



FOREXYAR

# THE W.D. GANN METHOD OF TRADING

## A Simplified, Clear Approach

by Gerald Marisch

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**The W.D. Gann Method Of Trading A Simplified, Clear Approach**

# **THE W.D. GANN METHOD OF TRADING**

**A Simplified, Clear Approach**

**BY GERALD MARISCH**



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## **DEDICATION**

To my wife and bestest friend of all,

**DEBORAH**

## **Cover Design**

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# INTRODUCTION

*“You can make a fortune by following this one rule alone. A careful study and review of past movements in any commodity will prove to you, beyond a doubt, that this rule works, and that you can make profits following it.”*

How to Make Profits Trading in Commodities, 1942, p. 36

Any trader, from the novice to the professional, who is aware of the futures markets knows that tremendous profit potential exists in trading futures. Yet, it seems almost impossible to learn all the trading rules and “caveats” of futures trading, and then to put them into practice.

A computer and software can give a trader many advantages. Automated data retrieval, stochastics, RSI calculations, and Elliott Wave counts can all be done in minutes, rather than hours, with less work and greater accuracy.

A beginning trader, though, may not own a computer. It may be a costly and time-consuming effort, sorting through the maze of investment software, plus the numerous technical-analysis methods and “systems” that are offered today. Terms such as extended 5th waves and oscillators, and the names of Fibonacci and Wilder, may be completely foreign to the new trader. Systems with exotic names, all of which seem to promise wealth, only add to the confusion.

The new trader looks for something that is clear, simple and easy to understand; some trading method that can be used to increase a trader’s confidence - and a trader’s account.

This book was written to give a new trader answers and information. It does not contain a sure-fire method of making a fortune overnight. It DOES present guidelines to help the beginning trader earn consistent profits, while answering some of his questions. The guidelines are based on established rules that are surprisingly simple, yet dramatically effective for profiting from the markets.

The rules follow the “KISS” axiom of Keep It Simple, Stupid. They have stood the test of time for any market, for any period, and for any amount of capital the trader wishes to risk.

The rules are based on Gann’s 50% Retracement Rule.

# **PART I**

## **Gann . . . His Rules and His Angles**

William D. Gann was a trader of the early 20th century. His abilities for profiting from the stock and commodity markets remain unchallenged. Gann's methods of technical analysis for projecting both price and time targets are unique. Even today, his methods have yet to be fully duplicated.

Known as "The Master Trader," W. D. Gann was born in 1878, in Lufkin, Texas. Gann netted over \$50,000,000 from the markets during his trading career, averaging a success rate for trades of 80% to 90%. It has been said that Gann could very well have been right ALL the time. Any losses incurred by him were only there by his own design and not because of any faults with his methods.

His successes are legendary. Gann literally converted small accounts into fortunes, increasing their net balances by several hundred percent. There are numerous examples of his trading successes, among which are these:

1908 - a \$130 account increased to \$12,000 in 30 days.

1923 - a \$973 account increased to \$30,000 in 60 days.

1933 - 479 trades were made with 422 being profitable. This is an accuracy of 88% and 4000% profit!

1946 - A 3-month net profit of \$13,000 from starting capital of \$4500 - a 400% rate of return.

The following paragraph appeared in the December 1909 issue of "Ticker" Magazine. It was written by R. D. Wyckoff, the former owner and editor of the "Ticker," and describes Gann's proficiency for projecting price targets forward in time:

*“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 calculations. 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.”*

Gann’s trading methods are based on personal beliefs of a natural order existing for everything in the universe. Gann was part of a family with strong religious beliefs. As a result, Gann would often use Biblical passages as a basis for not only his life, but his trading methods. A passage often quoted by Gann was this from Ecclesiastes 1:9-10:

*“What has been, that will be; what has been done, that will be done. Nothing is new under the sun. Even the thing of which we say, ‘See, this is new!’ has already existed in the ages that preceded us.”*

This universal order of nature also existed, Gann determined, in the stock and commodity markets. Price movements occurred, not in a random manner, but in a manner that can be pre-determined. The predictable movements of prices result from the influence of mathematical points of force found in nature.

These points of force were felt to cause prices to not only move, but move in a manner that can be anticipated. Future targets for both price and time can be confidently projected by reducing these mathematical points of force to terms of mathematical equations and relationships.

The mathematical equations of Gann are not complex. They result in lines of support and resistance which prices invariably will follow. The intersection of these lines of force, called Gann Lines (See “Gann Angles - Price versus Time”) can pinpoint when a price reaction will occur, while others will reflect at what level price reactions will occur.

Charts 1 and 2 illustrate using Gann methods to determine the “when” and “at what price” of market activity.

Chart 1 illustrates the “when” of price reactions. The chart is of the Standard and Poor’s (S&P) 500 Index contract for June 1988. The time period is from 10/26/87 to 2/1/88. Keep in mind that these prices occurred after the infamous “Black Monday” of 10/19/87.

Letters “P,” “J,” “I” and “M” appear above or below some price bars in Chart 1 and others in this book. These letters indicate Primary, Major, Intermediate and Minor Gann Pivot Points, generated by the software. These Gann pivots are included on some charts only as an easy reference to designate certain days. They are not needed for plotting Gann’s 50% Retracement Zones. (See Appendix D for a further explanation of Gann Pivot Points.)

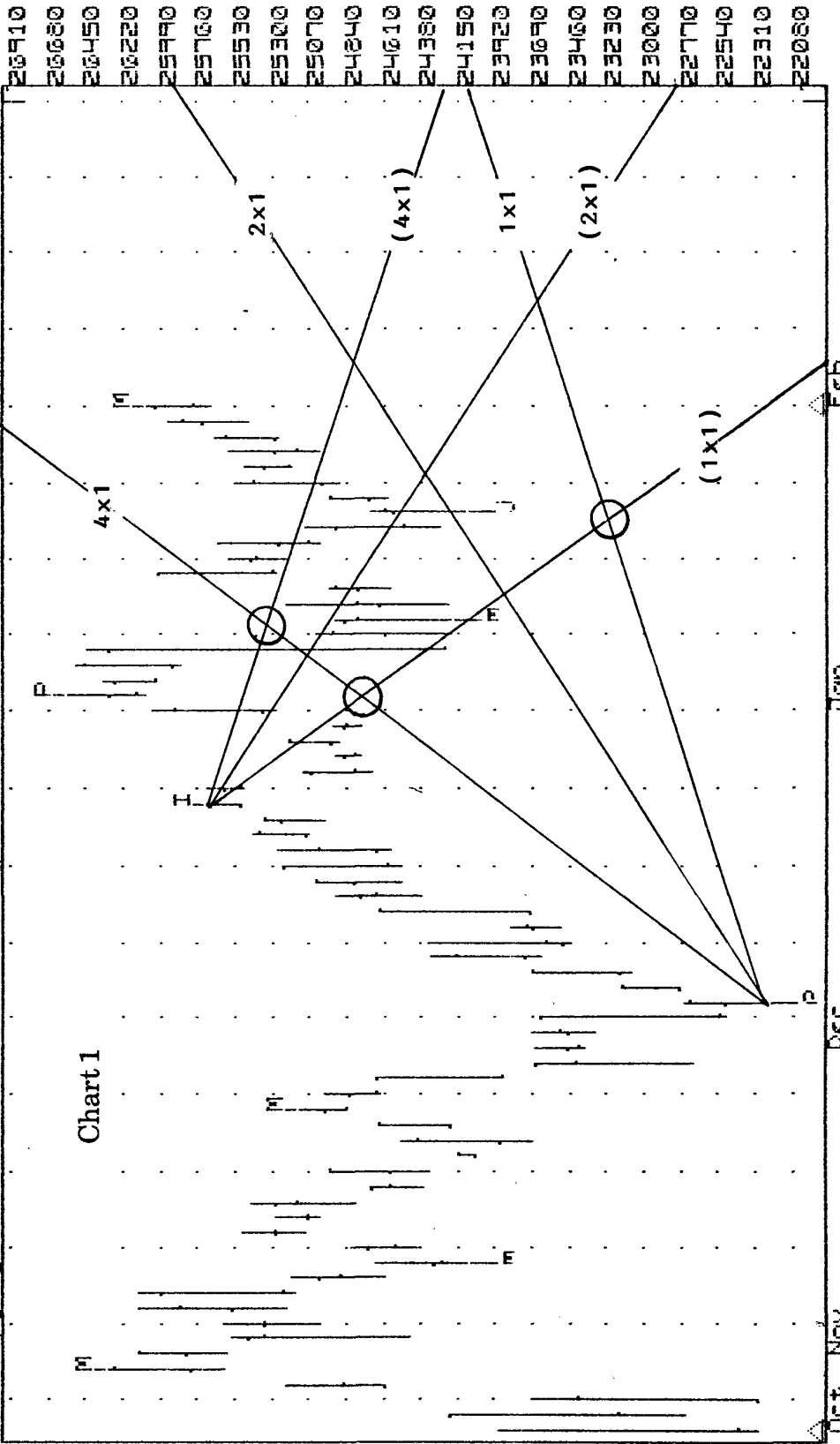
Computerized positive and negative 1x1, 2x1, and 4x1 Gann Lines have been drawn on Chart 1. The negative Gann Lines appear in parentheses.

