TRADING WITH THE TIME FACTOR

THE BEST OF THE TRADING TECHNIQUES
BY W.D. GANN – EXPLAINED, SIMPLY

FRANK BARILLARO

DEDICATED TO THE MEMORY OF CARMELO BARILLARO

WHO ALWAYS TAUGHT THAT IN LIFE IT IS
MUCH BETTER TO GIVE, THAN TO RECEIVE.

**CI MANCA I TUOI PRESENZI, MA TU
RIMANI SEMPRE PRESENTE NEI NOSTRI
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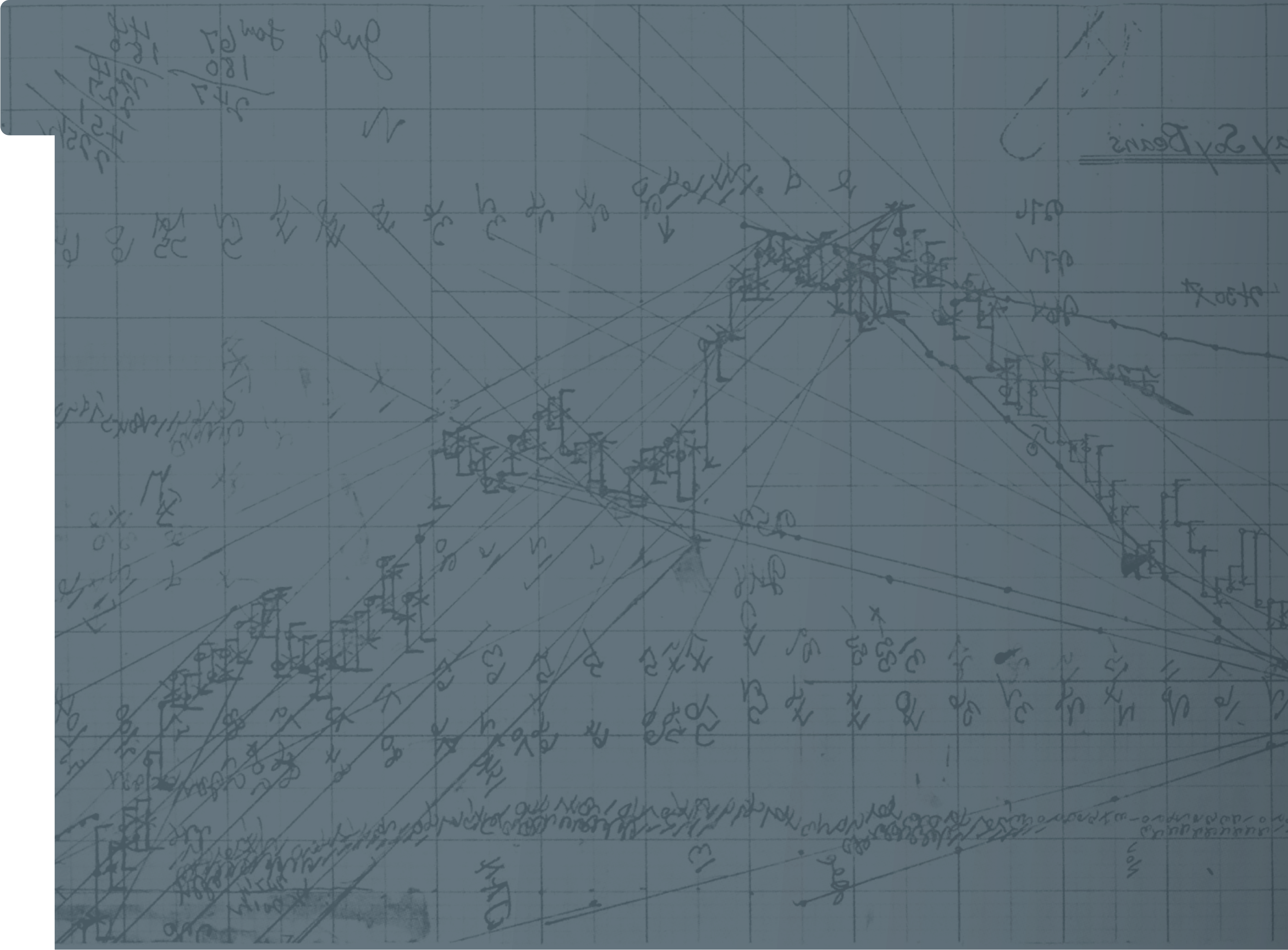
THE BEGINNING

IT **IS** POSSIBLE TO DO WHAT MANY
WILL TELL YOU IS THE IMPOSSIBLE.



PREFACE

It is possible to do what many will tell you is the impossible.

I am convinced there is a calculable geometric symmetry present in all financial markets. The secret is knowing how to find it. Once you know how to find it, you can apply it to predict the exact time and date of future market tops and bottoms, sometimes years in advance.

I am certain of this because I have I seen it happen. I have also been able to predict it occurring in the markets time and time again. In 2001, I am on the record for outlining in writing that my timing calculations were indicating that 'September 11, 2001 is a date to be wary of.' I also nominated the date which proved to be the yearly low for the Australian stock market in 2001 to the exact day. All of this before the event.

I saw the geometry that unfolded in the precious metal Gold market which coincided with the end of the 20 plus year bear campaign in gold prices. It enabled me to make a number of long term investment decisions, including a first purchase of gold bullion when it was trading just above US$300 an ounce. Interestingly, the same geometry which ended the 20 year bear market in gold was also present to predict the current all-time top in gold prices in 2011. In this book, I will share with you all that unfolded.

I have calculated, and have shared with colleagues, future dates to watch for in the Australian stock market which have been accurate at predicting major turning points within two trading days, more than two years in advance. And in 2011, I wrote to friends and colleagues outlining the US equities markets will continue to make higher prices into 2012 and 2013 – a bull market in US equities which has since seen all time record prices.

