Trend Lines - Old Highs and Lows

Predominantly I watch the position of the market relative to TREND LINES, Old Highs and Lows, I watch to make sure a bullish trend is continually making higher lows or a bear market is making lower highs. Once the first violation occurs I am on alert for a change in degree of trend.

It has often been said, **"Old support = new resistance, Old resistance = new support".** With this in mind, each time the price activity crosses below an old low or above an old high there is power in the current move.

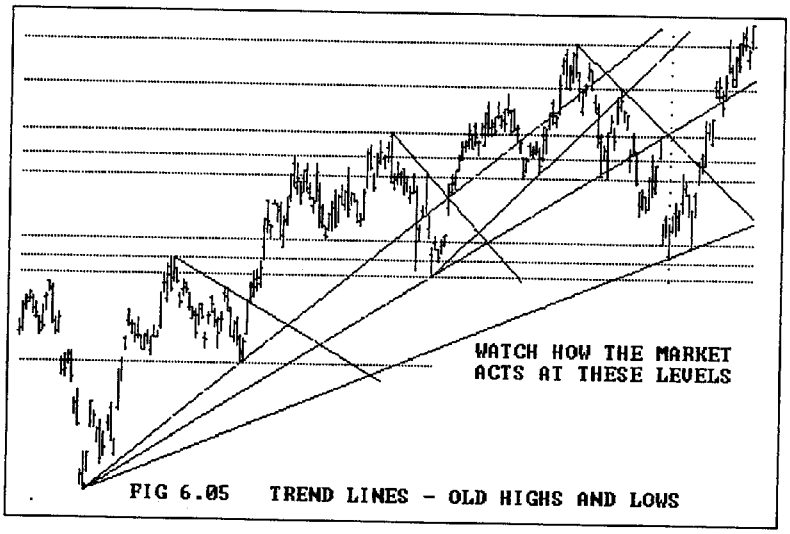

FIG 6.05 TREND LINES - OLD HIGHS AND LOWS

Accumulation and Distribution Patterns

Prior to any strong move up or down, more often than not, markets will trade within a range for periods of 2 to 6 weeks, sometimes longer.

The patterns formed in an accumulation or distribution phase have names such as:-

Triangles
Flags
Pennants
Rectangles

I would recommend the book "Technical Analysis of Stock Trends", by Robert D. Edwards and John Magee for an expanded explanation of patterns and their implications. Every trader should own a copy of this book.

Why is Pattern Analysis so Important?

The future will always be a repetition of the past in some form or another.

Pattern analysis is the basic reason why technical analysts keep charts. If one wishes to become a master of technical analysis it is important to know the implications contained within the unfolding patterns.

If you wish to exploit trading opportunities with a 65% plus chance of success, then you should study chart patterns which reliably offer trading opportunity.

The patterns I refer to are patterns which identify conditions where a predominant trend will resume. In every market move there will be a minimum of three sections, ie., The first move indicates the new trend. When the trend is indicated there will be a correction before the next section begins.

If you find reliable ways to identify a resumption to the main trend you will be taking trades which have the best likelihood for success. I don't think it is unreasonable to try and pick the extreme high or low of any trend when I have TIME & PRICE, nevertheless once a trend is identified you have to learn how to milk it for all it's worth.

I think the only way for every trader to take advantage of any market, is to study past price patterns and find the ones that suit his/her trading personality. When the new market patterns fall into your required parameters check for time, price and trend indications for signals which confirm this view. If everything agrees, take the trade. If your research, trading plan and money management is valid you will make a success of trading.

If on the other hand you forget about pattern and trend and rely purely on TIME & PRICE you will be taking unwarranted chances.

Please remember the four things that are important to any trade selection.

TIME - PRICE - PATTERN - TREND

7

Trend Confirmation

Today there are many sophisticated indicators available to the technical analyst for the confirmation of trend strength or weakness.

The old saying, "The trend is your friend." is the best advice I can give anyone who wants to make an occupation trading futures markets.

Most markets are only moving in a consistent trend about 30% of the time, when they are they offer exceptional opportunity for trading profits. At times when you are getting clear cut indications of a strong trend in progress extra positions can be taken.

Markets move through phases going from stable to overbought or oversold and back again. There are so many system traders in the market using trend indicators and other methods to initiate trades, once all the indicators fall into place you can reliably expect a surge in that direction. Trend indicators are useless in a correction except to warn you of a possible change.

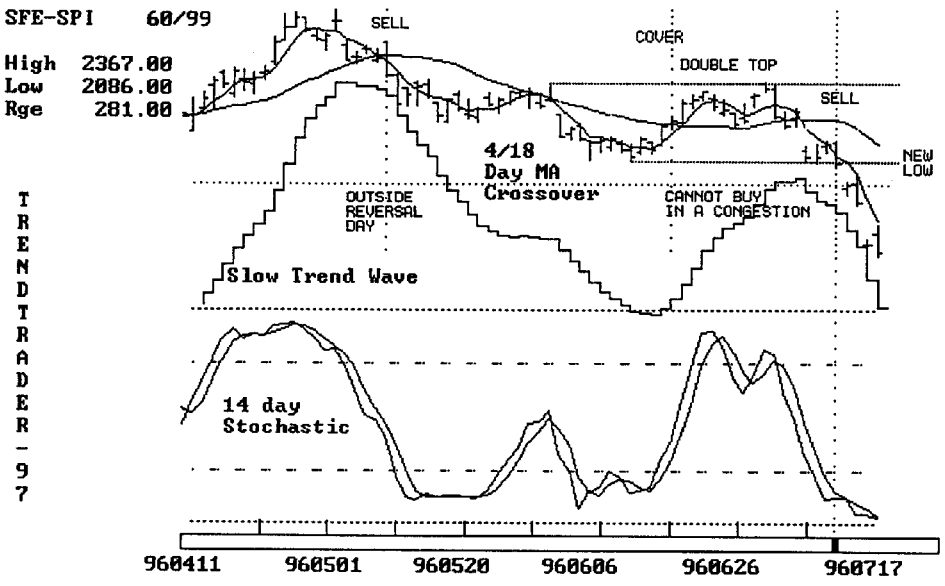

FIG 7.01 USING TREND INDICATORS TO CONFIRM TREND DIRECTION

Fig 7.01 gives an example of how you can combine trend indicators and pattern recognition to initiate trades.

Starting from the top of May 2, 1996 which squared time in major proportion and made a double top with March 4, 1996 (see Fig 4.01 and Fig 6.04) a confirmation of trend was signaled with the OUTSIDE REVERSAL DAY on May 9 and a crossover of the 4/18 day moving averages. A sell on the OPEN the next day with a tight stop-loss was indicated. The market opened at 2292 made a high for the day at 2294 and closed on its low at 2259. In a little over two months the market had declined to a low of 2086 to meet strong time cycles and price support (see Figs 3.05, 3.06, 3.07, 4.03) without breaching the entry price.

The rally into late June made a double top with the prior correction high (May 31) and a resumption to the downtrend was signaled when price broke below the June 13 prior low on July 11 and closed lower on the day.

The strength of the resistance of the May 31 rally high was evident by the price retracement level of the high and the Gravestone doji pattern. Indicators were still short and sell signal was indicated for the next open.

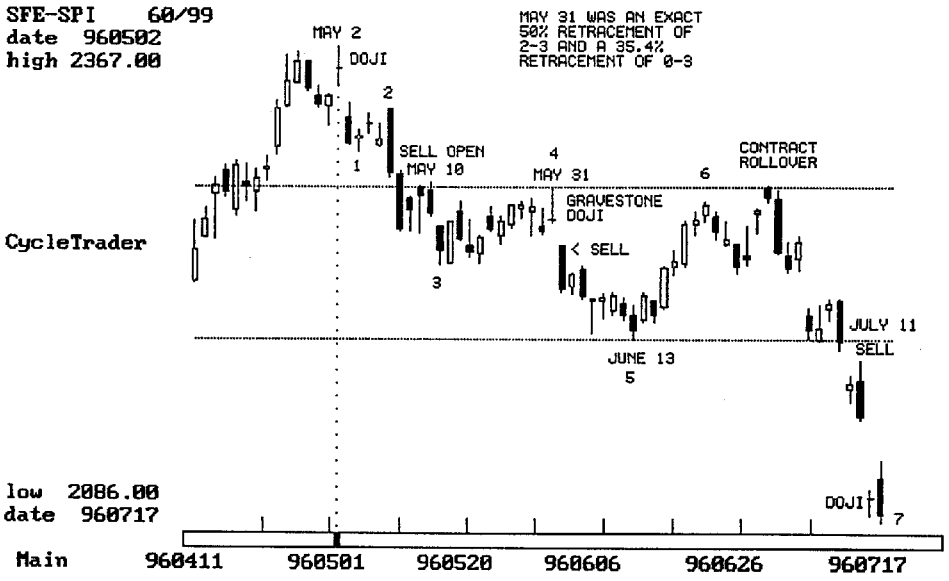

FIG 7.02 SUPPORT AND RESISTANCE THROUGHOUT THE DECLINE MAY-JULY 1996

There were several places a short term trader would be forced to cover to protect profits. But if you used a few simple rules and only traded with the trend you should be able to take profits.

One important observation I made during this bear market was the high of July 2 was not confirmed by the CASH market. The futures contract had just rolled over and came on with a premium to the prior month.

By the way daily patterns in the Cash are useless due to the opening price nearly always being the prior days closing price.

Whenever you get a rollover in the futures contract new opportunity is created. This is because a major drop in open interest takes place, due to the expiry of positions held by professional hedging. Within a day or so new hedging by the professionals begins, this often leads to the establishment of a new trend.

Changes in open interest in any futures market can act as a guide to the position of the professionals. Never forget to track the open interest activity. Open interest can only rise when there are new sellers entering the market.

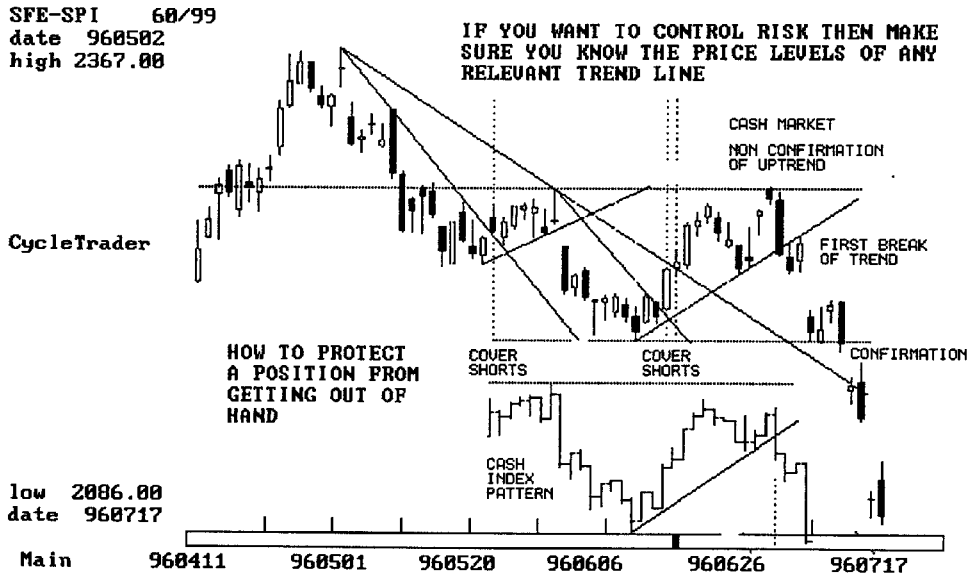

FIG 7.03 USING TREND LINES AS A TREND INDICATOR AND A STOP-LOSS TRIGGER

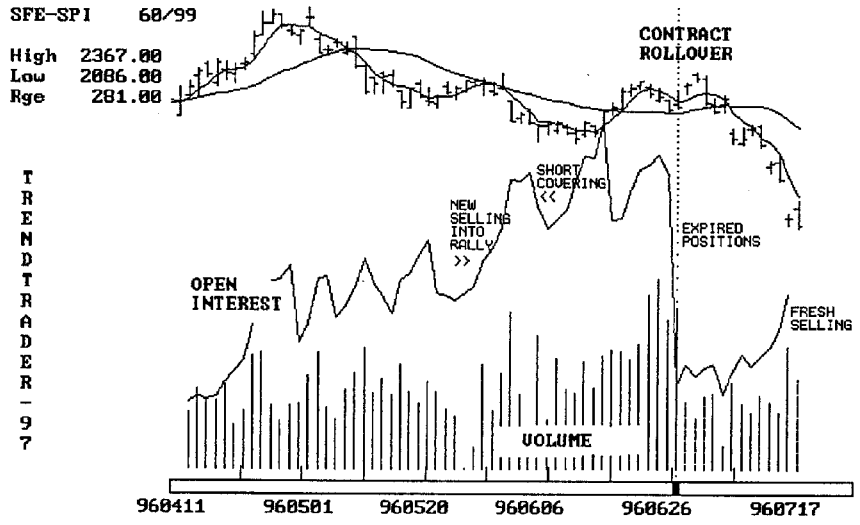

FIG 7.04 OPEN INTEREST & VOLUME - RISE IN OI = NEW SELLERS

When in doubt the only place to turn is with the standard trend indicators. Trend indicators are normally a confirmation of what is really happening mid-term.
If you have an idea that is not being confirmed by the trend indicators, then it is time to give it up. Don't expect the market to save you, you must save yourself.

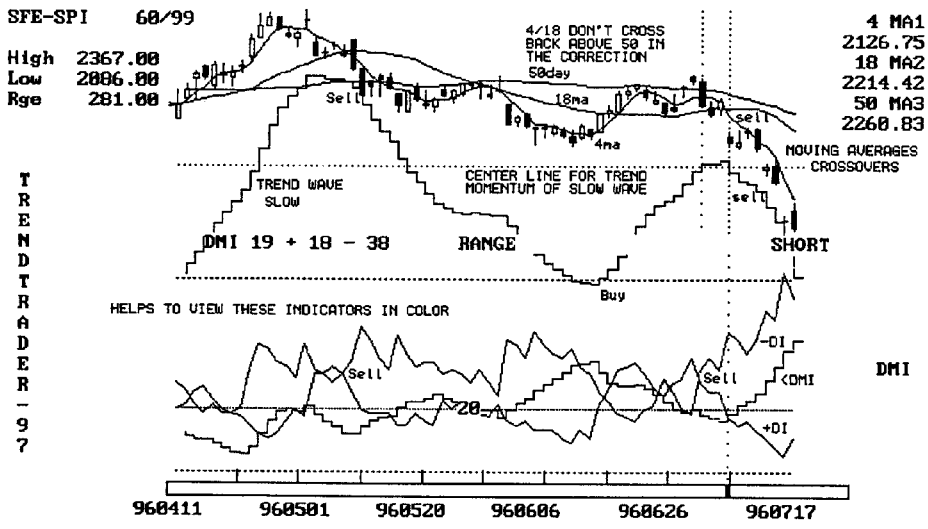

FIG 7.05 COMBINATION OF TREND FOLLOWING INDICATORS = WAY TO GO

Unfortunately trend indicators have only a limited value when the market reaches extremely overbought or oversold levels.

