	0.19	0.21	-0.12	0.59	-1.37
50				7.55	0.81	0.08	0.10	0.14	0.11	0.01	0.37	-0.71	-1.05
100					2.51	0.22	0.08	0.15	0.31	-0.15	-0.53	-2.10	-0.30

Table 3: Up fraction (%)

	k-day trend (%/day)												
k	-5.00	-4.00	-3.00	-2.00	-1.00	-0.50	0.00	0.50	1.00	2.00	3.00	4.00	5.00
1	61.2	56.9	55.0	52.1	49.6	48.0	48.9	50.2	50.0	49.8	49.8	50.0	46.7
2	62.8	57.6	56.9	53.7	51.1	49.5	49.2	49.3	49.8	50.1	48.3	47.5	45.7
3	65.0	58.4	56.5	55.7	51.9	49.4	49.2	49.7	50.1	49.4	47.3	44.6	43.8
4	64.6	58.9	55.5	55.2	52.5	50.1	49.0	49.9	51.0	48.3	46.1	45.8	44.7
5	65.4	60.8	55.7	54.5	52.8	50.0	49.5	50.5	50.2	47.8	44.9	45.5	44.1
10	65.0	65.1	56.0	53.0	51.9	50.6	50.3	50.7	48.9	47.8	46.2	47.9	38.4
20	66.7	65.4	54.8	56.9	50.2	49.5	50.8	50.7	49.1	47.8	43.7	44.0	40.6
30			55.2	57.5	49.4	49.3	51.0	50.4	49.3	47.3	39.8	53.6	37.7
50				57.7	50.5	48.4	50.7	51.0	48.2	46.9	47.9	37.5	41.7
100					52.4	49.1	50.3	50.7	49.3	46.9	47.7	31.6	50.0

Table 4: Number of points

	k-day trend (%/day)												
k	-5.00	-4.00	-3.00	-2.00	-1.00	-0.50	0.00	0.50	1.00	2.00	3.00	4.00	5.00
1	10256	6255	12158	23991	29276	19134	60845	18447	28262	23213	13091	7077	13141
2	4071	3206	7475	19783	34386	35228	53625	33001	32519	20794	9214	4335	6703
3	2121	2101	5000	15661	33500	42333	58688	39244	32600	18332	6854	2994	4244
4	1187	1426	3640	12431	31945	46192	64660	42539	32581	15915	5432	2264	2982
5	744	990	2852	10142	29791	49017	69243	45101	32426	13989	4384	1698	2344
10	116	255	1047	4837	19894	52570	89411	53333	27421	8062	2238	807	890
20	3	28	168	1941	11475	47613	112230	59258	19290	4344	1029	338	320
30	0	0	32	708	8339	42626	127005	58767	14641	3021	625	209	179
50	0	0	0	59	4033	34769	147072	54372	10147	1655	311	115	83
100	0	0	0	0	364	23997	167490	44255	5972	1094	129	20	53

Let us draw some conclusions from these statistical examinations of trends.

- The massive better part of returns falls into a region, where it is very difficult to claim any correlation between past and future price changes. The regions, where any correlation may be significant, are the sparsely populated extreme ones.
- However, one interesting e.ect can be observed. Looking at Table 3, we observe that a 5% decrease in price (or more precisely: a return < -4.5%) since the previous day, stands a 61.2% probability of showing an increase by the following day. This effect justifies the notion of a *mean reverting effect* commonly used in technical analysis. The effect is confirmed in the yearly analysis presented in Figure 1. The mean reverting effect after a large drawdown is present both at 1-day and at 5-days prediction horizon. It is also clear that no corresponding conclusion regarding the effects of large increases can be drawn. For these cases, future returns are randomly distributed around zero, both at 1-day and at 5-days horizon.

4. Day-of-the-Week Effect

In this section we investigate how the day of the week affect the stock price returns. The results confirm and complement similar investigations on other stock markets world-wide. The day-of-the-week effect has been studied in a number of research papers. Hawawini and Keim [2] present a summary, which demonstrates significant differences in average daily returns across days of the week. In our investigation of the Swedish stock market, the daily returns are presented in a somewhat different fashion than is normally done. The stock returns are computed for all twenty-five combinations of buy and sell days. The returns are presented as "daily returns", i.e. they are divided by the number of calendar days between buy and sell. For example, the return from buying on Friday and selling on Monday is divided by three before it is put in the table. A second table with the same layout presents the "*Up Fraction*" (Eq. 2) for the same combinations of buy and sell days. In this way, all combinations of buy and sell days can be compared on an equal basis.

As before, results are presented for the 207 stocks from the Swedish stock market for the period 1987-1996. This provides statistically more stable grounds than using one single index (e.g. [2]). The daily returns *R* are shown in Table 5 and the "*Up Fraction*" in Table 6. We can extract several interesting "anomalies" from these tables:

- The day-of-the-week affects the returns significantly. The returns span between 0.003% (buy Friday/sell Tuesday) and 0.243% (buy Thursday/sell Friday).
- The one-day returns increase monotonically from Monday to Thursday: 0.004, 0.114, 0.167, 0.243 (buying on a Friday never yields a one-day return).
- The right most column describes the mean returns achieved when selling between one and seven days from the buying day. Friday and Monday appear to be the worst days to buy in this 1-day perspective.
- Looking at "*Up Fraction*", it is still clear that the real trading odds are almost as bad as before. Even if we pick the best choice and buy on Thursday and sell on Friday, we loose money in 47.96% of the cases. It would take great patience and a stable financial backup to utilise the shown day-of-the-week effect.

A question that should be posed always when looking for and finding structures in huge data sets, is whether the found structure reflects some general property of the data generating process, or is simply an effect of data snooping. In this particular case, we have calculated the same statistics for yearly data over 1987-1996. In this way, the results are tested for stability in time. The reported effects are present even in these cases, and thus provide additional support for the results. However, the risk for data snooping is, as always in the case with stock data, huge.

Table 5: Daily returns (%) for combinations of Buy and Sell days

	Sell Day					
Buy Day	Mon	Tue	Wed	Thu	Fri	Mean
Mon	0.069	0.004	0.050	0.078	0.105	0.061
Tue	0.081	0.066	0.114	0.136	0.152	0.110
Wed	0.076	0.060	0.066	0.167	0.186	0.111
Thu	0.061	0.044	0.051	0.058	0.243	0.091
Fri	0.014	0.003	0.018	0.033	0.062	0.026
Mean	0.060	0.035	0.060	0.095	0.150	0.080

Table 6: Up fraction (%) for combinations of Buy and Sell days

	Sell Day					
Buy Day	Mon	Tue	Wed	Thu	Fri	Mean
Mon	50.21	48.42	49.07	49.89	50.66	49.65
Tue	50.85	50.68	50.39	51.24	52.04	51.04
Wed	50.79	50.27	51.16	51.63	52.40	51.25
Thu	49.80	49.38	49.86	50.41	52.05	50.30
Fri	48.70	47.51	48.18	49.02	50.30	48.74
Mean	50.07	49.25	49.73	50.44	51.49	50.20