My friends and colleagues often ask me to explain how I can do it. However I have always felt that it would need a book to provide them with an adequate answer. So, after much convincing, I guess this is that book.

This book would not be possible without the input and experience of my best friend and long term confidante, Frank "Bob" Nigro. Together, we will be sharing with you over 30 years of collective experience in the financial markets and thousands upon thousands of hours of study and research into the trading techniques which we have seen consistently working for us to predict future market tops and bottoms. We have seen which techniques work. We have also figured out which ones don't.

This book summarises 30 years of market experience into simple to follow descriptions and illustrations. It does much of the hard work for you in better understanding the markets. It filters out the best of the best – so that you may apply these techniques to your own stock, commodity or currency market analysis. Importantly, I will show you how to apply these tools in a manner that is simple to calculate and easy to understand. A few of these techniques are what Bob and I consider to be the best of those used by many of the professional traders and hedge fund managers. The majority however have been adapted off the works of W.D. Gann – who was legendary for his contribution to trading by technical analysis.

These techniques have proven the test of time. They worked over one hundred years ago and I am confident they will continue working for the next one hundred years.

This book will change the way you look at financial markets. By the end of it, I am confident that you too will have learnt the geometric "secret" that is present in all markets – and that you can achieve what others will tell you is the impossible.

Frank Barillaro

INTRODUCTION

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INTRODUCTION

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BEFORE WE GET STARTED

For a long time now, I have been mesmerised by the workings on Wall Street and the tales of fame and fortune by some of the great market legends such as Jesse Livermore, JP Morgan and the story of the Hunt brothers.

In order to get the record straight right from the start however, I am not a full-time trader. As reluctant as I am to admit it, I am an investment banker by profession. A couple of years after my banking career started, I was fortunate enough to be given the opportunity of a traineeship on the foreign exchange trading desk at a major Australian bank – and I am still very grateful to the person who gave me that opportunity to this day. For me, it was a dream job. Although brief, I learnt many things about professional traders and the different ways they approached the market. I had been a student of the markets and Gann theory for a number of years beforehand, but the experience on the desk certainly added a new dimension to the way I looked at financial markets and the way professional traders approached them.

Unfortunately, the dream was short lived. My father (who was also my best friend and inspiration for many things) sadly passed away on New Year's Day in 2006.

It prompted me to give up the traineeship so I could move back home from interstate to be closer to my family who needed me more at the time.

Eventually, I assumed a role in working in structured finance, packaging investment products – it allowed me to remove my law degree from being just a paper weight on my desk at home and actually putting it to some use. The rigours and demands of a job in investment banking however don't afford me the luxury of being able to actively trade the markets day in and day out (not to mention the restrictive compliance rules on trading that come with my profession which makes active trading a challenge!). Becoming a proud father of two young children recently also now consumes most of my spare free time. Nonetheless, I have still found a way to keep an active interest in the markets… and calculate an accurate forecast or two along the way.

I thought it is important for me to outline this to you from the start for a couple of reasons. Firstly, I am sure that there will be a few critics out there dismissing the idea that a book can be written about trading and the techniques pioneered by some of the market's greats by someone who doesn't trade the markets full time.

I am happy to cop such criticism – particularly if that person has read some of my forecasts and has a track record of being able to consistently produce them as accurately as I have. Secondly, but more importantly, I hope to demonstrate to you in this book that you don't have to be a full time trader to apply the techniques I am about to show you.

By the end of this, it is my goal to have shown you how anyone can observe the symmetry which repeats itself in financial markets with only a modest level of analysis and by keeping it simple… all you will need is a bit of practice.

In writing this book, I have to recognise the important contribution by my great mate Frank "Bob" Nigro who has been a key driver in identifying what is the best of the best of the trading techniques I am about to share with you. Bob does earn his living from trading the financial markets. He has lived and breathed the markets day after day for more than fifteen years, and has always been his own boss. He answers to no-one, except the market, and sometimes, as Bob often tells me, his lovely wife and young daughter. He provides a wealth of knowledge which has made its way into this book and the 'full time trading experience' just in case you believe this book needed it.

HOW THE MATHEMATICAL AND GEOMETRIC RELATIONSHIPS WORK IN THE MARKET

One of the things which I agonised over when writing this book was how to choose which market (or markets) I was going to refer to as working examples of how market geometry works. I have seen these techniques I am about to share with you work in all types of markets – be it, stocks, stock indices, currencies or commodities. To demonstrate this, I was therefore tempted to find an example of a particular technique working in each of those markets (for example, repeating time frames in the Gold market and repeating price ranges in a stock index) and to write each chapter based on that. In doing so, however, I felt that it may not present a full picture which I believe is required in order to produce a successful forecast. As each technique is an indicator which works in harmony with the others, the most successful forecasts therefore work when these techniques are all working together.

For that reason, I have chosen to present the examples in this book using the United States S&P 500 stock index as the primary basis. In my view, this index represents the global benchmark of equity indices, so it is a pretty reasonable place to start.

Rather than go back too far in time and pick out the best examples out there, I have chosen to use the most recent price action available – as I think this is probably more relevant to many of you. In particular, most of the examples I will show you will start with all-time tech bubble high in March 2000 and show the price action right up to the end of calendar year 2013 – which is where the market has currently ended and the date of this book has begun. By the end of it, I hope to have shown you how all of the techniques presented are still relevant in the market today dominated by an age of computerised trading, just as they were one hundred years ago before computers existed.

Although I have chosen the S&P500 as the basis for this book, it is important to recognise that the forecasting techniques I am about to show you can be applied to all markets. For that reason, where appropriate, I will be using some additional examples from the gold and silver precious metals markets as well as some examples of the Australian equity market, as they are basically the markets where I first cut my teeth and began to apply my learnings and making forecasts.