We do know that a reversal of trend will occur, the only way possible to know when, is by measuring the TIME & PRICE relationships that form in the unfolding patterns.

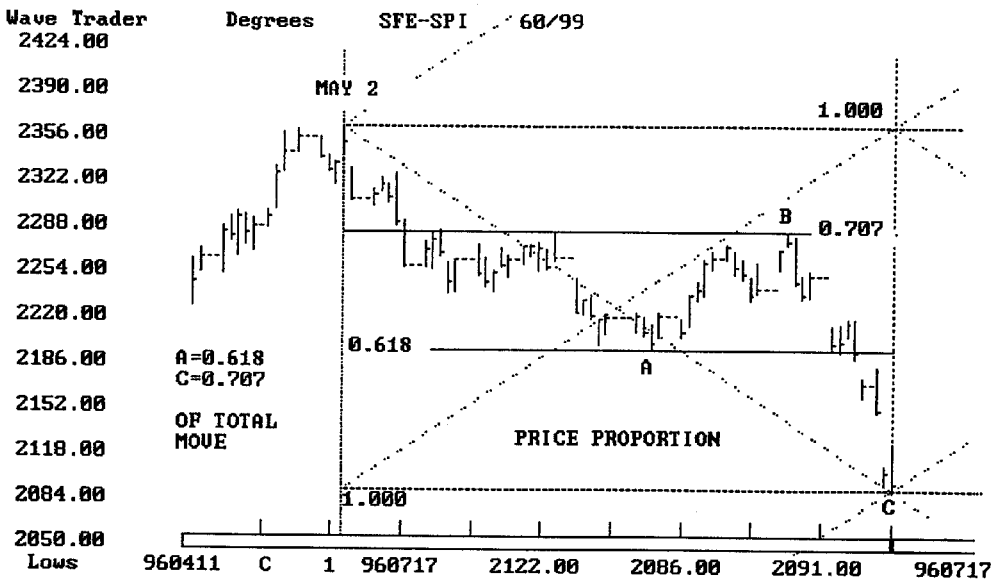

FIG 7.06 WHEN INDICATORS BECOME OVERBOUGHT OR OVERSOLD PRICE & TIME IS THE ONLY WAY TO IDENTIFY THE END OF A TREND.

For further examples of the price and time relationships evidenced at this low see Figs 3.05, 3.06, 3.07, 4.03.

The important tools to continually monitor in relationship to trend, other than momentum indicators are:-

1. Open Interest.
2. Trend line support and resistance levels.
3. Old price highs and lows.
4. Daily price patterns.

For indications of trend I follow several simple indicators.

These are:-
Directional Movement Index - DMI
Relative Strength Index - RSI
Moving Average Convergence Divergence - MACD
Slow Stochastic - %K %D
Moving Average on Close - 4/18 crossovers and 5/34 crossovers.
50 day Moving Average
CycleTrader Trend Waves - Fast, Medium & Slow.

To my mind most of the indicators I have studied do similar things, some faster than others, therefore why over complicate the issue. They will read overbought or oversold at 3rd waves highs and lows, they will diverge with price at 5th wave tops and bottoms.

One thing I know from experience is that the best profits are gained by trading with the trend. If you want to be a counter trend trader you must have a short term trading perspective.