Some line intersections have been circled. It is not a coincidence that price-reactions occur within one day on either side of the lines’ intersections. The more of a particular type of lines that intersect on a particular day, the stronger the price reaction. These intersections should give you the “when” of price reactions.



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Dec Nov Dec Jan Feb  
 Monday 10/26/87 24408  
 Open=23000 High=23700 Low=22300 Close=22410 Open=22200 High=22500 Low=21800 Close=21800

Chart 2 is the same chart as Chart 1. 1/5/89 (the Primary - "P" - Gann Pivot Point day) has been circled. The computerized Gann Lines appearing are those which the software has determined will most affect price activity on that day.

The high of that day is 26560. A computerized 4x1 line ("a"), drawn from the high of 25700 on "I" day of 12/23/87, intersects 1/5/89 at a price level of 26564, *only 4 points over the high of 1/5/89.*

The 1x4 line ("b"), drawn from the high of 26300 on the "M" day of 10/30/87, intersects 1/5/89 at a price level of 26641, 81 points over the high of the day.

It is not a coincidence that the high of 1/5/89 falls between 26564 ("a" intersection with 1/5/89) and 26641 ("b" intersection with 1/5/89).

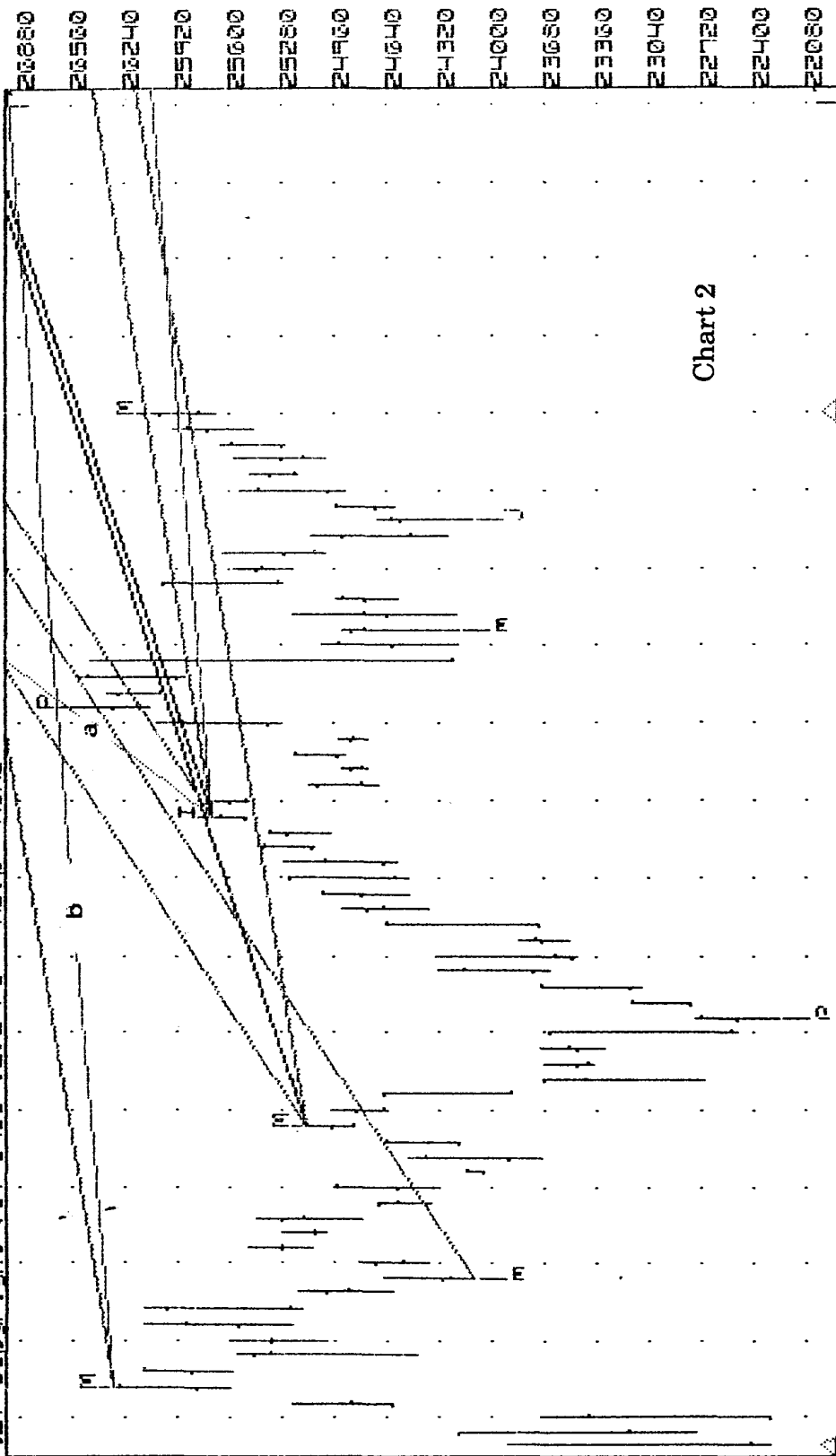
These are greatly over-simplified illustrations of the Gann-Line theory. For our purposes, though, Charts 1 and 2 show that combinations of multiple Gann Lines can accurately project price turning points for any given day.

Even after a financial shock such as "Black Monday," the inter-relationships and effects of Gann Lines still hold true.

Gann Lines result from mathematical expressions that have two elements. These two elements are PRICE and TIME.

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Oct Nov Dec Jan Feb  
 Tuesday 01/05/88 230040  
 Open=23320 High=23550 Low=23070 Close=23135  
 SPM88D.CW 807 HK# 85 XD# 81

## TIME

Gann held that time is the most important element of trading. Time is the factor that determines the length of a commodity's price trend. When time dictates that trending prices should react, prices may stabilize for a short period, or they may fluctuate within a tight range, but eventually they will react by reversing direction. Time is the element that will determine WHEN prices should react.

Certain price reactions are found to occur during specific times. The actual TYPE of price reaction can be anticipated, and pre-determined, by using Gann time rules.

Gann time periods last not only days or weeks, but months and even years. Gann Angles (these are discussed in the section, "Gann Angles") that affect prices in December could very well have started in the previous January.

Gann's trading year is first divided in half, equivalent to 6 months or 26 weeks. The year is then divided into quarters, totalling 13 weeks or 90 days. The year is then still further divided by eighths, and then by sixteenths. And then, after you think you understand all of this, you find that Gann's year is also divided by thirds.

There are also important time PERIODS within the Gann year. For example, since a week is 7 days, and 7 times 7 is 49, Gann's work found that 49 is a significant number. Important tops or bottoms may occur between the 49th and 52nd day, although an intermediate change-in-trend may occur between the 42nd and 45th day, because 45 days is 1/8 of a year (Note: this is outlined in "How To Make Profits In Commodities" by W. D. Gann, on page 57).

