Application of Gann Cycles: A Test on Indian Stock Market

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ABSTRACT:

W.D Gann researched and concluded that, stock prices do not move at random. They have a price cycle and time cycle, it means history of price and time repeats. He revealed big movement in prices starts in certain months while some months do have small moves. And some months do not have any turn around in prices, they just continue preceding trend. This paper focuses on price cycle not on time cycle. In this research, stocks under Index Nifty were analyzed and found that they also follow Gann Cycle. This helps in prediction to a common investor and trader. Stock price movement can be to up or to down side. The direction of move-up or down cannot be predicted, but big move is coming soon this can be predicted with high probability. And this is price cycle.

KEYWORDS: W. D. Gann, Cycles, Price Moves, Prediction.

INTRODUCTION

Legendary trader on wall-street William Dilbert Gann who not only earned money but also wrote many books on this secretive knowledge of trading. One of the technique is "Gann Cycle", named after him. According to Merriam-Webster's online dictionary, definition of cycle is "an interval of time during which a sequence of recurring succession of events or phenomena is complete." William Dilbert Gann (June 6, 1878 - June 18, 1955) had surprised the world but predicting in well advance, the Great Crash on work of W. D. Gann is under research not much research has been done. It is still secret. Only a New York Stock Exchange and World-War-II also.

The few people know, how to apply it. Gann in his book "Forecasting Grains by Time Cycle" indicated that the great time cycles are most important because they record the period of extreme high or low prices. The cycles are 90 years, 82 to 84 years, 60 years, 45 years and 20 years.

Gann wrote so much about technical analysis and proposed Gann Cycles, which are the pivot points for beginning on new trend. Gann was one of the most successful trader in equity and commodity. He developed his own style of technical analysis using price and time. He also used astrology and numerology. He predicted prices in advance, very accurately. His books mention his work but still not well understood by the world. He said Price and Time Vibrates, means repeat in cycles.

Every stock chart of last ten or thirteen years is enough for analysis. The extreme high and low prices repeatedly occur in certain months and they tend to repeat again in future. This helps in prediction. These cycles are different for different stocks.

Technical analyst, Himma Reddy, in her book "The trading Methodologies of W. D. Gann: A guide to build your technical analysis toolbox", gave an example of 'GOOGLE' stock chart and, it followed Gann cycle. Major moves started in month of March. April, December never showed any big move they just continued previous trend. Identifying beginning of the trend is always not easy many indicators are tagging it, while Gann Cycle shows easy way to spot the beginning of the trend. This article will test Gann Cycles on latest stocks chart on National Stock Exchange's leading Index which is called Nifty, it contains diversified stocks.

METHODOLOGY

Checking the simple bar charts for last ten-fifteen years on monthly chart. It can be seen by observation that a particular stock has a tendency to start big moves in certain months. **For Example:** Google, Inc., from year 2004 to 2011, it can be seen, March has five major turnaround in prices, then, January, July, August and November while, No turn happened in April, May, September, they had continuation of the trend in preceding months. It is different for every Stock.

In this research, an attempt to cover twenty four stock plus Nifty Index, that makes sample size 25 out of fifty-two prices in Nifty Index. The sample companies are diversified. On all twenty five charts Gann cycle was seen and they were tradable.

ANALYSIS AND FINDINGS

Every stock has different months in which big price moves started (see Table 1). Some of the months had absolutely no big move started in history of last eight years. Implied volatility is less just before starting the big move. Once move starts it goes up.

