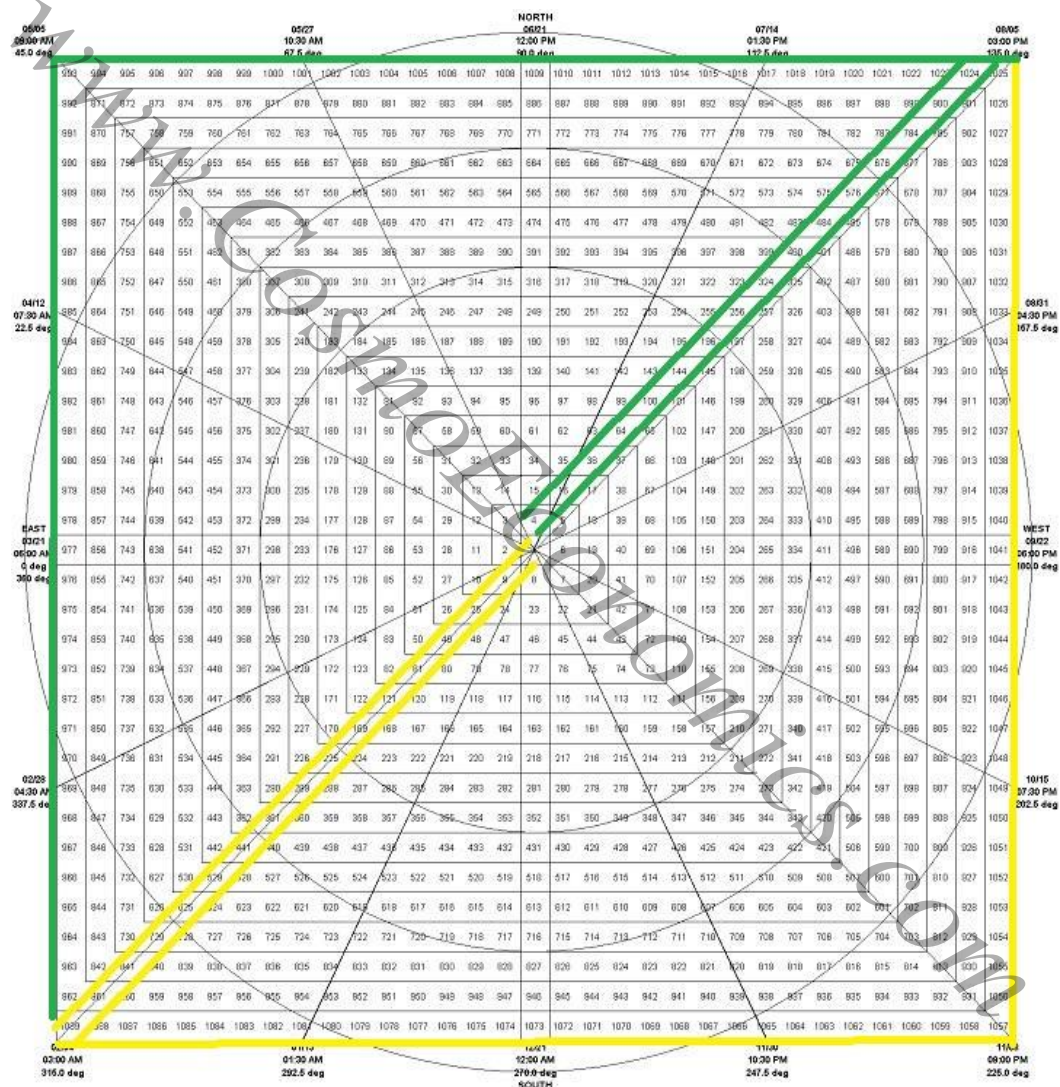


THE PATH OF LEAST RESISTANCE

THE UNDERLYING WISDOM & PHILOSOPHY OF W. D. GANN

ELEGANTLY ENCODED IN THE MASTER CHARTS



BY DANIEL T. FERRERA

COSMOLOGICAL ECONOMICS

TABLE OF CONTENTS

- ❖ PUBLISHER'S PREFACE
- ❖ AUTHOR'S PREFACE
- ❖ UNDERSTANDING THE ESSENCE OF GANN'S MARKET PHILOSOPHY
- ❖ IMPORTANT CLUES FROM W.D. GANN
- ❖ 4TH DIMENSION
- ❖ PLANETARY ANGLES
- ❖ BASE 10 METHOD
- ❖ PARALLEL ANGLES
- ❖ SQUARING OR BALANCING PRICE CHARTS
- ❖ BASE 10 FRACTAL SYSTEM
- ❖ BASE 10 SUMMARIZED
- ❖ VISUAL BALANCING METHOD
- ❖ SQUARING PRICE WITH TIME
- ❖ THREE WAYS TO SQUARE TIME AND PRICE
- ❖ THE MOST IMPORTANT ANGLE, DIAGONAL
- ❖ SECOND MOST IMPORTANT ANGLE, HORIZONTAL
- ❖ THIRD MOST IMPORTANT ANGLE, VERTICAL
- ❖ SECTIONS OF BULL AND BEAR MARKETS
- ❖ SIMPLE TIME PERIODS
- ❖ BALANCING TIME WITH EQUAL TIME
- ❖ SUMMARY OF SIMPLE TIME PERIODS