Other time periods that were important to Gann, at which a price reaction could be expected, are:

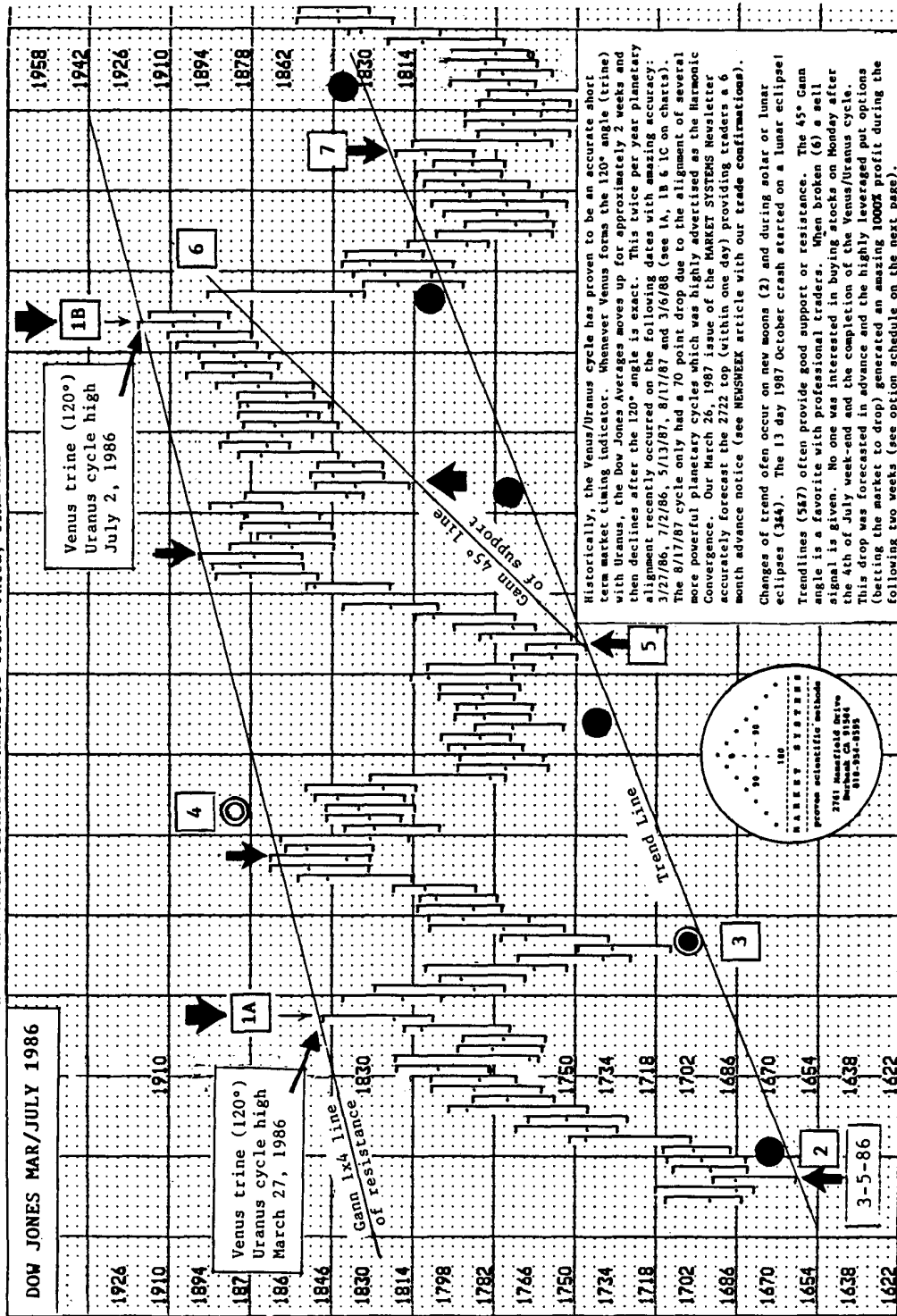
- Anniversary dates of major tops and bottoms.
- 7 months after a major top or bottom for a minor reaction.
- 10 to 14 days is the length for a reaction in a normal market. If this period is exceeded, the next reaction should be expected after 28 to 30 days.

If you're not already confused, understand that Gann's year may not only be calendar, but "fiscal" as well; i.e., starting from major tops or bottoms. Gann's time rules consider many periods, including seasonality, Biblical references, and astronomical events.

Chart 3 is an example of astronomical correlations on a Gann chart. One of Gann's beliefs, stemming from his "natural order" concept, is the influence of planetary movements on earthly events, such as the moon's perceived effect on tides. This "cosmic perspective" of Gann is unlike conventional astrology, in that planetary influences, like units of price, are unique to each market.

Chart 3 was prepared by Genesis Capital's Director of Research, Gregory L. Meadors. Mr. Meadors is a technician with 20 years of experience in this highly specialized field of Gann analysis.

Chart 3 EXAMPLE OF ADVANCED TECHNICAL ANALYSIS USING PRICE, TIME AND PLANETARY CYCLES



Historically, the Venus/Uranus cycle has proven to be an accurate short term market timing indicator. Whenever Venus forms the 120° angle (trine) with Uranus, the Dow Jones Averages moves up for approximately 2 weeks and then declines after the 120° angle is exact. This twice per year planetary alignment recently occurred on the following dates with amazing accuracy: 3/27/86, 7/2/86, 5/13/87, 8/17/87 and 3/6/88 (see 1A, 1B & 1C on charts). The 8/17/87 cycle only had a 70 point drop due to the alignment of several more powerful planetary cycles which was highly advertised as the Harmonic Convergence. Our March 26, 1987 issue of the MARKET SYSTEMS Newsletter accurately forecast the 2722 top (within one day) providing traders a 6 month advance notice (see NEWSWEEK article with our trade confirmations). Changes of trend often occur on new moons (2) and during solar or lunar eclipses (344). The 13 day 1987 October crash started on a lunar eclipse! Trendlines (587) often provide good support or resistance. The 45° Cann angle is a favorite with professional traders. When broken (6) a sell signal is given. No one was interested in buying stocks on Monday after the 4th of July week-end and the completion of the Venus/Uranus cycle. This drop was forecasted in advance and the highly leveraged put options (betting the market to drop) generated an amazing 1000% profit during the following two weeks (see option schedule on the next page).

THE SCIENTIFIC METHOD  
 2761 Mansfield Drive  
 Berkeley, CA 94704  
 415-524-1515

## PRICE

While Gann's theories of time dealt with WHEN prices will move, his theories of price determine HOW MUCH prices will move.

Gann's price theories deal with percentages. They may be a little easier to understand and use than Gann's time theories.

Price is divided into segments called ranges. Gann's price ranges, like his time periods, are defined on a basis of periodic highs and lows. These periods could be on an intra-day, daily, weekly, monthly, yearly or life-of-contract basis, depending on how large a period you're analyzing.

Significant price ranges do not require an entire calendar year to occur. The PRICE LEVEL rather than the actual DATE of a major high or low is important. An annual high could occur on January 1, and 30 days later a drastic low could occur. Prices may move between these two limits for the rest of the calendar year. The annual high and low then, which established the price range for the rest of the calendar year, would only be 30 days apart.

The price ranges, regardless of the time required for them to occur, are divided by eighths and also by thirds, and are defined in terms of percentages of the previous price trend. For example, the price level of a small price range can be at the 50% level. However, the same price level of a LARGER price range may only be at the 25% level of the larger range.

Table 1 lists Gann's price levels and their percentages, within a range.

### Gann Price Levels

Table 1

Level	Percentage
1/8	12-1/2
2/8	25
1/3	33-1/3
3/8	37-1/2
4/8	50
5/8	62-1/2
2/3	66-2/3
6/8	75
7/8	87-1/2
8/8	100

Each 1/8 and 1/3 price level in a price range offers different degrees of support and resistance to further price movements. (This theory of support and resistance will be further explained in the section, "Gann's 50% Retracement Rule.")

The 1/8- or 3/8-level of a price range may offer such little resistance (to rising prices) or support (to falling prices), that, on an intraday chart, a price reaction may hardly be noticeable.

However, on the same intraday chart, once prices reach the 50% or 100% retracement level of a previous trend, the amount of resistance or support - or the lack of it - may be dramatic.

These price reactions, and their respective percentages, are known as *retracements*.



# RETRACEMENTS

One area of Gann's price rules deals with retracements.

A retracement is a price reversal from the direction of the current price trend, occurring before prices continue in the original direction.

50%, 75%, and 100% price retracement levels, and their *multiples*, offer the strongest levels of price support or resistance to further price movements. Reactions at and from the 50% level, which Gann called the "balancing point," should occur most often.

Chart 4 is a diagram of retracements. Prices begin to fall from 12 units. At 2 units, prices reverse direction to the upside. They continue rising until reaching a level of 50% OF THE PREVIOUS MAJOR PRICE TREND, or 7 units.

At 7 units, prices react 50% of the distance from 2 to 7 units, before continuing the upward trend. The upward trend continues to 9-1/2 units, or 75% of the 12-to-2 bear price trend.

At 9-1/2, again, prices react 50% to the downside before continuing the upward trend to the 100% level - 12 units - of the previous bear move.