Table 7: Number of observations for combinations of Buy and Sell days

	Sell Day					
Buy Day	Mon	Tue	Wed	Thu	Fri	Mean
Mon	50605	54476	53933	52653	51495	52632
Tue	54044	56810	57756	56206	54845	55932
Wed	53794	57100	56546	56235	54826	55700
Thu	52634	55865	55880	54341	54260	54596
Fri	52898	54781	54790	53798	52454	53744
Mean	52795	55806	55781	54647	53576	54521

5. Month Effects

The month effect on stock returns is investigated by computing daily returns for each month. The returns are computed for the years 1987-1996. The mean results for the 207 stocks are shown in Table 8. These results for the Swedish stock market fit well with investigations on other markets. Hawawini and Keim [2] present a summary of a research on a number of stock markets worldwide. The high returns for January and low returns for September are significant for most of the markets, including the Swedish stock market. The Up Fraction varies between 47.24% (August) and 53.20% (January). The mean Up Fraction is 49.94%, which is close to the 50%, proposed by the random-walk hypothesis. Note, that a prediction accuracy of about 54% hit rate for the sign is often reported for elaborate prediction algorithms. Most algorithms do not use any calendar data as input variables, see example. [4] or [1], and claim to show predictive capability in the algorithms. Be that as it may, if we can achieve a similar hit rate by just looking at what month we are trading in, it seems reasonable to incorporate in some way the month-of-the-year in the algorithm. And the validation process really should be reconsidered for algorithms that do not do that.

5.1 Monthly Returns for Combinations of Buy and Sell Months

We conclude the investigations of seasonal effects with a trading-oriented statistical test, where both buying and selling are considered. The first trading day in each month is always selected for both buying and selling. After buying in the beginning of a month, the returns from selling in the beginning of each of the successive twelve months are computed and stored in a twelve-by-twelve table. The shown figures in Table 9 are daily returns times 30, to obtain comparable monthly returns for all months, regardless of the number of days they contain. Table 10 shows the *Up Fraction* (Eq. 2) for the same combinations of buy and sell months. The right-most column shows average values for each month. We can conclude that December, January and February are good months to buy stocks, whereas August and September produce the lowest profits in average over the investigated period. It is important to realise that the presented figures are average values that are very sensitive to the market's behaviour during individual years. A more detailed yearly analysis [3] shows that the spread between years is considerable.

6. Summary

We sum up the results with some of the most interesting observations.

- The analysis of trends show very weak support for a general trend concept for the stock market. The massive better part of returns falls into regions, where it is very difficult to claim any simple correlation between past and future price changes. A possible effect is the mean reverting behaviour: a 5% decrease in price since the previous day, stands a 61.2% probability of showing an increase by the following day. The cases with large *increase* since the previous day exhibit no similar effect.
- The presented statistics show significant day-of-the-week and month-of-the-year effects on the stock returns. The daily returns vary between 0.004% (buy Monday/sell Tuesday) and 0.243% (buy Thursday/sell Friday).

  The *Up Fraction* was shown to depend on the month of the year and to vary between 47.24% (August) and 53.20% (January). Even if the effects are too small to be utilized in actual trading, they are definitely big enough to influence other prediction algorithms, such as ordinary time series analysis or neural network models of daily returns. If not taken into account in such algorithms, the seasonal effects appear as a high noise levels in the data. It was shown, that the month-of-the-year effects are of the same size as the accuracy of many published prediction algorithms that do not make use of any date information.

There are several ways to deal with the calendar effects when constructing prediction algorithms:

- Include the time dimension in the modeling, i.e. include a trainable parameter describing how the return depends on the day of the week, or on the month.
- Aggregate data. For example, instead of modeling the return time series for all the days in a given time period, we can restrict the model to predict from one Monday to the next.

Table 8: Average daily returns for each month

	Mean	Std.dev.	Incr.fraction	No. of obs.
Jan	0.357	3.90	53.20	24058
Feb	0.208	4.03	50.76	23590
Mar	-0.025	3.43	47.35	26661
Apr	0.202	3.28	52.67	23408
May	0.152	3.47	51.62	24406
Jun	-0.026	3.23	48.10	24914
Jul	0.220	3.09	52.99	26042
Aug	-0.096	3.45	47.24	27941
Sep	-0.042	3.78	48.49	27338
Oct	0.036	4.57	48.77	28515
Nov	0.082	4.04	48.91	27764
Dec	0.111	4.56	50.33	26447
Mean	0.092	3.78	49.94	25924

Table 9: Monthly returns (%) for combinations of buy and sell months

	Sell Month												
Buy Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
Jan	1.47	6.36	4.79	2.70	2.91	2.92	2.35	2.70	2.18	1.91	1.87	1.76	2.83
Feb	1.14	1.91	3.91	1.34	1.95	2.27	1.76	2.40	1.82	1.65	1.61	1.49	1.94
Mar	0.52	1.27	1.33	-0.58	1.12	1.60	1.10	1.77	1.22	1.01	1.00	0.94	1.03
Apr	0.73	1.52	1.51	1.12	3.31	2.80	1.70	2.46	1.59	1.27	1.23	1.13	1.70
May	0.35	1.25	1.27	0.87	1.18	2.56	0.90	2.07	1.09	0.78	0.82	0.73	1.16
Jun	-0.06	0.89	0.99	0.64	0.97	1.08	-0.65	1.49	0.51	0.27	0.26	0.29	0.56
Jul	0.16	1.20	1.32	0.85	1.19	1.28	1.13	4.01	1.11	0.62	0.57	0.54	1.16
Aug	-0.82	0.43	0.63	0.28	0.66	0.85	0.72	1.01	-1.53	-1.07	-0.68	-0.32	0.01
Sep	-0.49	1.06	1.24	0.76	1.13	1.31	1.15	1.54	1.28	-1.04	-0.45	0.08	0.63
Oct	-0.05	1.82	2.00	1.29	1.61	1.81	1.57	2.06	1.67	1.45	0.15	0.74	1.34
Nov	0.07	2.32	2.43	1.58	1.86	2.10	1.80	2.26	1.85	1.60	1.82	1.25	1.75
Dec	0.35	3.68	3.38	2.10	2.34	2.51	2.09	2.48	1.97	1.70	1.90	1.85	2.20
Mean	0.28	1.98	2.07	1.08	1.69	1.92	1.30	2.19	1.23	0.85	0.84	0.87	1.36