Much of the time when I identify time and price signals I will not place a trade until I've got a confirmation from pattern and trend.

```
   TrendTrader           T R E N D   A N A L Y S I S        [C] 1996 B.Gilmore
 SFE-SPI    60/99

REPORT DATE               OPEN      HIGH/LOW                           CLOSE
                        2439.00      2441.00              Yesterday  2447.00
  970307                             2420.00                 TODAY   2428.00
                          Range        21.00                Change    -19.00

Trend      SLOW            -        DOWN          SHORT     NEXT DAY FORECAST
Wave       MED             -        UP            MIXED     High   2444.25
           FAST            -        UP            MIXED     Low    2415.83

INDICATOR             -  MARKET  -  STRENGTH   -  POSITION
50 M.A. - RSI            RANGE      Bullish       SHORT     RSI  44   2442.64
 4/18 DAY M.A.           BEAR       ST Only       SHORT     2432.00 / 2464.94
M.A.C.D                  BULL       ST Only       OUT

SHORT TERM            -  MARKET  -  STRENGTH   -  POSITION
DIRECTIONAL INDEX        BEAR                     SHORT     DM  28  + 18 - 38
SLOW STOCASTIC           BEAR                     LONG      %K  35  /  %D  28

[Esc] to finish          [-] go back one day      [+] go forward one day
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FIG 7.07 INDICATOR REPORT I MONITOR - takes 10 seconds

8

Trade Entry Techniques

The first requirement of a trader is to find an entry point where risk can be controlled.

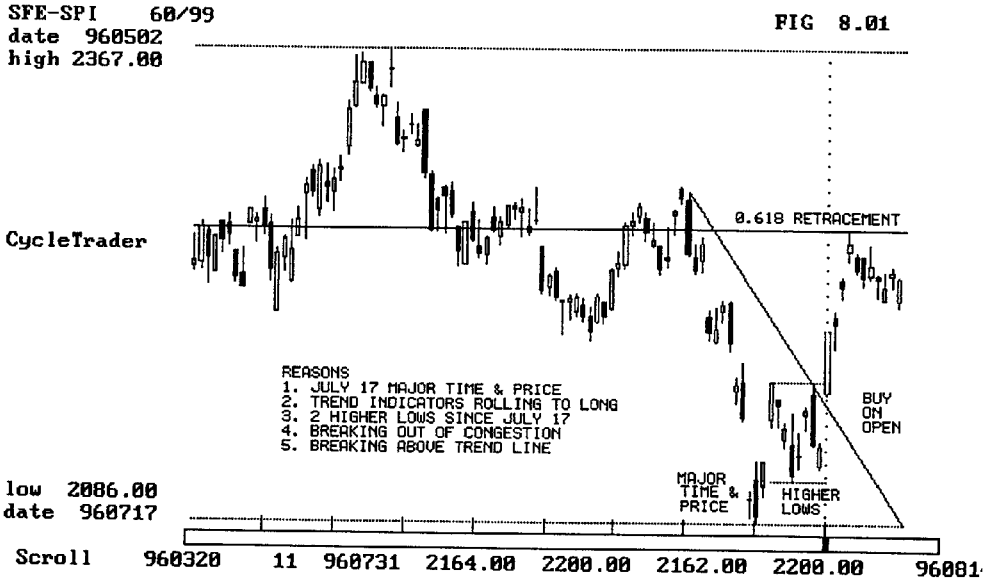
I am going to demonstrate two important methods of entering a trade:-

1. **Buy or sell at the opening price.**
2. **Buy or sell at the closing price.**

Chart patterns demand you to consider each of these techniques, if you wish to control risk.

Under certain conditions it pays to be aggressive and take a small risk, in others it is better to take a conservative approach even though the risk is going to be extended.

In nearly all cases it is important to trade only with the indicated trend.



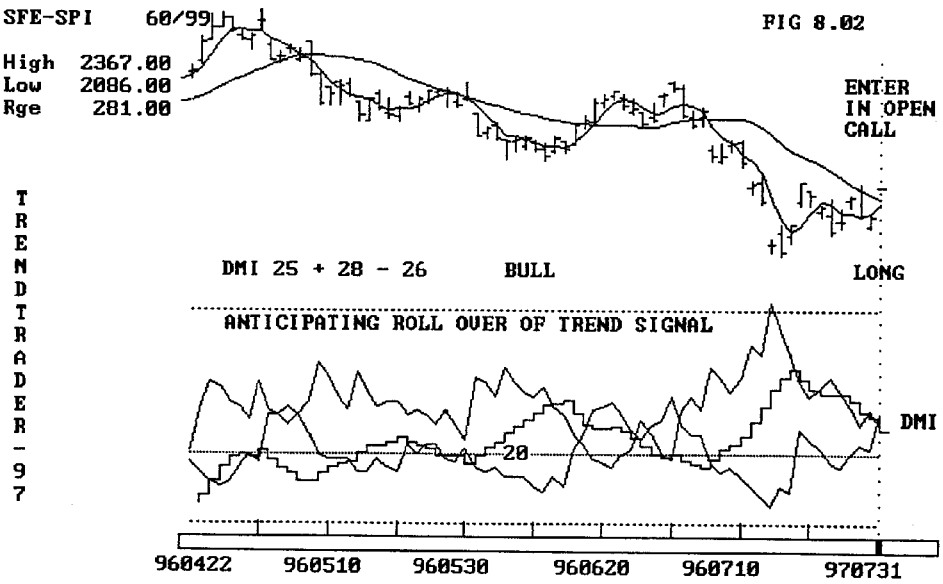
Buy Or Sell At The Opening Price

At the beginning of a bull move, especially after a strong move down, trend indicators will take some time to turn long. You will observe them turning from short to long, and can anticipate from the moving average crossovers and the DMI, if the market were to make a new high price they will signal a buy.
I know from experience that the moment trend indicators roll-over a flood of orders will hit the market. Usually the market will surge out of its current trading range as sellers cover and new buying takes place.

Tell-tale signs are one or two higher lows after the major low in an accumulation pattern.
The day of the breakout the market will usually OPEN on its LOW for the day and CLOSE on its HIGH.

Days like this reduce risk to a minimum, for you can enter on the open and place a 5 point stop-loss on your position. If the market does not go your way it is not as strong as you think; you're sidelined quickly with a minimum of cost!

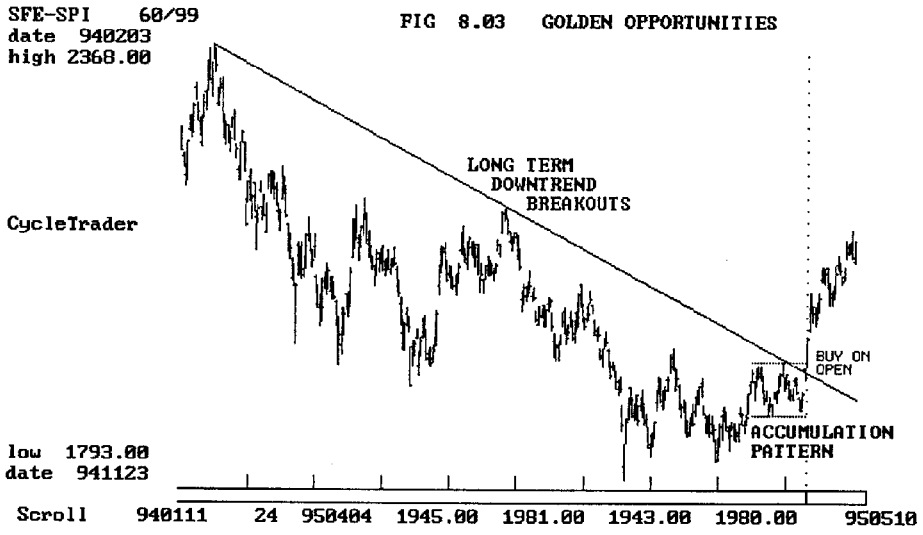
Just prior to the market opening you can get the opening call and assess if your suspicions of a breakout are going to be confirmed. I normally edit in the theoretical opening call and see how it will effect my trend indicators.



This is probably the safest entry technique a technical trader can employ.

If you get stopped out of your position and the market still breaks out - don't worry and chase it. Wait for the next day and buy on the open with a tight stop-loss. The reason is clear, if a new trend is strong the market will surge, if it's not the chances are it's a false breakout.

Sometimes you may miss a move if the market is not strong but it's better than holding a position with an unmanageable equity loss.

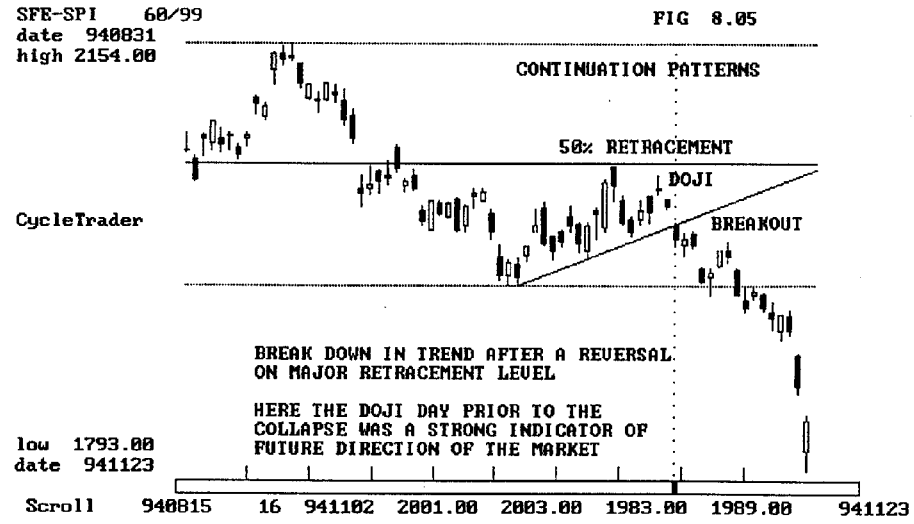


Long Term Trend Line Breakouts

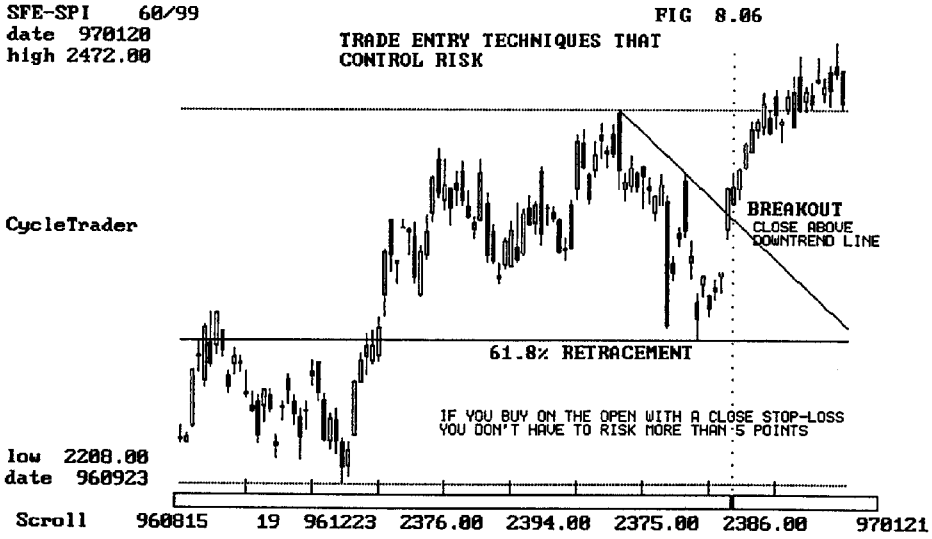
These opportunities are rare so be on the lookout for them, you need to be able to plot at least 2 years of daily price bars.

This breakout occurred the day after a contract roll-over as the professionals started to build up new positions to replace the ones that had just expired.

The breakout day was confirmed by trend indicators signaling a change in trend to long.



Whenever a correction ends with a major ratio retracement and then resumes trend you can sell the opening price if it is on or below the short term trend support line. In a bull market the reverse is applicable.



Selling Double Tops & Buying Double Bottoms

These are not especially common, but if you find a situation where the market is about to make a high or low in close proximity to an old top or bottom and your time signals are all synchronized.

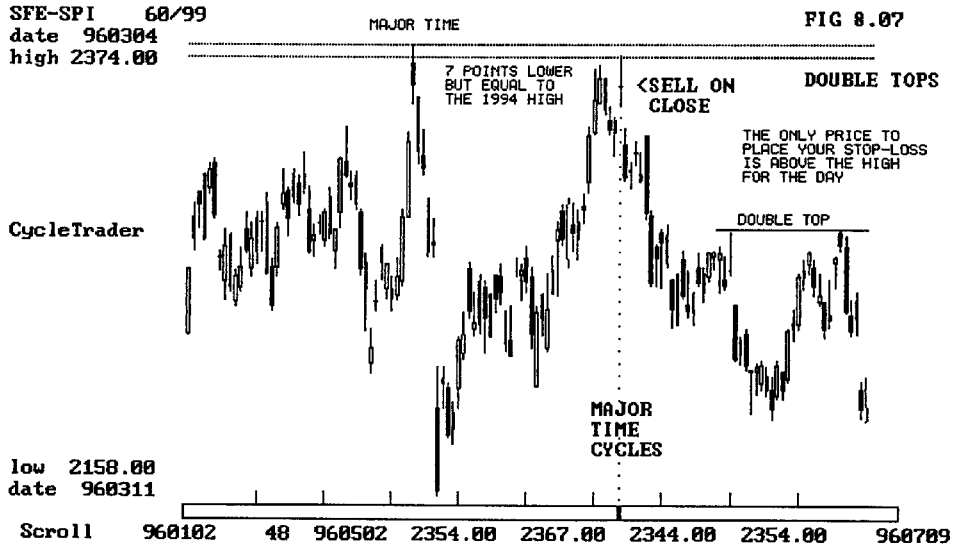
NOT RECOMMENDED UNLESS MAJOR TIME CYCLES PRESENT.
You will have all day to decide!

You can take a chance at picking the high or low day in the market IF YOU ARE PREPARED TO TAKE ON MORE RISK. The problem is there can be a variance in the price (either under or over) the old top or bottom.

The best way to handle days like this is to watch the market activity throughout the day, if the price range displays weakness on the day, ie., closes weak in relationship to the extreme point of the day. **BUY or SELL at the close.**

If the market breaks your way next day you are set, if not you are out quickly with an unknown loss.

If time is right you should end up with a good trade! The more intermediate degree distance between the double tops or bottoms the better.



Buying Or Selling Range Breakouts

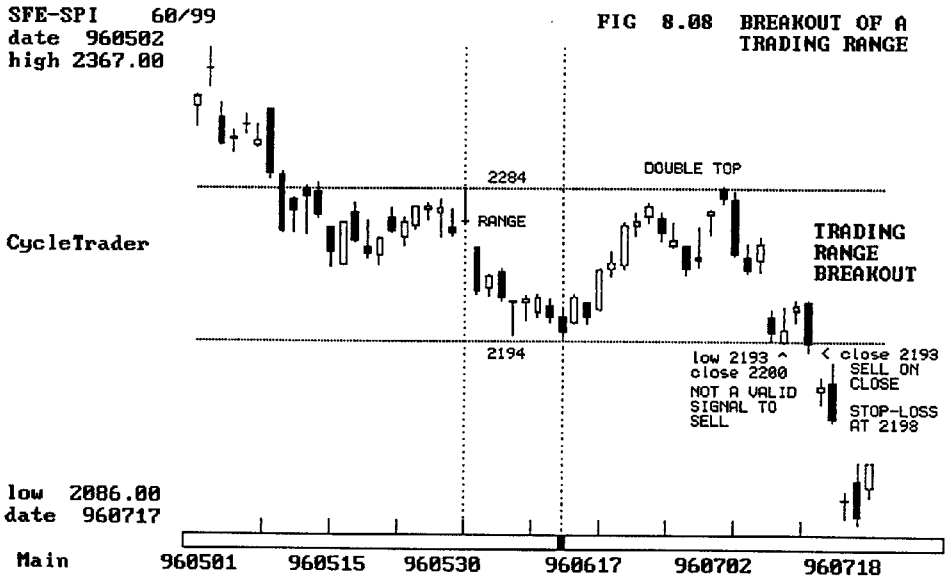
This was one of the first trade entry techniques I started with. I found after several years of trading (successfully) this method contained many limitations.

Under certain conditions this entry method has to be employed, otherwise you stand the possibility of missing a good trading opportunity. Especially in a fast running market.

A range is any type of congestion pattern where a market contains itself within a price retracement level and a prior high or low depending on the trend. Some times a range can be defined over a week or so other times the range may extend to a month or more.

As the price trades to the top or bottom of the range you have the possibility of a double top or double bottom, intra-day breakouts with a close back inside the range are not a confirmation of a breakout; the close must be outside the range.

The only effective way I have found is to buy or sell on the close, only if the closing price is outside the range. You place a stop-loss for the next few days just inside the breakout price level.



Buying Breakouts From An Intermediate Degree Triangle

Triangles can form during an accumulation pattern after a severe decline in market prices.

The implication of power in the triangle is implied by the higher lows giving it an ascending appearance.

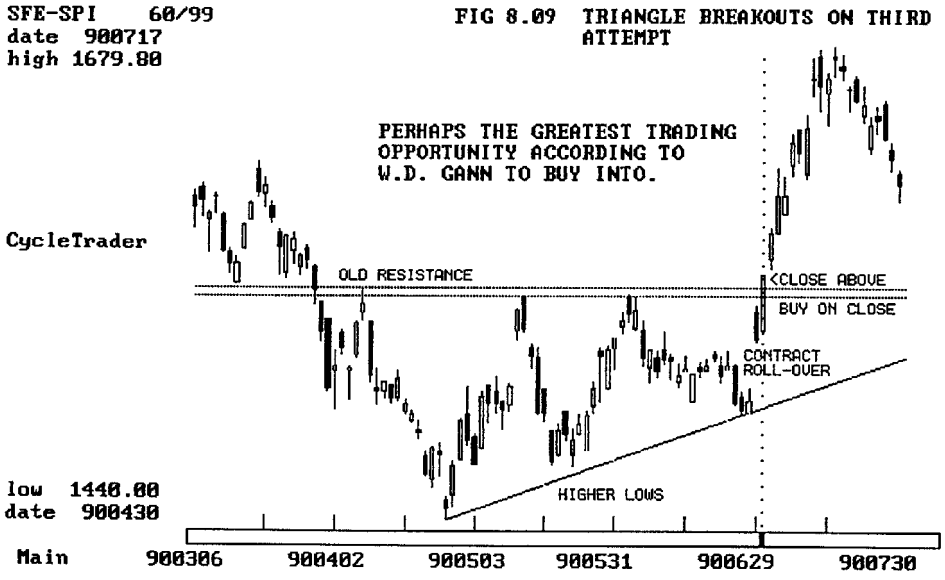
Once the breakout has closed above the RESISTANCE levels of the highs in the triangle, an excellent buying opportunity is signaled.

To take advantage of the next days trading session it pays to buy on the close.

Once everyone has realized the chart pattern the market should be called much higher on the next days opening.

W.D. Gann talked about support & resistance levels being broken on the 3rd or 4th attempt. If a market couldn't break through on the 4th attempt it was fatal.

If one of these opportunities comes your way trade it!