Chart 4

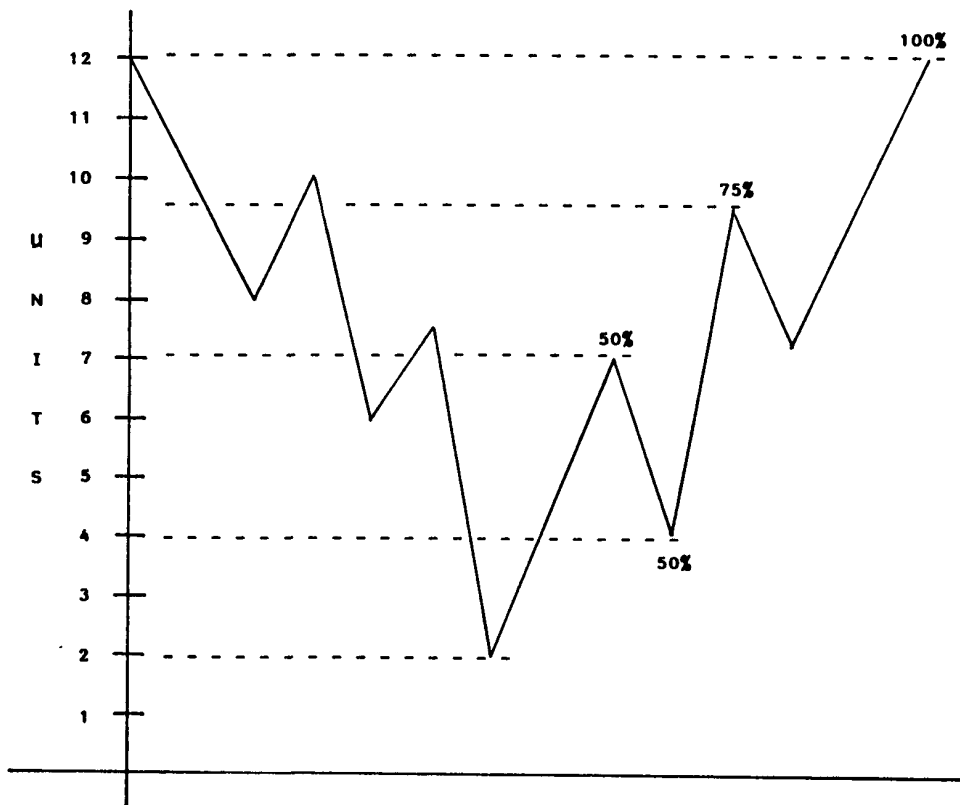


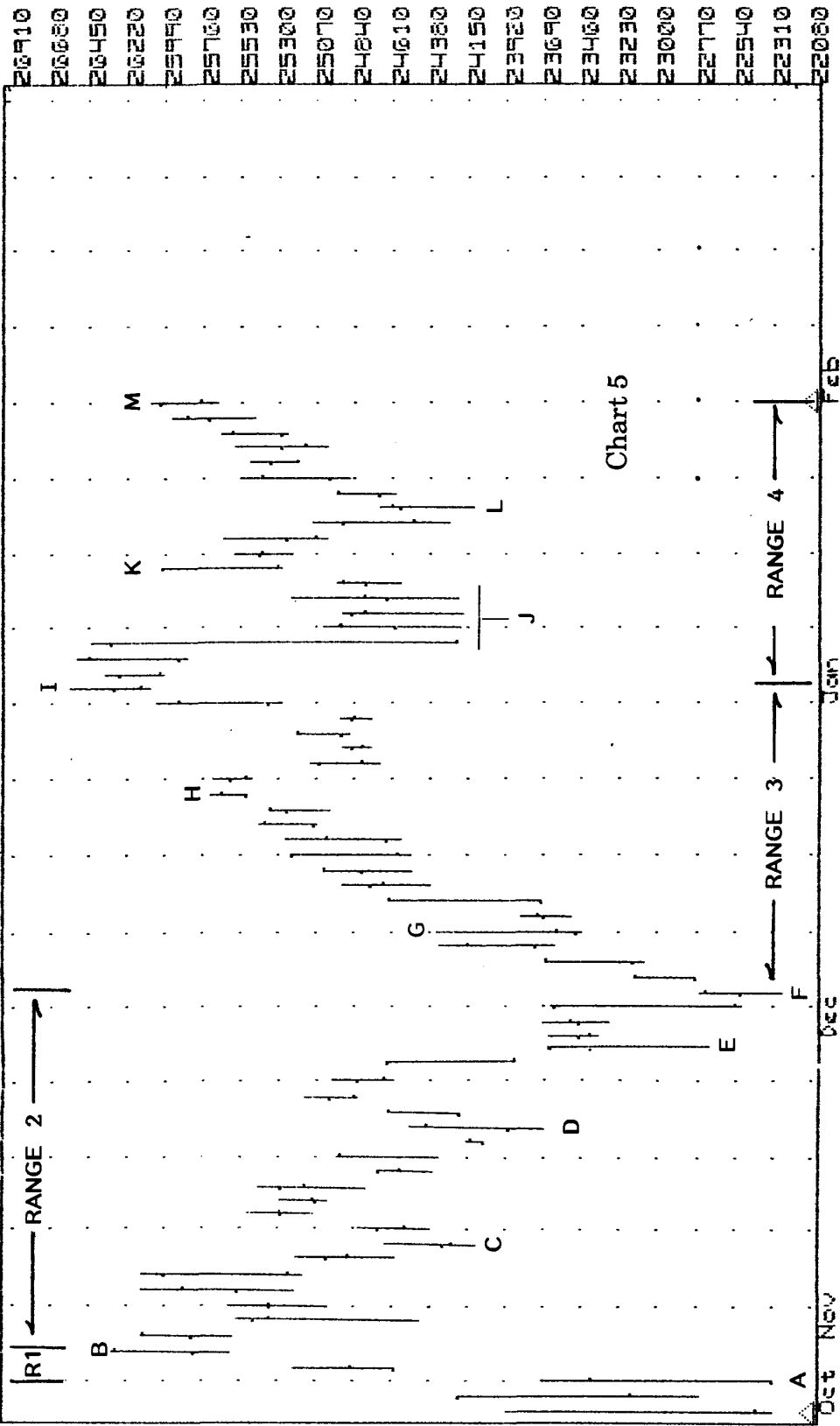
Chart 5 is a price chart of the June 1988 contract for the S&P 500. It is the same contract and time period as that of Charts 1 and 2, but without Gann Pivot Points. Prices can be seen to trend for a period of time, and then react at the Gann levels of 50%, 63%, 75%, and 100%. Reaction points are labelled "A" through "M."

Chart 5 is divided into 4 Price Ranges. These ranges are shown on Charts 6, 7, 8 and 9. As you review these charts, you'll notice that:

- 1) Prices retrace to Gann retracement levels, and then react.
- 2) Even if *intraday* prices exceed a Gann retracement level, prices generally will close within an acceptable Retracement Zone.
- 3) In some cases, prices react *almost to the exact midpoint of the daily price range*.

