

### **3-Period Dynamic Ranges.**

As a short-term intra-day trader my method is basically to sell against all trends, short medium and long, because I always expect Price to rotate back towards a central point from an extreme point of any timeframe range. I also understand that the market rotates within itself whilst the market moves forward as TIME moves forward. This is how we define market dynamics and in my opinion the only way to define market dynamics. Combining the two concepts of extension and rotation of Price over Time, there should always be an opportunity to trade because this provides the Window of Opportunity we are discretionally seeking. Using the same mathematical equation of all higher timeframe ranges we should be able to provide a clear definition for our 'models of expectation' that define Market Trends, Market Cycles and Market Risk.

Lets continue with the same mathematical equation that we use to extend Time forward, and once again look at the 3-period cycles. These cycles now provided us with the necessary information where 'risk' is and where the best possible entry for us.

So if I'm right and there is something unique in the number 3, is it possible to extend the same theory and use it to extend the theory of AMT Market dynamics on all higher timeframes. We use the number 3 and TIME periods for finding the unique cycles and market structure for Price to travel over Time.

I wanted to know whether I could use the same mathematical equation on all higher Timeframes so that it would provide the necessary levels in the market that would allow me, and now you to trade from extremes back towards dynamic central points, and from central points towards extremes. When I was back testing the intra-day data for the SPI, I began to notice that there statistical patterns appearing in the market as if price action was continually repeating itself. When I applied my theory over the numerous timeframes I was blown away by what I was seeing. Could our market be so precise in nature?

Over the course of this book I have identified the five Time frames that play an important role in the market structure, and as each timeframe ends we have a new timeframe that will guide us along with the 3-period cycles. It is fine when trading from one level to the next when we hopefully exit the position at our pre-determined profit objectives as per our individual trading rules, however to maximise the potential that exists in the market I personally would also like to find the areas in the market structure where price was exhausted at the extreme and 'when' price was likely to move back to the central zones from these outer levels.

My goal was twofold, trade with the trend and trade against all trends. Sounds confusing but hopefully it will become clearer as you continue with this chapter and the rest of the book. The second goal might sound like picking tops and bottoms, a no-no in anyone's language, but the market has moved beyond being driven by human sentiment, and in my opinion a better way when trading intra-day derivatives.

Before I get to intra-day trading I want to go back and look at the bigger picture. Figure 29 shows two channels in step formation, the Yellow channel is based on the monthly timeframe and the Green channels are based on the weekly timeframe, however this time instead of using only one period we use the past three periods.

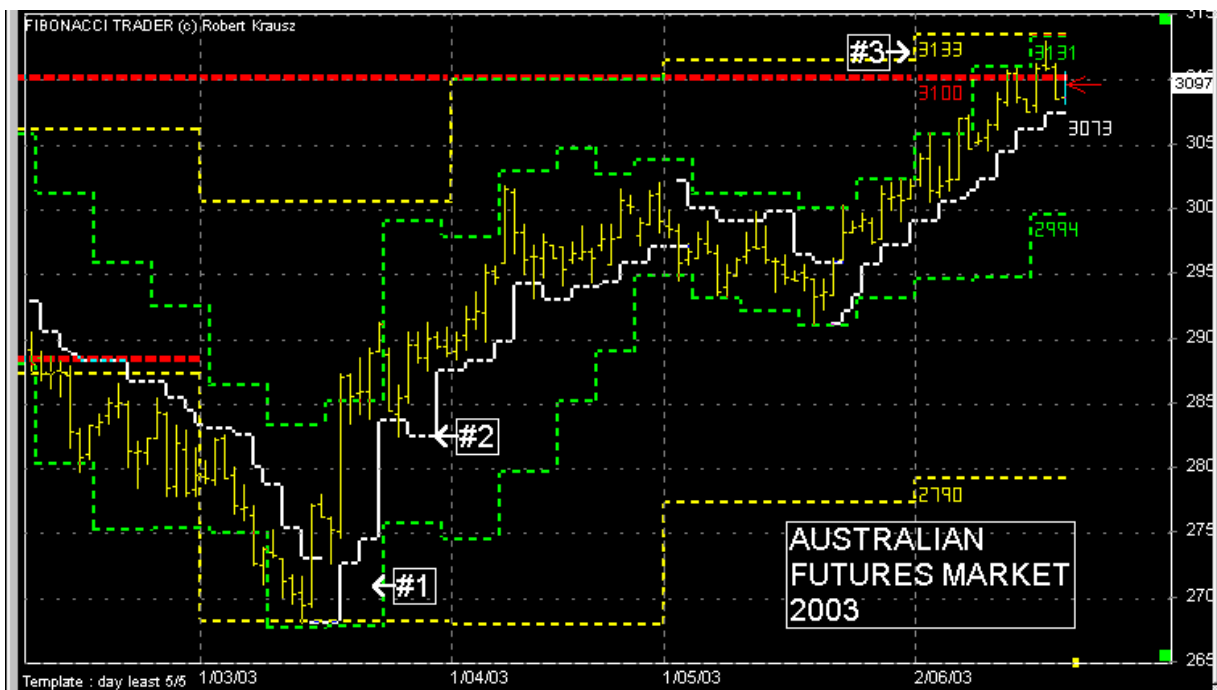


Figure 29.

Have a close look at the lows of the market on the 13/3/2003 (#1) these lows were 2680.

Figure 29 shows that the 3-month lows were broken in February, for March we had new lows that were projecting price lower towards 2680, once these lows were reached @ 2680 the market reversed and rallied, our confirmation was the 3-day cycle change. When you look at where these 3-month dynamic highs were, it wasn't until June and the Yearly 50% that there was a congestion of Time ranges around 3131.

When we take a closer look at the same dynamics on the 3-weekly timeframe (figure 30) we can see where all our valid reversal zones are within each weekly period, and when each weekly timeframe completes, our Math and Time projects the new path. All we have to do it to manage the market path by using the 3-period cycles as the journey continues in step formation towards the Primary Goal. Each reversal in the 3-period weekly dynamic structure was precise and accurate. This 'Observed Phenomena' occurs on all timeframes, and as it did then it still continues today.