Table 10: Increase fraction (%) for combinations of buy and sell months

Buy Month \ Sell Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
Jan	53.89	65.12	66.08	59.48	66.08	66.28	64.06	66.46	61.84	62.26	59.27	59.68	62.54
Feb	50.37	52.39	55.03	53.02	58.68	59.53	59.04	61.10	57.50	57.52	55.35	54.84	56.20
Mar	46.57	48.89	50.81	43.03	54.95	58.05	56.05	58.75	54.41	55.24	51.90	50.84	52.46
Apr	49.61	51.78	53.77	52.19	63.64	67.02	60.71	65.54	59.84	58.24	54.95	53.48	57.56
May	45.23	48.54	50.43	48.10	52.02	56.57	53.15	58.53	55.26	54.60	52.05	49.93	52.03
Jun	44.73	48.84	49.83	47.32	51.74	54.28	45.88	55.58	50.76	53.60	49.64	48.16	50.03
Jul	47.06	51.54	52.45	49.58	54.59	57.49	56.92	60.93	52.15	54.39	51.18	50.92	53.27
Aug	41.08	47.54	47.13	44.33	48.56	52.13	52.52	53.74	41.95	46.21	45.68	45.70	47.21
Sep	44.80	52.16	53.26	50.37	53.95	57.26	56.74	59.05	54.60	49.64	47.31	48.80	52.33
Oct	46.50	56.02	56.83	53.48	56.41	58.62	58.81	58.36	55.75	55.22	47.56	50.53	54.51
Nov	44.69	61.16	60.67	55.06	61.18	61.67	60.56	61.15	56.70	57.31	55.61	48.80	57.05
Dec	49.87	65.49	66.11	59.71	64.90	66.00	64.49	66.26	60.43	61.12	59.27	61.07	62.06
Mean	47.03	54.12	55.20	51.31	57.23	59.58	57.41	60.46	55.10	55.45	52.48	51.90	54.77

References

[1] D. J. E. Baestaens, W. M. van den Bergh, and H. Vaudrey. Market inefficiencies, technical trading and neural networks. In C. Dunis, editor, *Forecasting Financial Markets*, Financial Economics and Quantitative Analysis, pages 245-260. John Wiley & Sons, Chichester, England, 1996.

[2] G. Hawawini and D. B. Keim. On the predictability of common stock returns: Worldwide evidence. In R. A. Jarrow, V. Maksimovic, and W. T. Ziemba, editors, *Handbooks in Operations Research and Management Science*, volume 9: Finance, chapter 17, pages 497-544. North-Holland, Amsterdam, The Netherlands, 1995.

[3] T. Hellström. *A Random Walk through the Stock Market*. Licentiate thesis, Umeå University, Umeå Sweden, 1998.

[4] G. Tsibouris and M. Zeidenberg. Testing the e.cent markets hypothesis with gradient descent algorithms. In A.-P. Refenes, editor, *Neural Networks in the Capital Markets*, chapter 8, pages 127-136. John Wiley & Sons, Chichester, England, 1995.

April 19, 2002

***Thomas Hellström**, Department of Computing Science, Umeå University, S-901 87 Umeå, Sweden.*

email: thomash@cs.umu.se
http://www.cs.umu.se/~thomash

Confusing Volume with Liquidity

by Glen Van Ooran

A lot of people look at the volume in a particular market and think to themselves, "why would anyone want to trade that market when the volume is so low?' The truth of the matter is that they are confusing the number of trades that did occur that day with how many trades could have occurred that day. The important question to ask is 'can the market handle your trades at the price you want, with the volume you want?'

The place to start looking is the bid/ask price spread on the particular market that you wish to trade. If you are looking at a derivative market spread, you are probably looking at a 'Market Makers' spread. A Market Maker will apply to the exchange to become an official Market Maker in the particular markets that interest the Market Maker. An official Market Maker in a particular market will need to abide by the rules set down by the particular exchange that governs that market. These rules govern the width of the spreads, the times that the market is required to be made, and the time permitted to make a market once a quote is requested.

Market Makers usually hedge themselves in a related market to manage risk.

They usually make their income by buying at one price in a market, and selling at a higher price in the same market. This is where the width of the bid ask spread comes into play.

Volatility

As volatility increases, so does the width of the bid ask spread. In times of high volatility Market Makers are usually exempt from making a market due to the difficulties of being able to hedge their positions. As volatility increases, so does the risk to the Market Makers.

Usually the size of the number of contracts that appear on each side of the spread is a token amount to allow the market to trade. If you are trading a market, the most important thing is being able to enter and exit the trades at the prices you want.

Quite often a Market Maker is only too happy to accommodate the buyer or seller with the volume that they wish to trade.

Slippage

Thin, illiquid markets mean slippage. Slippage occurs when the price at which the trader requires to be entered or exited from a trade is greater or less than what the trade actually transacts at. Slippage occurs mostly as a result of volatility, especially overnight volatility which causes opening price gaps to occur in a market. This can play havoc upon stop loss orders.

Several markets now host several Market Makers per contract. This improves liquidity and tightens the bid/ask spread dramatically. The SFE has responded to liquidity criticism by introducing three Market Makers in their Individual Share Futures contracts and four Market Makers in their SPI 200 Options contracts.

A good Broker should be able to help you decide which markets are liquid enough to trade. The Broker is also able to call the various Market Makers on your behalf to arrange the volume and the best price possible for your trades. The Market Maker will usually respond with a bid/ask spread. The trader may decide to trade at the quoted price or take their chance by placing their order in the middle of the spread.

Open Interest

Open Interest in the derivatives markets allows you to gauge the number and size of participants in a market at a given time. A high level of Open Interest means that a lot of positions are currently open in that market. As it takes two parties to form a contract, an Open Interest of 1 equates to two parties, a buyer and a seller.

As the price moves in that market, one party will make money at the other party's expense. One party will then look to take profit whilst the other party will look to limit their losses. As a result, a high level of Open Interest will mean that there is the potential for volume to increase should there be a price movement in the underlying market.

As a rule of thumb, a derivatives contract with a high level of open interest will have tighter bid/ask spreads and higher liquidity than a contract with a lower level of Open Interest.

Glen Van Ooran *is a Technical Analyst and Derivatives Advisor with C.K. Locke and Partners (formerly Australian Futures & Options Brokers).*

Glen is also the West Australian Vice-President of the ATAA and Lecturer for Technical Analysis at the Securities Institute of Australia in Perth.

Time Tested Classic Trading Rules for the Modern Trader to Live By

By Linda Bradford Raschke

This is a list of classic trading rules that was given to me while on the trading floor in 1984. A senior trader collected these rules from classic trading literature throughout the twentieth century. They obviously withstand the age-old test of time.

I'm sure most everybody knows these truisms in their hearts, but this list is nicely edited and makes a good read.

1. Plan your trades. Trade your plan.
2. Keep records of your trading results.
3. Keep a positive attitude, no matter how much you lose.
4. Don't take the market home.
5. Continually set higher trading goals.
6. Successful traders buy into bad news and sell into good news.
7. Successful traders are not afraid to buy high and sell low.
8. Successful traders have a well-scheduled planned time for studying the markets.
9. Successful traders isolate themselves from the opinions of others.
10. Continually strive for patience, perseverance, determination, and rational action.
11. Limit your losses - use stops!
12. Never cancel a stop loss order after you have placed it!
13. Place the stop at the time you make your trade.
14. Never get into the market because you are anxious because of waiting.
15. Avoid getting in or out of the market too often.
16. Losses make the trader studious - not profits. Take advantage of every loss to improve your knowledge of market action.
17. The most difficult task in speculation is not prediction but self-control. Successful trading is difficult and frustrating. You are the most important element in the equation for success.
18. Always discipline yourself by following a pre-determined set of rules.
19. Remember that a bear market will give back in one month what a bull market has taken three months to build.
20. Don't ever allow a big winning trade to turn into a loser. Stop yourself out if the market moves against you 20% from your peak profit point.
21. You must have a program, you must know your program, and you must follow your program.
22. Expect and accept losses gracefully. Those who brood over losses always miss the next opportunity, which more than likely will be profitable.
23. Split your profits right down the middle and never risk more than 50% of them again in the market.
24. The key to successful trading is knowing yourself and your stress point.
25. The difference between winners and losers isn't so much native ability as it is discipline exercised in avoiding mistakes.