I will show you how to construct a road map for the next 12 to 24 months ahead to help you determine the likely position of the market. In addition, Bob has been kind enough to share the trade entry techniques that he has refined over the years in order to successfully trade off a forecast top or bottom and the tips that he uses in to minimise losses and maximise profit.

Calculating a successful market forecast is a bit like a jig saw puzzle that requires you to put all of the pieces (or techniques) I am about to show you together. Over 30 years of collective experience has allowed Bob and I to simplify the jigsaw into fewer pieces. In finishing off this book, I will give you a step by step walk through on how to apply each of these techniques to make your own stock market forecast using some of the successful market forecasts I have made in writing.

I hope you will find these examples as illuminating and useful as I do.

WHY THIS BOOK IS NOT ALL ABOUT GANN

Bob and I began our journey studying the financial markets both as university students in the late 1990's. Our study was heavily influenced by the work of W.D. Gann in the early days, but we soon came to realise that there were many other tricks which worked just as well, if not better, and more consistently in the markets. Having been Gann students for a number of years, the realisation that his techniques are not the be-all and end-all to trading, helped simplify our thinking and improve our analysis greatly.

This book therefore isn't all about Gann.

It is about the best of the techniques which we have found to consistently work out there – and a number of them a re used in practice by the professional traders out there in the current day!

I had been trying to convince Bob for a number of years to help me with writing a book on the subject. Consistently, he has been able to find a good reason not to do it. Bob prefers to have his privacy and to focus his time on trading, and I respect that. Likewise, he has been trying to convince me for years to give up the banking game and join him full time in our pursuit of the markets. Whilst I have been very tempted at times, I have been enjoying the challenges and rigours of the banking world too much, particularly while I am still young and energetic.

I know that the markets will always be there tomorrow and the day after and that once you have mastered the techniques for timing the market that I am about to show you, they will stay with you for a lifetime. We had both agreed to leave the book for another day.

Becoming parents recently however certainly has changed our perspective. This book therefore has much to do with making sure we have a record of our experiences in writing for them to follow should they one day choose to explore the markets like we have. And so, I have been able to convince Bob (and myself) to put our learnings down on paper. The product of this book therefore, is exactly how Bob and I would attempt to teach our 30 years of collective experience to our own. I say that with the upmost sincerity.

This book represents the output of the thousands of hours of our collective research in state and university libraries, the hours upon hours of market analysis, and actual trading experiences along the way. What you are receiving are the trading techniques which we feel represent succinctly, and simply, what is the best of the best available for analysing the markets. If you thought the price tag of this book was expensive, it might be poignant to point out that its cost is probably a lot less than a trip to the dentist.

My sincere hope is that in reading it, it is nowhere near as painful!

And just in case I have left you wondering how Bob got his nickname, it is a pretty simple story really. Bob used to spend quite a considerable amount of time at our family home as we started out, trawling through all sorts of books and historical charts of stocks and commodities to figure out how this stuff all worked. He was like an adopted brother to me and my two younger siblings. Having the same first name as your best mate however can have its disadvantages.

Eventually it became a bit confusing for my two younger brothers each time one of them tried to attract our attention – they would often yell out "Frank", and naturally, both Bob and I would turn around (actually, most of the time we would ignore them thinking they were trying to attract the attention of the other). Eventually, they decided to call myself "Bill" and Bob, "Bob" so the two of us could distinguish one another. The name Bob stuck. Fortunately, Bill didn't – so I have always been just Frank.

WHO WAS W.D. GANN AND WHY IS HE RELEVANT?

William Delbert Gann is legendary when it comes to Wall Street and the impact he has had on trading the markets. Arguably, he has contributed more to the study of technical analysis than any other trader past or present. Gann developed out the theory that there is a discernable relationship in all financial markets between time and price. He believed that the geometric representation of price through time would reveal important cyclical patterns within markets that had predictive values. In other words, future projections in the stock market can not only be made to calculate price, but also can be applied to forecast the dates of future market tops and bottoms by incorporating the calculations of time.

Gann is reputed to have taken more than $50 million from the stock markets over his career in the first half of the 20th century. If that was measured in today's dollars, I have figured that to be a pretty big sum. In his published annual forecast for 1929 he figured that 'a top must come no later than the end of August and that a "Black Friday" would come in September.' He nominated 3 September, 1929 as a key date. History will show that the high in the Dow Jones Industrials index which preceded the Great Depression was reached on 3 September 1929. What followed was the greatest ever fall in stock prices to this day. In my opinion, that makes his work relevant!

Many have explained in different variations the premise for why Gann's theories work. One simple explanation which I think resonates, is that the basis for Gann's theories was that, as human nature will never change, history is destined to repeat itself. As a result, future generations will repeat the behaviour (or cycles) of previous generations, thereby causing all financial markets to work in cycles which will repeat over and over.

At the start of his book How to Trade Profits in Commodities, Gann outlined that:

'Observations and comparison of past market movements, will reveal what [markets] are going to do in the future, because the future is but a repetition of the past...

The average man's memory is too short. He only remembers what he wants to remember or what suits his hopes or fears. He depends too much on others and does not think for himself. Therefore, he should keep a record, graph or picture of past market movements to remind him that what has happened in the past can and will happen in the future.'

The sum total of all that is that Gann believed that price charts which revealed the past performance of stocks or commodities hold the key in order to predict the future performance of such stock or commodity. By looking at a historical chart of prices, if one is able to properly study and identify the past cycles which have occurred, they will inevitably repeat themselves in the future.

Of course, over the years, I have learnt that there is a little bit more too it behind the theory of Gann to that which I have simplified from the quotes above – and this is best kept as the subject of another book for another day. For our current purposes however, it is important for you to recognise that in order to discover the predictable geometry that is present in all financial markets, you must accept that market cycles have, and will, repeat. This is the foundation for being able to successfully forecast future market tops and bottoms.