Head & Shoulders Tops

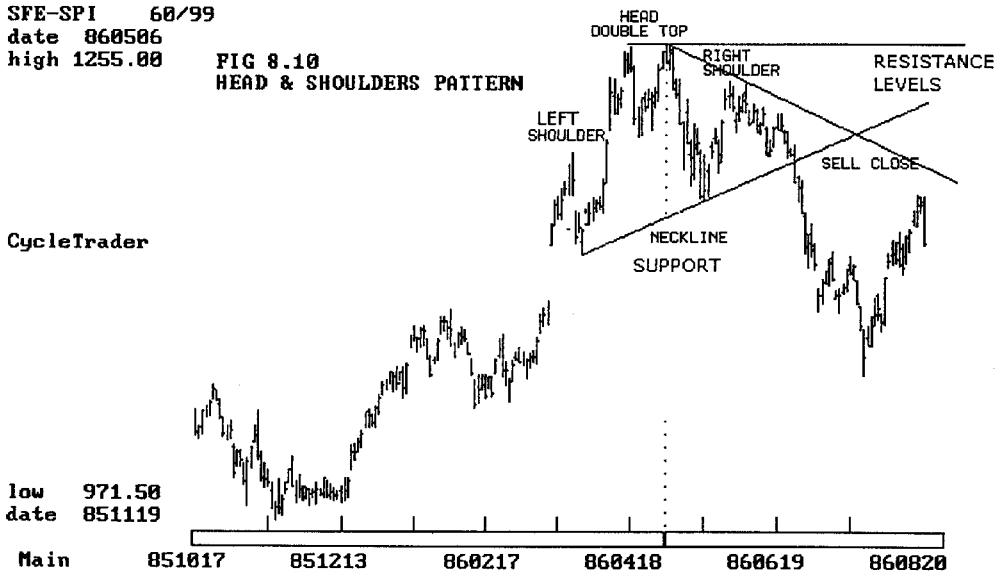
Sometimes a topping pattern called a Head and Shoulders will form at a major reversal in trend.

The day of the HEAD will witness super strong TIME CYCLE relationships with the past.

The right shoulder will be confirmed by a break of the neckline. Sell on the first close below the neckline.

This example back in 1986 was especially eventful due to the double top at the head. Always be on the alert for a head and shoulders confirmation of a major high. One word of warning, head and shoulders patterns can form in intermediate degree. After the market has corrected sufficiently the prior bull market trend can continue. A break, first above the downtrend line taken from the head and the right shoulder and second a break above the head will confirm a continuation.

After this decline the market rose vertically to the 1987 high. A prominent Melbourne Elliott Wave Analyst CEO publically held short positions against the prevailing trend and bankrupted the company.



Bull Market Continuation Patterns

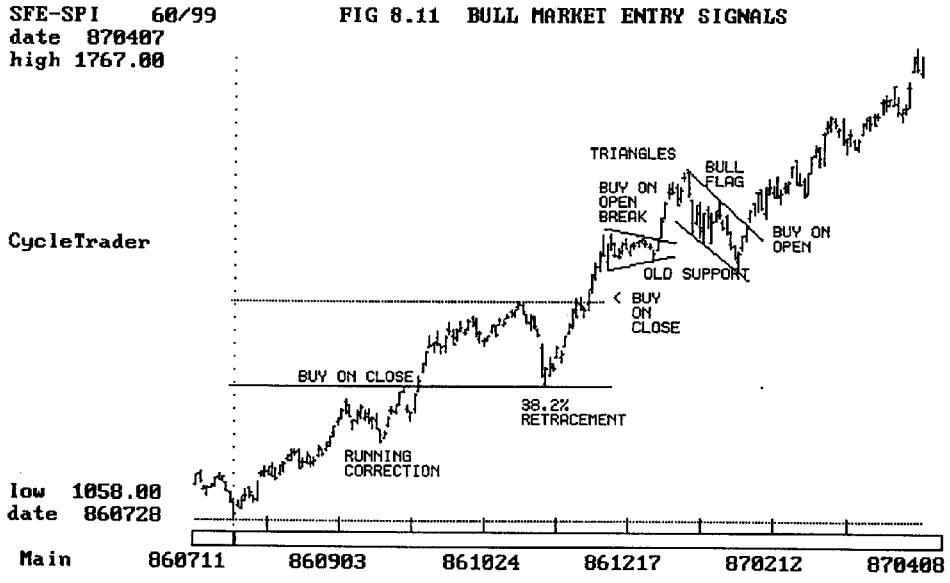
Once a bull market gains strength it will re-confirm trend by the patterns in the corrections.

Running corrections
38.2% retracements
Triangles
Bull flags
Corrections back to levels of prior support

These are the patterns you must watch for!

Below are some examples in the Share Price Index which occurred throughout 1986/7 following the prior pattern in Fig 8.10. This market broke the downtrend on a running correction.

One Elliott Wave analyst was so convinced the head and shoulders was the end of the 1982-86 bull market that he failed to follow the trend. This move was the one that sent Ian Sykes broke. His company held its short positions against the trend, after the market broke above the head, until it went bankrupt.



Advanced Price Analysis Signals

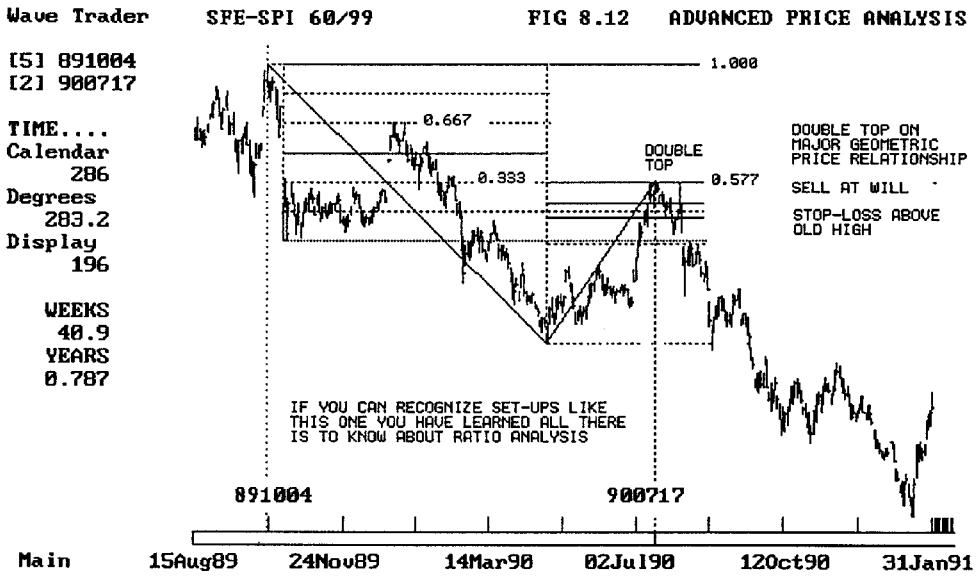
I wouldn't expect a novice to appreciate the beauty of price ratios falling together the way they do. It takes experience and study before you can recognize situations like the one below.

I saw this one back in 1990 and took advantage of my knowledge. I have seen many similar situations over the years that would be hard to explain here.

It is up to the student to study the past for knowledge. To explain every possible way a market can "square" time and price would be wrong of me. If you have a CycleTrader it will be easy for you to do what I do.

If you follow any market on a day to day basis you will see what I see, ie., if you follow the procedures I use. If you expect easy trading profits without doing the work, then, give it away now. You have no chance!

Start with the simple set-ups and as you learn more add the more sophisticated trading signals to your trading plan.



Classic Time & Price Signals

These usually occur in retracements of prior ranges. They repeat over and over in MINUTE, MINOR and INTERMEDIATE degree waves. More often than not when they are going to work the market pattern will provide the information you need to jump in with a close stop loss.

A **Classic Minute or Minor degree signal** is the trend indicators about to, or just rolling long or short 1 or 2 days prior to the TIME & PRICE conjunction. Some of the best SHORT TERM reversals of trend occur at the borderline of trend confirmation if you are using a mechanical system!

Retracement	**Time Factors**		
50%	38.2%	**50%**	**61.8%**
57.7%	50%	57.7%	70.7%
61.8%	**38.2%**	**50%**	**61.8%**
70.7%	50%	57.7%	61.8%
78.6%	100%		
100%	**50%**	**61.8%**	**100%**

These are just some retracement combinations I have noted that regularly occur in the many markets I follow. It will pay to research your favorite markets and discover for yourself their own character - once you do, you are then in a position to capitalize on it.

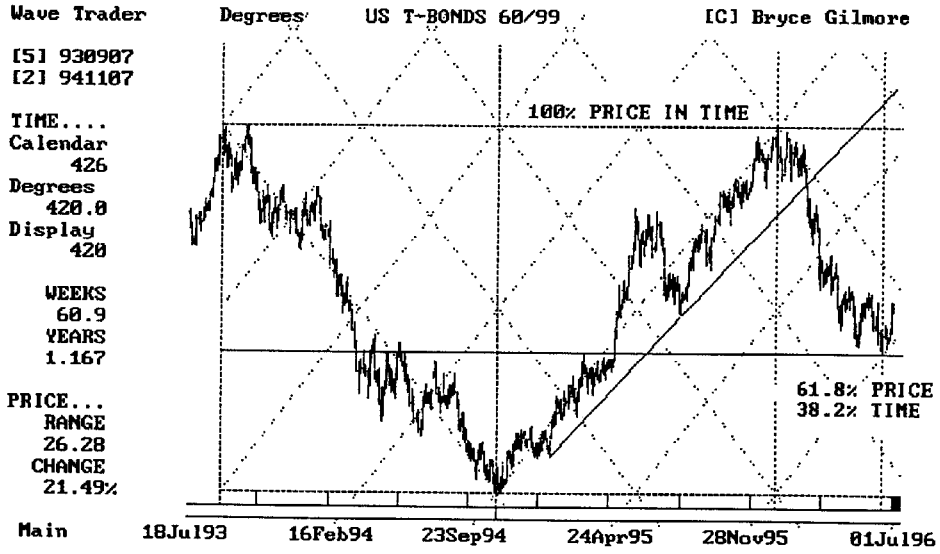


FIG 8.13 PRICE RETRACEMENTS IN TIME RATIOS - ADVANCED TIME AND PRICE

9

Money Management Techniques

To be successful gambling for profit or speculation if you prefer, requires a strict money management plan.

I know why because prior to my introduction into commodity futures I had studied and played most casino games, including being a competent backgammon player. I have been a runner up in the Australian Open and the Victorian Open backgammon championships. Backgammon is a game that relies on the fall of two dice. The probabilities of the result of any dice throw have strict mathematical probabilities. If you understand these probabilities you can play for percentage results, if your opponent fails to do the same, over time you will win.

The futures market is possibly the worlds most even playing field for the speculator. Mainly because you can enter and exit at will. I liken my approach to trading as playing poker without having to put up an ante. Each day I have a chance to see my hand, if I think I have the equivalent of 4 Aces I will make a bet; if not I stay out.

In the long run, by applying money management rules to the probabilities, I can eliminate much of the risk associated with trading.

Mark Douglas, author of "The Disciplined Trader", once said to me in front of Larry Pesavento, "You must decide on a plan of trade selection, never deviate from that plan and then execute your plan flawlessly." In addition he said, "Once you're in the market and start breaking any of your rules, you are out of control."
From my own experience and having been involved with traders and investors the world over I knew I had never heard truer words!
Everything Mark Douglas ever said to me was only another way of expressing my own inner thoughts and feelings. Mark just seems to have a better way to explain it.

My basic money management rules are:- Divide your investment capital into 18 speculative stakes, control your down-side risk on any one trade to 1 investment stake. Look for a return of 3 to 1 or better on any win. Trade or bet on a plan that has proved to win at least 40% of the time.

Think Golf

A trading plan that makes 18 trades with a win/loss ratio of 40-60 at 3 to 1 odds results in 7 wins and 11 losses, 7 by 3 = 21 wins and 11 losses, this results in a capital gain of 50% over 18 trades.

If the ratio of wins to losses can be increased the percentage return increases dramatically, also if you can do better than the 3 to 1 ratio the results increase dramatically.

The way I look at it, it's like a game of golf for a 15 handicapper. If you go out and play 18 holes you will make a bad score on 2 or 3 holes, then you will bogey 4, par 9 and birdie 1 or 2, once in a while you will make eagle.

It's the pars and the birdies that make the difference between a good score and a bad one. When I play golf I don't give in if I start off badly because I know I have 16 or 15 holes to go. If you can maintain a focus on the overall game you can score over the 18 holes. Sometimes you can start off well and then fall into a slump for a few holes, it's a matter of discipline to play out the 18 and arrive back at the club house a winner.

The secret to good golf is that each time you tee up you make your best effort to place yourself in a good position to finish the hole. It's the same with trading, don't hit off unless you give yourself the best chance of success. If you hit off badly pick up the ball and walk to the next tee.

If you want to trade well, think you are playing a game of golf and the game's not over until the 18th. After each 18 you can re-think your plan and move onto the next course.