26. In trading as in fencing there are the quick and the dead.

27. Speech may be silver but silence is golden. Traders with the golden touch do not talk about their success.

28. Dream big dreams and think tall. Very few people set goals too high. A man becomes what he thinks about all day long.

29. Accept failure as a step towards victory.

30. Have you taken a loss? Forget it quickly. Have you taken a profit? Forget it even quicker! Don't let ego and greed inhibit clear thinking and hard work.

31. One cannot do anything about yesterday. When one door closes, another door opens. The greater opportunity always lies through the open door.

32. The deepest secret for the trader is to subordinate his will to the will of the market. The market is truth as it reflects all forces that bear upon it. As long as he recognizes this he is safe. When he ignores this, he is lost and doomed.

33. It's much easier to put on a trade than to take it off.

34. If a market doesn't do what you think it should do, get out.

35. Beware of large positions that can control your emotions. Don't be overly aggressive with the market. Treat it gently by allowing your equity to grow steadily rather than in bursts.

36. Never add to a losing position.

37. Beware of trying to pick tops or bottoms.

38. You must believe in yourself and your judgement if you expect to make a living at this game.

39. In a narrow market there is no sense in trying to anticipate what the next big movement is going to be - up or down.

40. A loss never bothers me after I take it. I forget it overnight. But being wrong and not taking the loss - that is what does the damage to the pocket book and to the soul.

41. Never volunteer advice and never brag of your winnings.

42. Of all speculative blunders, there are few greater than selling what shows a profit and keeping what shows a loss.

43. Standing aside is a position.

44. It is better to be more interested in the market's reaction to new information than in the piece of news itself.

45. If you don't know who you are, the markets are an expensive place to find out.

46. In the world of money, which is a world shaped by human behavior, nobody has the foggiest notion of what will happen in the future. Mark that word - Nobody! Thus the successful trader does not base moves on what supposedly will happen but reacts instead to what does happen.

47. Except in unusual circumstances, get in the habit of taking your profit too soon. Don't torment yourself if a trade continues winning without you. Chances are it won't continue long. If it does, console yourself by thinking of all the times when liquidating early reserved gains that you would have otherwise lost.

48. When the ship starts to sink, don't pray - jump!

49. Lose your opinion - not your money.

50. Assimilate into your very bones a set of trading rules that works for you.

Editor Note: Reprinted by permission.

Interview with Dr Bernard Chapman

By Bill Fitzgerald & Colin Nicholson

Interview

This interview was conducted by an ATAA member with Dr Bernard Chapman, developer of *Insight Trader* charting software.

Q: Of all the books you've seen which would you recommend to people?

A: For someone new to trading I will recommend *Stan Weinstein's Secrets for Profiting in Bull and Bear Markets*. It's a good simple approach.

The problem for people coming into this game is that they have got a number of ideas and expectations which are unrealistic, particularly about the amount of money they are going to make in a particular time. I try to dispel some of these, if I can, particularly if the people are going off like a bull at a gate. It's obvious that they are going to come to some sort of disaster, particularly people who have been fired up with the idea of leverage in futures markets. They come in and they have mentally taken their capital, multiplied it by the appropriate factors and in doing so they calculate the number of months until they will be able to count their first million from their $10,000 account.

They are the sorts of things I try to dispel, but you have got to be very careful about how you do it. I just give them a few anecdotal statistics like 95% of futures traders lose, 70% of futures traders trading today will not be trading in a year's time, 85% of options expire worthless, and generally speaking these people who have been fired up by the marketers are unaware of these statistics and even if they are aware of them they're not really aware of them in a real sense. They don't really understand what they mean and how these statistics will apply to them. So you've got to hose that down.

So, yes I suggest they look at Weinstein, and that they buy Weinstein. It's about $40 it's a good way to start off. I try to get people to some extent educated. Also, I emphasise spending as little money as they can on charting software and data. This is because many people get caught up in a number of systems, which will remain nameless, where they're spending $10 to $15 thousand dollars, when they might have only $20,000 to their name.

They have been led to believe that only very complex methods of analysis will yield results. So, they'll get into some of the more esoteric forms of analysis, because they've been told that you must understand all of them. The time and money that's involved, and the complication, usually leads to inefficiency. It's like asking them to drive a very complicated car or aircraft without virtually any training at all. Again, you've got to be very careful about what you say and what you don't say.

Then I will recommend them to go to the ATAA site www.ataa.com.au and also Colin Nicholson's web site (www.bwts.com.au) because he freely answers a lot of questions there that are the sorts of things that new traders always want to know. He can then steer them into directions that will be fruitful and steer them away from directions that can be disastrous.

Then I try to find out from the person what it is that they are really looking for in terms of education. I tell them that there are a number of things that they have to differentiate. They have to differentiate between analysis education, technical and fundamental, trading education and also education in using a software package.

The technical analysis education I usually recommend is the Securities Institute of Australia subjects *E114 Technical Analysis* and *E171 Specialised Techniques in Technical Analysis*. I also recommend a number of technical analysis books that you would give to someone new to the area

The education I usually recommend for general trading education is Colin Nicholson's videotapes, because Colin outlines a fairly simple straight forward approach which new people can relate to very quickly. Colin teaches the important prerequisites of trading so that beginners can get up and running fairly quickly with a minimum of trading risk, but also in terms of not wasting a lot of money on unnecessary courses or books or software or whatever.

As far as education on how to use a software package, well that's software package specific. I just give them an idea of what's available with *Insight Trader* charting software - the set of videos that's been produced by *Dial & Chart* that explain how to use *Insight Trader*. From time to time, we also run weekend workshops where we go through the software from beginning to end.

Q: It's fairly unique, isn't it, where the person giving the course is the developer?

A: That's right.

Q: How did Insight Trader start?

A: Well, I was a share trader. I also had a friend who is a futures trader, by the name of Bob Chapman. You may have met him at the Sydney ATAA meetings. He is no relation but we've been friends now since we were about 17. We have a lot of interests in common including trading.

I was working for CSIRO and I was writing computer programs to simulate the chemical reaction and dispersion of pollutants in rivers, which is a fairly complex topic. And so the programs I was writing were pretty hairy.

Q: This is 1980 what?

A: Yes, early 1980's

Q: So this would have been on cyber computers? Mainframes?

A: Well, PC's had only just arrived. I decided that if I was doing all this software development for complex systems like polluted rivers, then I should write myself a program to assist my trading and that of my friend - share and futures trading. And so I started writing this program on the CSIRO mainframe.

Q: In Fortran?