THE TICKER AND INVESTMENT DIGEST – VOLUME 5, NUMBER 2 (DECEMBER 1909)

If you are still not convinced by relevance of Gann and the trading methods he pioneered, the following excerpts might help. In December 1909, a publication called “The Ticker and Investment Digest” interviewed Gann after he provided them with a number of accurate predictions on commodity prices using the trading methods which he had developed. [The article, reproduced in its full entirety can be found at the end of this chapter], however it started by stating:

Sometime ago the attention of this magazine was attracted by certain long pull Stock Market predictions which were being made by William D Gann. In a large number of cases Mr Gann gave us, in advance, the exact points at which certain stocks and commodities would sell, together with the prices close to the then prevailing figures which would not be touched....

The publication sent one of its staff to observe Gann real-time trading and the results he produced. The article summarised the result:

So much for what W D Gann has said and done as evidenced by himself & others. Now as to what demonstrations have taken place before our representative. During the month of October, 1909, in twenty-five market days, W D Gann made, in the presence of our representative, two hundred and eighty-six transactions in various stocks, on both the long and short side of the market. Two hundred and sixty-four of these transactions resulted in profits; twenty-two in losses.

In other words, in a period which covered less than a month, Gann made 286 trades with an extraordinary win to loss ratio of over 92%. That trading resulted in a return of over 1000% of his original capital.

And just in case you thought that was a typo, it was 1000%.

In my view, these are trades that I have never seen repeated again… ever! If somebody has, then they certainly aren’t telling anyone about it.

But what stood out to me the most from that article in 1909, and which continues to stand out to me each time I read it, is the following paragraph:

One of the most astonishing calculations made by Mr. Gann was during last summer [1909] when he predicted that September Wheat would sell at $1.20. This meant that it must touch that figure before the end of the month of September. At twelve o’clock, Chicago time, on September 30th (the last day) the option was selling below $1.08, and it looked as though his prediction would not be fulfilled.

Mr. Gann said, ‘If it does not touch $1.20 by the close of the market it will prove that there is something wrong with my whole method of calculation. I do not care what the price is now, it must go there.’ It is common history that September Wheat surprised the whole country by selling at $1.20 and no higher in the very last hour of trading, closing at that figure.

So there you have it. Not only do I believe Gann is relevant, he was at times, truly astonishing.

THE SIMPLE PHILOSOPHY BEHIND GANN AND HIS TECHNIQUES

Gann observed that price cannot exist outside of time. He was able to quantify that whilst the price of any stock, bond, commodity or currency stops trading as the market closes time continues forward, indifferent to price.

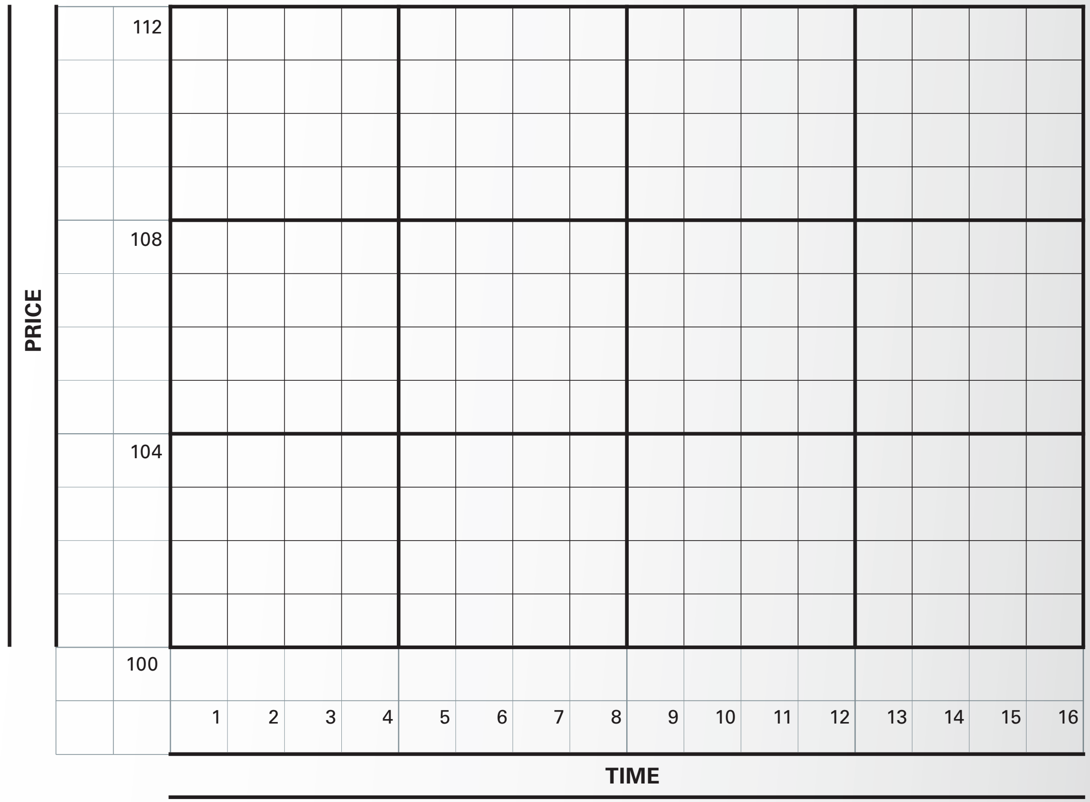
Most of you would be familiar with how a stock chart plots the price of a stock or commodity displaying its historical price action as a function of time.

Price is depicted on the vertical y-axis of a chart, whilst time is recorded on the horizontal x-axis of the chart. Gann identified that there is a total regularity to time. Each of the hours, minutes and seconds of a day can be scientifically measured with precision and measured against a predictable time line on a chart. At the time, this was a revolutionary concept.

One thing which is important to realise is that Gann operated in an age that was absent of computer technology. Accordingly, he kept a meticulous collection of hand drawn charts. He did, for the most part, go to painstaking effort to ensure he recorded his data on charts which were created with equal intervals in both time (as measured on the horizontal axis) and price (as measured by the vertical axis).