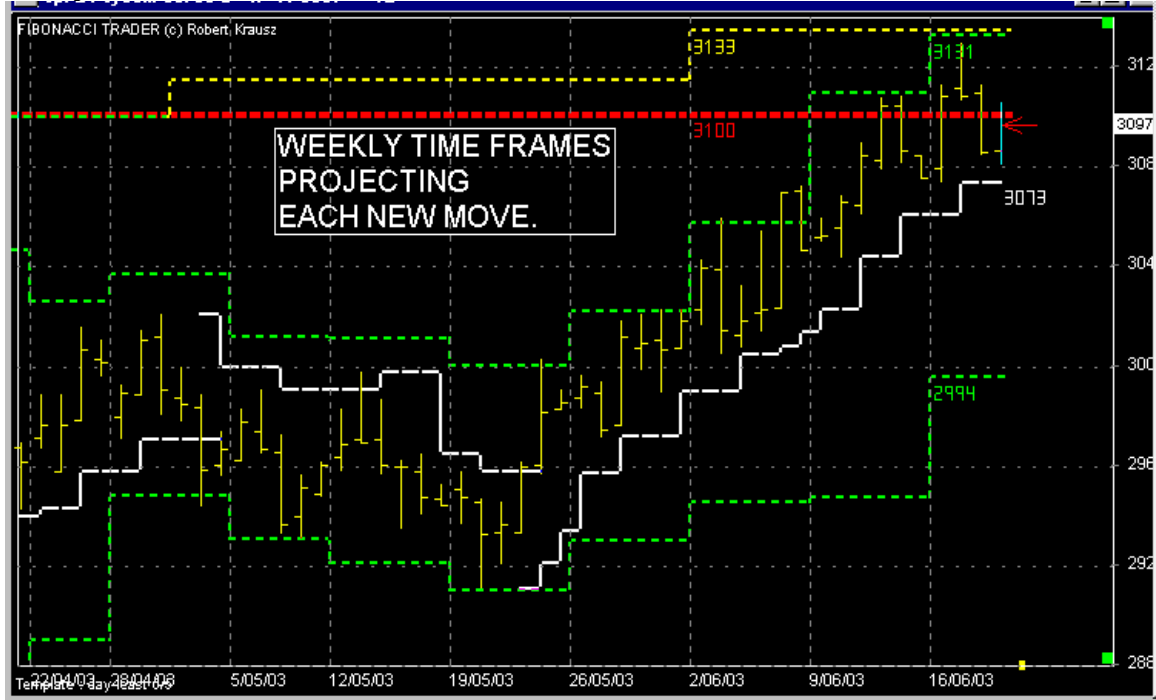


Figure 30.

However, like any reversal from these extremes, price still operates under the 'breakout' phenomena, remain outside the range until the new timeframe begins...

*"The purpose behind deciphering the market's timing also relates to profits. Who cares what the price level is, as long as you know what's going to be the turning point in the forecastable Time. The methodology of determining Risk-Reward should then only be based on the Time of past data instead of the Price of past data."*

## Math: and the Market Path.

By using simple math to trade the markets, we have a clear understanding that Price has a certain path that it travels. By, using TIME and the same calculation, we can see each sequence of rotation and extension at play. Once the path is understood, we simply wait for the mathematical sequence to take place. Price never has the same patterns, only TIME does, so when we see a certain mathematical sequence appear, the direction is already known and our 'profit objectives are already clearly defined. To have a winning day in 'day-trading' it becomes a simple process!

When TIME is involved, it becomes a conclusion, not a prediction.

Every 'market' must go a certain length of TIME to even be considered a trend, and the only thing I believe that can provide that definition trend is TIME and Math. The dynamic timeframes of the past 3-weeks, 3-months, 3-quarterly, and 3-yearly and then projected gives us a 'window into the future'. When we look the figure 30 once again, the movements of price as each new weekly timeframe maps out the path of the market whilst it moves within the 3-monthly cycles as it reaches the yearly 50%.

When we continue to look at the same cycles as the year progresses into 2004 we can see the same repetitive patterns and important events that give us the ability to make highly accurate forecasts and more important swing the odds into our favour.

We can see all the highs in the market for 2003 (figure 31) within the market structure based on the 3-monthly dynamics, each failure and we can see the fall back into the trailing 3-weekly cycle lows (red) as it continues with the trend and into the year 2004. We are now over 600 points from the lows in March 2003.

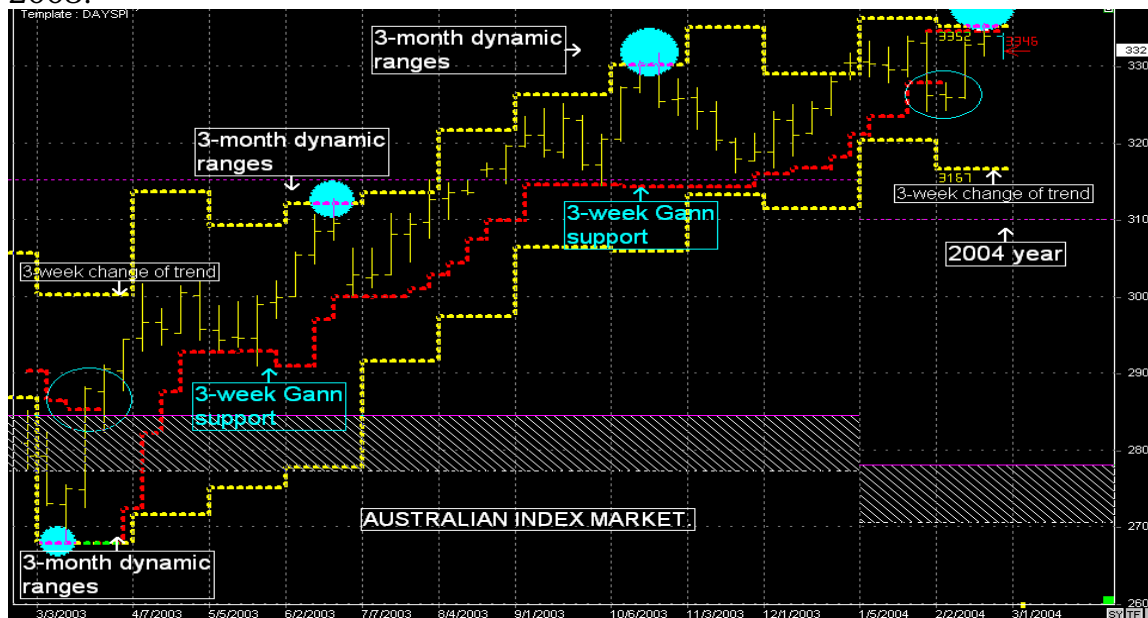


Figure 31.