A: In Fortran, yes. I used to operate it from home through the telephone with one of these acoustic couplers 300 baud. It was a big thing. It used to clatter away.

So, what was to become *Insight Trader* had it's birth on the CSIRO mainframe which I think was a Cyber 76 in those days. That went fine for a while, but in 1985 personal computers started to become more common and more user friendly. So I shifted it from the CSIRO mainframe to a personal computer that I bought and started developing it from there.

Q: Still in Fortran?

A: No, it wasn't Fortran. It was Basic. Everything interpreted Basic. It wasn't too bad actually.

Then I started to introduce some strength into the user interface, because whenever a scientist writes a program for himself nobody else can use it. I had to have my mate use it, so it had to be user friendly. If it hadn't been for him it would just have been a mess. So it all started to come together.

In 1990 it had reached the stage where I thought I might commercialise. CSIRO came to the rescue there, because I had done a lot of management courses in CSIRO. We were very strong on commercialisation and we were actually looking around for things to commercialise in the work that we had done in CSIRO. The only thing that I decided was worth commercialising was not the work I had done for CSIRO, but the trading program which was really a private thing. I thought that as an exercise, I'll attempt to commercialise this. So I submitted it and they loved it. They thought it was fantastic. Probably because it was something they knew would take off, whereas a lot of CSIRO things are so niche. The potential market for most CSIRO things is so small.

They took it to a certain stage, but in the end, I got cold feet. I thought we might get questions asked in Parliament about why CSIRO was getting involved in activities which are really not within its charter. I thought that perhaps I should risk my own venture capital in this rather than CSIRO having to answer questions. So I did and it took off from there.

So it's been on the market since 1990. It started off as a DOS program and then it was converted into Windows 3.1 and finally into a Windows 95 32bit program.

Q: And it's written in what now?

A: It's written in a language called PVDLL, which produces extremely small fast executables. Because it is written in a low level language, you are not carrying a lot of baggage around. You can fit the demonstration version onto a single floppy disk, because we don't use a rapid application development platform. All the windows API functions are called individually. Everything is done longhand, but you've got incredible flexibility that way and it's fast. Also the resulting code is very small.

Q: And where did the unique idea of the floating tool bar come from?

A: There were two reasons for that. One of them is I got a request from a long-term client. When he heard that I was going to write a Windows version of *Insight Trader*, he said that "whatever you do, have a floating toolbar".

Also, I wanted to get as many buttons off the screen as I could. I wanted to get menus off too, to give the maximum number of pixels to the chart. That is why when you go to the chart edit screen it's pretty well bare all the way around. I think that you thought that was a DOS screen. It's not - it's a Windows screen. It's all 32 bit Windows calls, but it's not cluttered up with buttons, which means that it doesn't have all the Windows paraphernalia around the edges.

So that was really a request from a client. And there were so many of my clients who were so in love with the DOS version that it took a long time for them to change. Some of them haven't changed yet.

I got a lot of requests to do things in a certain way, so I took those into account, as one must do with one's client base. In fact *Insight Trader* developed largely on the basis of requests from clients.

There are three reasons why I'll introduce a particular feature into *Insight Trader*. The first reason is if I think it's in the client's interest. That's the first reason I'll put a new feature into the program.

The second is that if enough people ask for it, even if in my opinion I don't think that it is going to be terribly helpful. I can't stand in judgement of how people use the program. People use it in different ways, in ways that I would never have thought of. And I'll say to someone, you can't do that and they say yes, I do it all the time.

Finally I'll put something into the program if I want it for my own trading.

I get a constant flow of requests from users. They tend to be fiercely loyal and also they are not backward in coming forward if there is something they'd like to see in the program.

Q: And the speed keys, they are another unique feature. How did they evolve?

A: Doing things with keys is always faster than doing something with a mouse, particularly if you are giving a talk in low light levels trying to fiddle around with a mouse. It is much easier to hit a big fat key with a big fat finger than trying to delicately manoeuvre a mouse cursor around.

But that's not the reason they were introduced. It's a useful by-product. Speed keys were introduced for speed. They were a feature of the DOS program. I got so many requests from people who were addicted to the DOS program, wanting me to retain all the speed keys. So I was able to retain them all and put more in.

You would think that a mouse operation would be faster but it's not. If you can keep your fingers on the keyboard without having to go to the mouse, or if you can keep your hand on the mouse without having to go the keyboard, then it's much more efficient than jumping between the two.

Q: Insight Trader has a fundamental data bias as well. How did that evolve?

A: I realised early in the piece that the two waring camps of fundamental and technical analysis each had something valuable to offer. Not being one-eyed, I introduced fundamental analysis into *Insight Trader* before it was really available elsewhere, so that people could use a combination of both technical and fundamental analysis. I wanted to use a combination of the best of both.

Q: So that meant building your data base?

A: That's right, yes.

Q: So that must be a reasonably large data management exercise?

A: It is.

There are two things I did initially. Data Base Manager was specifically for issues, reconstructions and so on. With the charting software on the market at the time, you had to do all the issues, reconstructions and name changes yourself manually.

So we were able to build up a database, which had all the adjustments in it going back to the year dot. Even now, there are really only two databases that are properly adjusted. One of them is *Insight Trader* the other one is *ShareFinder*.

Q: Data quality is paramount. Are saying it is compromised because of the heritage of those databases?

A: Most of the other databases I've seen that are available to the private trader market, appear to all come from the one source. The reason is that these databases were built up by private clients over a long period of time. They adjusted some stocks, particularly the ones they held. They adjusted some others and not all of them were done correctly. Most of them weren't done. Most of the merging wasn't done. When a company changes it's name, you need to merge the file with the old code, the file with the new code and the deferred delivery security that is traded in between, otherwise you get gaps.

The average clients didn't know anything about this. So they built up this faulty data base to a certain point, which is the basis of what is there today. You've got this long period in which the files were not properly adjusted. That is right throughout the private trader community and people don't know any different.

The result is that many people are doing very precise analysis on grossly inaccurate data. One even wonders whether there's much point to it.

These days, a number of the data vendors are doing adjustments for issues, reconstructions, name changes and so on. They started maybe three years or so ago. Maybe it's more now. So what you find is that the data bases for three or four years are probably OK, although I haven't checked them totally. However, I have noticed that when some other vendors do adjust, they don't always adjust them correctly. A good example of this is Telstra.

Q: Do you think that's part of a structural problem?

A: If you are going to spend a lot of time back testing then there's no point in doing it on incorrect historical data.

Most of the data vendors are basing their adjustments on the ASX dilution factors and so on. However, that is not a complete solution. A good example of an incorrect recent adjustment, using exchange dilution factors, has been Telstra. It went from a contributing share to a fully paid share, which should have been an additive adjustment. What they've done, by blindly using the exchange dilution factor, is a multiplicative adjustment. And it makes a huge difference.

I remember getting an email from a client about it. He came across these two charts of Telstra - a Telstra chart from someone else and his own out of *Insight Trader*. The trend lines were different because the adjusted historical price levels were different. This was because they had done a multiplicative adjustment rather than additive. So, even now there are still incorrect adjustments being done by some vendors.