Gann employed the use of chart paper with eight squares to the inch, with every fourth line highlighted. This allowed him to create a chart that was scaled where one unit of price (for example, one cent or one point on a stock index) was exactly in proportion to one unit of price (for example, one day, week or month).

Personally, I think the need to keep track of your charts on grid like paper is no longer required given the number of many effective trading software programs out in the market these days. If however, you do intend to maintain hand drawn charts like Gann did, then I would highly recommend doing so by using the same 8 x 8 chart paper that Gann used, and keeping your charts in the same price to time relationship.



This method will help you immensely in seeing the geometry unfold with your very own eyes, and will be of considerable assistance if you do go about attempting to re-create some of Gann's charts or work through many of the examples he left behind in his writings, by hand.

SIMPLIFYING GANN AND FILTERING OUT HIS BEST

Based on his assumption that cyclical market patterns will repeat in terms of both price and time, Gann developed a diverse range of market trading techniques. One of the greatest contributions Gann made to trading was his identification of the 'Time Factor' which is present in all financial markets.

There are many critics of Gann who will go to great lengths to dismiss his theories, particularly on time, and will present their arguments as to why there the mathematical and geometric relationships which Gann identified existing in the markets, don't actually exist. I am often amused by such criticism, particularly as most of those critics will employ the use of their own mathematical formula when analysing the markets – for example, the use of highly complex mathematical algorithms which are used so often by the hedge fund world and professional trading community.

In any event, it is without question that Gann has left behind a legacy for trading the financial markets which has intrigued many to this day. For anyone who has seriously studied the works of Gann, it will be obvious that the man had an enormous work ethic.

This led to him discovering a vast array of trading techniques, which have application upon application in their use.

One of the pitfalls however which I have certainly faced when studying the works of Gann is that he had so many indicators that it was difficult to know which one to use and when they should be used. I believe it was Gann's ability to tie together the many number of techniques which he had discovered and know when to use them, which truly made him great.

Attempting to use all of the tools at the same time can easily lead you to confusion, not to mention the amount of time required to actively follow them on your selected market. Over the years, Bob and I soon discovered that there were some of Gann's techniques which seemed to work better and more consistently than others. For Bob in particular, this led him to redefine the way he analysed the markets, by taking a step back and looking to simplify matters. My own ability to forecast market tops and bottom relies on a selected number of indicators which I use as primary tools. Whilst I am always mindful of some of the other powerful Gann techniques at work, I tend to use those as confirmation tools rather than primary indicators.

The basis of this book is about simplifying your analysis and providing you with the best of the best. When deciding what to include in this book, it was tempting to put down every single thing I have learnt about forecasting the markets and Gann theory. A challenge in doing that however, was that even drafting an outline for this book became a beast of its own with chapter upon chapter of new material – to me, this makes it all a little bit unworkable, particular for a beginner, With that in mind, I have left a number of Gann techniques outside the scope of this book.

WHAT TECHNIQUES WAS GANN FAMOUS FOR?

Gann Angles

Gann is often credited for inventing what I refer to as Time & Price angles (or otherwise known as Gann Angles). These are geometric lines typically drawn from a market top or bottom and used to define future points of price resistance or support. Many of the books you may read about Gann and the charting software which adopts this technique will employ the use of 1x1 angles, 2x1's, 3x1's, 4x1's, 8x1's… just as a start. What you often end up with is a series of lines that clutter your chart and therefore your analysis, leaving you scratching your head as to which one you should be looking at. A number of on-line trading platforms also now incorporate the use of Gann Angles in some way or form, but in my opinion, many of them do not apply them correctly. We will explore this technique in more detail later so that you know how and when to use them. My approach with them has been to simplify their use into something which is useable and tradeable. I will explain this to you later.

The Square of Nine

Another technique which Gann is also widely renowned for is his Square of Nine calculator. Both Bob and I have studied this extensively over the years, and have found it to be a useful tool in predicting the markets. My biggest issue with the Square of Nine calculator is not about its predictive ability, but is practicality. Additionally, it is my view that properly describing how the Square of Nine calculator works requires a book in and of itself, and I do not think it is a necessary tool in order to make an accurate stock market forecast.

It took Bob and I years and years of study to properly understand the workings of the working of the Square of Nine alone. To this day, we continue to discover new dimensions and applications to it as we further our research and back testing on this tool. Being able to apply the tool in a simple, effective and consistent manner however is a very time consuming task. More importantly, all of the forecasts we have made over the years have not required the use of this calculator as a primary tool (although we have found it useful as a confirming indicator).

The approach Bob and I therefore took was to master the other techniques first, as having a proper understanding of those will help you immensely when attempting to tackle the Square of Nine. (And I haven't even begun to mention the Gann Square of Four calculator, his Wheel of 24 and the Hexagon Chart, all of which operate in a similar way, but each require a separate level of understanding!).

Whilst I will cover the Square of Nine and how to use it at a high level, I have decided to leave a detailed description of it and its brother and sister squares for another time and another place. Once you have mastered the techniques contained herein, then tackling the Square of Nine will be much easier.