If you keep your mind right you will eventually become a scratch marker.

Aggressive traders with a reliable trading plan can work on a 9 trade scale up system.

TRADE SELECTION PROCESS

To make any system work a trade selection process has to remain uniform. It is therefore important to set up a plan for each type of trade selection signal you want to follow.

I would recommend separate allocations of capital be employed for different types of trades.

1. Buying trend line break-outs on trend confirmation.
2. Selling trend line break-outs on trend confirmation.
3. Buying or selling range break-outs on trend confirmation.
4. Selling double tops.
5. Buying bottoms or selling tops on advanced time and price signals.

ESCALATING RISK

For each plan you should make 18 trades before increasing your original stake.

After 18 trades your results will be easily quantified, you may then wish to modify your plan. Don't increase your stakes just because you are winning, this is a deviation from your original rules.

CHECKLIST BEFORE MAKING A TRADE

1. Is this a valid trading opportunity basis my trade selection rules?
2. Where have I set my stop-loss limit?
3. Can I accept the risk?

If all the answers are YES then take the trade otherwise reconsider.

Without a consistent trade selection process combined with a solid money management plan all will be lost.

TRADING PLAN CHECKLIST

Date..... **Market**.....

Type of Trade	Buy	Sell
Entry Order	.....	.....
Stoploss Order	.....	.....
Risk	$.....	
Entry Level	.....	

Before I pick up the phone to place my order, I promise I have checked out the following condition of the market and the risk I am about to take.

Elliott Wave Position **1** **2** **3** **4** **5** **A** **B** **C**

Comments.....

.....

Trend Indicators

Trend Wave	Long	Short	Rolling Over
Moving Averages 4/18	Long	Short	Crossing
50 day	Up	Down	flat
D M I	Long	Short	Neutral
Am I following all of my rules?		YES	NO
Can I accept the risk?		YES	NO

10
W.D. Gann Analysis Techniques

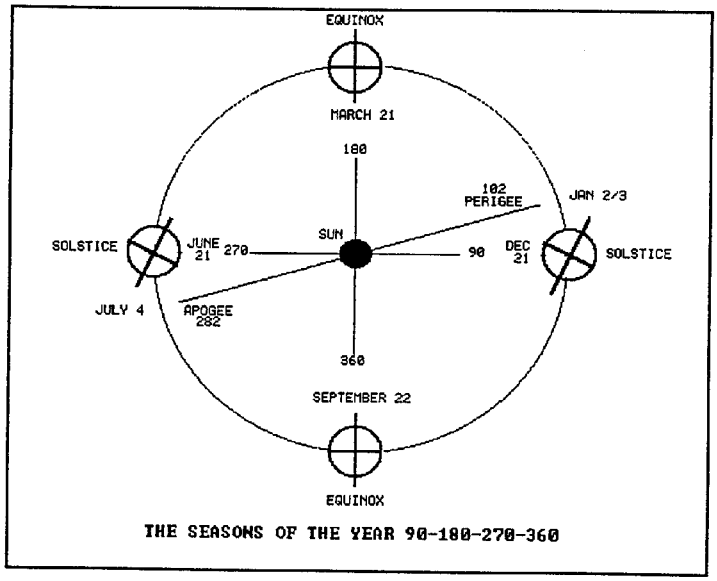
Time by Degrees

W.D. Gann can be credited for the introduction of time by degrees to the world of technical analysis.

Gann often mentioned the square of 360 and the divisions and multiples of 360 in his work. He was referring to the degrees in the circle.

A year is the dominant natural cycle that influences our lives and our activities. In a solar year we have 365 1/4 days but the circle of 1 year is 360 degrees.

Time by degrees is not a simple ratio of days in the year, eg., you cannot calculate 1 degree as 365 divided by 360. Time by degrees must be calculated from the position of the Earth relative to the Sun in its orbit of 360 degrees. 1 day is only the time it takes for the Earth to spin on its axis.



The Earth moves through an elliptical orbit around the Sun, not a perfect circle. As a result the relationship between days and degrees speeds up as the Earth is moving closer to the Sun and slows down as the Earth is moving away from the Sun. The two points in the elliptical orbit where the Earth is closest and furthermost from the Sun are known as the PERIGEE and the APOGEE.

The seasons of the year are determined by the TILT or AXIS of the Earth. As the Earth circles around the Sun the direct path of the Suns rays move in relationship to the surface of the Earth. The hours of sunlight vary in length from day to day. If you live in the southern hemisphere the shortest day is the June Solstice and the longest day is the December Solstice. On the Equinox days the daylight hours are equal to the hours of darkness.

Due to the elliptical orbit of the Earth the relationship between days and degrees varies.

0-90	89 days	90-180	89 days
180-270	93 days	270-360	94 days

If you are comparing a time cycle that occurred between 0-180 degrees and one that occurred between 180-360 degrees the calendar day counts will vary dramatically with the degree counts.

Counting time by degrees keeps seasonal time periods uniform. To calculate TIME BY DEGREES requires the use of a planetary ephemeris.

Critical Seasonal Dates

Gann taught that the cardinal points of the year were important to watch for change in trend.
The **Equinox** and **Solstice** as well as the **Perigee** and **Apogee** days are natural cyclic events. If you study past markets you will find an abundance of trend changes falling on or close to these dates.

Anniversary Dates

Gann also taught that it was important to watch the anniversary dates of past trend change dates in any market for a reversal in trend signal.

Counting Time between Change in Trend dates

TIME COUNTS using special numbers can often pinpoint future dates where change in trend will occur.

Time counts in days, **degrees**, weeks, months and **years** are made from extreme intermediate degree market highs and lows.

Gann taught that by counting **TIME BY DEGREES**, in squares of **90** and **144** as well as divisions of a year from prior market highs and lows of importance, would produce clusters of future dates where a change in trend could occur.

Gann's square of 52 was a weekly square used on weekly charts, ie., divisions of a year.

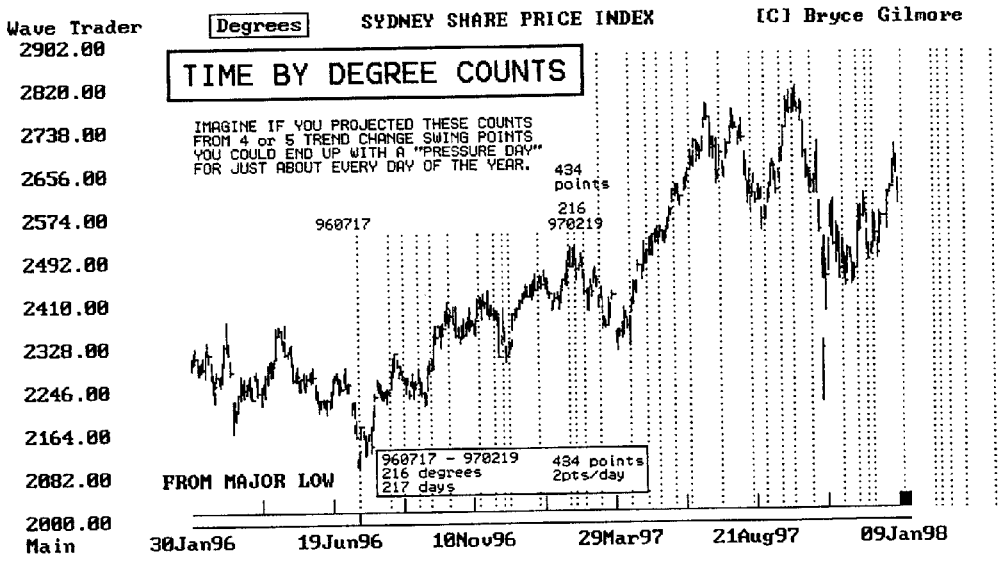
Time By Degree Counts

This methodology has become a trade mark for Gann's supposed success in predicting a future change in trend date for any free trading market.
Although the calculations have a validity in nature they must also be qualified as to their true value.
I have found that many change in trend tops or bottoms in markets conform to some of Gann's time counts, I have also found that many did not!

To count off TIME BY DEGREES Gann style all one has to do is calculate the future date ? degrees from a known high or low date. If you extrapolate the process from numerous past highs and lows you will construct a table of dates which will highlight clusters of future dates. These future dates are a warning date where change in trend may occur.

The standard divisions of a year of 360 degrees which could be important using this Gann technique are, my version of important counts are highlighted:-

30	**180**	315	600
45	210	330	615
60	**216**	**360**	**624**
72	**223**	**432**	**630**
90	**240**	450	**720**
120	**255**	480	
135	**270**	**509**	
144	**288**	**540**	
150	300	**582**	



I've given this example as it helps to explain the good and the bad associated with measuring time by degrees without the qualifying tools.

The February high in the Share Price Index came in on time by degrees and an associated Gann vibration of 2 points per day from the July 1996 low.

Other Time Counts Important To Gann Methodology

SQUARES AND POWERS OF NUMBERS 3 to 7

No	^2	^3	^4	^5	^6
3	9	27	81	243	**729**
4	16	64	**256**	**1024**	4096
5	25	125	**625**	3125	
6	36	**216**	**1296**		
7	49	**343**	2401		

It is also worth noting that the powers of 2 in the higher numbers are important.

2	128	**512**	2048

Gann Swing Charts

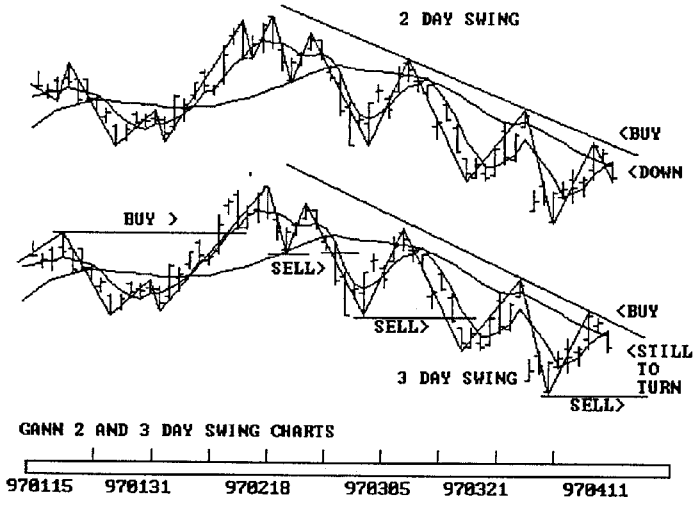
The Gann swing chart is a simple indicator to keep you aware of the short term trend. Gann recommended 2 types of swing charts.

1/. 2 day swing chart. **2/. 3 day swing chart.**
The swing chart swings up and down depending on the current days trading range when compared with the prior 2 or 3 days trading range.

The rules for the 2 or 3 day chart are as follows:-

1. The trend is up when the market makes higher highs without crossing below the prior 2 or 3 day low.
2. The trend is down when the market makes lower lows without crossing above the prior 2 or 3 day high.
