

MASTER CALCULATOR FOR WEEKLY TIME PERIODS  
TO DETERMINE THE TREND OF STOCKS AND COMMODITIES

by W. D. GANN

This Master Calculator shows Weekly Time Periods of 7 days each or a total of 52 weeks in one year. This represents 364 calendar days, therefore at the end of each year there is a gain of one day and at the end of 7 years a gain of 7 days, the time period coming out one week before the date of the important high and low prices. You must also add one day for each leap year. Suppose you want to get the time period for 15 years, you multiply 365 by 15, add the number of leap years and then divide the total days by 7 to get the weekly periods of 7 days each in order to use the Calculator. (See Tables for Price and Time Periods.)

The total square of 52 is 2704, which we can use to measure weeks, days, months, years or hours. In using days, it would, of course, require 2704 days to pass thru the square of 52. This would give 386 weeks and 2 days or approximately 7 years and 5 months, very close to the important cycle of  $7\frac{1}{2}$  years, which is 90 months.

If we use hours to balance or square 2704, we get  $112\frac{2}{3}$  days by dividing 2704 by 24, the total number of hours in a day during which time the earth makes one complete revolution on its axis.

The Square of 52, which is composed of 7-day periods, is one of the most important for measuring Price and Time. The number 7 is referred to in the Bible more times than any other number, except the number 3. Both of these numbers are very important to use in connection with price and time changes.

You start time periods from the actual dates of important high and important low prices and not from the first day of each month or the first day of each year.

The Calculator is 104 weeks wide, which equals 2 years. The time periods run across the bottom of the Calculator from left to right to 104, which completes 2 years, and to 208, which completes 4 years. At the top of the Calculator, running across to the left, the time periods run to 312 which ends 6 years, and to 416, which ends 8 years, and to 520, which completes a 10-year cycle.

DIVISIONS OF TIME PERIODS

The year is divided by	$\frac{1}{8}$ ,	which equals	$6\frac{1}{2}$	weeks	
	$\frac{1}{4}$ ,	"	13	"	
	$\frac{1}{3}$ ,	"	17	"	
	$\frac{3}{8}$ ,	"	$19\frac{1}{2}$	"	
	$\frac{1}{2}$ ,	"	26	"	a most important time and resistance level
	$\frac{5}{8}$	"	$32\frac{1}{2}$	"	
	$\frac{2}{3}$	"	35	"	
	$\frac{3}{4}$	"	39	"	very important for change in trend.
	$\frac{7}{8}$	"	$45\frac{1}{2}$	"	
	1 year,	which is	52	weeks.	

The angles run from each of the time periods for Price and Time in order to balance the Square and show resistance levels where price and time periods indicate a change in trend.

THIRD AND FOURTH DIMENSIONS  
OF TIME AND PRICE

We know of three dimensions--height, width and length--but there is a fourth dimension or element in market movements. We prove the fourth dimension with the Master Calculator or Square of 52 in Time Periods of 7 days each for 7 weeks or more and the same price relation.  $7 \times 52$  equals 364 or 7 years.

THE CIRCLE, TRIANGLE AND SQUARE

The circle of  $360^\circ$  and the nine digits are the basis of all mathematical calculations. The Square and the Triangle form within the circle but there is an inner circle and an inner square, as well as an outer square and an outer circle which prove the fourth dimension in working out market movements.

PRICE

The most important points to consider are:

1. Lowest price.
2. Highest price.
3. The  $1/2$  point, mean or average between the extreme high and the extreme low. We get the fourth dimension, as shown on the Master Calculator, by drawing  $45^\circ$  angles from the  $1/2$  point or gravity center, which is the most important for price resistance.
4. Volume of Sales. This is the power which drives the market up or down but remember that TIME is the most essential element and when Time is completed, the volume of sales starts to move the market up or down.

TIME

Time is divided into sections or cycles by which we determine the change in trend.

1. Daily high and low prices
2. Weekly high and low prices
3. Monthly high and low prices
4. Yearly high and low prices

The Weekly and the Yearly Time Periods are most important for trend indications and for changes in trend.

The day is divided into hours, minutes and seconds. The 4 divisions of the day are: Sunrise, Noon, Sunset and Midnight. Of these the most important are: Noon, when the Sun is straight overhead or on a  $90^\circ$  angle, and Midnight, the opposite point or  $180^\circ$  from Noon and  $90^\circ$  from Sunset.

Because we are using 7-day Time Periods with the Calculator,  $1/2$  of 7 days or  $3\frac{1}{2}$  days is important to watch for change in trend. Always watch the 3rd and 4th day from any important high or low level for a minor change in trend which later may become a major change.

7-day Periods -- The time periods of 7 calendar days from any important high or low level is of great importance. 14 days is the most important and 21 days or 3 weeks is next in importance. Reactions will often run 2 weeks and sometimes 3 weeks and then resume the main trend. Rallies in a Bear Market often run 14 days and sometimes 21 days and then resume the downward or main trend.