Master Square Calculators

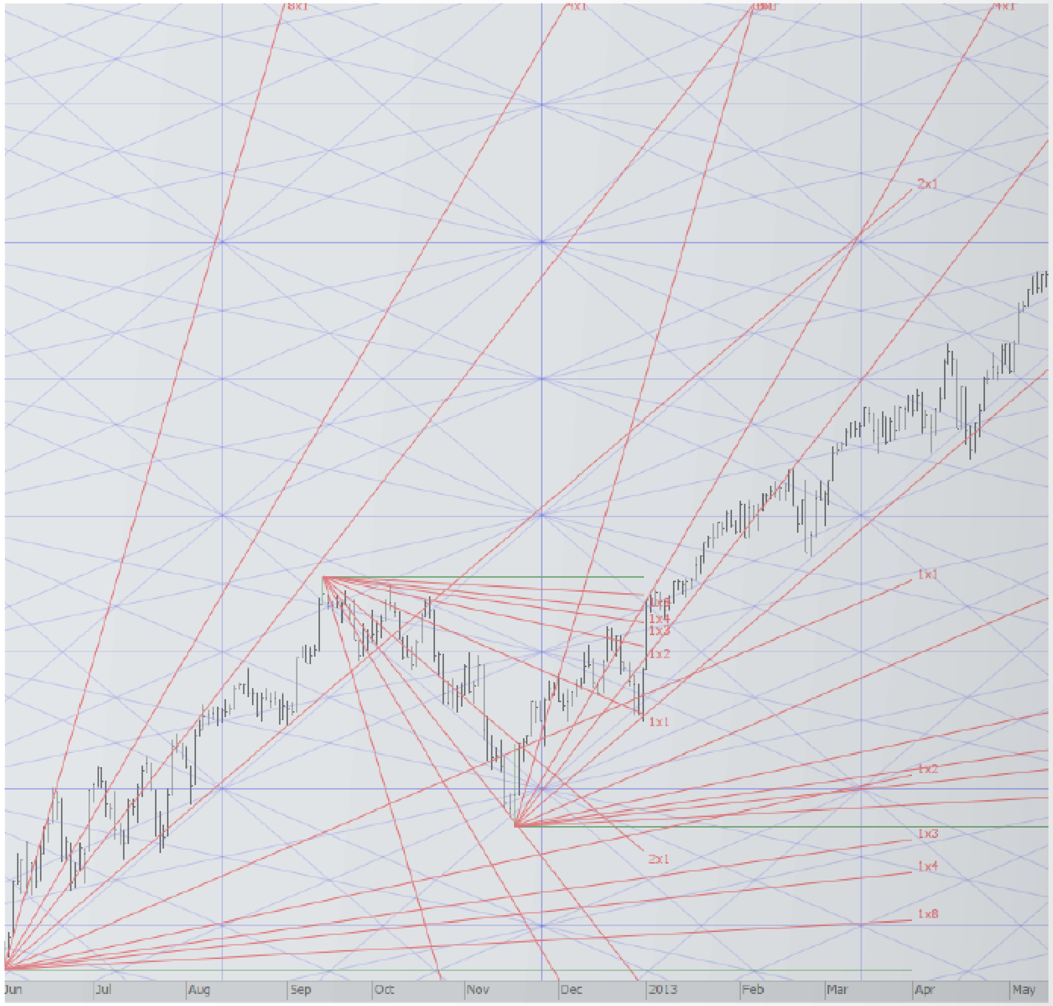
The last of Gann's famous techniques which I wish to describe briefly, but will not go into detail here are his Master Square Calculators – in particular, his Square of 52, Square of 90 and Square of 144 – and I am aware that some Gann traders use these as a primary tool in their trading decisions. I have seen them work in certain circumstances therefore I am not denying them as a valid tool. For me however, I find these squares difficult to follow as they present far too many lines on the page, adding an unnecessary degree of complication to my analysis. For that reason also, I have left a detailed discussion of the Master Squares outside of the scope of this book.

Chart – example of the Square of 144 and Gann Angles applied to a daily S&P500 chart.

The chart (right) shows the clutter that can come about by the use of Master Square overlays and every derivation of the Gann Angles on a chart.

I think the goal is all about clearly identifying key areas that indicate a change of trend and not how many lines one can draw on a page.

If you are able to make sense of the above chart, then you are doing a better job than me.



The Master Time Factor

Whilst Gann is most commonly quoted as discovering the trading tools described above, in my opinion, it was his ability to incorporate (and forecast) time into his trading which truly separates him from the rest and which made him one of the greats.

Discovering the secret to his "Master Time Factor" continues to intrigue many Gann students and experts. Funnily enough, Gann describes his Master Time Factor in significant detail in section seven of The W.D. Gann Master Stock Market Course under the chapter titled 'Master Time Factor and Forecasting by Mathematical Rules.

'I think this is one of the best chapters ever written by Gann in all of his works.'

In it, there lies what I feel are his best discoveries about timing the financial markets and the information needed to reveal many of the secrets on how he was able to make his annual forecasts on future stock market cycles.

In that chapter of the course, Gann reiterates the notion that 'the future is but a repetition of the past; therefore, to make up a forecast of the future, you must refer to the previous cycles.'

Whenever I set about to make a long term forecast or a road-map for what to expect in the year ahead, I will often start there with the material Gann left. After I have determined whether we are in a bull or bear cycle for the next 12 to 24 months, I will then proceed to apply the key trading techniques described in this book in order to construct a forecast and to narrow key turning points to within a number of days. A key to understanding the core trading techniques is required first, and it is for this reason, that I have left my discussion on the Master Time Factor until the end of this book – saving of course, the best for last.

Another master – Fibonacci

There is no doubt that WD Gann has heavily influenced my thinking and the way I approach my analysis of the markets. As I stated earlier, it was the discovery of a broader, underlying geometry present in the markets which made me realise that my analysis had to extend far greater than his work alone. I was aware of the Fibonacci sequence and its application to the financial markets when I began my traineeship as a FX trader in a leading Australian bank.

One of the up and coming traders on the floor, who I figured had about 5 to 10 years of experience, quizzed me whether I had heard of Fibonacci on my first day on the role – he was expecting me to have no idea who Fibonacci was, and to send me off on a research journey and report back to him so that I would stay out of his way for a little while.

Much to his surprise, I told him what I knew about the mathematician, so he sent me off to fetch him a coffee and some toast instead! To be perfectly honest, at the time, I was more surprised that he knew who Fibonacci was – even more so when I learnt that he adopted the Fibonacci techniques in his trading. I quickly learned that Fibonacci was used by a number of the other seasoned traders on the floor.