- ❖ **SHORT TERM TIME PROJECTIONS**
- ❖ **FIBONACCI AND NATURAL SQUARES**
- ❖ **FORMATIONS & FORM READING**
- ❖ **SWING INDICATOR**
- ❖ **FORMATIONS REVIEW**
- ❖ **THE AVERAGE OR 50% HALFWAY POINT**
- ❖ **MOVING AVERAGE TREND INDICATOR**
- ❖ **THE LAW OF VIBRATION**
- ❖ **PRICE CHANGES ARE VIBRATIONS**
- ❖ **LET THE MARKET TELL ITS OWN STORY**
- ❖ **SUPPORT AND RESISTANCE LEVELS**
- ❖ **THE SPIRAL CHARTS – PARAPHRASING GANN**
- ❖ **THE EVEN & ODD SQUARES CALCULATORS**
- ❖ **TIME COUNTS & QUICK CALCULATIONS OF ANGLES**
- ❖ **THE SQUARE OF ODD & EVEN NUMBERS**
- ❖ **FIBONACCI PRICE PROJECTION**
- ❖ **SQUARE ROOTS**
- ❖ **PROPORTIONAL PRICE PROJECTION METHOD**
- ❖ **PROJECTION PROCESS APPLIED**
- ❖ **MONEY MANAGEMENT**
- ❖ **KEYS TO SUCCESSFUL SPECULATION**
- ❖ **THE NINE MATHEMATICAL POINTS FOR PRICE CULMINATIONS**
- ❖ **CONCLUSION**

APPENDICES – KEY GANN COURSES FOR REFERENCE

- I. IMPORTANT LETTERS**
- II. THE TICKER & INVESTMENT DIGEST**
- III. THE BASIS OF MY FORECASTING METHOD FOR STOCKS**
- IV. THE BASIS OF MY FORECASTING METHOD FOR GRAINS**
- V. MASTER CALCULATOR FOR WEEKLY TIME PERIODS TO DETERMINE
THE TREND OF STOCKS & COMMODITIES**
- VI. MATHEMATICAL FORMULA FOR MARKET PREDICTIONS**
- VII. MASTER MATHEMATICAL PRICE TIME & TREND CALCULATOR**
- VIII. FORM READING & RULES FOR DETERMINING TREND OF STOCKS**
- IX. MECHANICAL METHOD & TREND INDICATOR FOR GRAINS**
- X. MASTER EGG COURSE**
 - MASTER SQUARE FOR PRICE & TIME TRENDS**
 - WHY PRICES MOVE FASTER AT HIGH LEVELS**
 - NINE MATHEMATIC POINTS FOR PRICE CULMINATIONS**

DEDICATION

This work is fondly dedicated to my loving wife, who has always been by my side through good times and in bad with truly unwavering support and belief in all my endeavors. To my two college age sons, whom I love deeply, hoping they appreciate how miraculous nature really is. To my deceased father, who taught me the value of persistence, perseverance and patience. To my mother, who stimulated my mind daily as a child with intelligent morning conversations over breakfast. To my grandparents, who have provided me with so many fond childhood memories that I continue to enjoy regularly upon reflection. To my dear friends, Tom, Jeremi, Rob and Tim who have always been there for me when needed. To all the great market masters of the past, who inspired me to look for something more in the wiggly lines of market data. To the creator of life, who designed this amazing universe in which we all live.

Also, a special thanks to Mathew Verdouw at Market Analyst Software for providing the platform that allowed for the excellent illustrations and chart examples. Without this resource, much of this course would have been difficult if not impossible to provide.

PUBLISHER'S PREFACE

For 15 years, Dan Ferrera has established himself as one of the leading experts and educators in the field of Gann Analysis. And yet after these many years of ongoing study of Gann's tools and techniques, he continues to make new discoveries and to develop deeper and more profound insights into Gann's work. One thing he has discovered from his frequent readings of Gann's books and course materials is that Gann intentionally scattered pertinent information under a variety of seemingly unrelated topics and trading tools, or withheld critical pieces of information such that his techniques only become comprehensible and cohesive when these clues are collected and assimilated into their intended integrated methodologies.