## **24-Hour Trading Markets.**

The Market is driven by two different entities, and most derivative markets will nowadays trade over a 24-hour period, so that the trading day actually begins at mid-night and not at 9.50am. For example, the Index futures of the Australian Market (SPI) will be driven during the day by its top 200 stocks, ASX200, but overnight, the SPI is driven by a total different entity, the US markets, namely the S&P. How the US dances overnight will normally effect our trading day. The many gap openings each morning are a result of the overnight action on the US markets, unless some 'news' hits the market before the opening bell.

So whatever market we choose to trade we must first acknowledge that the derivative or stock will be effected by the length of the trading day, remember our methodology is based on TIME and not on price, so for day traders that are trading only the day session of a 24-hour market it would be foolish to look at only the ranges of the day session. All the charts regarding the SPI are based on the 24-hour market because of the gyrations of the US market, and the length of the trading day; i.e. midnight-to-midnight.

### **Overview:**

Since the beginning of this book I have described how TIME and Math must be acknowledged in any trading scenario. Our methodology is to trade any 'Window of Opportunity', either trading towards the central points of Time or from the 3-day cycles towards the extreme ranges of Time within the market structure.

Before I continue I want to go over a few things before I move into the 5-day dynamic ranges and intra-day timeframes. Firstly, we must realise that the market moves in waves of TIME and not waves of Price! We are able to define these cycles in the market by using Math and TIME, this allows us too know that TIME will project the next movement in advance, and by using the higher timeframes we are able to make long term forecasts with precise accuracy.

We also know that the cycle of '3' is dominate in our market and our market moves in waves of Time based on the previous 3-periods of TIME, these dynamic ranges allow us too make 'models of expectations' because of the ebb and flow between each dynamic 'Time' channel. We have a clear defined market path within the Primary Channel as shown in figures 30 & 31.

Lastly, the 3-period cycles of TIME provide us with the filter and necessary zones in the market to define our trades, so we minimise our risk and maximise our gain as we trade towards the dynamic extended targets, or our profit objectives within the market structure.

Cycles are defined by the two continuous bars based as explained... *“the 3-day cycle was always defined by the previous 2 days of trading; a cycle was defined by two consecutive highs, or 2 consecutive lows.”* Whereas any other method would normally define a 3 day cycle, by the previous 3 trading days. The cycle would continue until the previous low or high was taken out.” And Math and Price using the calculations of each higher timeframe define Market dynamics.

I want to go back and have a look at the 3-period dynamic ranges of higher timeframes as this will lead into the 5-day dynamic ranges.

Figure 32 shows the 3-month dynamic Range (yellow) projecting the market path of the larger timeframe, and as traders we filter out the market using the 3-week cycle zone, so our ‘model of expectation’ will be for the market to continue lower as seen in 2002.

One thing you will notice in the chart, the 3-month dynamic low didn’t reverse in February 2003 but actually broke on the 13.2.2003, once this zone failed the rest of the month remained under this level. The ‘floor’ became the ‘ceiling’ and price continued lower into the next timeframe and the following 3-month dynamic range. I have already described this the only way to confirm the ‘breakout’ of the range.

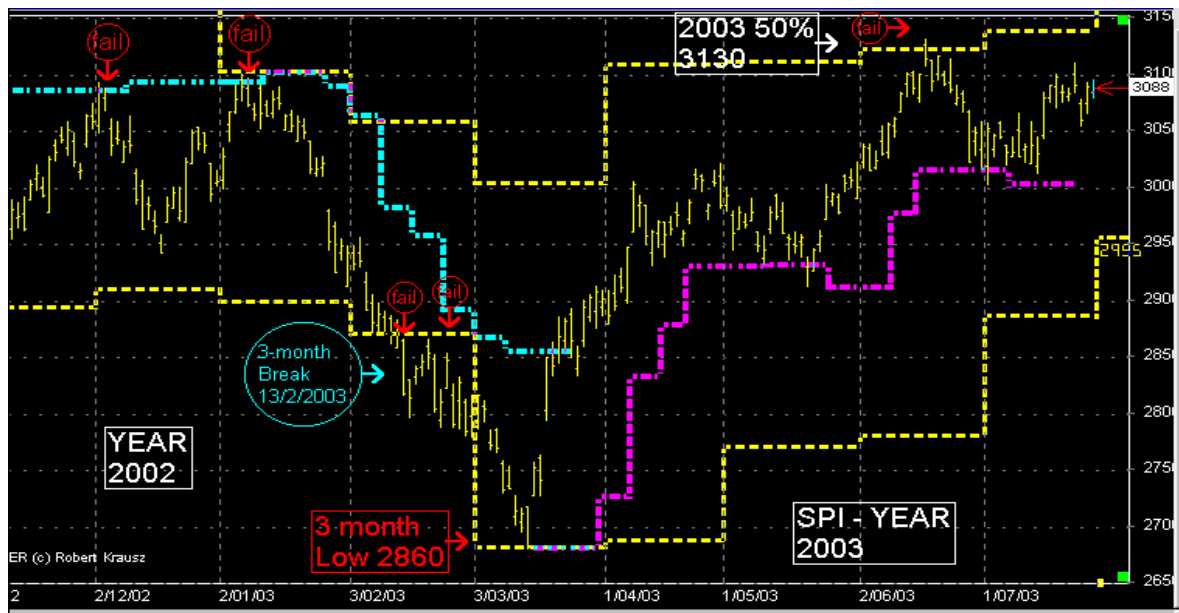


Figure 32.