The Fibonacci sequence was named after Leonard Fibonacci, the author of the book Liber Abaci written way back in 1202. Fibonacci is acknowledged for introducing the sequence to Western European mathematics, although its origins are dated back much earlier into Indian mathematics.

The Fibonacci sequence of numbers follows a distinctive pattern which can be found throughout a number of biological structures such as the branching in trees, the growth pattern of a flower and the arrangement of a pine cone, amongst others. The sequence is depicted by a set of numbers as follows: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144… and so on.

Each number in the sequence is simply the sum of the two preceding numbers, which allows the sequence to continue indefinitely. In the example above, I have deliberately left the sequence to end at 144 – which I trust is a number you remember me talking about earlier. What is remarkable about the Fibonacci sequence, and why it is so relevant to the geometry of markets, is that the characteristics of the numerical sequence is such that each number is approximately 1.618 times greater than the number preceding it.

At this point in time, I think it is important for you to pause and reflect on that number 1.618, as you will see that number (or a derivation of it) appear time and time again in the markets. The relevance of that number to geometry is that 1.618 closely reflects the mathematical “golden ratio” which has fascinated Western mathematics for close to 2,500 years.

Mathematicians from Ancient Greece first studied the Golden Ratio because of its frequent appearance in geometry. Since then, some of the greatest mathematical minds of all time, including Pythagoras, Leonardo of Pisa and the astronomer Johannes Kepler have spent hours analysing the Golden Ratio and its properties. Some have said that it has inspired thinkers of all disciplines like no other number in the history of mathematics.

In trading, I believe the Fibonacci sequence (or Fibonacci Retracements) is used more frequently than any other tool amongst technical traders in the industry. It is very rare for you to switch on the financial channel on TV and not hear one analyst or another discuss it. Perhaps it is the mere fact that nearly every technical analyst is aware of the Fibonacci Retracement is what makes it relevant. I will show you later on, just how powerful and predictive these retracements can be.

A Fibonacci retracement is created by selecting two points on a chart, represented by a market top and bottom, and by dividing the vertical distance by the selected Fibonacci ratios. The percentages are then used to draw horizontal lines across the chart and identify possible support and resistance levels.

The key Fibonacci used the most is a retracement of 61.8%. Again, I point you back to the Golden Ratio number I referred to early. It can be found by dividing one number in the Fibonacci sequence by the number that follows it – for example, 55/89 = 0.6179. Whilst the mathematical result of the numbers in each of the sequences are not exactly 0.618, they are closely approximate. The number to use in your analysis however is 61.8%.

I also like to use the ratio of 38.2% in my analysis. This is found by dividing one number in the Fibonacci series by the number that is found two places to its right – for example, 55/144 = 0.3819. Many traders will often use the ratio of 23.6%, which is found by dividing one number in the series by a number that is three places to its right – for example, 34/144 = 0.2361. In my analysis, I stick simply to 61.8% and 38.2%. For now, these are the only two numbers we need to worry about.

The example in the chart (left) uses the market top identified as point A as the starting point and the following market low at point B as the end. (As an aside, the price action in the chart actually reflects the movement of the Australian stock market from its all-time high in 2007 to the end | of 2013.

For the purposes of our illustration however, we will assume a nominal price for our starting and ending points. Each Fibonacci retracement level is calculated using the percentages between these two points).

For example, if the top at point A occurred at a price of $11.00 and the low at point B at a price of $1.00, we have a range of $10.00 which we use to calculate the Fibonacci retracements. The 61.8% point for example would be represented by the price $7.18 – which equals 61.8% x $10.00 + the low of $1.00.

23.6% **38.2%** **61.8%**

Another master – Ralph Nelson Elliott

If you have spent any time studying technical analysis of the markets, you will probably notice the name R.N. Elliott come up – a lot. Elliot is credited with discovering his Elliott Wave Principle, which he used to describe market behaviour occurring as a result of natural human behaviour. The underlying premise to Elliott theory is that markets represent a mass of people – the crowd – and their behaviour.

The changes in the mass of psychology of the crowd will therefore cause fluctuations in markets based on the underlying pessimism or optimism of the crowd prevailing at the time. According to Elliott, changes in investor (crowd) psychology is recorded in the form of price movements which can be observed on a chart. This creates specific patterns which can be measured in the markets and will often repeat themselves due to the underlying basis that human nature over time never changes.

At the heart of Elliott Wave Theory is that each major market movement (or dominant trend) will unfold in a five way sequence (represented below as 1 to 5), and each minor movement (or corrective trend) will unfold in a three way sequence (represented below as A to C).