Table 1: Occurrence of Big Moves in History of last Ten Years

Name of stock	Big Move started in following month
Yes bank	January, 2012 & 2013, 2014, 2015, 2016, 2017 & September 2012 & 2013, 2014, 2016.
Nifty (Index itself)	January, 2012 to 2017 & September, 2012 to 2017. Small moves started in the month of March, 2011, 2012, 2014, 2015, 2015, 2016.
ACC	January, 2011 to 2017 and March, 2011 to 2017. January to March is one trend or cycle then March to next January is new cycle seen.
Asian Paints	March, 2011 to 2015 and 2017. Every March prices move, they mark new beginning or end of the trend
Auropharma	March, 2013 to 2017 marks new beginning of trend
Axis Bank	March, 2011 to 2017 .They show start or end of cycle or trend.
Bajaj Auto	January, 2011 to 2017, and the same trend or cycle seems broken in March. March started new trend sometimes mostly opposite to January
BPCL	January, 2012 to 2017 and month of May had some time reversed the trend
Dr. Reddy	June & July, 2011 to 2017, price movement direction was set.
GAIL	June, 2012 to 2017 being very decisive month.
Heromotoco	September & March. From 2011 to 2017 Cycle runs March to September with one trend and opposite trend from next September to March
Hindalco	March & April, 2011 to 2017. March & April being very close, they were trend setter of future
Indusind bank	May, June & July, 2012 to 2017. These three months, trend took pause and then went ahead or reversed
Kotak bank	January & March, 2012 to 2017
Lupin	April & February. February gives rise to new trend, rarely April give rise
Maruti Suzuki	April, 2012 to 2017 lasted till December of every year
ONGC	March & June. June, 2012 to 2017 had started new move
Reliance	April & July, 2012 to 2017. Trend revered after April and June, every year
Sunpharma	June 2012 to 2017
Tatamotors	January & February, 2012 to 2017. Big moves are either in January or February
Tata MTR DVR	January & August, 2012 to 2017. But cycle is not clearly visible, a bit difficult.
Tatapower	January,2012 to 2017, except in 2015

Tatasteel	January & August, 2011 to 2017. August terminates the preceding trend and started new
VEDL	August, 2011 to 2017
Infratel	September

Source: Study results of Nifty Index and 25 sampled stocks in it.

Table 2: Analysis of Nifty Index and its stocks

Name of Index studied	Total number of stocks in it	Sample size of stocks taken for study	Gann Cycle worked in following number of stocks	% success rate of Gann Cycle worked in sample is
Nifty	52	25	25	100%

Source: Study Results of Table 1

Based on Table 1 and Table 2, Index 'Nifty 50' is diversified and it's sample of 25 stocks out of 52, revealed interesting facts that all stocks in sample of 25, followed Gann Time Cycle. Although, it was different for every stock. Similarities are found, most stocks in sample have January, March, September months are part of Gann Cycle, either beginning or end of trend. The success rate of its application is 100%.

MANAGERIAL IMPLICATIONS

A trader can take straddle i.e. buying both PUT & CALL or taking delta neutral position by one future contract in one direction and two options in opposite direction to cover risk. But this entry is to be taken before beginning of big move, when implied volatility is less therefore, option premium is less. After move has started, implied volatility goes up and also option premium rises. Once stock prices are moved to certain level, profitable position is to be settled. Trend will reverse as it cannot continue in a same direction for long, then previously unsettled and non-profitable option can be settled. Profit is earned in both directions. Options are brought before premium start rising, because they were brought before beginning of big move on monthly chart.

CONCLUSION AND FUTURE IMPLICATION

Gann Time Cycle is applicable to 'Nifty 50' Stocks. It is simple to understand. Traders and Investor can take aggressive position in cycle months like January, March, and September or can be different month applicable as per Gann Cycle. They can avoid certain months where no big move in prices is seen like month of May, October, November and December. This prediction technique is worth fortune to a common investor or retail trader.

However, the same technique can be applied to commodities and other Indices like Bank Nifty and its stocks PharmaNifty and its stocks.

In future, this can be traded, using derivatives like options and futures. Buying strangles means buying one PUT and buying one CALL in beginning of cycle may give profit.

For few stocks Gann Price Cycle is not very clear to spot, it needs analysis or to change time frame like TATA MTR DVR. Cycle is there but just hard to spot. One can avoid trading in it. However, adding volume and Relative strength index will be future research scope.

It is surprising that a particular stock has a tendency to start big or small moves in particular months. This has been repeated in last many years. It is consistent. And can be traded as a risk disclaimer, this is an academic research; investor or trader should take advice from professional financial advisor. Details in this research are not investment or trading advice. The authors of this paper are not responsible any trading loss or profit to any one trading any financial instrument.

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