When this similar pattern or breakout occurs in any 3 period dynamic range, whether it's the 5-day, 3-week or in this case the 3-month, there is a high probability that price will remain outside this break until the new timeframe begins, and can chase the new dynamic range in the next timeframe no matter what timeframe, as we can see with the March lows in 2003.

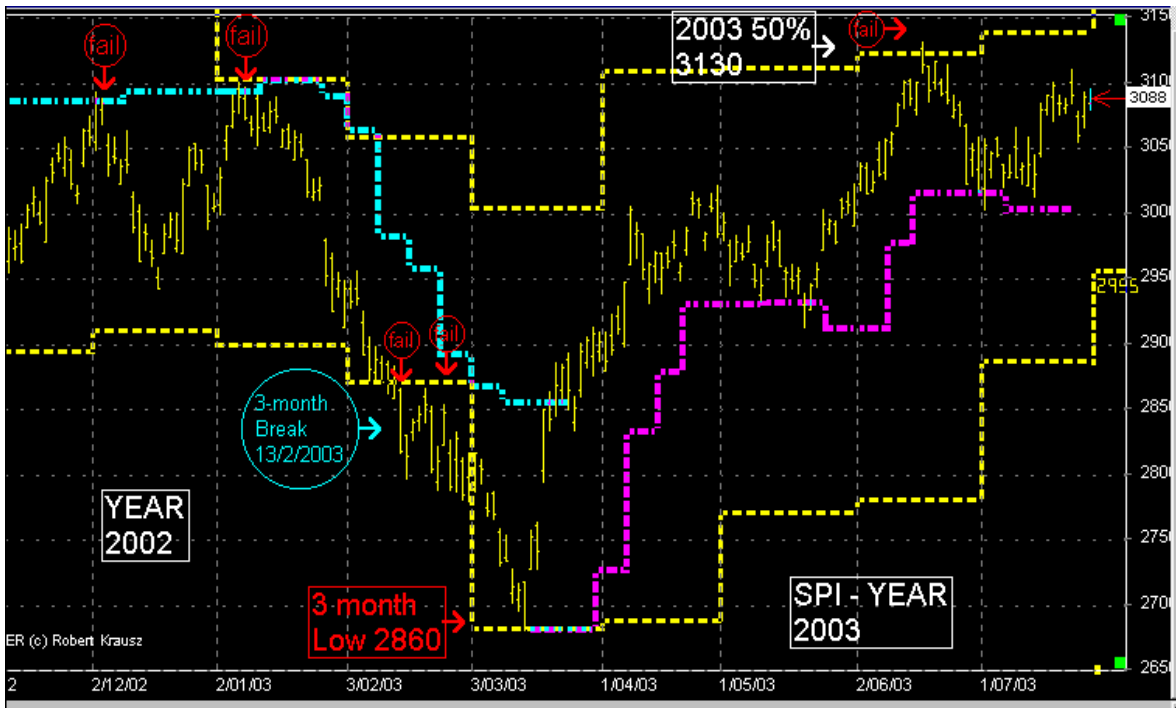


Figure 32.

Price moved from the break of February into the new lows in March 2003, an exact low in the market and reverse.

The reason why I have mentioned Floor-to-Ceiling is because for day-trading this same scenario applies, once the 5-day Dynamic range breaks the market will continue to trend throughout the day and 'can' continue into the following day as it projects a higher or lower range, before the market rotates back towards central zones.

It is important that we never trade against this break until the market has reached the next level in the market, as I will describe over the following pages.

These dynamic ranges are highly accurate but it is not always a forgone conclusion that Price will stop and reverse at these levels, it is fine to make a 'model of expectation' that this is a forecasted zone but it isn't necessarily the turning point in the market either. That is why my post on the 14/3/2003 was only confirmed when price had broken back above the 3-day cycle highs. The variables were precise and accurate for it to reverse, but for me too make the 'call' that the trend had finally reversed I need a confirming tool and that was the 3-day cycle break.

### Daily Dynamic Ranges.

The same calculation using the Daily range, will map out the market path for the trading week. This daily dynamic range and the 3-day cycle is a must for any day-trader.

The following pages will still show you that the same applies on the shorter timeframes as in the larger cycles.