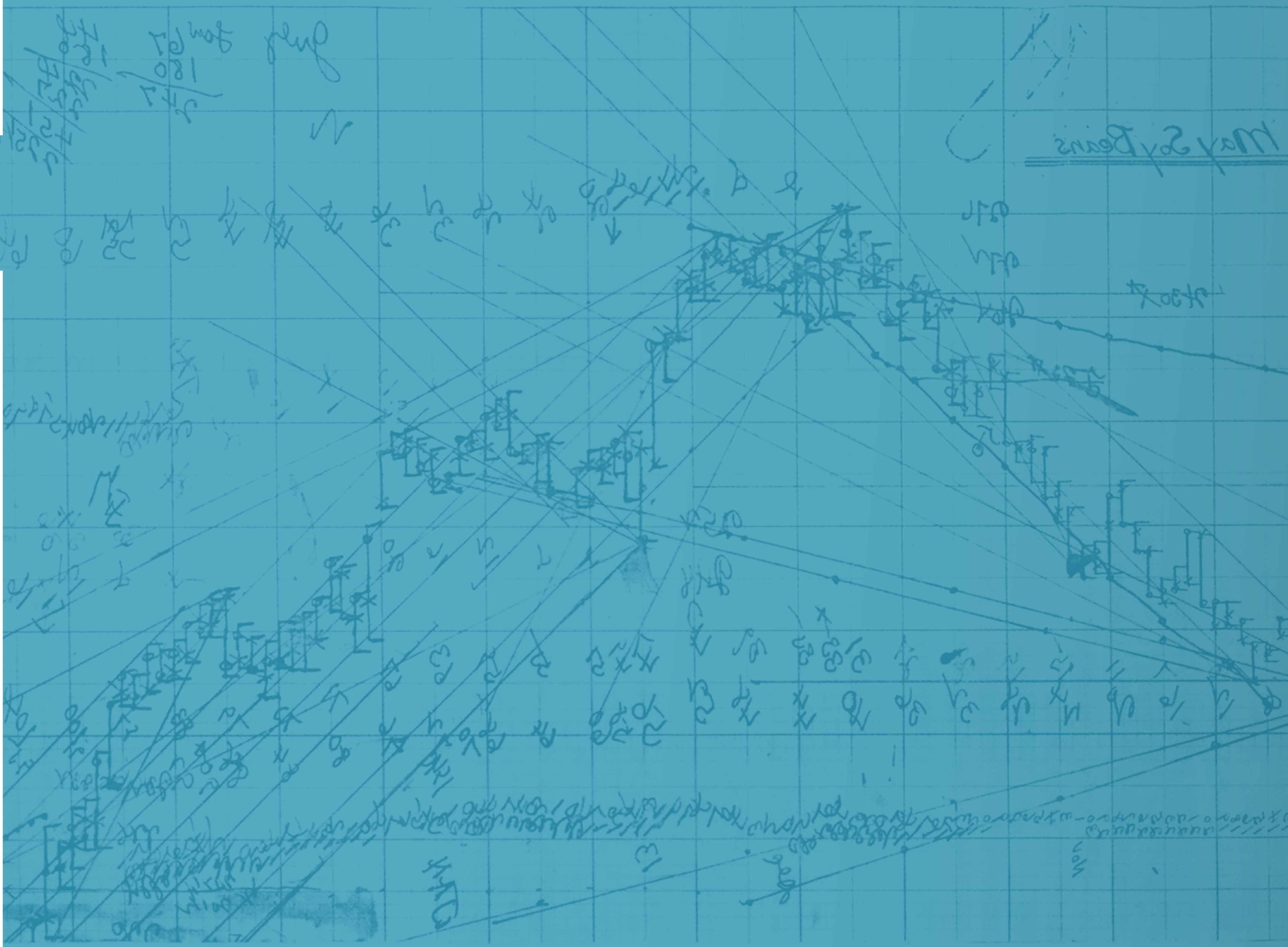
I acknowledge that this is just an over simplification of Elliott's work, and I apologise if I have offended any of the Elliott Wave practitioners out there. However, what I have found, particularly with the increase of computerised trading over recent years, is attempting to identify a more detailed application of Elliott Wave sequence and applying it over the markets on intermediate market moves (ie the smaller moves that occur within the major long term trend) can produce confusing results.

In the interest of keeping it simple, I stick to the basic five wave and three wave sequences above. In the next chapter you will see that this is one thing that both Elliott and Gann had in common.

SECTION ONE

IDENTIFYING THE TREND

1



SECTION ONE

IDENTIFYING THE TREND

Before we get into really the good bits, the first objective for anyone looking to analyse the market is to be able to identify the trend and make sure you are invested with it!

Section one is all about showing you how to review the historical price movements of your selected market and identify what the chart is telling you. It is my opinion that the greatest profits are made by making sure you are trading with the major trend. Not only can your profits be much greater trading with the trend, but both Bob and I have found that it is much easier and requires much less work.

One of the things you will need to control once you have mastered the ability to predict a market top, is the lure of fast gains by successfully being able to nail a high which proceeds a crash. It is often said that 'markets will go up by the stairs, but down by the elevator'. The corollary of this of course, is that bear markets will give you faster profits. The problem is, markets in general (but equity markets in particular) spend most of their time these days in an uptrend. If you are constantly a perma-bear trying to call every market top, you will often see yourself sitting on the sidelines whilst the bull market gains are being made.

A really good case in point is the bull market in Gold from the 2001 low to the April 2011 high. Whilst there were a number of significant corrections in between, the best money to be made was from holding a long position in gold over that period. Once you were able to identify that a bull market was underway, even a passive 'buy and hold' strategy would have rewarded you handsomely. On the other hand however, attempting to trade each of the corrections in the bull market and always predicting the top would have left you licking your wounds from being short, or out on the sidelines whilst the gains were being made. Repeat that experience if you were a perma-bear constantly calling for a correction in US equities to occur throughout 2012 and 2013.

The simple objective should be to trade the trend – not a perspective.

CHAPTER ONE – HOW TO KNOW YOU ARE TRADING WITH THE TREND

Markets will either operate in one of three stages of activity which can be described to categorise the direction of stock or commodity prices:

1. Bull market – where prices are going up, defined by higher tops and higher bottoms

2. Bear market – where prices are going down, defined by lower tops and lower bottoms

3. Sideways market – where prices appear to be 'range bound' and are not consistently displaying the characteristics of either a bull or bear market

Chart 1.1 – bull market

The chart below depicts the performance of the S&P500 market throughout the 2013 calendar year. Notice how the market was consistently making higher tops (in green) and higher lows (in red). In a bull market such as this, the safest money is made trading the long side of the market and trading with the trend. The 'buy and hold' theory works beautifully in these types of markets.

Chart 1.2– bear market

The chart below depicts the performance of the S&P500 market throughout the bear market campaign which began off the high in October 2007 until it reached its final low in March 2009. Notice how the market was consistently making lower tops (in green) and lower lows (in red). Bear markets will often move faster in terms of price over a shorter period of time than a bull market, and can easily get ugly if you are on the wrong side of the trend.