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*Range 1:*

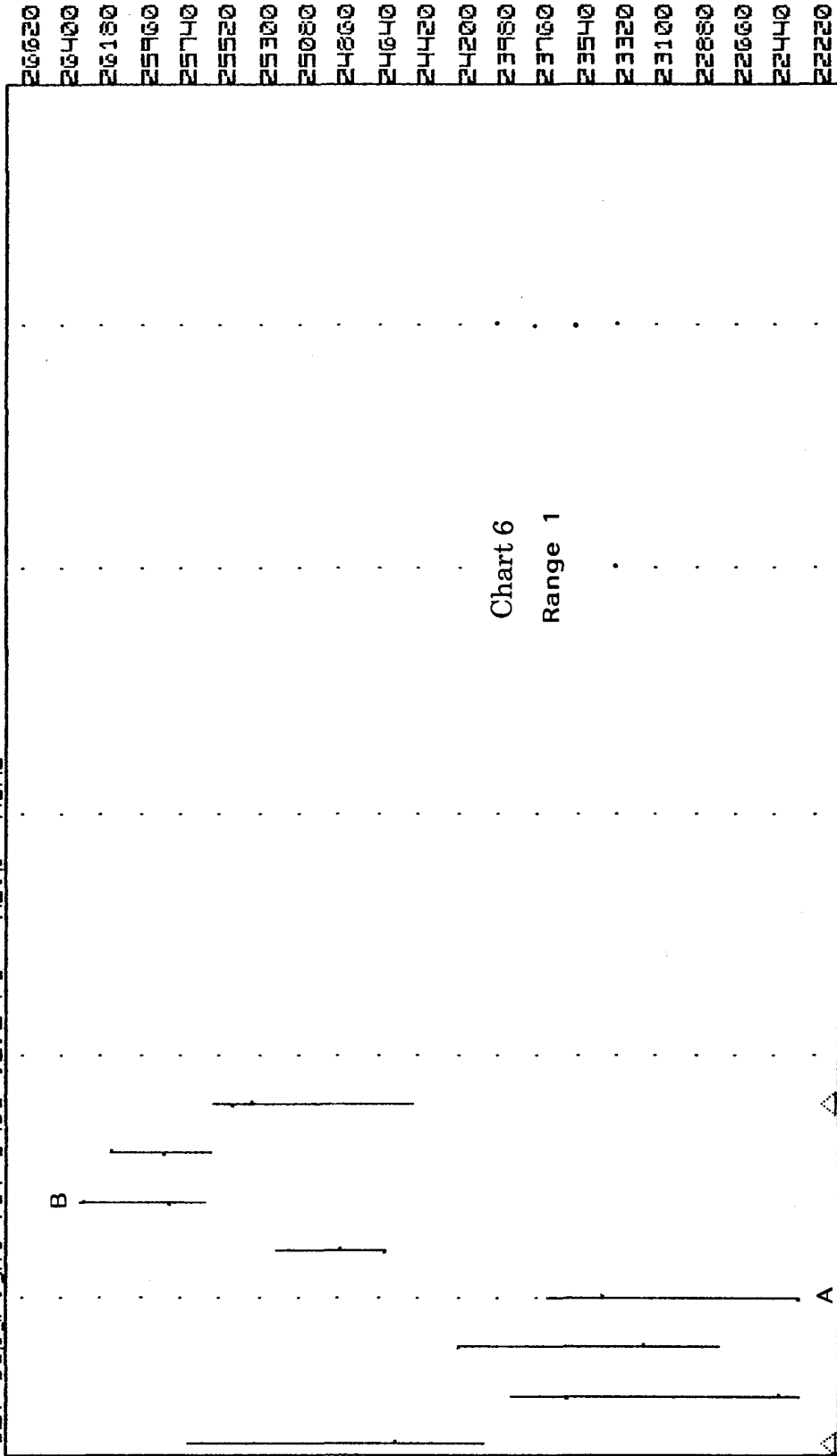
Point A - Low of 10/26/87 at 22300

Point B - High of 10/30/87 at 26300.

Total number of points in Range 1	=	4000
50% Retracement Target	=	24300
63% Retracement Target	=	23780
75% Retracement Target	=	23300
100% Retracement Target	=	22300

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Oct Nov  
Friday 10/23/87 24324  
SPM88.CW Open=24550 High=25700 Low=24050 Close=24545 Open=24944 High=25400

*Range 2*

Point B - High of 10/30/87 at 26300

Point F - Low of 12/4/87 at 22250

Total number of points in Range 2	=	4050
50% Retracement Target	=	24275
63% Retracement Target	=	23749
75% Retracement Target	=	23263
100% Retracement Target	=	22250

Point C - Price range of 11/10/87; 50% Retracement

Open = 24300	Daily Midpoint: 24650 - 24100	=	550
High = 24650	550 x 50%	=	225
Low = 24100	24500 - 510	=	23990
Close = 24250			

50% Retracement Target of Range 1	=	24275
50% Midpoint of 11/10/87	=	24325
Difference	=	50 Pts.

Point D - Price range of 11/20/87; 63% Retracement

Open = 23900	Daily Midpoint: 24500 - 23690	=	810
High = 24500	810 x 63%	=	510
Low = 23690	24500 - 510	=	23990
Close = 24400			

63% Retracement Target of Range 1	=	23749
50% Midpoint of 11/20/88	=	24095
Difference	=	346 Pts.

Point E - Price range of 11/30/87; 75% Retracement

Open = 23670	Daily Midpoint: 23670 - 22700	=	970
High = 24500	970 x 63%	=	485
Low = 23690	23670 - 485	=	23185
Close = 24400			

75% Retracement Target of Range 1	=	23263
50% Midpoint of 11/30/87	=	23185
Difference	=	78 Pts.

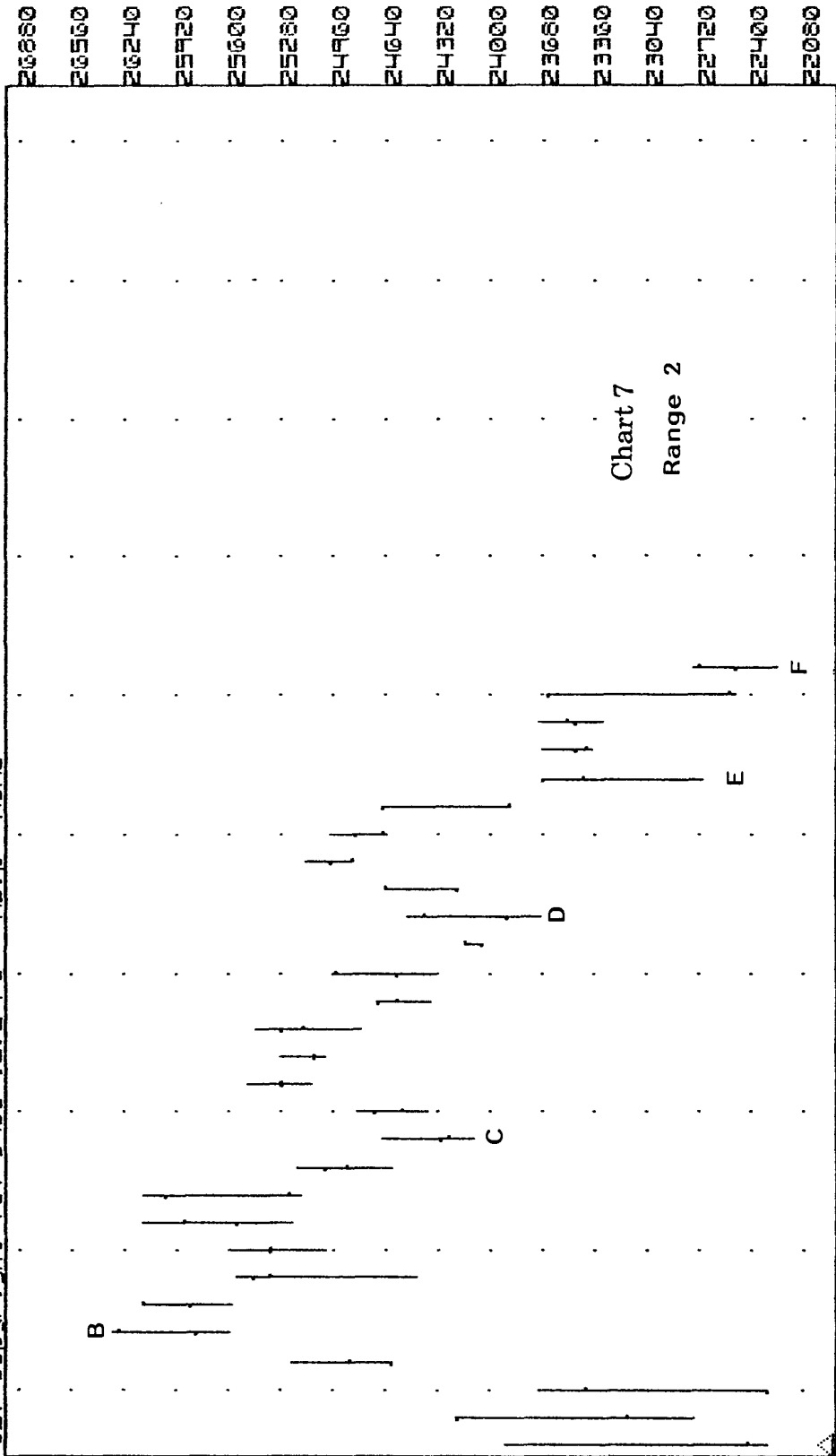
Point F - Price range of 12/4/87; 100% Retracement

Open	=	22500	Daily Midpoint:	22750 - 22250	=	500
High	=	22750		970 x 50%	=	250
Low	=	22250		22750 - 250	=	22500
Close	=	22720				

100% Retracement Target of Range 1	=	22300	
Low of 12/4/87	=	22250	
Difference	=	50	Pts.

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Dec Nov Dec

Friday 12/04/87 24408

Open=22500 High=22750 Low=22250 Close=22720 Desc=-13HG MK= 16 KD= 18

SPM88D.CW



*Range 3*

Point F - Low of 12/4/87 at 22250

Point I - High of 1/5/88 at 26560

Total number of points in Range 3	=	4310
50% Retracement Target	=	24405
63% Retracement Target	=	24965
75% Retracement Target	=	25482
100% Retracement Target	=	26300

Point G - Price range of 12/10/87; 50% Retracement

Open = 23500	Daily Midpoint: 24340 - 23475	=	865
High = 24340	865 x 50%	=	433
Low = 23475	24340 - 443	=	23897
Close = 23615			

50% Retracement Target of Range 2	=	24405
50% Midpoint of 12/10/87	=	23897
Difference	=	508 Pts.