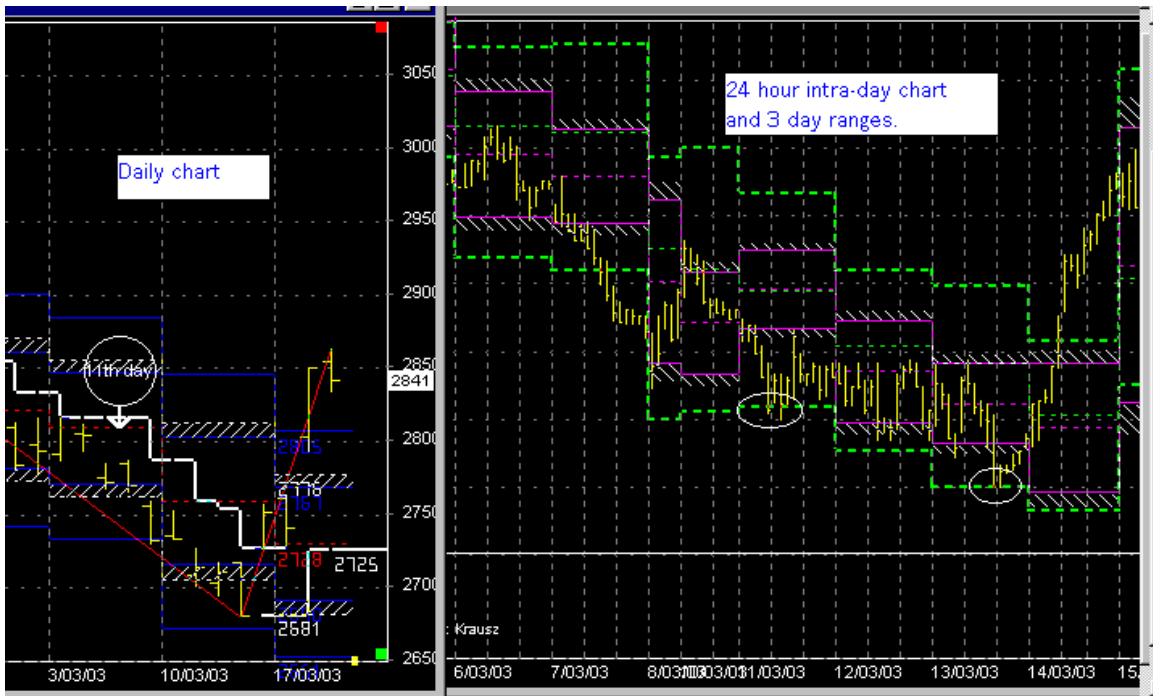


Figure 33.

Figure 33 follows the sequence and price action in March 2003 as it makes its way towards 2680. That is our target, and as long as it is in a bearish 3-day cycle then that's the only model of expectation we would have.

When we look at the chart on the right, we can see the 5-day dynamic range, each new day projects a new range low, and each new low is a profit objective within the 3-day cycle that traders could use. Whilst one trader might use these range lows as targets to trade towards another trader might try his luck at reversing these range lows back to central zones of the 3-day cycle. With tight money management techniques these reversal zones within the 3-day cycle could be part of another traders trading system. I will talk about developing trading systems in the chapter “Systems Development using AMT”

We can also see two instances (figure 33) where price broke these 5-day range extremes only to continue further. So even though a trader looking to rotate back towards central zones as part of their contra-trading method, once he or she was stopped out the trader could then make a decision that the break of the range has a high probability of a continuing trend within the current day structure and into the next.

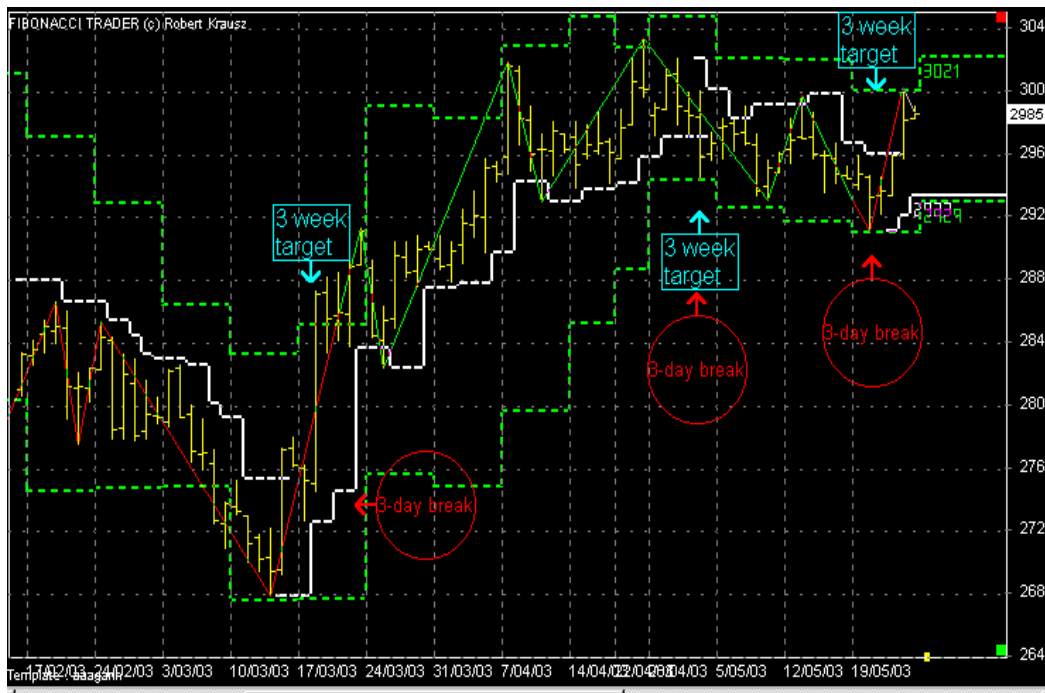


Figure 34.

Figure 34 shows the likely market path for any 3-day break or change of cycle, once the break occurs price will make its way towards the higher timeframe level, the trend continues until a higher timeframe level is reached. So when a 3-day cycle change occurs our first reference and ultimate target is the 3-week Dynamic range. You will see this phenomena occurring all the time.

It is obvious that the further away the 3-week range is after a 3-day cycle break the greater the reward! So any 3-day break our view is for the market to move from one 3-day timeframe to the next, that being the 3-week dynamic range where price becomes exhausted until a new weekly timeframe begins.

Figure 35 shows the same events but we can see that the 3-week lows hadn't been reach 3029 (green low channel) but the market actually moved higher in the next day. This is just one of the trading scenarios after any cycle change and a 2-day swing.