Gann's core course, which formed the backbone of all of his expensive private courses, was called *The Basis of My Forecasting Method*, provided his primary teachings on how to use geometrical angles in the markets, and this technique is one of the best known and most applied of all of his ideas. However, most Gann students would be surprised to learn that Gann intentionally left out a critical key element from this course, without which all of his geometrical tools are inaccurate!

This missing link required to correctly apply the various geometric angles and the squaring of price by time was only disclosed to particular private students upon the signing of a non-disclosure agreement. This is

proven by a quote from one of Gann's 1954 letters to a student, included in Appendix I, which stated: *"Remember, you have signed an agreement not to reveal these rules and instructions to anyone!"* So this essential key to ALL of Gann's geometrical work has remained hidden and unknown to anyone who has not had access to this private information, and who does not know how to apply these particular instructions. Many people will be shocked and angry to learn that if they are not familiar with these secret rules, any geometric Gann work that they have ever done, whether it be geometrical angles, trend lines, or master charts, will be wrong!

This is just one example of Gann's intentional use of obscurification and misdirection throughout his work. Another example is when he scatters bits and pieces of explanation of a particular technique across disconnected courses and books. One piece may be found only in a rare stock course, while another section is found only in a more particular commodity course, and yet another clue may be placed in an appendix to one of his books, or demonstrated graphically on a particular chart in a disconnected place. Yet all of these pieces may be required to be used together for a proper application of that particular tool.

Only those who have studied EVERY piece of Gann's work and gone over it again and again, sorting, organizing, studying, and applying these techniques, ever manage to find the proper, integrated use of these valuable tools. Dan Ferrera is one of the few people who has dedicated this level of study and research to Gann's work, and through his ongoing application of

these tools for a decade in his yearly Outlook forecasts, he has clarified and refined them to a level of highly practical use, if not technical mastery.

This course, Ferrera's longest yet, will clarify how all of these tools work, pulling together the scattered pieces, and reintegrating the private instructions that were never provided in any of the publicly available courses. He demonstrates how to practically apply each tool to generate powerful trading signals, which work as they were intended to work on any market and time frame a trader requires. This course will present a crystal clear and thorough understanding of the most practical and useful of Gann's technical analysis, mathematical and geometrical tools. The accompanying appendices include the original source material from which Ferrera draws his analysis, so that readers can refer back to Gann's original presentation.

We consider this course to be the most thorough and detailed presentation of W.D. Gann's complex mathematical and geometrical techniques available. It is totally accessible to new Gann students, while at the same time providing new insights, layers of understanding, and unknown or misunderstood applications that will be of value to even the most seasoned Gann analyst. It will provide a critical foundation for anyone seeking to master the most advanced of Gann's technical analysis tools.

William Bradstreet Stewart, Director

Institute of Cosmological Economics

Santa Barbara, CA, January, 2015

AUTHOR'S PREFACE

The main purpose and objective of this course material is to provide the reader with a comprehensive yet practical understanding of W.D. Gann's most useful trading tools and their many uses. Over his 50 year trading and advising career, W.D. Gann developed approximately 40 different trading tools, calculators and/or mechanical methods to trade with and many of them no longer work well in today's markets.

Gann was a prolific writer and published six market related books beginning in 1923 with *The Truth of the Stock Tape*, 1927's *The Tunnel Thru The Air*, 1930 *Wall Street Stock Selector*, 1936 *New Stock Trend Detector*, 1937 *How to Make Profits Trading in Puts and Calls*, 1941 *How To Make Profits Trading in Commodities* and 1949's *45 Years in Wall Street*. In addition, Gann published and released various sets and collections of very expensive private courses, ranging from small individual course folders to larger sets of compiled smaller courses for either stocks or commodities, costing from \$1500 to \$5000 that sold from the early 1920's to 1950.

After many years of personal research, I have come to the conclusion that there is NO SECRET GANN FORMULA that will forecast an "absolute turn or reversal" in a price trend with 100% certainty in either price or time. That said, there are valid Gann methods that do produce time and price

projections that have a high probability of generating a change in market trend. It can also be said that these functional market applications are only found within the more expensive private course materials, and none of them were intended to be a stand-alone trading tool.

It is also interesting to note that Gann advocated trading with the "main trend" as defined by the monthly charts which he advised his students to maintain. Even though Gann hinted or suggested that price levels for support or resistance could be calculated, he never advocated trading against the established trend. This form of trading with the trend is what I call following "the path of least resistance."

