

Timing the Market with Gann Mathematics.

W.D. Gann, the legendary twentieth century trader, left behind a body of mathematical principles that when applied can enable a trader to identify, in advance, the turning points of any freely traded stock or commodity that fluctuates in price.

There is one apocryphal Gann story that is particularly illustrative. Mr. Gann was on the floor of the commodity exchange near its closing time. The price of wheat was rising on the day that Gann calculated that it would close at a certain price on that same day.

The price edged up until it hit Gann's predicted price. He is supposed to

Some said that if price did not rise to a certain, specific level on that very day, all his mathematics were wrong. In fact, price did reach the predicted level on that day.

In order for Gann to calculate when price would reach a specific price on a specific day, it is very likely that Gann used a square root table known as the Square of Nine.

Gann would say that when price and time square, change is inevitable. When price and time square, it means that the price and the number of days from the start of the trend equal the same angle in degrees on the Square of Nine.

Market prices and time in trading on calendar days were in increments of square roots of their numbers.

This natural, recurring phenomenon confirms that the market movements are not random.

The following mathematical principles unique to stocks and commodities make possible calculations moving forward in time to predict with reasonable accuracy future time and price moves of all varying and trending stocks and commodities. These principles are as follows:

1. Each stock or commodity moves to its own frequency of vibration. The frequency of vibration enables the calculation of future prices and when a trend will end in time.

2. The first or initial price move off a bottom or from a price top determines the remainder of the change in price and time for the entire wave trend.

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3. Previous waves in price and time, that is, previous, most recent trends, determine the extent of the next price wave.

4. Time and price are equivalent mathematically. In the physical world price and time are two very different entities. When dealing with the mathematics of the Square of Nine, price and time are interchangeable and equivalent entities.

This means that if you can calculate the length of the next trend in ~~price~~ ^{time}, then you can easily calculate the final expected price.

There is little doubt that Gann used the above principles in his trading. Gann's consistency in trading could only have been achieved if he had a fundamental understanding of the mathematics of the market.

The recent waves in the Dow Jones Industrial Average provide a view into how the Square of Nine is used to identify when a change in trend is likely.

Place DIA chart here.

The same is true for NIB, the exchange traded fund that trades cocoa.

Place NIB chart here.

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When the Frequency (Angle) of Vibration is reached, the trend will end. Price and time have squared by each being equal to the angle of vibration calculated days or weeks earlier.

When the Frequency (Angle) of Vibration of both time and price are equal, the trend comes to an end.

Gann said that when time and price square, change is inevitable.

The term square means that the angle of the current price and time in the trend are equal to each other.

Time and Price Squaring at an Offset Angle

Ideally, time and price will square at the same angle. However, sometimes, they both square at an offset angle.

This simply means that if one angle is above or below the other, you may add or subtract 15° , 22.5° , 30° , 45° , 60° , 75° or 90° in increments to get the angles to equal each other, or the Angle of Vibration.

Time and price are still equal, they just square at an offset angle.

If time and price have not squared yet, then the above method will not work. The math is telling you that the trend has not ended.

Being able to calculate when a trend will end in time and price is a significant competitive edge in trading.

However there is more to trading than just timing.

Gann said to stay out of dead markets. This means that the trader should choose stocks and commodities that fluctuate in broad, repeatable, sine wave like patterns.

Old price tops and previous bottoms are places where trend reversals are likely to occur.

Dann said that a new price-trend can be identified by three consecutive price moves in a new direction. This is particularly relevant when the wave occurs at a previously calculated turning point. Five times that is confirmed by the squares of Niko mathematics.

The confirmation of the previously calculated change in trend date, and price, provides confidence that the current wave has ended.

Note that the price at the onset of the trend, the price at the end of the trend, the time in the trend in trading days or calendar dates, and the price range of the sub-trend, all equal the the Frequency (Angle) of Vibration of the particular stock or commodity being traded.

There is a mathematical order in the market.

Trade Entry and Exit

When a turning point in a stock or commodity has been reached we must wait for price action to tell us when to enter a trade.

The following must occur before a trade is entered:

1. The 5 day exponential moving average must cross above

the 15 day exponential moving average. In an uptrend.

2. Price must trade above the 5 day and 13 day exponential moving average for 2-3 days. The price bars must be solid, white, candlestick bars. Dojis or black bars show indecision in the new trend, avoid them.

3. If price trades below both the 5 and 13 day exponential moving average for 2-3 days, they expect a new down trend in price.

4. If price does not establish a new price trend, up or down, within 4-5 days after reaching the turning point then discard the trade.

5. If price starts to trade below the 13 day exponential moving average then exit the trade.

6. Place a stop-loss order just below the entry price if the trend is rising or just above the entry price if the trend is falling.

7. Don't hope that a losing trade will reverse direction. It is much better to take an 8% loss than an 90% loss.

8. Exit the trade 3-4 days before the expected next change in trend date.

Money Management

Consistency is the most important goal in trading. A great trading system will produce mediocre results if good money management is not practiced.

Only 2½ - 5% of trading capital should be used on any single trade.