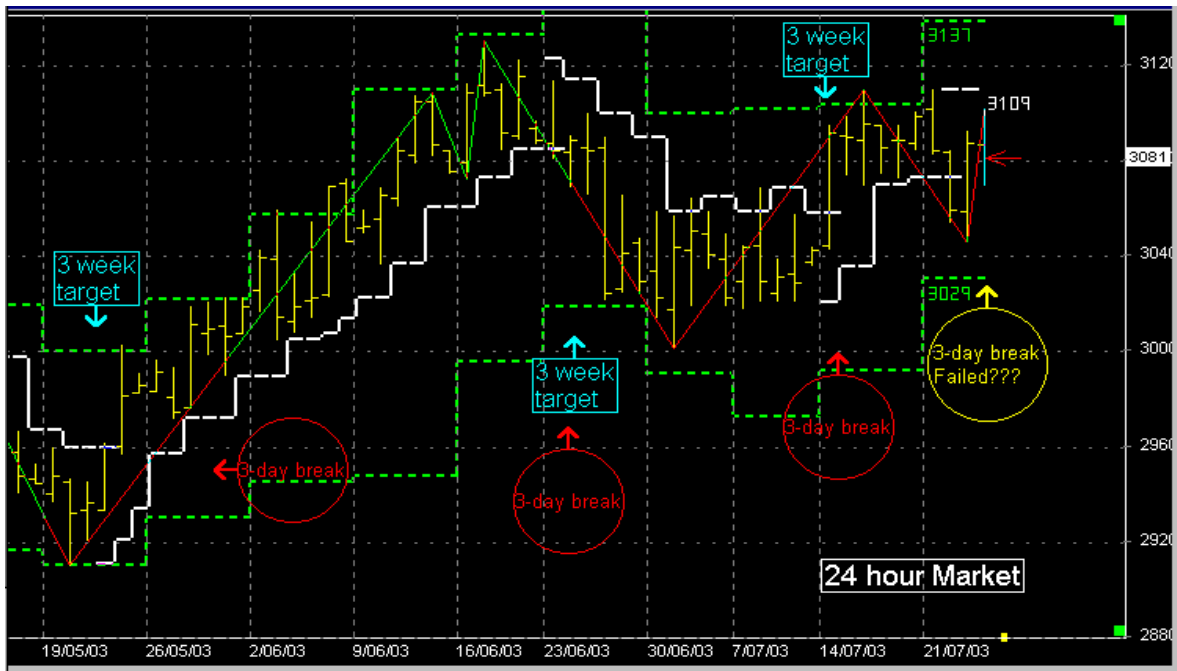


Figure 35.

However when we have a closer look (figure 36) we can actually see that the low in the market was near the monthly 50% level of 3053 and also the exact 5-day dynamic low as shown in the chart on the right. We can see in the same chart the clarity of Market Risk; precise levels in the market structure where price will reverse, or if it does break, remain outside the range and move into the next range extreme.

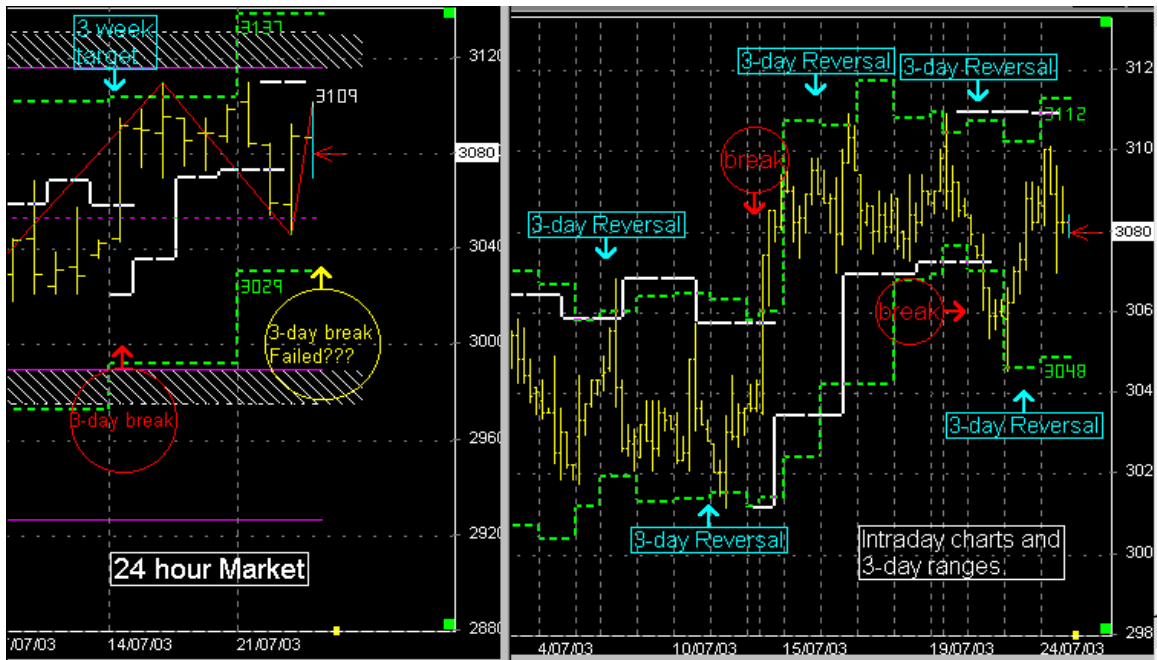


Figure 36.

### The intra-day 3-period cycles:

#### Day-trading.

So what is the Optimum Time Frame to use as a day-trader?

Firstly, we must understand that each day is a sequence of the previous day; one day's data just isn't a good predictor for tomorrow. We also know that the market follows the path of the two higher Timeframes. As an intra-day trader, the minimum requirement is the previous day's trading and the close of the day. This will provide the trader with the next Range to trade based on dynamic ranges. As day-traders, we must know what has occurred overnight to trade the following day. Wherever price opens, this will provide the set-up for us to trade. We have already defined that we are trading the rotation and extension of the weekly and monthly Pivots within the market structure using 3-day cycle.

If we know the path the market is travelling within the day structure, then we should NOT have a closed 'Mindset' that we will only be sellers today. If the windows of opportunities present themselves, then we should be going long and short within 'this day'. It is not the Price we trade that is important; it is the Time of the Trade that defines our intra-day methodology with a strict set of rules.

Many day traders use a myriad of timeframes when trading, some look at 30 minute timeframes whilst another trader might solely rely on 3-minute timeframes, but it actually doesn't matter what timeframe you use whether 15 minute bar charts or tick data, Price will go where it is suppose to go. As long as each trader can identify the dynamic levels in the market and place trades using this methodology of Price-over-Time then using any timeframe will do. If profit objectives are clearly defined then exits can be placed in advance. This will be described in detail in the Chapter 'Systems Development'.

When trading futures I prefer trading as a Day Trader with clear defined entry and exit levels. Each trade will be based on the premise that 'price acts with some statistical tendency', and that can only be determined by developing systems that have been back tested over a number of years that provide a positive-expectancy and dollar reward.