Q: Moving on to charting software itself. How do you see the current evolution in charting software?

A: Much is going to depend on the evolution of computing in general. It's interesting, having been writing charting software commercially for 12 years, to see how it has evolved over that time. Of course, there have been changes in operating systems going from DOS to Windows. There have also been the various fads and fashions that have come and gone.

Q: Such as?

A: Candlesticks. Everyone has been looking for the Holy Grail.

At one time it was candlesticks. At another time it was indicators. Indicators were seen as God's gift to mankind that would solve everything for everybody once and for all. But we very quickly came to the realisation that there's no magic bullet, no Holy Grail, and that each of these techniques has its limitations. Another one was Neural Networks.

Q: You don't have neural networks in Insight Trader, do you?

A: No, but I did work together with a guy who was closely aligned with CSIRO looking at Neural Networks for trading. He did a lot of work and I did a lot of work for him. His conclusion was that there wasn't anything to be gained.

More recently there have been what I call gimmicks which have been proposed as techniques that people can use, but I think are much in the same mould as fashions to stimulate people to buy the latest product or attend the latest course of lectures. Although there might be some value in these techniques, generally speaking the value

that they can add is really quite small in comparison to the hype that has been generated in order to use them as a marketing tool. So I am very reluctant to incorporate those into the software just because they are the flavour of the month. In fact I prefer to wait until they are no longer flavour of the month. Then, after all the fuss has died down, make a decision as to whether it is in the interest of the client to put them into the package or not.

Q: I noticed when I was reviewing software recently Insight Trader was the one that evolved most in the last 18 months. It went from version 9 to version 11. Three of them hadn't evolved at all and still had the same version. To what extent has the tech wreck has had something to do with that?

A: Oh I think it has. Sales are not like they were. The first half of 2000 was just frantic. I rarely got to bed before 2AM every night of the week. This was a function of two things. There was the tech bubble. Then it burst, but even after that there was the GST phenomenon. People wanted to get in before the end of the financial year, so that even after the tech wreck there were a still a lot of frantic software purchases. In July it tailed off a bit, but then picked up again and sales are still solid now and they've been solid over the Christmas 2001 period but it's a fickle market. It varies from week to week of course. It has statistical variation like anything does. I am expecting to see a downturn in the software market particularly, if the share market takes a dive.

Q: Will it knock a few participants out?

A: Yes, and people lose interest in markets if they're not moving up. It's the same as the property market, in that it goes through cycles. If we have a good bear market then interest will disappear. There'll still be a base flow of sales, but it won't be as frantic as it has been in the last three years. The last three years have really been incredible. I've seen nothing like it before. I think to a large extent it has been due to the fact that there's competition out there. Having a number of charting packages stimulates interest. What I think has happened is that *Insight Trader* is getting a larger slice of an ever increasing pie, because people's awareness has been raised by more advertising about markets, about packages that are available and so on.

Q: The other thing I noticed is that some of the charting packages are starting to modularise themselves. You can buy, for even a hundred dollars, a base charting package. It just draws very simple charts and as you want various tools you can pay a little bit extra and just get bits and pieces. Is Insight Trader thinking of doing that?

A: *Insight Trader* is already modularised to some extent. The base charting package is $495. Then you can add the three modules, being the portfolio manager, the systems tester and the live module.

Q: But this is modularising it down to individual indicators.

A: We were actually asked to do this by a live data vendor. We did it, but we haven't marketed it as such. They wanted a low cost package as a front end to their data stream. We didn't put it out on the market. I don't know whether it is a good marketing tool or not.

Q: Unless you can automate it substantially, it sounds like a very cumbersome and expensive way to have to manage a package?

A: We do it with a system of registration numbers, so we just switch on the various facilities. That's what we were doing with the cut down version. I know they have had a version, which they'll say is XYZ Lite, but really we haven't gone that way. Whether we mean to in the future I don't know.

Q: What about Web charting? How do you see that evolving in relationship to stand alone packages like yours?

A: I think that it will get more popular as the bandwidth increases and the ability to drag data down the line more quickly improves. The difficulty at the moment is it can be fairly slow.

Q: Well the pluses are you don't have to maintain a database. You don't have to maintain software. It's just there when you want it.

A: I think there is a lot to be said for that. I've actually been asked by a number of data vendors to provide the front end for that. I haven't done so for various reasons. The main reason is it requires a total rewrite in something like JAVA.

You tend not to be able at this stage to do as flexible analysis as you can with a stand alone charting package, but I believe that this will change fairly quickly over the coming years.

Q: So the JAVA language is really the major limiting factor?

A: To what you can do? No.

Q: Well is it just translating it?

A: Maybe it's partly that, but I think possibly it's a combination of that and the bandwidth problem. I'm not sufficiently familiar with JAVA as a language to know how easy it is to do some of the things that I do in the Windows environment. So really my answer to that is only a guess.

That's going to change. With a cable modem, I think there's sufficient bandwidth there, but most people aren't on cable.

I don't think it will kill the stand-alone charting packages, but I think it will be a question of market share again. It will cut into a certain amount of the market. Then again, it will popularise it even more and so you're getting this ever increasing pie. So long as you've got your slice of the action, you're pretty well set up.

Q: From your years of trading, seeing the mistakes that other people make, what are the three most important pieces of advice that you would pass on to traders? .

A: The three things that I consider important in trading are analysis, money management, and developing an understanding of your own personal psychology such that you can undertake the actions that are necessary to implement your trading plan. Specifically, this involves activating stop losses when they should be activated.

Of these three, I consider the third one to be the most important. Most traders who fail will fail because they don't understand themselves psychologically to the degree that they must. They refuse to activate their stop losses when they are triggered. They will rationalise why they shouldn't cut and run with a small loss. Tomorrow it might go up or it's just gone a bit down below the stop. They will wait till it comes back up again.

Most people think of analysis as being most important but it's not. Money management is extremely important and most people don't even have a clue about it, but It is the whole psychology thing that I think is the key to trading.

Analysis doesn't have to be technical analysis, it can be fundamental or any other form of analysis you might like to employ. Money management and understanding of your own psychology, because I find that trading is most valuable, not so much in the money that it generates, but in the understanding that it gives you of your own self.

The views expressed in this interview are those of Dr Chapman and do not necessarily reflect the views, if any, of the ATAA or its directors.

Dr Bernard Chapman *can be contacted on 02 4751 2932 or visit www.insighttrading.com.au*

Videotape Library

The ATAA has established a collection of videotapes that members may borrow. The videotapes are in VHS format and are available for loan to ATAA members in Australia & New Zealand free of charge. Members are only asked to return them promptly when they have finished watching them.

In order that the maximum number of members may take advantage of the library, you are asked to view each tape and return it within one week. **Members taking too long to return videotapes may be dropped from the waiting list for further borrowing**.

We lend these videotapes on a type of first come first served basis and maintain a waiting list. While we will place you on the list for more than one tape **you will be sent only one at a time.**

Members who have not received a videotape before are placed at the top of the list and will receive the next tape that is returned to the library and was ordered by them. That member will then drop to the end of the list and will not receive another tape until their name works its way to the top of the list again.