Ironically, the majority of Gann's money management rules and practical common sense trading advice are found in his published books, whereas most of his methods for predicting key price levels or forecasting when a change in trend should occur are found in the very expensive private materials, which by themselves, are quite dangerous without the money management and commonsense rules provided in the lower priced books.

This material will cover both of these vital elements necessary to be successful in the various speculative markets. Please note, Gann was a very aggressive trader who went bust several times, so it is important to understand both the trading method and the management of trading capital to have long term success. In fact, proper money management is far more important than the accuracy of any trading system or methodology.

"In getting my initial trading experience, I have been broke many times, i.e. I have lost all of my money, but there has never been a time yet when I have lost my nerve" — W. D. Gann

Based upon this quote, it is believed that W. D. Gann frequently liked to push the trading envelope. It is well known that he also enjoyed gambling in Cuba, and it is likely that this same bug influenced his trading to some degree. Most of the available quotes that discuss Gann's trading prowess indicate that he frequently turned relatively small amounts of money into substantial profits, which is the same philosophy promulgated in my 2004 trading course *The Keys to Successful Speculation*.

In the back section of Martin Armstrong's 1986 book, *The Greatest Bull Market in History: Will it Happen Again?*, there is a short section on Gann (shown below) that discusses his alleged trading success, which can neither be substantiated nor denied.

W.D. GANN. He is reputed to have made \$50 million in his 52-year career of trading in the futures and stock markets. He started trading with \$300 and made over \$25,000 in profits in his first year of active trading. He then took \$973 and made over \$30,000 in the Cotton market in 60 days time. Over a period of years, on each \$1,000 he started with, he made profits of \$26,500. A friend said, "He has made a great deal of money. I once saw him take \$130, and in less than a 1 month, run it up to over \$12,000. He has taken half a million dollars out of the markets in the past few years. He can compound money faster than any man I ever met". His commodity course and stock market courses sold for \$5,000 each in the 1930's.

In any event, notice that Gann never starts a trading campaign with a large sum of money. For example, the section below states that Gann started

trading with \$300 and made over \$25,000 in profits his first year of active trading. He then took \$973 (not the available \$25,000) and made over \$30,000 in Cotton.

According to Gann's trading rules, he never risked more than 10% of his speculative capital on any single trade, and based from what can be ascertained from the available sources, he likely only risked three to five percent of his capital as an average entry risk. Thus, in order to bankrupt the account, he would have to be wrong more than twenty times consecutively.

"A small loss or several small losses, can easily be made back with one large profit" - W. D. Gann, *Speculation a Profitable Profession*.

The confliction or paradox regarding Gann's trading approach thus falls into two categories of possibility:

(A) Gann primarily traded long term trends and utilized swing charting methods to add to his positions when the market reacted against the main trend, or

(B) Gann was a very active swing trader and attempted to time and trade the majority of significant price fluctuations in each direction.

In terms of published advice, Gann always advised his readers to keep a yearly bar chart of the highest high and lowest low, a monthly chart, weekly chart, and daily chart. Gann always stated that the yearly chart should comprise of at least 15 to 20 years of data (if available) allowing all important price levels (highs and lows) to be easily observed.

The monthly and weekly charts were used to determine the current trend, as well as to ascertain potential changes in longer term trends. In nearly all of Gann's published materials, he clearly explains that the monthly chart is the most important chart of all in determining the market's main trend, and he advises his students to always go with the trend or to wait patiently until a clearer trend presents itself. Second in importance is the weekly chart, followed by the daily chart in the third place position.

Therefore, even though there is evidence of Gann "day trading" short term swings (*The Ticker and Investment Digest* article, by Richard D. Wyckoff - 1909), he consistently taught his followers to wait for big trends to develop as the most money is made from trading with the main trends. Gann said:

"The main thing to do is to always go with the trend and never buck the trend, regardless of how much capital you have. By trading with the main trend, you make greater profits. Never guess, let the market tell its own story!"

In what appears to some to be a contrast, Gann also says that:

"the greatest opportunities for profits occur at the end of the great time cycles when advances or declines are very rapid and large profits can be made in a short period of time."

He follows up on this seeming contradiction with:

"you will always make the most money following the main trend and playing the long swing. You can never make money jumping in and out of the market. The big money is always made by following the main trend."

Gann instructed his students to study "chart formations" where prior tops and bottoms occurred at the termination areas of great bull and bear markets. Gann also kept and maintained records of how long prior bull and bear markets lasted from start to finish giving an indication of the time range (maximum and minimum) required before a change in the established trend was likely to present itself. Gann also counted impulse waves, similar to R.N. Elliott, to determine when a major trend was nearing exhaustion, and noted that:

"History repeats on Wall Street and what has happened in the past will happen again in the future. Stock market campaigns often run in 3 to 4 sections of waves. If it is a real bull market, then it will run at least 3 sections before a final high is reached. Reverse this rule in a Bear market. Watch the action of the market when it makes the 3rd and 4th decline."