I have given examples using cycles and dynamics of the 3-period timeframes of price acting with a statistical tendency, the rotation and extension as Time moves forward. For day trading there is also statistical phenomenon of price acting in a similar way based on where the day opens in relation to the past 5 days of trading, this will actually determine the day type, 'Trending or Rotation' for the current day.

The open in relation to the past 5-days of trading (Single DAY CYCLE) will determine the trades and what action we would be taking. It is also important to know the average true range of the day, what has been the average length of day session of the past few years. Knowing this increases the edge, as I will explain in Chapter 4; 'Range Bar...Time & Price'. The SDC theory is the statistical and probable outcome of any day. This will be described in the chapter "Sequential Data and the single day cycle". This gives us a statistical probability that each SDC will behave in a similar way as the past, as long as TIME allows it to.

### **Trading Thoughts.**

Not every trader will trade the same even with the same information. We all have different profiles as traders, different strategies and methodologies and more importantly different 'Mindsets'. Trading is a numbers game! Trading is about **knowing** your dollar risk-reward. **Knowing** that tight money management techniques will keep you in this game longer than if you haphazardly applied stops when it suited you, and knowing we still operate under the understanding there is a random distribution of wins and losses. Basically we don't **know** the sequence of our wins and losses or how much money the market is going to make for us on each winning trade. Though we should **know** before each and

every trade what the market is going to 'take', because we will have sound money management with each and every trade. The methodology of Analytical Market Trading is to give 'order to chaos' but more importantly, it allows the individual trader and his own methodology of trading a greater edge based on TIME.

As we can see in Figure 37, price has a certain path to travel, and understanding where these dynamic levels are we can determine with precise accuracy where Market Risk is. We begin to understand that generic Market Risk is the same for all; individual Risk is based on your own sets of rules.

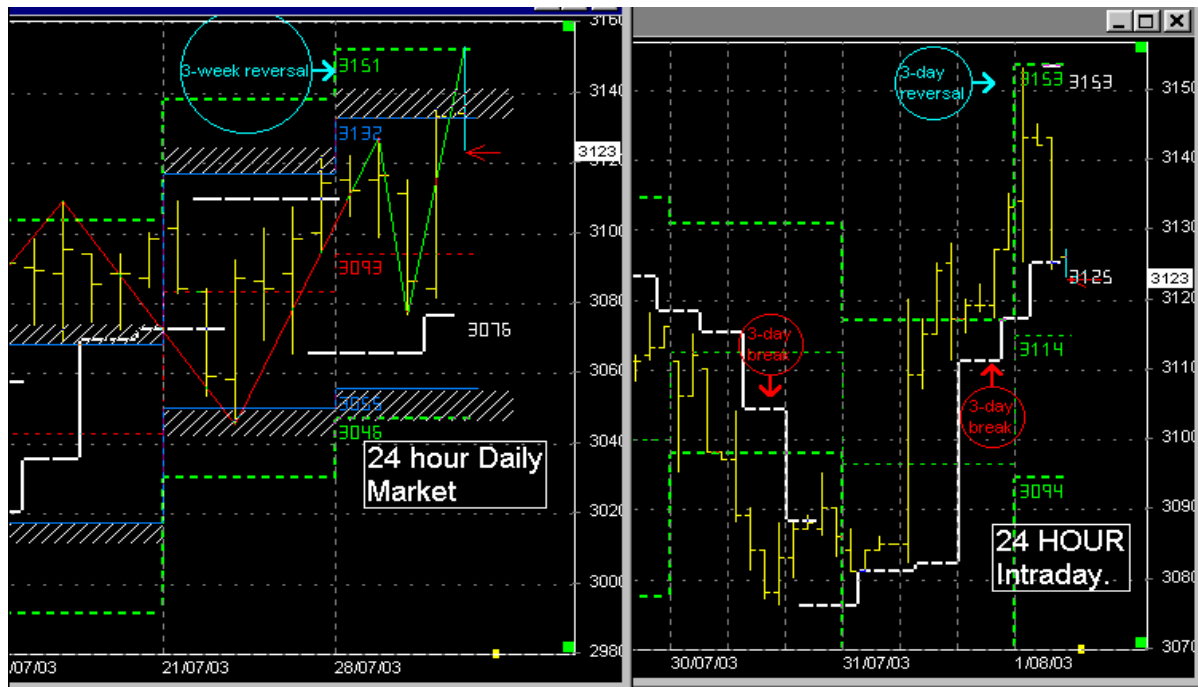


Figure 37.

### **TIME sets the parameters.**

Traders need to be reminded that TIME sets the parameters; it sets the path of the market, it sets the resistance and the support. When these parameters are broken then Price has a high probability that it will continue on until the new Time begins.

You will see this 'phenomenon' continually and will see it as the book continues, 'if time breaks then price can continue further to the next higher timeframe zone'. What this means is, our model of expectation is that Price will remain outside the TIME zone until the next timeframe begins. It is not a forgone conclusion that this will always occur but a High probability scenario.

Don't try and fade the trend outside TIME, we can see this clearly in figure 37 and the 3-day high break at 3116. For short term intra-day traders there still can be Times in the market when these 'fading' trades can occur, especially if the market follows the repeated cycles of intra-day trend reversals as will be shown over the coming chapters for derivative traders.

The same applies to the market path of TIME; each new timeframe provides a probable zone where it is likely to travel towards. Each trader can then adjust their own trading to how price reacts at certain points in the market, for day-traders trading in a 24-hour market then their concern will not be of what occurs overnight, whilst position trader's need too find the best possible zones when trading with a view of the likely 'price path' of the stock or derivative using the higher timeframe levels.

Figure 38 is an example of what I mean and this should apply for most 24 hour traded markets. We can see that on the left chart is the day only market (9.50-16.30) and the close of the trading week 3096, this gave us a weekly projected path of 3133 for the following week.