This system ensures that all members experience a similar waiting period between videos, depending on the demand. However, it also means that **the order in which members receive their selections will be random**, depending upon which video next comes back when their name is at the top of the list.

However, members ordering Elder "Technical Analysis in 52 Minutes" or Pring "Principles of Technical Analysis" will be sent those tapes first, if they so request. **This may delay receipt of the first tape, however**.

If you would like to borrow any of these videotapes you may:

- mail the order form appearing on pages in this Journal.
- order through the ATAA website (www.ataa.com.au) video tape order web pages.

Members are asked to rewind tapes, place them correctly into their protective covers or boxes and pay the return postage. Videotapes should be returned promptly within one week of receipt. Please ensure that the post boxes are securely taped.

Mail: ATAA Video Librarian

3307 Channel Highway Woodbridge TAS 7162

Video Library Order Form

To: Greg Manning
ATAA Videotape Librarian
3307 Channel Highway
Woodbridge TAS 7162

From: Name:

Address:

Suburb: State: Post Code:

Phone: Email:

This Order (✔ Please tick) …is my first ☐ Replaces my previous ☐ Add to my previous ☐

Videotape Listing

✔ Please tick against the tapes requested below and forward copy to the ATAA Videotape Librarian, by mail.

Various

Appel: Day Trading with Gerald Appel	A1
Arnold: Pattern Probability Strategy	A3
Bolton-Smith: The Tried & True Indicators in the Market	A2
Briese: The Inside Track to Winning	A4
Ehlers: Trading With Cycles Seminar	A5
Michaelsen: Roadmap To Riches	A6
Najarian: The Super Trader's Essential Foundation & Key Strategies For Successful Options Trading	A7
Plummer: Forecasting Financial Markets	A8
Pontikis: Asset Allocation & Intermarket Technical Analysis (Sydney Meeting 17.5.95)	A9
Schwager: What It Takes To Be A Great Trader	A11
Trester: How To Buy Stock & Commodity Options	A12
Tharp: Peak Performance Trading (Sydney Meeting 24.4.95)	A13

Pring: Momentum

Tape 1 - Basic Principles of Momentum Interpretation	B1
Tape 2 - Selected Indicators 1	B2
Tape 3 - Selected Indicators 2	B3

Pring: Various

Basic Principles of Tech. Analysis	C1
Price Patterns	C2
Support, Resistance, trendlines & Moving Average	C3
Momentum, Relative Strength and Volume	C4
Mechanical Trading Systems & Correct Investment Attitudes	C5

Bierovic: Various

How to Increase Your Trading Profits with Synergy	D1
How to Synergise Oscillators with Trend Indicators	D2
How to Manage Your Account, Your Trades & Yourself	D3

Elder: Various

Technical Analysis in 52 Minutes	E1
Directional System	E2
Elder Ray	E3
MACD and MACD-Histogram	E4
Psychology of Trading	E5
Relative Strength Index (RSI)	E6
Stochastic	E7
Trading for a Living	E8
Triple Screen Trading	E9
Williams %R	E10

Alexander Elder: Trader's Camp

Tape 1: Trader's Camp	E11
Tape 2: Trader's Camp	E12
Tape 3: Trader's Camp	E13
Tape 4: Trader's Camp	E14

Ring: Low-Risk, High Reward Technical Trading Strategies

Tape 1: Personal Trading Management	F1
Tape 2: Japanese Candlesticks & Volume & Open Interest	F2
Tape 3: Time Based Trading	F3
Tape 4: Stochastics & DMI as Entry/Exit Signals	F4
Tape 5: Directional Studies and Moving Averages	F5

Video Library Order Form

To: Greg Manning
ATAA Videotape Librarian
3307 Channel Highway
Woodbridge TAS 7162

From: Name:

Address:

Suburb: State: Post Code:

Phone: Email:

This Order (✔ Please tick) …is my first ☐ Replaces my previous ☐ Add to my previous ☐

Videotape Listing

✔ Please tick against the tapes requested below and forward copy to the ATAA Videotape Librarian, by mail.

Ring: Profitable Trading With Gann & Directional Indicators

(Tape 1 is not available)	
Tape 2: Basic Gann Techniques	G2
Tape 3: Using RSI & HLMA	G8
Tape 4: Using Stochastics	G4
Tape 5: How to Apply the DMI	G5

"The Best Video Tape Ever Made On Technical Analysis"

Tape 1: The Basics: Price & Volume	H1
Tape 2: Pattern Recognition, Moving Averages and Sentiments	H2
Tape 3: Cycles and Waves	H3
Tape 4: Momentum & Putting It All Together	H4

Koppel & Adell: High Performance Trading - The Mental Advantage

(Tapes 1-3 are not available)	
Tape 4: Winning States of Mind	I4

Krutsinger: Trading System Development

Tape 1: The Building Blocks of a Successful Trading System	J1
Tape 2: Tailoring A System To Fit Your Personality and Temperament	J2
Tape 3: Systems Trading	J3

Ring: How To Profit From Trends In Futures

Tape 1: Understanding Trend Spotting Tools	K1
Tape 2: Trends In Action	K2
Tape 3: How to be a Winner in the Markets	K3
Tape 4: Rules For Creating Winning Trades	K4

Sheehusen: How To Profit From Chart Patterns & Technical Studies

Tape 1: Chart Patterns You Can Use To Time Your Entry & Exit	L1
Tape 2: Key Technical Indicators You Can Use In Both Trending and Range Bound Markets	L2
Tape 3: How To Build A Winning Trading System by Combining Technical Indicators and Chart Patterns	L3

ATAA Conference 1996 - Elder

Classical Technical analysis (Trading For A Living)	M1
Money Management	M2
Psychology of Trading	M3
Pontikis: Money Management - Use & Abuse of Stop-Loss Orders	M4
Curtis Arnold: Pattern Probability Strategy	M5
Colin Nicholson: Anatomy of a Trade	M6
Neil Costa: It is About Time	M7
Dawn Bolton-Smith: My View of the Markets	M8

The Elliott Wave Educational Video Series

Tape 1: Introducing the Elliott Wave Principle	N1
Tape 2: Counting the Waves Correctly	N2
Tape 3: Characteristics of Impulse Waves	N3
Tape 4: Characteristics of Corrective Waves	N4
Tape 5: Rules, Guidelines and Wave Personalities	N5
Tape 6: Understanding the Fibonacci Ratio in Financial Markets	N6
Tape 7: Calculating Fibonacci Relationships with the Precision Ratio Compass	N7
Tape 8: Real Time Trading Using the Elliott Wave Principle	N8
Tape 9: Trading Options Using the Elliott Wave Principle	N9
Tape 10: Questions and Answers with Prechter, Allman and Ascani	N10

Video Library Order Form

To: Greg Manning
ATAA Videotape Librarian
3307 Channel Highway
Woodbridge TAS 7162

From: Name:

Address:

Suburb: State: Post Code:

Phone: Email:

This Order (✔ Please tick) …is my first ☐ Replaces my previous ☐ Add to my previous ☐

Videotape Listing

✔ Please tick against the tapes requested below and forward copy to the ATAA Videotape Librarian, by mail.