In conclusion of this rather lengthy preface, readers should understand that trading with the main trend, limiting risk, protecting profits, and managing and preserving trading capital are of the utmost importance to be successful in the marketplace, regardless of the trading system or method being used. This method of trading is "the path of least resistance."

Even though some of the techniques in this course anticipate times or prices where a change in trend (CIT) can occur, it is best to utilize these methods within the context of the larger trend. If the main trend is up, then capitalize on the times and/or prices where swing lows are occurring at anticipated times or projected price levels. If the trend is up and a potential

top is projected in either price or time, then either tighten up the stop loss to protect profits, purchase a put option or sell an out of the money covered call option to hedge against a counter move in the short term trend, but don't reverse the position to the short sell side, which would be against the main trend.

The inverse would be true if the main trend was down. Gann said:

"you will always make the most money following the main trend and playing the long swing. You can make large profits on small risks provided you ALWAYS use a STOP LOSS order, and apply all the rules and wait for a definite indication of a change in trend up or down before you make a trade."

The material in this book will explore Gann's different techniques and tools for trading according to his rules, and is intended to be a very practical guide to be used in conjunction with the risk management principles and account management rules presented in my earlier course, *The Keys to Successful Speculation*.

Daniel T. Ferrera

December 6, 2014

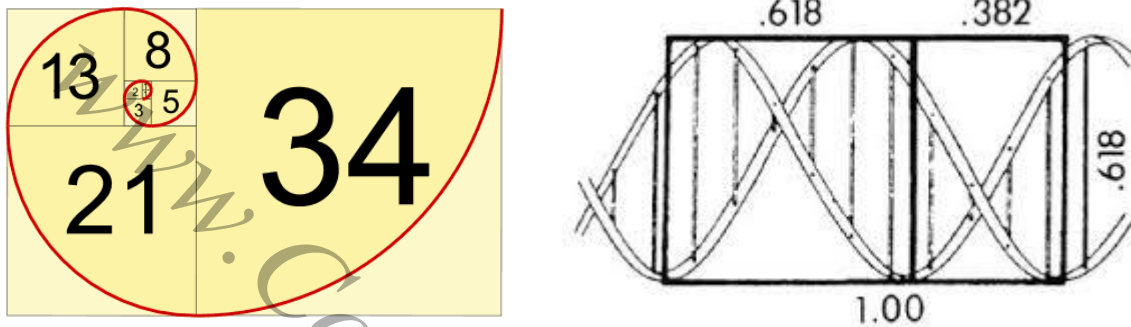
Figuring a solar year from the Vernal Equinox, when the Spring season starts on March 21st with the Sun at 0° Aries, this calculator provides the 1/8th divisions of the yearly cycle yielding Gann's natural

THE PATH OF LEAST RESISTANCE



The 45° angles (1 x 1) are illustrated as yellow trend line projections. The 1 x 2 angle, or 22.5°, is shown in blue. Based on the rectangular scale of the chart, the blue angles visually look more like 45° angles (1 x 1) and the yellow lines look like 67.5° angles, or 2 x 1 lines. This is of no concern because all the angles are mathematically related via simple multiples and fractions, the 2 x 1 doubling, and the 1 x 2 halving the primary pitch as defined by the 1 x 1 or 45° degree angle, just like musical octaves.