Multiples of 7 days -- The square of 7 or 49 days is very important for change in trend. You can start to watch for this change after the 42nd day but the first indication of a change may not occur until the 45th or 46th day, which is  $\frac{1}{8}$  of a year or 365 days.  $\frac{1}{16}$  of a year is 23 days. Therefore, both the 46-day and 23-day periods are important to watch for change in trend.

Next in importance is 63 to 65 days because  $7 \times 9$  is 63 and the square of 8 is 64. 81 days or the square of 9 is also of great importance. 90 to 91 days is  $\frac{1}{4}$  of a year or  $7 \times 13$ . This is of very great importance to watch for change in trend. Of course, of next importance is around 182 days or  $\frac{1}{2}$  of the year.

#### YEARS

Later we will refer to the four seasons or the divisions of the year, which are Spring, Summer, Fall and Winter and important to watch for change in trend. However, the divisions of Time are from the date of the actual important high and low prices.

The important yearly cycles are 1, 2, 3, 5, 7, 9, 10, 12, 14, 15, 18, 20, 21,  $22\frac{1}{2}$ , 24, 25, 27, 28, 30, 40, 45, 49, 56, 60, 84, and 90 which is the Great Cycle. We divide the cycles into  $\frac{1}{2}$ , which is the most important, and also into the periods of  $\frac{1}{8}$ ,  $\frac{1}{3}$  and  $\frac{2}{3}$ , and watch these proportionate parts of the cycles for changes in trend. For example:

The Great Cycle of 90 years equals 1080 months;  
 $\frac{1}{2}$  is 45 years or 540 months  
 $\frac{1}{4}$  is  $22\frac{1}{2}$  years or 270 months  
 $\frac{1}{8}$  is  $11\frac{1}{4}$  years or 135 months  
 $\frac{1}{16}$  is  $5\frac{5}{8}$  years or  $67\frac{1}{2}$  months

The 30-year Cycle or any other cycle is divided up in the same way.

Multiples of 7 Years -- The multiples of 7 years or 84 months are all important to watch for change in trend. These are 7 years, 14, 21, 28, 35, 42, and 49, which is most important because it is the square of 7. Next 56 and 63 are very important, 63 because it is  $7 \times 9$ . 81, the square of 9, is very important.

Prices can also be used in sevens. Example: 98,  $2 \times 49$ . 126,  $2 \times 63$ . 162,  $2 \times 81$ , etc.

Yearly Time Periods - Triangles and Squares -- When  $\frac{1}{3}$  of a year from any important low comes out at the same time that  $\frac{1}{4}$  or  $\frac{1}{2}$  of a year from another important top or bottom comes out, it is of great importance for a change in trend.  $\frac{1}{2}$  of a yearly time period is always the most important, just the same as  $\frac{1}{2}$  of the highest selling price and  $\frac{1}{2}$  of the range of the price is important for resistance levels. By practice, study and comparison and by placing the Calculator over the Weekly high and low Chart, you will see how all these Price and Time Periods work out.

## TIME, PRICE, VOLUME, VELOCITY, PITCH OR TREND

When a Time Cycle is completed, Volume increases and the market begins to move up faster or move down faster.

The pitch or trend is determined mostly by the 45° angle, which is the most important, but other angles can be used to determine the trend. The pitch or trend is the 4th dimension and shows whether the market is slow or fast by the angles, whether very acute or above the 45° angle or flat and slow, below the 45° angle, which causes a slow creeping market that may later regain important angles and increase the pitch of the angle and start moving up faster.

All of this is shown on the Master Calculator or Square of 52.

### 3 WAYS TO SQUARE OR BALANCE TIME AND PRICE

- (1) Balance the lowest price with time measured in weeks and balance the highest price with time.
- (2) Balance the range, which is the total between the extreme high and extreme low.
- (3) Get the 4th dimension by balancing Price and Time in weekly time periods as shown on the Master Square of 52.

### PRICE SCALE

The price scale runs up and down to 104, 208, 312, 416, and 520, which balances out with the Time Periods. For GRAINS, this scale is for cents per bushel. For STOCKS, it is \$1.00 per share. The Price Periods are divided up into 1/8 and 1/3, the same as the Time Periods.

Scale for COTTON, COFFEE, COCOA and EGGS -- Each 1/8 cent equals 10 points. Therefore 52 would indicate 520 in price and 104 would indicate 1040 for Cotton or any other commodity trading in 100 points to 1¢.