Point H - Price range of 12/23/87; 75% Retracement

Open = 25500	Daily Midpoint: 25700 - 25500	=	200
High = 25700	200 x 50%	=	100
Low = 25500	25700 - 100	=	25600
Close = 25640			

75% Retracement Target of Range 2	=	25482
50% Midpoint of 12/23/87	=	25600
Difference	=	118 Pts.

Point H - Price range of 12/23/87; 75% Retracement

Open = 25500	Daily Midpoint: 25700 - 25500	=	200
High = 25700	200 x 50%	=	100
Low = 25500	25700 - 100	=	25600
Close = 25640			

75% Retracement Target of Range 2	=	25482
50% Midpoint of 12/23/87	=	25600
Difference	=	118 Pts.

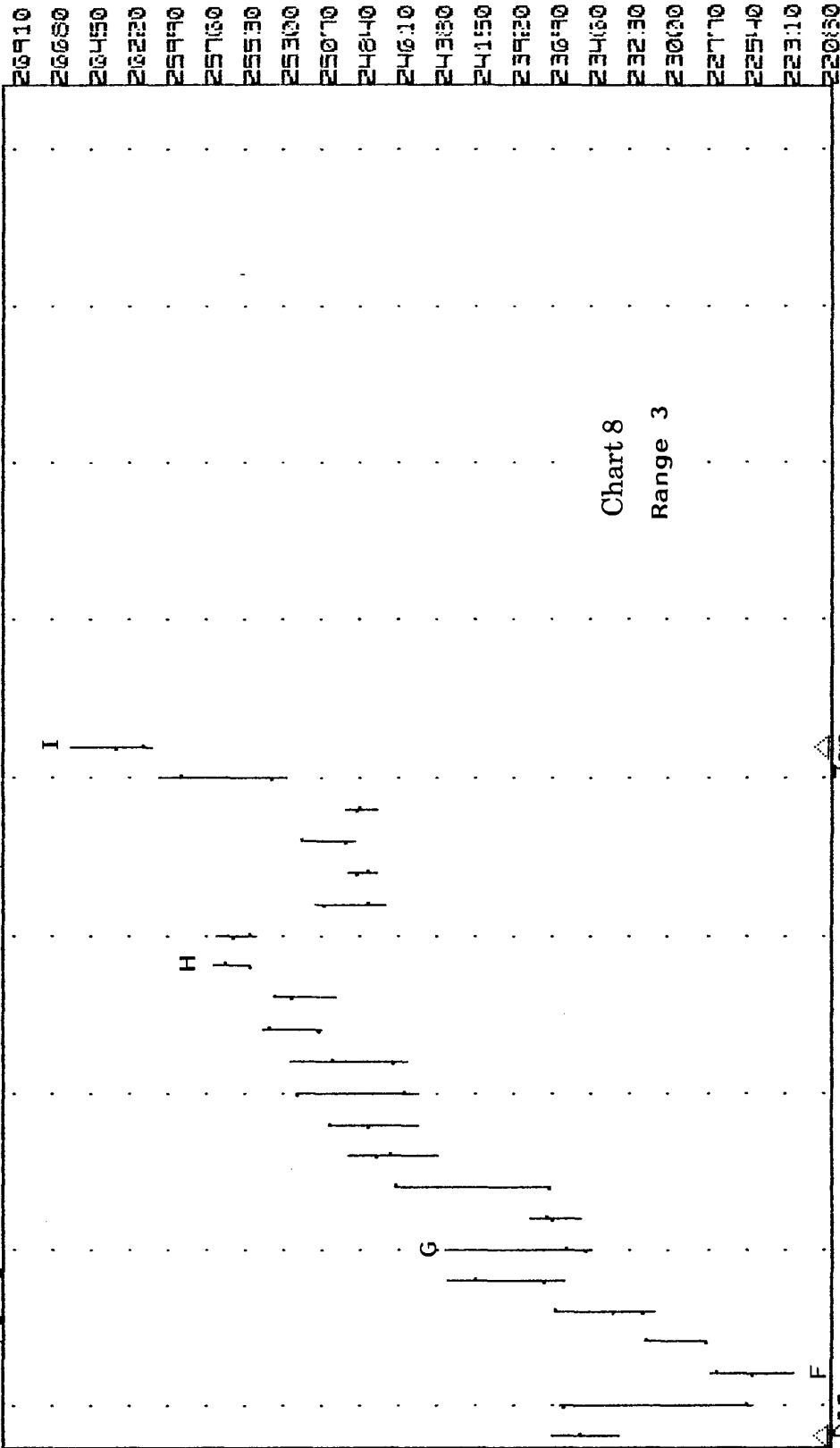
Point I - Price range of 1/5/88; 100% Retracement

Open	=	26300	Daily Midpoint:	26590 - 26090	=	500
High	=	26590		500 x 50%	=	250
Low	=	26090		26590 - 250	=	26340
Close	=	26135				

100% Retracement Target of Range 2	=	26300
50% Midpoint of 1/5/88	=	26325
Difference	=	25 Pts.

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SPH600.OV

Friday 12/24/87 24:55

Open=22500 High=22750 Low=22250 Close=22720 Open-1340 High-10 xD= 18

#### Range 4

Point I - High of 1/5/88 at 26560

Point L - Low of 1/21/88 at 24120

Total number of points in Range 4	=	2440
50% Retracement Target	=	25340
63% Retracement Target	=	25657
75% Retracement Target	=	25950
100% Retracement Target	=	26560

Point J - A group of 4 consecutive lows ALL WITHIN 10 POINTS:

1/9/89	-	Low at 24200
1/10/89	-	Low at 24190
1/11/89	-	Low at 24200
1/12/89	-	Low at 24190

Gann stated that when 2 or more 50% Retracement Zones occur at the same price level, *congestion* occurs. Prices don't know whether to react to the "bearishness" of Range 2 or the "bullishness" of Range 3. Therefore - congestion. (Another example of this can be seen in a T-Bond chart in the section, "Fine Tuning the 50% Rule.")

Point K - Price range of 1/15/89; 50% Retracement of the previous 50% retracement.

Prices met with very strong resistance in the 10-point zone of 24190 to 24200. After 3 attempts, prices rebounded to the upside, but *only to approximately 50% of the previous move from Point I to Point J.*

Therefore, the NEW limits for Range 4 should be:

High of 1/5/88 at 26560  
Low of 1/10/88 at 24190

New 50% Retracement Target = 25370

Open = 26000	Daily Midpoint: 26000 - 25280 =	720
High = 26000	720 x 50% =	360
Low = 25280	26000 - 360 =	25640
Close = 25300		

50% Retracement Target of Range 4	=	25375	
50% Midpoint of 1/15/88	=	25640	
Difference	=	265	Pts.

Point L - Price range of 1/21/88; 100% Retracement

Open = 24555	Daily Midpoint: 24600 - 24120	=	480
High = 24600	480 x 50%	=	240
Low = 24120	24600 - 240	=	24360
Close = 24605			

100% Retracement Target of Range 4	=	24190	
50% Midpoint of 1/21/88	=	24360	
Difference	=	170	Pts.