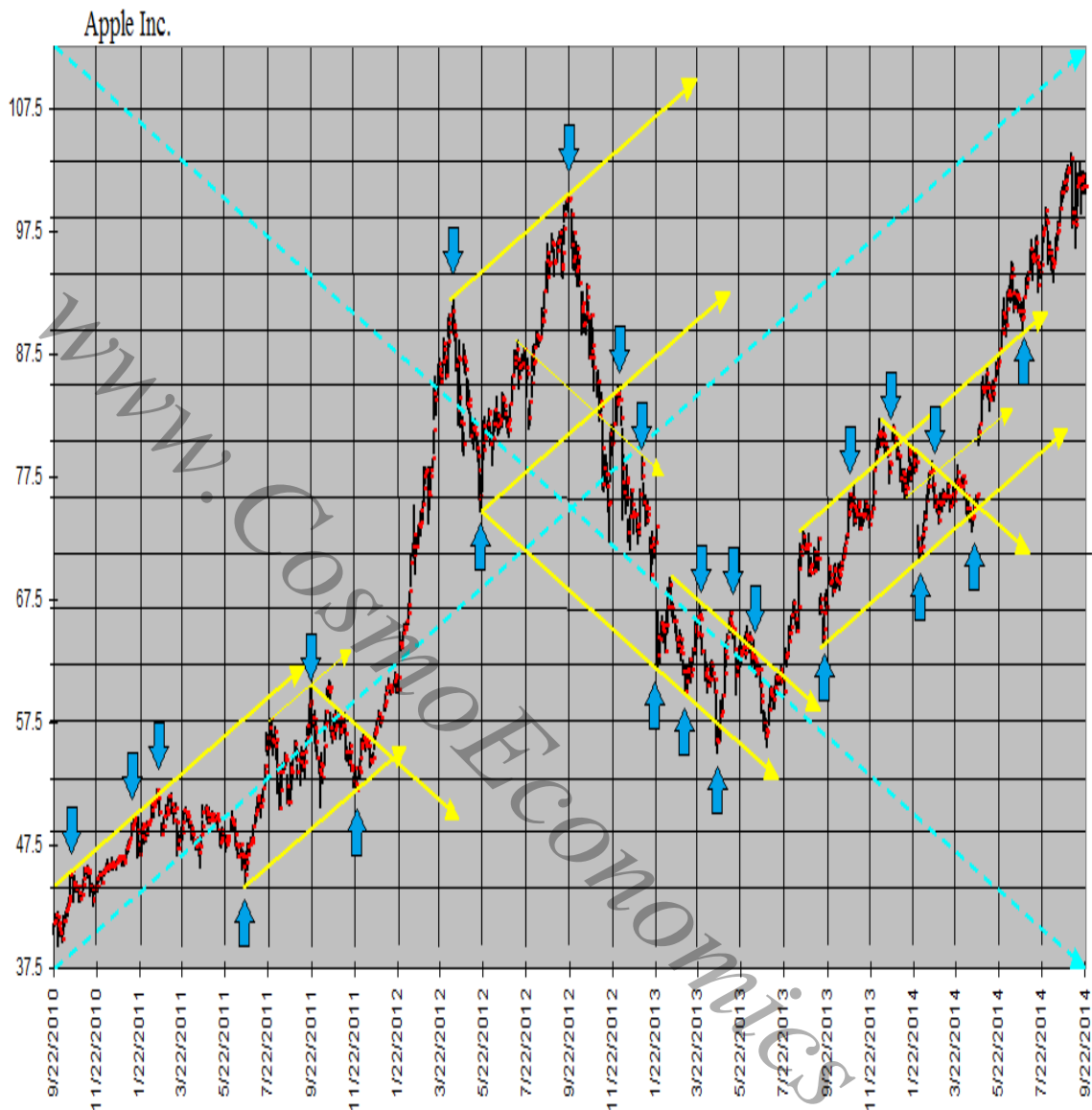
FIBONACCI AND THE GOLDEN SECTION



The Italian mathematician Leonardo Fibonacci introduced the Fibonacci summation series in 1201 in his book *Liber Abacci*, which was a book about the abacus. This book contained all of the algebra and arithmetic he had acquired during his travels to Egypt, Greece, Sicily and Syria. Fibonacci's book played an important role in the development of mathematics in Western Europe. In particular, Fibonacci showed that the Roman numeral system was far inferior to the decimal place notation that was used by the Arabs and Hindus, which is considered to be one of his greatest achievements.

The basis of the Fibonacci Summation Series is that the sum of any two adjacent numbers in the sequence forms the next higher number in the sequence to infinity. Therefore, $1 + 1 = 2$, $2 + 1 = 3$, $3 + 2 = 5$, $5 + 3 = 8$, $8 + 5 = 13$, $13 + 8 = 21$, $21 + 13 = 34$, $34 + 21 = 55$, etc.