3. When prices are very active, ie., wide range days in a blow off move you can record a swing on a 1 day reaction for the 2 day chart.
4. When prices are very active you can record a swing on the 3 day chart if it makes 3 consecutive days with new lows or highs.
5. Both charts are based on highs and lows not closing price.

Over-balancing of price and time.
In an advancing market watch the price ranges of the counter trend moves. Once the next reaction has exceeded the price range of the previous, price is said to be over-balanced and the trend is changing. The opposite works in a falling market. As each trend matures reactions should be reducing in both time and price.



Squaring Price Into Time & Time Into Price

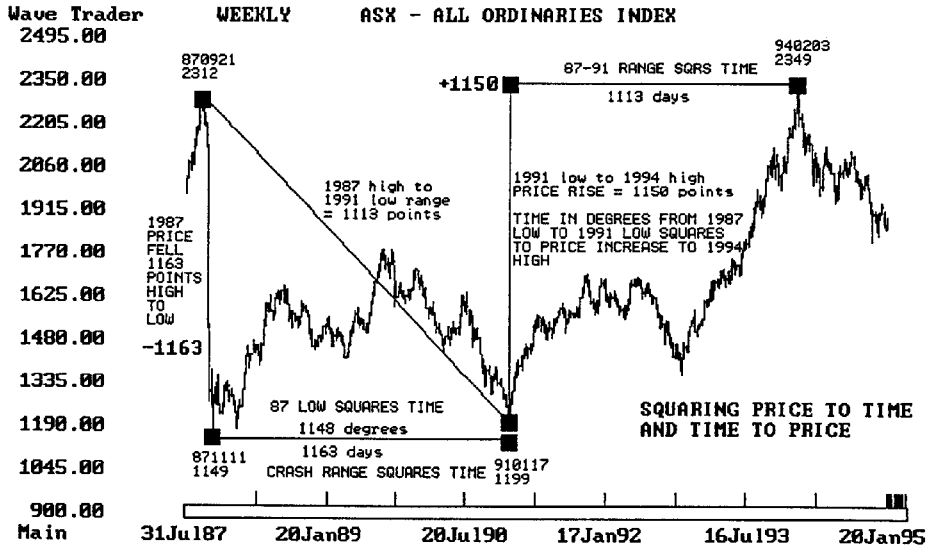
One of Gann's techniques of analysis for determining market tops and bottoms was to "square" price into time and time into price.

There are 3 distinct approaches:-

1. **Squaring a high or low price forwarded in time.**
   In the example below the All Ords 1987 low was 1149. The first "square" of 1149 counted in "degrees" fell within 1 day of the 1991 low.

2. **Squaring a price range forward in time.**
   There are 2 examples below, the points decline between the 1987 high and the 1987 low was 1163 points. The calendar day count between the 1987 low and the 1991 low was 1163 days exactly.
   The price range between the 1987 high and the 1991 low was 1113 points, the calendar days from the 1991 low to the 1994 high was 1113 days exactly.

3. **Squaring time between highs and lows forward in price units.**
   My first example is below, the time between the 1987 low and the 1991 low came out at 1148 degrees. The points rise to the 1994 high was 1150 points.



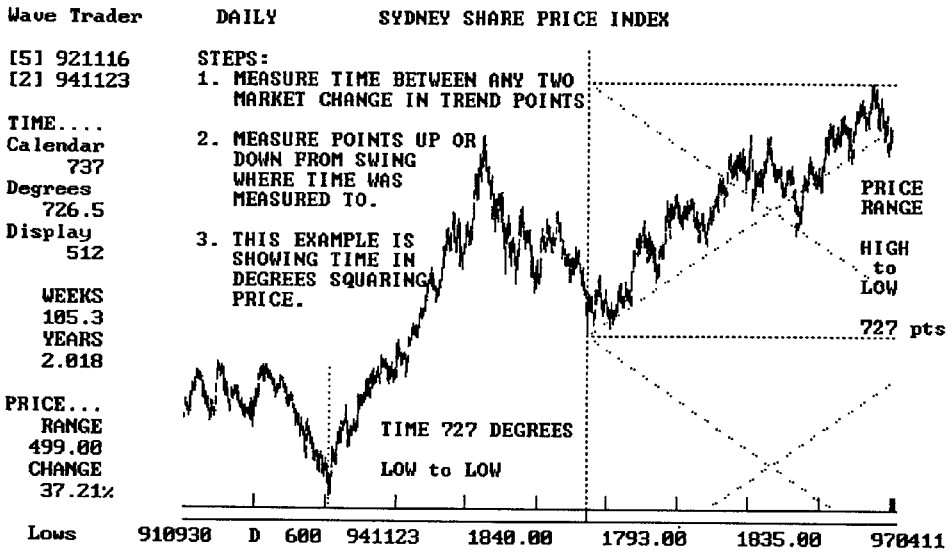
When squaring time into price units you can take the time between any two market change in trend dates. The price units are calculated from the ending date of the time cycle you are going to "square".

Just recently I saw this example "square" up at the 19th February 1997 high.

> The time between the 1992 low and the 1994 low was 726.5 degrees.
>
> The price units between the 1994 low, 1793 and the 19th February high, 2520 was 727 points.

If I can find perfect examples of Gann's approach to squaring time & price and time to price 40+ years after Gann passed away, then these techniques of analysis are worth monitoring, even if one might feel they may be self fulfilling.

My comment:
The time period from the 1991 low to the recent 19th February 1997 high was 2225 days. The price range squaring between the 1987 high to the 1991 (1113 points) low went 1 square at the 1994 high and 2 squares on the 20th February 1997.
I was expecting a high on the 20th February 1997 within 1 day and let everyone know at our 8th February 1997 seminar in Southport. There can be some minor inaccuracies using these techniques due to the time of the day the lows or highs are made.



Gann Angles & Gann Zero Angles

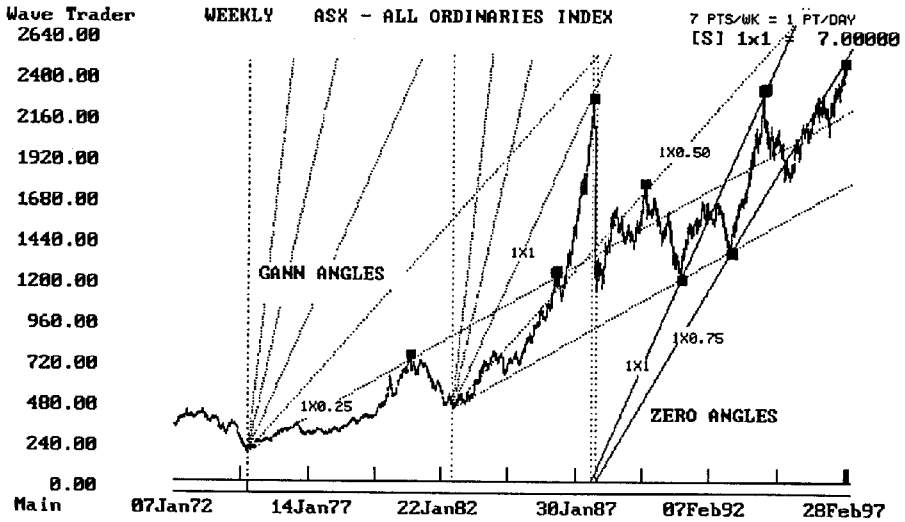
Gann angles and Gann zero angles are another technique for squaring price to time.

1. Angles are drawn from prior highs or lows at ratios of 0.25, 0.5, 1, 2 & 4 points per day. At times in the future a market reversal will occur on the value of the angle. The Gann interpretation is that at this moment price is square with time.

   Example: The 1x1 angle (1 point per degree) from the 1982 low intersected the 1987 high on the all ordinaries index. The time from the 1982 low to the 1987 high was 1872 degrees and the price range was 1869 points. A FIBONACCI ratio of 13 times 144.

2. Zero angles are angles drawn up from 0 (zero) beneath an important high or low. When a market reversal occurs on the value of the angle it means that the current reversal value has squared time with the high or low from which it began.

   Example: The 1x1 angle (1 point per degree) drawn up from under the 1987 high reached the 1199.6, 1991 low after 1199 degrees from the 1987 high had elapsed.



GANN ANGLES AND GANN ZERO ANGLES MEASURE PRICE IN TIME

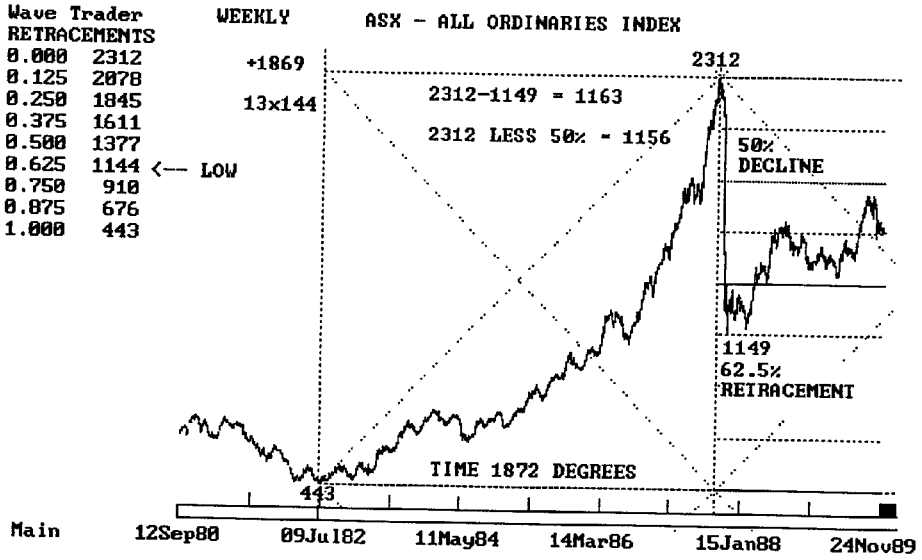
Gann Price Retracement Levels Of A Prior Range

This technique of analysis allows you to relate price range to price range geometrically.

The units risen in a bull market are related to the units fallen in a bear market or vice versa. This technique is useful in any time frame, relationships can be worked out between moves which occur very short term or long term.

Gann taught students that ratio retracements of prior ranges were very important for determining change of trend and worked with 1/8ths of the prior range. The 50% level is the most important level of a prior range according to Gann. Unfortunately the world is not a perfect place and natural geometry often requires other relationships for the continuing price structure to remain geometric.

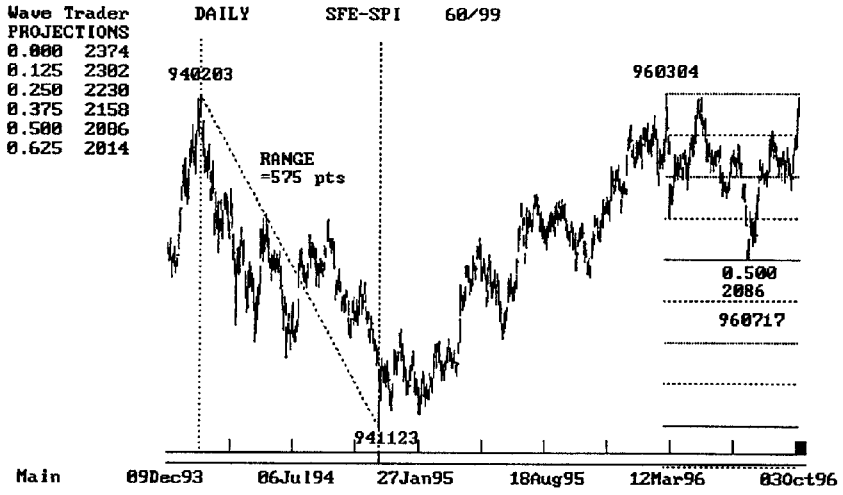
Elliott wave recommends ratios of 0.382, 0.50, 0.618 as the most important. We have found that there is another element of geometry involved and ratios of 0.577 and 0.707 that are harmonically related to the square and the cube can be equally important under certain circumstances.



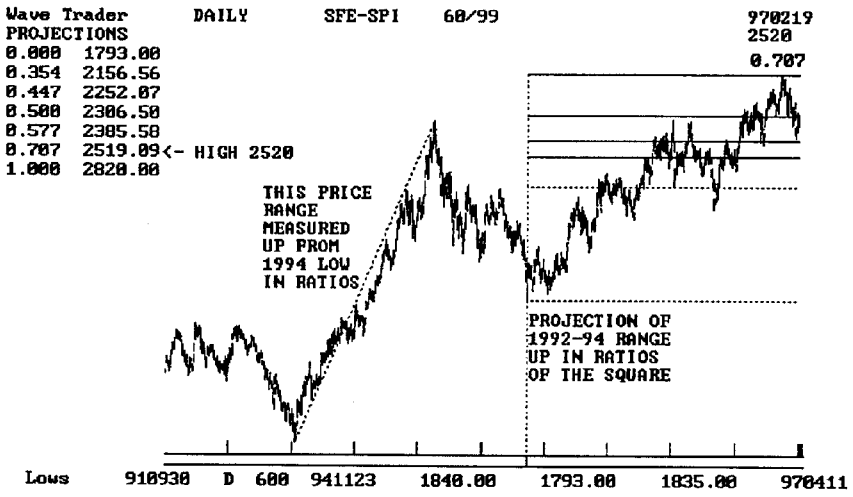
GANN PRICE RETRACEMENTS AND PERCENTAGE CHANGE IN PRICE

Projection Levels Of An Alternate Range

Price ranges between alternate trends of similar degree will often relate when a market reverses trend without making an identifiable retracement level of the prior range. To calculate possible support or resistance levels in advance project ratios of the alternate trend from the beginning of the current trend.



PROJECTING AN ALTERNATE RANGE OF SIMILAR DEGREE



TECHNIQUE FOR PROJECTING ALTERNATE WAVE FOR PRICE TARGETS

Projecting Extension Levels Of A Prior Range

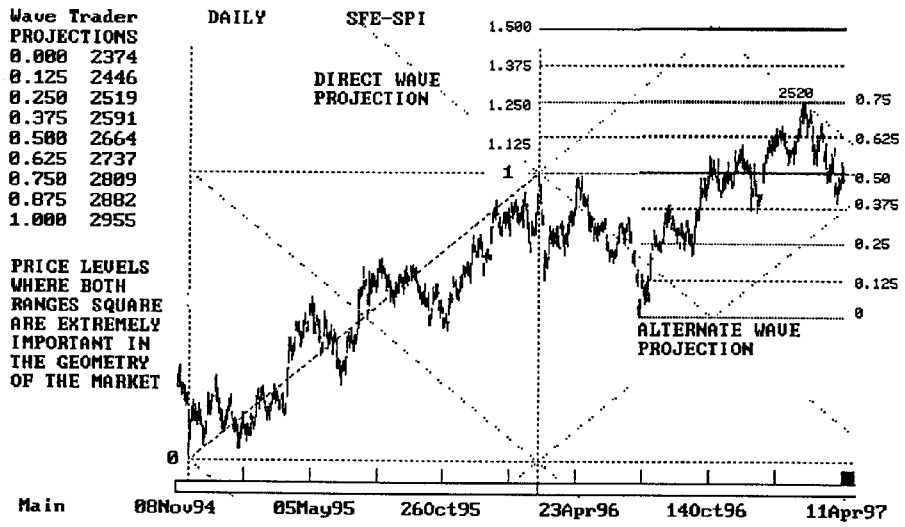
In case anyone is in doubt about the importance of the 2520 INTERMEDIATE DEGREE price level in the Sydney Share Price Index this example will help clear up the picture.

Projections of this nature can be made in 1/8ths, 1/3rds and ratios 0.382, 0.618, do not leave out 0.577 and 0.707.

If one had gone through the exercise of projecting future price targets, prior to the 19th February 1997 high, the 2518-20 level stood out as being very important within the unfolding price geometry. Also 2520 is equal to 7 times 360.

Price levels of extreme importance can be identified when two or more major wave retracements or projections fall within a point or two of each other. We call these levels clusters. When a market trades into a strong price support or resistance level we can evaluate from the daily pattern and the time relationships with the past how important the level may turn out to be.

Technical analysis is a discipline of probabilities. Many of the probabilities can be calculated in advance, this does not mean they will be fulfilled, yet when they are working they will be confirmed by the market itself.



DIRECT PRICE RANGE AND ALTERNATE PRICE RANGE PROJECTIONS

Unfolding Price Ranges In Trends Of Similar Degree

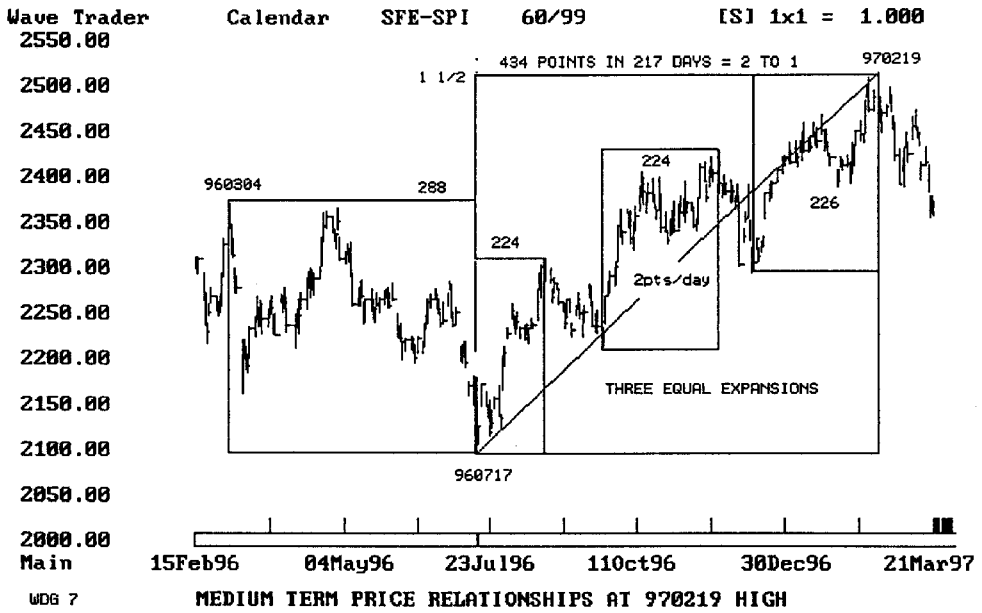
Unfolding price ranges can relate to each other in two ways:-

1. Each impulse range can relate by a ratio of the preceding range of similar degree.

In the example below of the Sydney Share Price Index expanding upwards from the 2086 low, 17th July 1996 to the 2520 high, 19th February 1997, there were three distinct low to high ranges of equal proportion. After the first two expansions of 224 points were recognised, myself and several analysts I know calculated that 2518 would equal a triple wave range of similar degree when measured from the take off point 13th December 1996 at 2294. The fact that 2518 fitted in with all the other price projections confirmed it as a very important level.