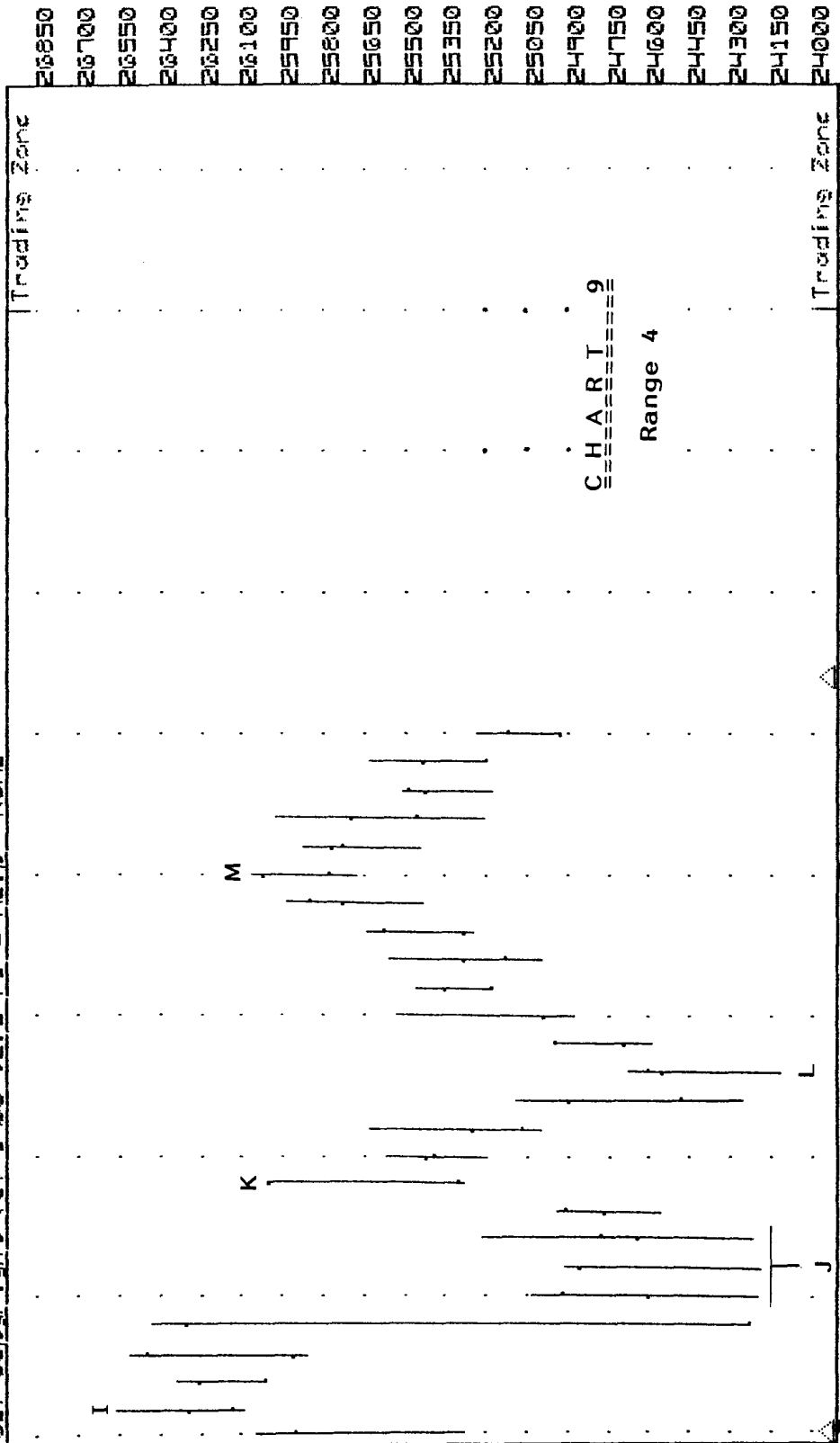
Point M - Price range of 2/1/88; 50% Retracement

Open = 26020	Daily Midpoint: 26060 - 25680	=	380
High = 26060	380 x 50%	=	190
Low = 25680	26060 - 190	=	25870
Close = 25780			

50% Retracement Target of Range 4	=	25370	
50% Midpoint of 2/1/88	=	25870	
Difference	=	500	Pts.

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ST888D.CW Monday 01/24/88 23429  
 Open=23530 High=23640 Low=23520 Close=23505 Dec= 617 wk= 84 xD= 78

OK, maybe you'll say that I researched thousands of charts to find just the right one to use. If that were true, and Gann's rules of retracements are not universally valid, then Chart 10 could not exist.

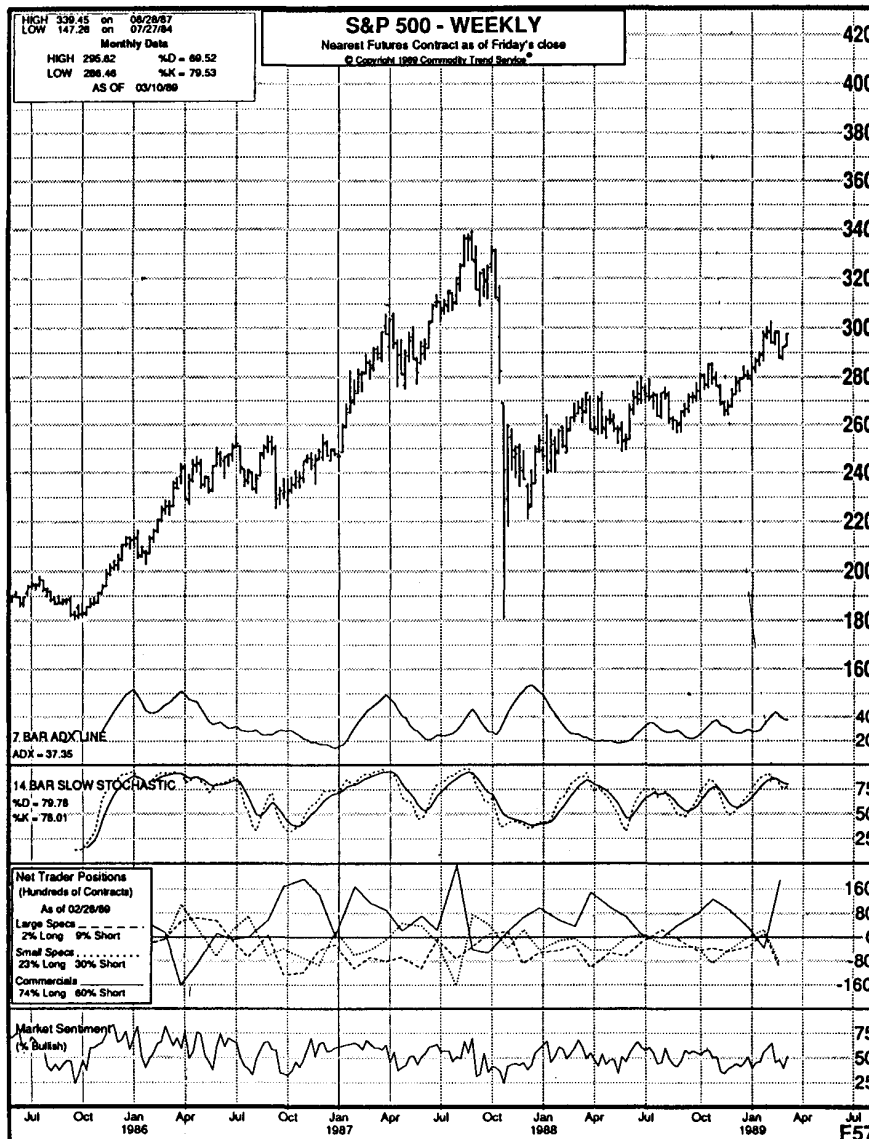
Chart 10 is a phenomenal example of Gann's 100% Retracement Rule. The chart, from Commodity Trend Service, is of the weekly S&P 500 Index.

The time period is about 3 years - July 1986 to April 1989. The high for that period is 33945, and the low is 14726. Many price reactions occur at Gann's 50%, 63% and 75% price levels.

The historic price collapse in October 1987 - "Black Monday" - can be clearly seen. This occurred *almost to the exact date and price tick OF TWO YEARS PRIOR* to "Black Monday."

Was Gann right?

Chart 10



If you consider the “life-of-the-commodity” price range for a commodity that’s been traded since Gann’s time, such as Wheat, it is not hard to imagine having eighth levels, divided by eighth levels, divided by thirds, divided by . . .

Gann held that it was better to make only several excellent trades a year, rather than a number of fair ones. To do this, a yearly price chart would have to be reviewed to determine in which year prices tend to “peak” or “bottom.” Then, a monthly chart is used to determine in which month of which year prices will turn. Narrowing turning points even further, weekly and finally daily charts are used. Using only daily charts will cloud “. . . the big picture.”

Let’s assume for a moment that you have a commercially - available chart, such as Chart 10. You’ve located a major high and a major low. You notice that prices are starting a bull move from the major low and have counted over 45 days, expecting a reaction to occur at that time.

How do you know if the major high that you’ve located IS actually a major high, or merely a minor reaction in a larger bear market? Could the 4/8 level of that evolving bull market be only the 1/3 level of a larger bear reaction? And assuming you ARE right about the 4/8 level, what do you do now? (Don’t give up now! It get’s easier from here.)

Gann’s system establishes order out of chaos. Gann angles and the associated geometric angles form a unique system for projecting price and time targets. Books have been written and seminars given on Gann’s theories. A complete explanation of Gann’s trading theories is well beyond that which is written here. Mastering all of his concepts is difficult, taking years of practice and study, if it can be done at all.

Gann’s 50% Retracement Rule, and the rules taught here, are the exception.

But before presenting a clear and effective way to use Gann’s 50% Retracement Rule, the difference between Gann Angles and geometric angles must be explained.



## GANN ANGLES - PRICE VERSUS TIME

Gann established a relationship between units of price and units of time.

He used several styles of charts, including the conventional "X-Y" axis chart that is used today. Price is plotted on the "Y" axis, and time is plotted on the "X" axis. Gann died in 1955. Not having a computer, he used 8x8 graph paper (eight squares to the inch) to chart prices. The 8x8 graph paper allowed him to "balance" units of price with units of time.