THE PATH OF LEAST RESISTANCE

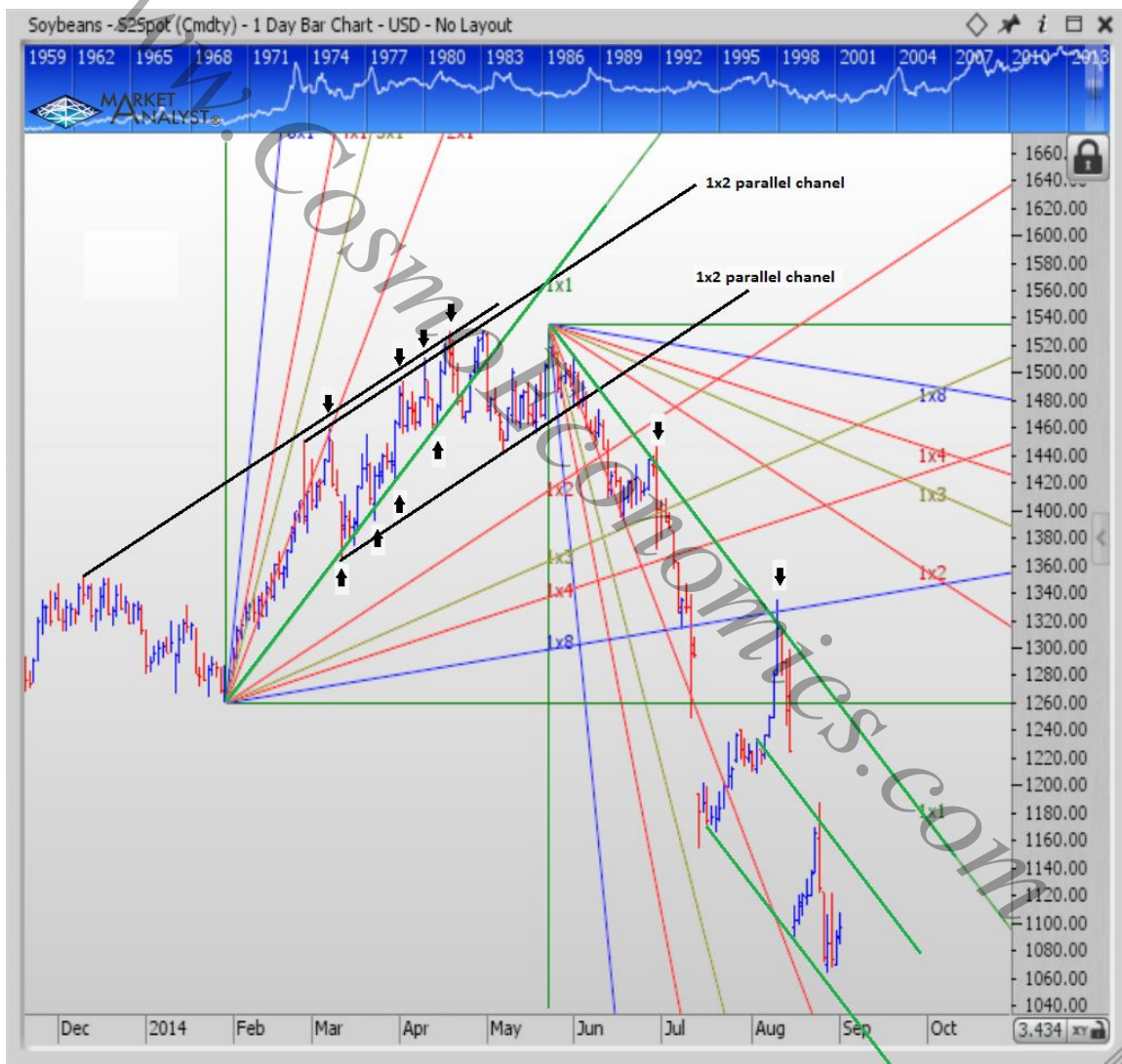


"We use geometrical angles to measure space and time periods because it is a shorter and quicker method than addition or multiplication, provided you follow the rules and draw the angles or lines accurately from tops and bottoms, or extreme highs and lows.

THE PATH OF LEAST RESISTANCE

days, so the 1 x 1 angle was set to 3.968 points/trading day, as discussed earlier.

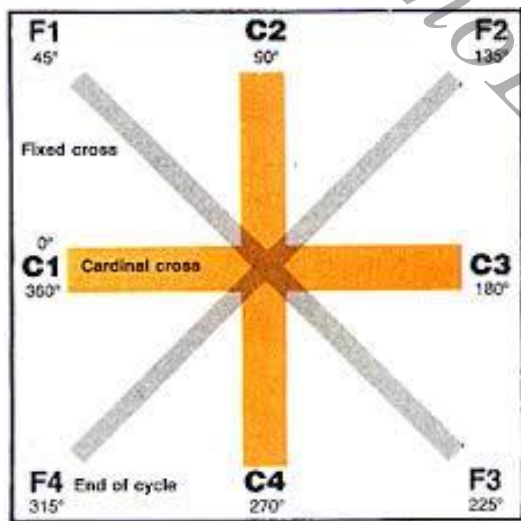
Starting on the left side of the chart, the 1 x 1 angle was projected as an up-trend. Note: this starting low was a double bottom formation, which will be discussed later.