When the 2520 high was made time and price squared at 2 points per day from the 17th July 1996 low, another important Gann observation!

When looking for additional confirmation of price squarings you can monitor both the cash market and the futures contract, it will help you immensely.



2. The last impulse range can relate by a ratio to the overall move in the current series of waves.

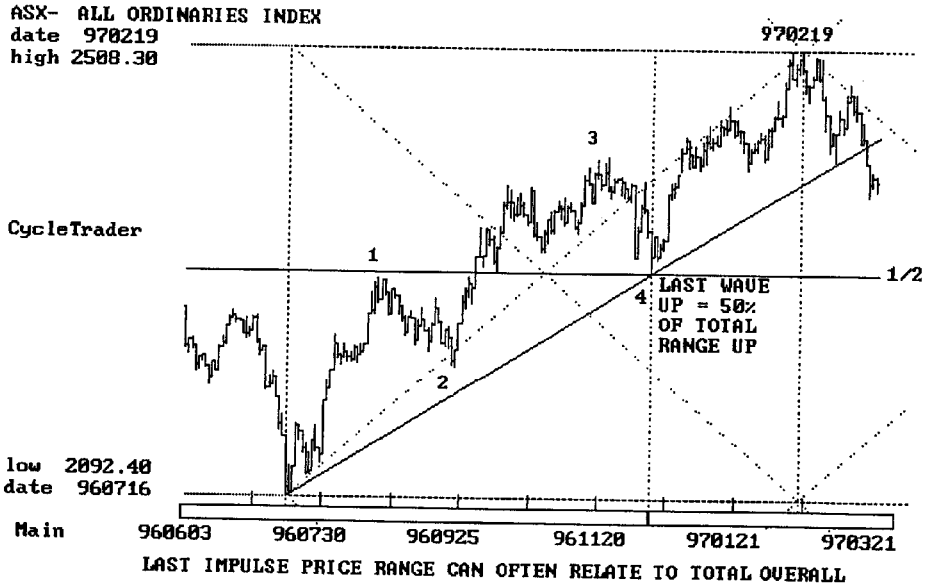
Example:
The impulse waves in the All Ordinaries Index, up to the February high, were not the same price ranges as the SPI, yet they were working to their own geometry.

The impulse wave 5 from the December low, wave 4, topped out as 50% of the total range from July 1996.

I have seen many instances where the 4th wave low or high relates to the overall range by a geometry of 0.382, 0.500, 0.618, 0.667 and 0.707.

If you want to project these price levels in advance take the price units between the beginning of the trend, ie., 0 to 4 and add the reciprocal value of the ratios. for 0.500 add 1.000, for 0.618 add 1.618, for 0.707 add 2.414.

INCIDENTLY the wave 2 in the example below subdivided the total range at the 0.707 level. This means that 4-5 was 0.707 of 2 to the high.



Divisions Of A Range Identify Unfolding Geometry

In a bear trend of 3 waves A-B-C the C wave could even be 0.707 of the total decline.
There was an instance of this in the SPI decline between May and July 1996.

To project a C wave of 0.707 of the total range multiply the price units between high (B) and B by 2.414 and deduct the result from the price of B.

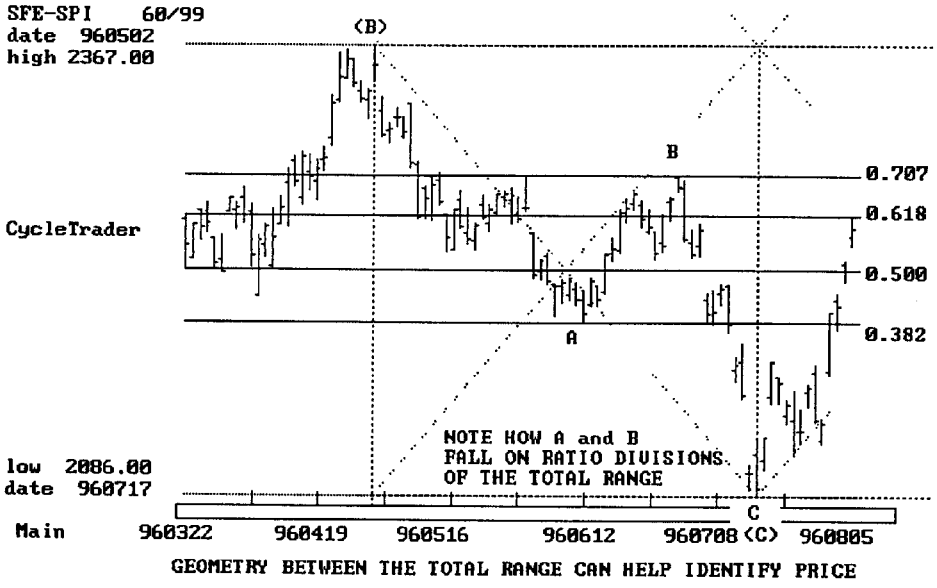
If B-C is going to be 0.707 of the total range then (B)-B will be 0.293 (1.000 - 0.707). 2.414 times 0.293 = 1.000.

Example:

[B]	960502	high	2367
A	960613	low	2194
B	960702	high	2285
C	960717	low	2086

2367 - 2285 = 82 x **2.414** = 198 2285 - 2086 = 199

2367 - 2194 = 173 x **0.618** = 107 2194 - 2086 = 108



GEOMETRY BETWEEN THE TOTAL RANGE CAN HELP IDENTIFY PRICE

SFE - Sydney Share Price Index - 1991 Low

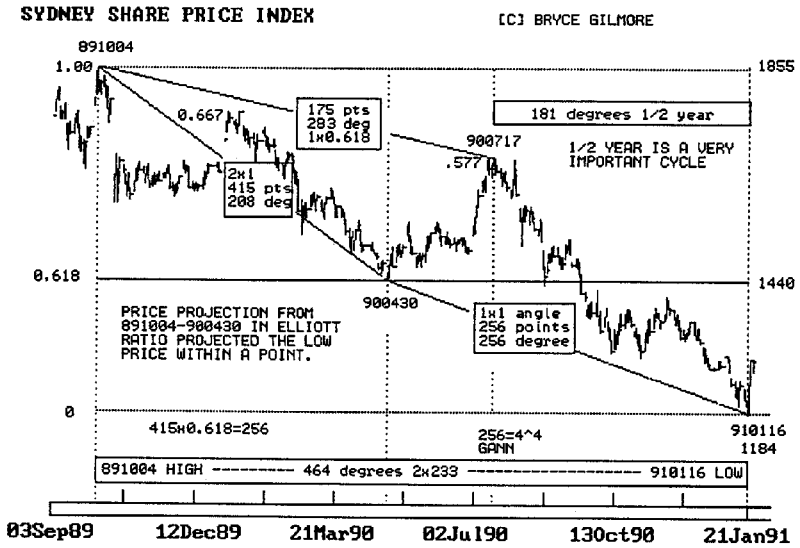
It is important to understand the intricate ways markets can relate in time and price. W.D. Gann and R.N. Elliott opened my eyes and I will never forget it.

By combining both of their disciplines, together with pattern and trend and long term cycle analysis it is possible to explain every market reversal of trend that is important.

At the time of the 1991 low in the All Ordinaries Index I noted the following time and price relationships within the Share Price Index which is the futures derivative. I have often mentioned these relationships to students but, this is the first time I have put them into print. If you study everything contained in this text you will be prepared when similar situations repeat in the future.

Use my examples to get an idea of what to look for when a market changes trend, if you explore the past it will open your eyes to the power possible from this knowledge.

Keep a record of important events

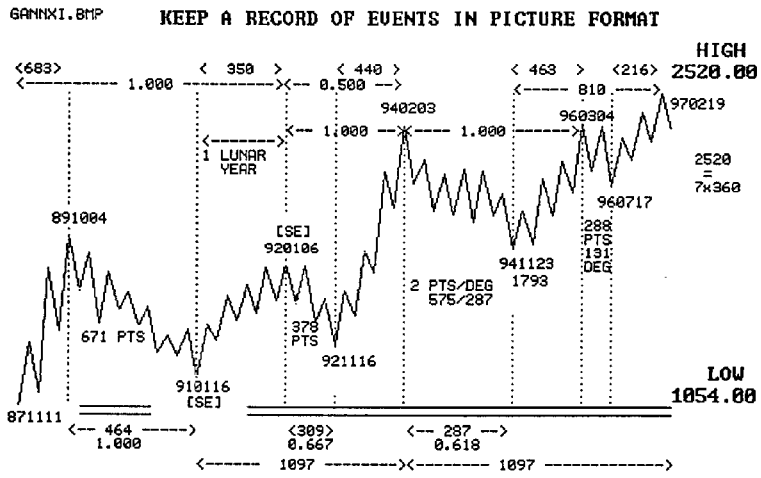


Since the 1987 crash the Sydney Share Price Index has traded through 3 major bear markets.

It's important for the future to note that the 1992 decline and the 1994 decline were ratios in time of the 1989-1991 bear market. Any future bear market should relate in time, by ratio, to one of these prior bear markets.

I know that in the future we will experience another bear market similar to one of these, especially in regards to a large price decline. Once the next bear market takes hold I will be looking at future dates that fall on ratios of time to one of these bear markets.

At most major market reversals you will find perfect cycles of time generated from prior highs and lows. Often but not always the TIME or PRICE counts fall on important numbers mentioned on pages 10.3 and 10.4.



Gann repeatedly states in his writings and books, "The future is just a repetition of the past, there is nothing new under the Sun."

The future is working out time and price to that which went before.

If you are prepared to study the past, then, the future will explain itself as it unfolds.

11
R.N. Elliott Wave Analysis

R.N. Elliott introduced his thesis of wave analysis to market watchers back in the 1930's.

Ralph N. Elliott was a retired engineer, who because of health reasons began an exhaustive study into market analysis. Elliott developed his theory, based on natural law, of the way the US share market expanded and contracted, ie., the time and price relationships between bull and bear markets during their development and adjustment stages. He later worked on Wall Street operating a market advisory service.

Elliott's basic tenet was, "All waves of similar degree will relate in both TIME & PRICE amplitude."

Whilst I have already explained the many facets of TIME & PRICE relationships and the way they can occur within a markets structure, it would be careless of me not to review Elliott's teachings in this manual, as I subconsiously use them on a day to day basis myself.

ELLIOTT WAVE STRUCTURES

To keep track of the stages a bull or bear market moves through, Ralph Elliott developed a lettering system to keep track of waves of similar degree.

Waves are broken down into stages from:-

CYCLE	**I, II, III, IV, V**	
PRIMARY	**[1] [2] [3] [4] [5]**	**[A] [B] [C]**
INTERMEDIATE	**(1) (2) (3) (4) (5)**	**(A) (B) (C)**
MINOR	**1 2 3 4 5**	**A B C**
MINUTE	**i ii iii iv v**	**a b c**

Each completed lesser degree wave sequence completes a single wave of higher degree, ie., 1-2-3-4-5 of MINOR degree could complete either wave (1), (3) or (5) of INTERMEDIATE degree. Wave A-B-C of MINOR degree would complete either wave (2) or (4) of INTERMEDIATE degree.

Elliott's Basic Counting Theory

BULL MARKETS
Elliott's rules state that each expansion will unfold in a 5 wave sequence or 7 or 9 waves with extensions.

Waves 1, 3, 5, 7 & 9 will be impulse moves MADE UP OF 5 WAVES in the direction of the primary trend.

Waves 2, 4, 6 & 8 will be corrections to the main trend MADE UP OF 3 WAVES as an A-B-C.

BEAR MARKETS
In a bear market the A - wave will most likely contain 5 legs, the B - wave 3 legs and the C - wave 5 legs.

IMPULSE WAVES
Impulse waves determine the trend and contain a minimum of 5 legs.

CORRECTIVE WAVES
Corrective waves normally contain 3 legs.

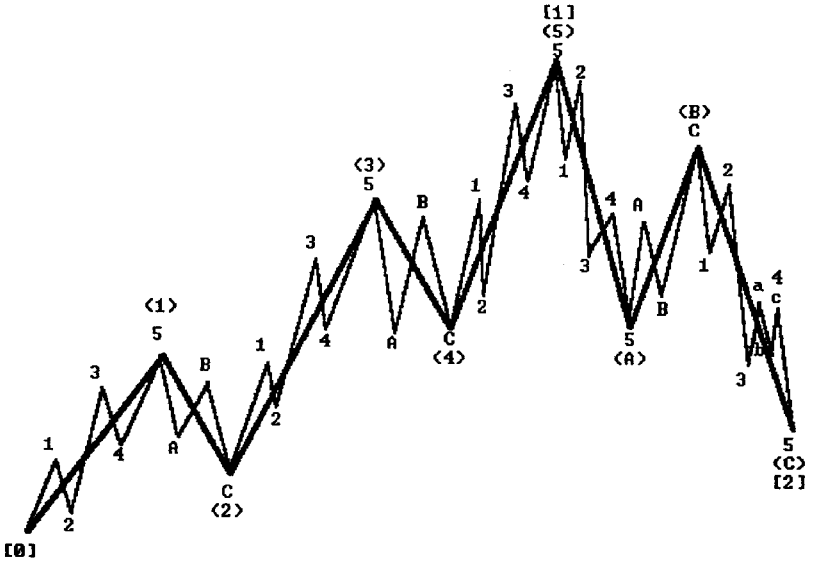


FIG 11.01 EXAMPLE OF ELLIOTT WAVE COUNTING TO LABEL MARKET STRUCTURES

There are several important rules one should note about Elliott Wave.

These are:-

1. The overall trend is established by the direction (up or down) of the waves containing 5 leg sequences.

2. Corrective wave patterns in a 5 wave sequence will ALTERNATE. Wave 2 and 4 will alternate in appearance, for instance a simple wave will be followed by a complex looking wave or vice versa.

3. Wave 3 is usually the strongest impulse in appearance and will be accompanied by strong indications of overbought or oversold.

4. Wave 4 corrections will normally terminate within the area of the previous wave 4 of lesser degree. Often a wave 4 will terminate on a 38.2% price retracement of the previous impulse wave or 38.2% of the total advance in the series.

5. Triangles in 4th waves indicate strength in the wave 5.

6. Extensions can only occur in impulse waves and are very common, extensions are far more likely in 3rd or 5th waves.