Williams: The Future Millionaires Training Course

Tape 1	O1
Tape 2	O2
Tape 3	O3
Tape 4	O4
Secrets of Short Term Trading	Q1

Glen Ring: Building A Better Trader

Tape 1: Laying The Foundation	P1
Tape 2: Building the Structure	P2
Tape 3: Using The Right Tool For The Job	P3
Tape 4: Adding The Finishing Touches	P4

Miscellaneous

Halloran: Option Essentials	R1
Gramza: What Makes a Great Trader	R2
Gramza: Becoming a Trader	R3
Smith: Effective Short Selling	R4
Van Tharp: Disciplined Trading	R5
Clayburg: Pinpointing Entry & Exits	R6
Nassar: Daytrading Myths & Reality	R7
Seleznov: Tech Analysis, Vol, Moving Average, Relative Strength	R8
Murphy: High Probability Chart Reading	R9
Stendahl: The Systematic Trader: Maximising Trading Systems and Money Management	R10
Cook: Staying Alive: Trading Defensively for Maximum Profit	R11
Pring: Practical Asset Allocation and the Business Cycle	R12
Griffen: Direct Access Day Trading, Getting Started	R13
Deel: Discipline, Tools, Techniques	R14
Farley: Targeting Profitable Entry and Exit Points	R15
Oz: Day Trading Wizard Using High Probability Support and Resistance Levels	R16
Price Headley: High Impact Options Trading Option Profits Through Superior Stock Selection	R17
Colin Nicholson: How to Design a Trading Plan Part 1 of 2	R18a
Colin Nicholson: How to Design a Trading Plan Part 2 of 2	R18a

Tom Demark: Trading Indicators For The 21st Century

Tape 1: Trading Exaggerated Market Moves	S1
Tape 2: Identifying Market Moves Before The Crowd	S2
Tape 3: Anticipating Trend Changes For Big Profits	S3
Tape 4: Projecting Tops & Bottoms	S4
Tape 5: Identifying Real Trendline Breakouts	S5
Tape 6: Determining The Duration Of Market Moves	S6

Caplan: The Options Advantage

Tape 1: How To Find Options Trading Opportunities	T1

NOTE: You can mail these order forms or else order through the web site at www.ataa.com.au.

REMEMBER: Rewind tape after viewing and post back to the librarian promptly.

Australian Technical Analysts Association

ABN 53 071 513 203

Application for Membership

Personal Details

First Name:

Family Name:

Company (If membership paid by a company):

Address:

State: Post Code:

Country:

Telephone (Business):

(Evening):

Mobile:

Facsimile:

Email:

The ATAA Newsletters (where ever possible) will be sent via Email. Please be sure to provide your current Email address.

Do you use Technical Analysis for your trading/investing decisions? ..... Yes ☐ No ☐

Are you employed in the Securities Industry? ..... Yes ☐ No ☐

If no, is at least 75% of your income derived from trading or investing in financial markets? ..... Yes ☐ No ☐

For our records, how did you first hear of the ATAA?

For information visit the ATAA Website at www.ataa.com.au or call the Assistant to the Secretary, Anna Vozzo on (02) 9667 0983, or in other States, any of the State Councils listed inside the front cover of any Journal.

Application Details

New members should pay the joining fee and annual subscription as follows:

- Joining fee: $88.00 (GST included)
- Annual subscription: $192.00 (GST included), or if joining part way through a year (our year ends June 30), a sum equal to $16.00 per month starting from next month through to June.

Incorrect payments will be referred back to you for correction before processing, so if in doubt contact the Secretary before completing this form.

A tax invoice receipt will be posted to you.

The annual subscription may change from year to year. If you wish to pay in advance for 2003/04, please contact the Secretary.

Please make my membership effective from :
/ /

Amount enclosed or authorised below :
$

Signature:

Date:

Please enclose cheque or money order payable to: Australian Technical Analysts Association or debit my credit card as follows:

Credit Cards Accepted ✔ Please Tick

☐ Bankcard ☐ Visa ☐ Mastercard

☐ Amex ☐ Diners

Card No.:

Expiry: Name on Card:

Signature (of Cardholder):

Please mail the Application Form to:
The Secretary
Australian Technical Analysts Association
GPO Box 2774
Sydney NSW 2001

Applications with Credit Card Authorisation may be faxed directly to:
The Secretary (02) 9667 0983

Australian Technical Analysts Association

(A.B.N. 53 071 513 203)

The Australian Technical Analysts Association (ATAA) is an association of both professional technical analysts and anyone who uses technical analysis for private investing, trading or advising.

The aims of the ATAA are:

- To establish personal contacts between analysts both inside and outside Australia with a view to promoting the theory and practice of technical analysis.
- To help raise the level of community awareness and respect for technical analysis.
- To provide meetings and encourage the interchange of materials, ideas and information in order to add to the knowledge of members.
- To encourage the highest professional ethics and competence among technical analysts.

The ATAA is affiliated with the International Federation of Technical Analysts (IFTA) which helps members keep abreast of international markets and techniques.

Founded by a small group of technical analysts who met on a regular basis, the association was officially launched on 26 April 1990. By June 2001 the membership had grown to 2182.

Membership is varied in employment, geography, market interest and approach to the markets. Current members include corporate treasurers, fund managers, bank analysts and traders, stockbrokers, financial planners, private and local traders, investors and students.

The ATAA monthly meetings in eight cities and the annual conference provide ongoing networking and learning opportunities.

The ATAA Journal is published bimonthly and contains articles on technical analysis and trading.

Members have access to an extensive videotape library, and are offered discounts on books and on various technical, psychology and trading courses.

The ATAA offers a Diploma in Technical Analysis to members who pass the required courses, which are run in association with the Securities Institute of Australia.

The ATAA web site (www.ataa.com.au) publishes information for members and other matters of general interest to technical analysts, including articles and a comprehensive list of links to other web sites. Meeting details are updated each month.

Members are mailed a monthly Newsletter, which contains detailed information about ATAA meetings and other news.

Meetings are held monthly in the evening in Adelaide, Brisbane, Canberra, Melbourne, Perth, Sydney and Toowoomba and on Saturdays in Newcastle. Some cities do not hold a meeting in December. Meetings are held regularly each month in or near the third week, depending upon availability of speakers.

Entry to meetings is free to members who may attend meetings in any city. Visitors may attend one meeting free and after that they are charged $20 per meeting in Brisbane, Melbourne and Sydney and $15 in the other cities. A visitor who joins within a month of paying for a meeting may deduct that payment from their initial subscription.

Membership is open to anyone using technical analysis for their trading decisions or learning how to do so. To join, complete the application form on the previous page, and mail it to The Secretary, Australian Technical Analysts Association, GPO Box 2774, Sydney NSW 2001.

For information call or fax the Assistant to the Secretary, Anna Vozzo on (02) 9667 0983, or, in other cities, any of the local committee members listed inside the front cover of this Journal.

Correspondence may be addressed to:

The Secretary, ATAA, GPO Box 2774,
Sydney NSW 2001
or email ataa@ozemail.com.au