EGGS--Weekly high and low chart -- Eggs trade at a minimum of 5 points. We use 10 points to 1/8 inch on the daily high and low chart. Experience has proven that a scale of 25 points to 1/8 inch, which represents one week in Time, works best. Therefore, 52 spaces on the Calculator would indicate 1300 or 13¢ for Eggs; 104 would represent 2600; 156 would represent 3900; 208 would represent 5200 or 52¢ per dozen for Eggs, etc. One year Time Period would give a range of 13¢, 1/2 of this would be 6½¢, 1/4 would be 3.25 and 1/8 would be 1.62. Therefore, if you want to get resistance levels for prices above 26¢, you would add 6½ which would give 32½, etc.

All of these are shown on the Table enclosed for prices which run up to the equivalent of 40 years calculated. All you have to do is run across the period marked "1/2" and get the exact date during each year when the Time is at 1/2 or 182 days from an important high or low, and in the same way from the Table you get the price resistance levels based on the Square of 52.

### HOW TO USE THE MASTER CALCULATOR

One column on the Calculator can be used for one month or one year but the Calculator is designed to be used on the Weekly high and low Chart for determining the important changes in trend.

HOW TO USE CALCULATOR ON WEEKLY CHART

Place the bottom or "0" of the Calculator on "0" below any price or place it on the low price, then you will see where the angles cross and resistance levels are indicated.

Place the Calculator marked "Top" at the high price on the exact date the important price is made, then you can see the important angles for resistance from the top down.

THE INNER SQUARE OR 1/2 POINT

Place the Calculator on 1/2 of the highest selling price or 1/2 of the range. Place the Calculator where it is marked 1/2 or 26 weeks over the chart on the same line that low or high is made. Placing the Calculator on 26 over the 1/2 point will show the resistance and whether the price is in strong or weak position.

THE INNER SQUARE OF 45° ANGLES

The Inner Square of 45° Angles starts from 26, which is 1/2 of 52, and moves up or down. It crosses at 26, which is 1/2 of 52. The 45° angle moving up from "0" crosses at 52 and 104 and the 45° angle moving down from a top or high level crosses at 52 and terminates at "0". All of these important 45° angles from any important high or low cross on 1/4, 1/2, 3/4, etc., as you can see, and balance out Time and Price.

MOST IMPORTANT TIME PERIODS

The most important Time Periods are the anniversary date of 1, 2, 3 years or more from the dates of the important highs and important lows. Second in importance is 1/2 of the Yearly Time Period; third in importance is 3/4 or 39 weeks in each year; fourth, the 1/3 point or 17 weeks and the 2/3 point or 35 weeks are also very important Time Periods for change in trend.

When you are working out Weekly Time Periods, you must also consider the importance of the 3-year cycle, the 5-year cycle, 7-year cycle, 10-year cycle, 15 years which is 1/2 of the 30-year cycle, and 20 years which is 1/3 of the 60-year cycle, and 30 years which is a complete cycle of 360 months. The longer the Time Period from an important top or bottom, the greater the variation because each year of the time period gains at least one day and in leap years gains an additional day before the end of the complete cycle.

The Table for Time and Price Periods shows the exact time in 52 weeks to a year or 364 calendar days. By figuring the leap years and the time gained at the rate of one day per year, you know how much time to subtract and can make the adjustment for the full period.

SEASONAL TIME PERIODS

In figuring Seasonal Time Periods, we do not start to calculate Time from January 1st but calculate the Time Periods from the date when the Spring Season starts on March 21. These periods are marked on the Table in 1/8, 1/3, etc. They are as follows:

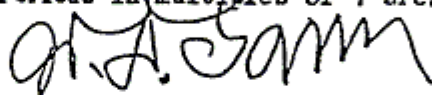
May 5 ends	$1/8$ or $6\frac{1}{2}$ weeks from March 21
Jun. 21 "	$1/4$ or 13 "
Jul. 23 "	$1/3$ or 17 "
Aug. 5 "	$3/8$ or $19\frac{1}{2}$ "
Sep. 22 "	$1/2$ or 26 "
Nov. 8 "	$5/8$ or $32\frac{1}{2}$ "
Nov. 22 "	$2/3$ or 35 "
Dec. 31 "	$3/4$ or 39 "
Feb. 4 "	$7/8$ or $45\frac{1}{2}$ "
Mar. 20 "	1 year or 52 "

#### MIDSEASON TIME PERIODS

These are May 5, August 5, November 8, February 4. Important changes in trend occur around these midseason dates but all of the above Time Periods should be watched for important changes in trend.

The Table for Time Periods and important high and low prices is shown with figures at the top running from 1 to 36. The important Time Periods are shown with exact dates and if you want to look up something in the 7th year, you move over to the column marked "7" and move down to the  $1/2$  point. You will find that  $7\frac{1}{2}$  years is 390 weeks, etc. and any price on this same line would be an important resistance level.

By studying, practicing and experimenting with the Master Calculator, you will learn how valuable these Time and Price Periods in multiples of 7 are.



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