7. A break of the channel line extended from the termination of waves [2] and [4] signals a major change in trend.

Anyone wishing to make a comprehensive study of Elliott Wave can do so by studying the following two books.

MASTERING ELLIOTT WAVE by Glenn Neely, 1990, is probably the most complete work I have seen on Elliott Wave analysis. Neely deals with the real world and offers an exceptional insight into the patterns formed by market price activity. (223 pages) Neely in my opinion is the expert of Elliott Wave!

ELLIOTT WAVE THEORY by Frost and Prechter, 1978, is the first book on Elliott Wave I started with. This book contains all the basic information but, it is difficult for a novice; it needs to be read 4 or 5 times before the concepts begin to become clear. (190 pages)

The Overall Trend Is Established By The Direction Of The 5 Wave Sequences

The main benefit of this knowledge lies in the fact that trends propagate (grow on themselves). Once the minor waves start growing in 5 waves you can expect the intermediate and primary waves to do the same.

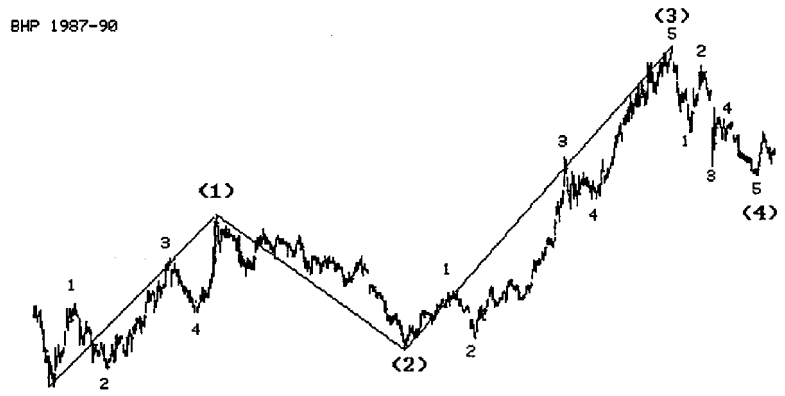


FIG 11.02 TREND IS ESTABLISHED BY THE 5 WAVE SEQUENCES

Generally when a trend is well established the corrections become shallower and shorter in duration. In a strong trend counter trend reactions generally last no longer than 3 days.

Degrees of wave movement can be evaluated by comparing their price ranges and time duration.

For instance when a subsequent correction OVERBALANCES the price and/or time of a prior correction, the move in progress, is usually of a higher degree and the wave count can be re-evaluated.

Continuation of the trend is signalled by the price breaking out to new highs or lows when the reactions are less than those that went before.

Wave 3 in any 5 wave sequence will usually be the strongest and it normally ends with the trend indicators in an extremely overbought or oversold condition.

Corrections ie., waves 2 and 4 should normally alternate in appearance. Corrective waves take on either "simple" or complex" forms. A "simple" form will normally be followed by a "complex" form or vice-versa.

Overbought & Oversold Markets (Wave 3)

I have noted that on nearly all occasions, wave 3 in a BULL market impulse ends with the market in an **overbought** condition.

Wave C in a correction often ends with the market in an **oversold** condition.

The best indicator for OVERBOUGHT or OVERSOLD is the RSI and DMI.

RSI - Relative Strength Index 10 day
Overbought when above 80
Oversold when below 20.

DMI - Directional Movement Index 10 day
Overbought when the + DI rises above 40 and the DMI rises above the +DI.
Extremely overbought when the -DI remains below 10 for 3 days or more.

Reverse applies to for Oversold signals.

The RSI and the DMI are analysis tools designed by J.Welles Wilder Jr. More of his work can be found in his book **NEW CONCEPTS IN TECHNICAL TRADING SYSTEMS, 1978.**

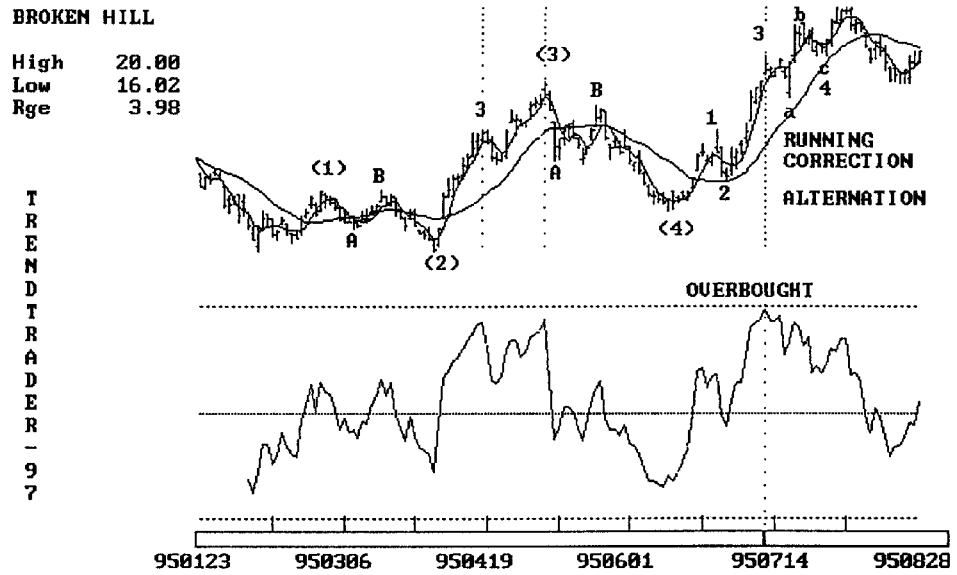


FIG 11.03 RELATIVE STRENGTH INDEX READINGS AT WAVE 3 TOPS IN BHP

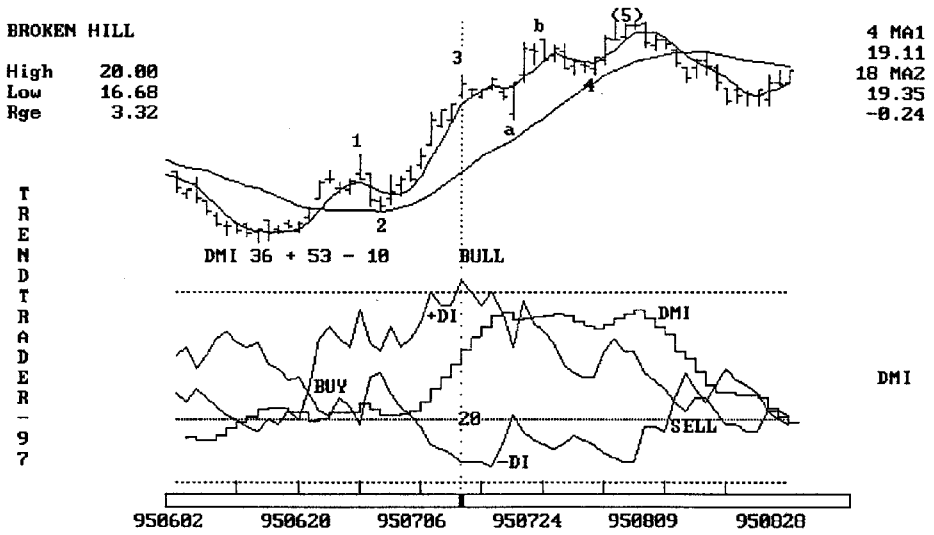


FIG 11.04 DIRECTIONAL MOVEMENT INDEX (DMI) READINGS OVERBOUGHT AT WAVE 3

Monitoring trend indicators on a daily basis keeps one alert to the possibility of a change in trend.

I have noticed over the years the more people learn about Elliott Wave the more diverse their opinion of wave counts become.

KEEP IT SIMPLE!

The basic concept is that BULL markets will unfold in a series of 5 waves or sections. 3 will be up and 2 will be corrections. The end of each wave will be labelled 1-2-3-4-5. Waves 2 and 4 are corrective waves. Waves 1, 3, 5 are impulse waves.

IMPULSE WAVES can be subdivided into 5 waves of lesser degree.

Extensions can form in IMPULSE waves, ie., instead of 5 waves they could extend to 7 or 9 waves. Extensions can form in waves 1, 3 or 5 but never in all.

Over long periods I look for a place to identify a wave 3 and then work backwards for my wave count.

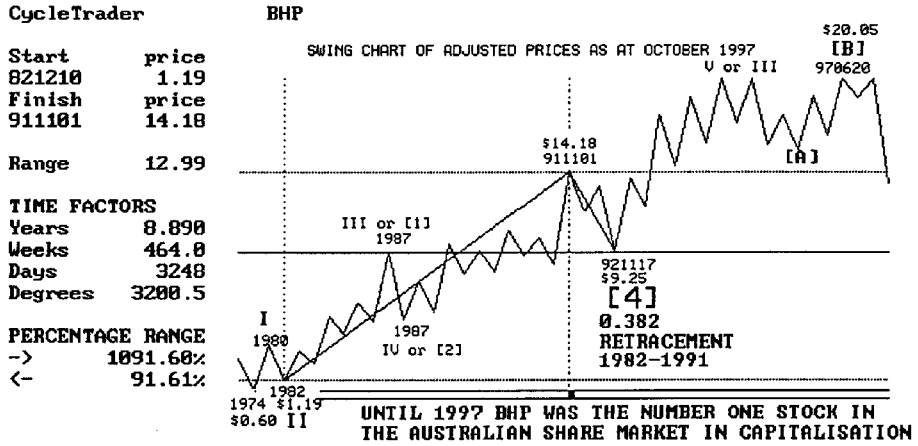
Wave 4 Corrections

Wave 4 corrections will normally terminate within the area of the previous wave 4 of lesser degree. Often a wave 4 will terminate on a 38.2% price retracement of the previous impulse wave or 38.2% of the total advance in the series.

This is an important observation and can help you set price objectives after identifying a wave 3 termination.

In my first book GEOMETRY OF MARKETS I used BHP (Broken Hill Proprietary Limited) for an extensive example of analysis techniques. It seemed very clear to me back in early 1988 that the high made in 1987, prior to the crash, displayed the character of a 3rd wave of cycle degree. In retrospect the retracement in the 1987 crash was just short of a 50% retracement of all gains made from the 1974 low. Since 1988 this market rose in value more than 2 times its value at the 1987 pre-crash high.

The 921117 low in BHP can clearly be identified as a PRIMARY wave 4 as it retraced 38.2% of all gains made from the 1982 low. This infact gives rise to the question of the 1987 high being a PRIMARY wave 1 instead of a CYCLE wave III. This being the case the $20.05 high is potentially a CYCLE wave III.



There have been two other major instances of 38.2% price retracements in BHP over recent years. The November 28, 1989 low and the April 5, 1994 low.

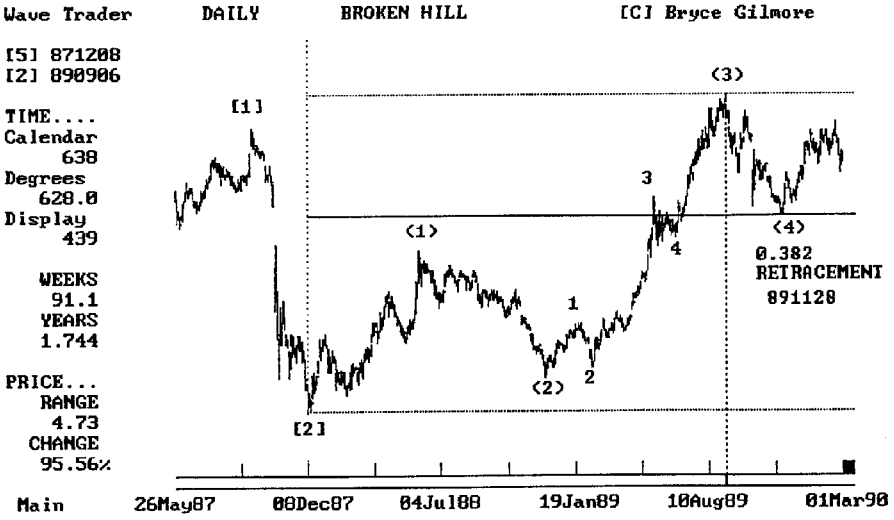


FIG 11.06 4th WAVE AS A 38.2% RETRACEMENT IN THE AREA OF LESSER DEGREE 4

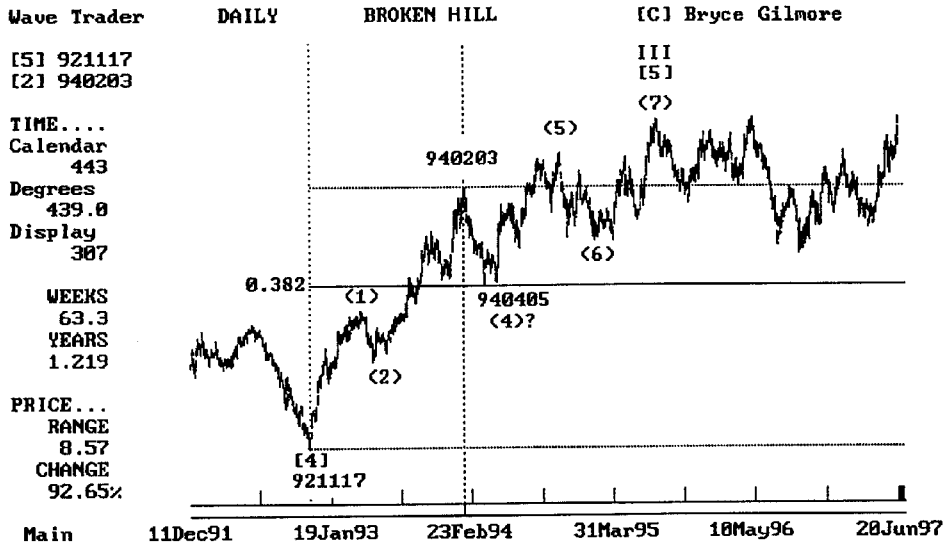


FIG 11.07 38.2% RETRACEMENT LEADS TO THE CONCLUSION OF A 4th WAVE

Rule of Alternation

Elliott Wave states that corrective patterns (waves) in a five wave sequence will ALTERNATE. ie., waves 2 and 4 will take on a completely different appearance.

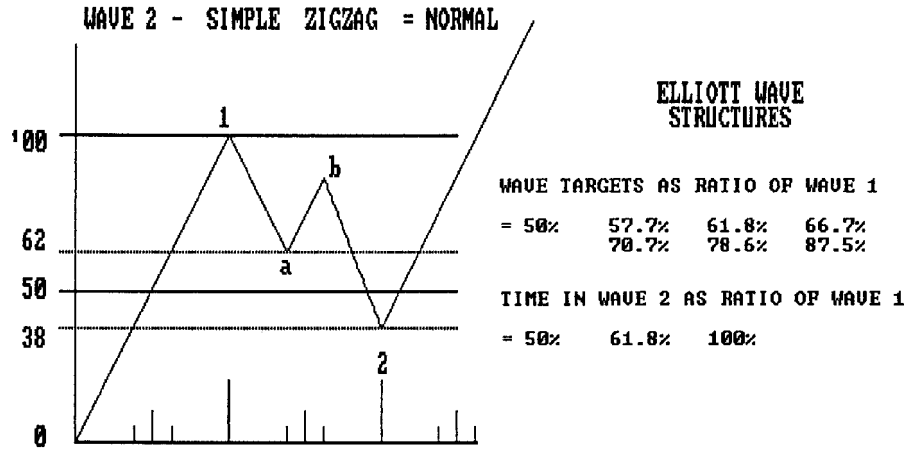
Elliott gave names to the patterns formed in corrective moves:-

Zig Zag
Complex Flat
Double Three
Running Correction
Symmetrical Triangle
Ascending Triangle
Descending Triangle
Expanding Triangle

Triangles are far more common in 4th waves so one should expect the wave 2 to take the form of a simple zig zag, complex flat, double three or running correction.

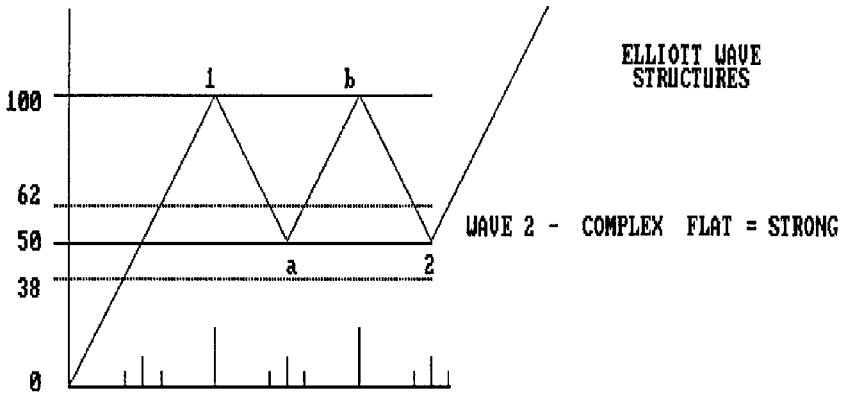
Wave 2

1. Wave 2 normally retraces at least 50% of all the gains made in the wave 1.
2. If Wave 2 is a Zig Zag it can often retrace 61.8%, 70.7% , 78.6%.
3. Wave 2 normally expires on a direct time relationship measured from the duration of Wave 1.



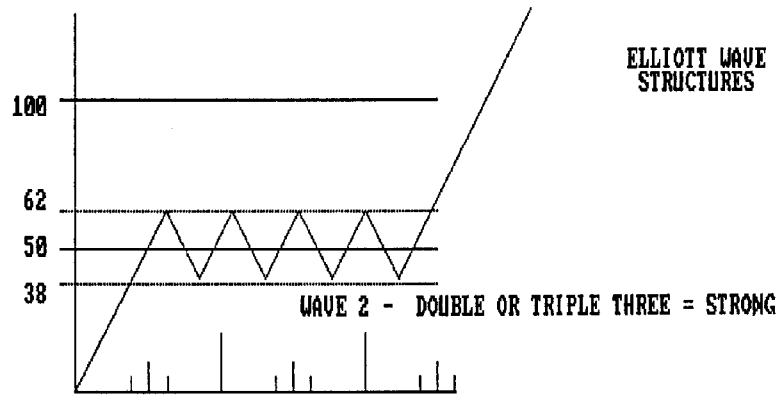
Complex Flat

A complex flat correction implies power in the 3rd wave. A sideways movement in market price over an extended period implies accumulation. When the market eventually breaks to a new high it is doing so because there are more buyers than sellers.



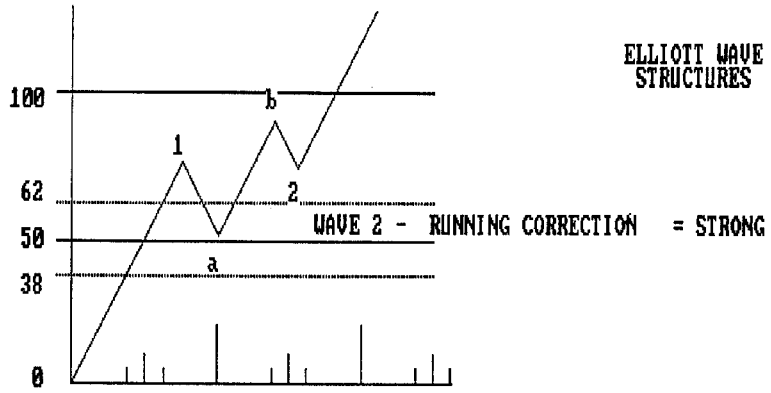
Double Three

The double three wave 2 implies a longer period of accumulation. As the stock or commodity moves into stronger hands. Once prices break up to higher levels there will be little to none available, resulting in an explosive move in the wave 3.



Running Correction

A running correction occurs in an explosive market. Usually because some fundamental news insites a stampede of speculators to buy without worrying what price they pay.



Symmetrical Triangle

A symmetrical triangle occurs in a market where the buyers and sellers are fairly balanced. Volumes continue to decline as the triangle is formed. Each of the legs a, b, c, d, e contract in size inside the range of the prior leg. Quite often the price ranges of the legs will relate by a factor of 0.618.