For the same market but over the 24-hour period, the market had continued on and closed at 3114, this had projected the weekly path to 3151 the following week. Based on the same market but different range of timeframes we have the day session 3-week high at 3133 but in the 24 hour session we have 3151, 20 point difference.

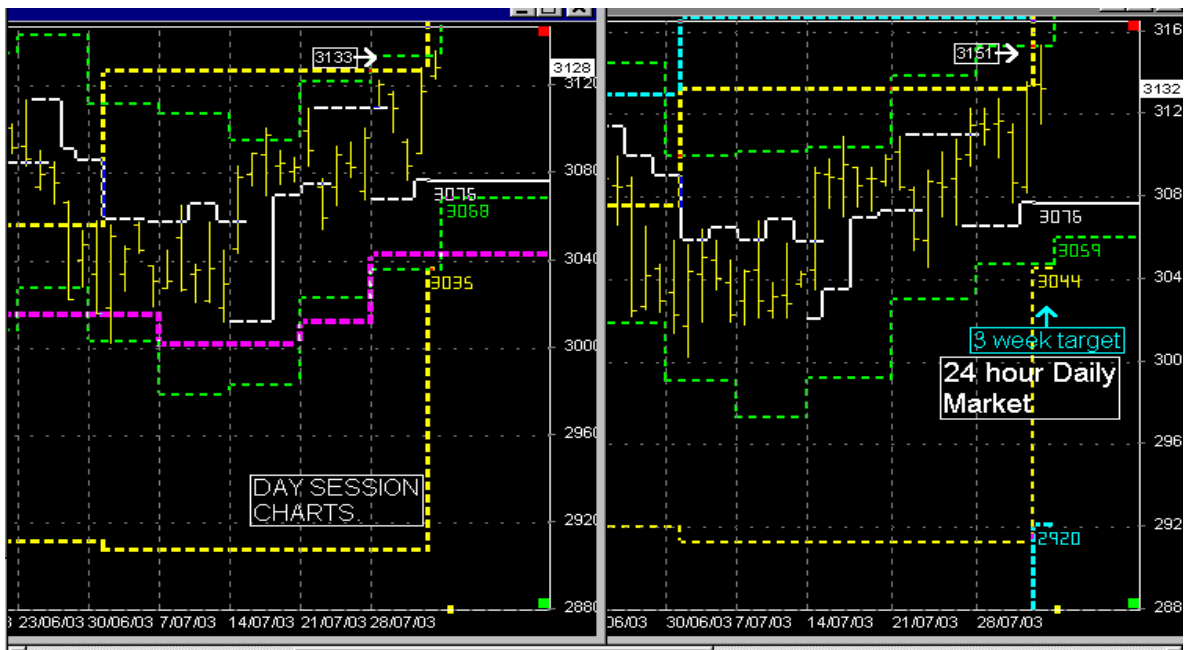


Figure 38.

We can see both 3-day cycle highs breaking near the tops and moving back into a 2-day stall before continuing with the current targets of those 3-week highs.

The thing you will notice is the 3-month highs in each chart (yellow), a high of 3126 so for the trading month of July it would find it difficult in moving higher even with our new weekly levels until the month closes, and then these dynamic levels will move higher in August, so therefore the resistance dynamically disappears.

Figure 38 illustrates what occurs on the last trading day of the month, Price rallies on the 3<sup>rd</sup> day after a 2-day stall and halts at both 3-month highs but once the month completes this resistance moves forward allowing both price to move towards the new 3-week highs. The market is allowed to move higher on the 1<sup>st</sup> August 2003.

The interesting part is the day session only moves to 3133 and stalls because TIME is less than what is in the 24-hour period and only continues onwards 'after hours' towards the 3-week dynamic level of 3151.

The parameter of TIME and MATH when determining where Price is travelling is an amazing phenomenon that we can all use. The same applies for other derivative markets and the same sequence of events and same market paths of TIME.

### **In Conclusion:**

If one adheres to the methodology of 'profit forecasting' and risk-reward strategies then TIME needs to be fully understood in its role of affecting Price. If one can find some factor, in that Time is forecastable, then related matters on Price can become a model of expectations for high probability trading scenarios."

*"The purpose behind deciphering the market's timing also relates to profits. Who cares what the price level is, as long as you know what's going to be the turning point in the forecastable Time. The methodology of determining Risk-Reward should then only be based on the Time." (Frank Dileria)*

Reading this, I'm sure people are still confused by what I mean. Let me explain...

Time is the only constant variable in the market that is dynamic, because time is the only thing that moves forward. You can't go back in Time. Price isn't dynamic. Price is just a variable in the market that

defines a perception of value to the participants.

So if that's the case, and Time is the only thing moving forward then we need to make a mathematical model based on this theory, because we are trading a Dynamic market. When I say 'time is the only thing 'forecastable', I know that on the 31st of October this current timeframe ends and the next timeframe begins. I'm forecasting Time; it's not too hard to understand. I then I apply a math model to all the constant variables of TIME.

The reason I do this is because we begin to observe the statistical phenomena of the same price patterns occurring and reoccurring over and over again. This again defines Market Risk, not individual Risk; the market path within the timeframe and the 'predictability' of the movement.

This book is not trying to predict the Market or trying to tell each trader that this way is the new way or the only way to trade. AMT takes a simple concept of TIME and the 3-periods of each, allowing every trader a unique way of looking into the future. How long do I have in this trade? Where is the market going? Is Price in the process of rotation or extension? Has the trend changed? Where is likely support and resistance?

Any individual can use the above information to enhance his own unique way of trading. Whether you're a 400-lot trader, a short-term intra-day scalper, or using a systematic approach with automated systems, this book provides a clear understanding that the market travels a certain path in a certain time. It highlights how the market continually rotates within itself whilst moving forward in TIME.

My belief is that the TIME of the trade is more important than the Price traded. Once we have an understanding of the sequence of events then traders can adjust themselves to where and when they will trade, how long they stay in the trade, and the most important is we begin to identify Market Risk.

Now we have a 'Window into the Future'!

**Frank Dilernia.**

**Author and developer of Analytical Market Trading 'a window into the future'.  
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