The markets initial angle of attack was explosive, following the 2 x 1 angle. Assuming that one is only learning to trade the 1 x 1 angle

THE PATH OF LEAST RESISTANCE

We Square the Circle by beginning at 1 in the center and going around until we reach 360. Note that the Square of Nine comes out at 361. The reason for this is that it is 19 times 19 and the 1 to begin with and one over 360 represents the beginning and ending points. 361 is a transition point and begins at the next circle. Should we leave the first space blank or make it "0", then we would come out at 360. Everything in mathematics must prove. You can begin at the center and work out, or begin at the outer rim and work in to the center. Begin at the left and work right to the center or to the outer rim or square.



Beginning with "1" at the center, note how 7, 21, 43, 73, 111, 157, 211, 273 and 343 all fall on a 45° angle. Going the other way, note that 3, 13, 31, 57, 91, 133, 183, 241 and 307 fall on an angle of 45°. Remember there are always four ways you can travel from a center following an angle of 45°, or

THE PATH OF LEAST RESISTANCE



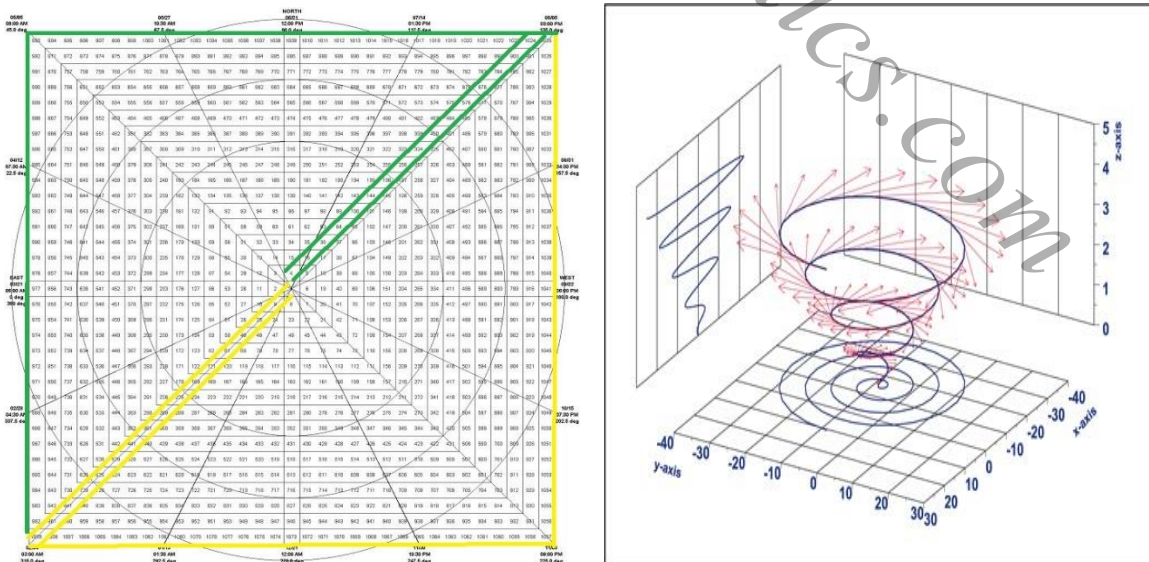
"There is a definite relation between TIME and PRICE."

Understand that each and every one of these turning points is entirely based on a single point in price-time, the price low of 666.79 on March 6th, 2009. There is no astrology, numerology or other occult wisdom here, it is just math and geometry.

THE PATH OF LEAST RESISTANCE

On this chart, we have only shown the 45, 60, 90, 120, 135, 180, 225, 240, 270, 300, 315, and 360 degree angles. This shows the division of the circle by 2, 4, and 8, and also shows the one-third point and the two-thirds point. Being the vital and most important angles, we place them so you can see how space or time makes rapid fluctuations.

This chart starts with the square of 1 in the center, and moves clockwise around with the odd squares coming out on the 45-degree angle. These numbers are 1, 9, 25, 49, 81, etc. The even squares run in the opposite direction on a 45 degree angle, beginning with the square of 2, which is 4 and continuing on this angle (16, 36, 64, 100, etc.) This produces a variable in time and price of 2. That is 2 points in price, 2 days, 2 weeks, or two months in time. This chart proves why prices move so much faster at higher levels, and measures exact resistance levels in the squares.



THE PATH OF LEAST RESISTANCE

pattern. Thus, this time period would have been monitored very closely for a change in trend.

Note the classic technical formations, such as double tops and bottoms, triple tops and bottoms that was discussed earlier in "Form Reading." There are many successful traders that wait patiently for these patterns to form on weekly or monthly charts and only trade these indications. The severe decline that initiated at interval 21 with a triple top forming on the descending 1×8 angle (blue) was nearing the end of the first Price-Square of 452 trading days from the extreme high