Units of PRICE are unique for each commodity. A one-inch price movement on a chart for Treasury Bonds may equal 64 points. However, for the S&P 500 Index, this same one-inch distance may equal 100 points. It is the number of points on the chart, not the actual chart distance, which defines a unit of price, for purposes of establishing Gann angles.

Units of TIME are standard for all commodities. One minute, one hour, one day, one week, or one month are the same for the Gold, Pork Bellies, S&P 500 Index, Treasury Bonds or Corn markets.

By graphing "Y" units of price, moving in "X" units of time, Gann originated his *Gann Angles*. Gann Angles are written in the algebraic expression of "PxT," where "P" equals units of price and "T" equals units of time.

Gann Angles define price movements, by relating units of price to units of time. Each Gann Angle represents a relationship between price and time. The relationship between MANY Gann Angles, drawn from significant tops and bottoms, intersecting with each other and trading days, can not only determine WHEN prices will react, but AT WHAT PRICE that reaction will occur - a harmonious blend of price versus time.

The basic ratio of Gann Angles is 1:1 - one unit of price equalling one unit of time. The resulting "1x1" Gann Angle reflects that prices are moving one unit of price in one unit of time. A "2x1" Gann Angle indicates that prices are moving TWO units of price in one unit of time. A "1x2" Gann Angle indicates that prices are moving one unit of price, but in TWO units of time.

Assuming prices are rising, prices following a 2x1 Gann Angle are rising faster than prices following a 1x1 Gann Angle. A 1x2 Gann Angle would indicate the slowest of all 3 rates of price rise. Prices falling at a 2x1 Gann Angle are falling at a faster rate than at a 1x1 or 1x2 Gann Angle.

Table 2 expands on Table 1, by listing 7 Gann levels, with their corresponding percentages, degrees and Gann Angles:

**Gann Price Levels  
Percentages, Degrees, Gann Angles, Support/Resistance**

**Table 2**

<b>Level</b>	<b>Percentage</b>	<b>Degree</b>	<b>Gann Angle</b>	<b>Support/Resistance</b>
1/8	12-1/2	14	1x4	Support +
2/8	25	26-1/2	1x2	Support +
4/8	50	45	1x1	Neutral
5/8	62-1/2	63-1/2	2x1	Resistance +
6/8	75	75	4x1	Resistance +
7/8	87-1/2	82-1/2	8x1	Resistance +
8/8	100	90	—	Resistance +

Assumes a Rising Market; Reverse for Falling Market

Unlike geometric angles, Gann Angles are NOT the same for all markets. A 45-degree GEOMETRIC angle is not equal to a 1x1 GANN Angle for all markets. A 1x1 GANN Angle is not at the same GEOMETRIC angle for ALL markets in ALL time frames. GANN's system was designed to reflect the unique nature of EACH market's price activity in relationship to time.

GEOMETRIC angles represent each of Gann's eighth-levels of price activity, *independent of time*. While some relationship may exist between movements of price units per unit of time by using geometric angles, the relationship is not constant for ALL commodities in ALL time periods, or for ALL chart scales.

Gann found prices will react in a unique way when following his Gann Angles, designated as "Support/Resistance" in Table 3. If prices begin to rise (a bull trend) from a significant low, they will follow a base angle of 1x1, or 45-degrees, for most of the trend. As a *change-in-trend* starts to occur, the trend's angle for prices may increase to 63-1/2 degrees, 75 degrees, and 82-1/2 degrees (see Chart 54).

Should prices "break" the 45-degree line, they will find *support* along a 26-1/2 degree line. Should that line be broken, the last "line of defense" before prices collapse will be along a 14-degree line. Gann was so confident that a change in trend was about to evolve after prices *closed* under a 45-degree line that he termed it the "Death Line."

Charts 11 and 12 illustrate Gann Angles, and their resulting geometric angles, in relationship to chart scale.

Chart 11 illustrates the relationship between Gann and geometric angles when units of price EQUAL units of time.

Each unit of price, and each unit of time, equals 1 inch.

When prices move ONE unit of price in TWO units of time, a 1x2 GANN Angle, or a 26-1/2-degree GEOMETRIC angle, results.

When prices move ONE unit of price in ONE unit of time, a 1x1 GANN Angle, or a 45-degree GEOMETRIC angle, results.

When prices move TWO units of price in ONE unit of time, a 2x1 GANN Angle, or a 63-1/2-degree GEOMETRIC angle, results.

When prices move FOUR units of price in ONE unit of time, a 4x1 GANN Angle, or a 75-degree GEOMETRIC angle, results.

### **Gann and Geometric Angles**

<b>Angle</b>	<b>Gann (Price v. Time)</b>	<b>Geometric (in degrees)</b>
A	1x2	26-1/2
B	1x1	45
C	2x1	63-1/2
D	4x1	75

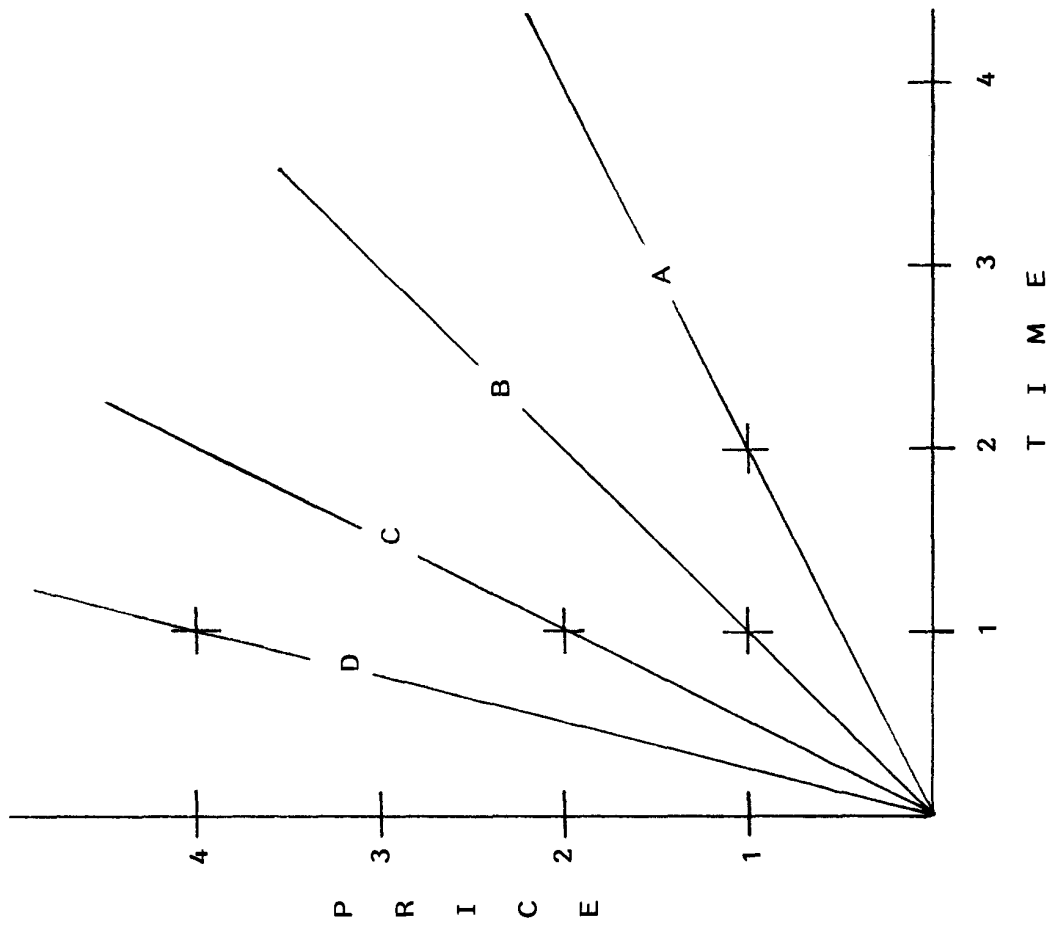


Chart 11  
=====

Since each market has a unique price scale, or when either the price or time scale of one market changes, the resulting GEOMETRIC angle of the GANN Angle will change accordingly.

Chart 12 illustrates the relationship between Gann and geometric angles, when units of price DO NOT EQUAL units of time. Units of time equal 1 inch. However, units of PRICE now equal 1-1/4 inches.

When prices move ONE unit of price in TWO units of time, a 1x2 GANN Angle still results, but now at a 32-degree GEOMETRIC angle.

When prices move ONE unit of price in ONE unit of time, a 1x1 GANN Angle still results, but now at a 51-degree GEOMETRIC angle.

When prices move TWO units of price in ONE unit of time, a 2x1 GANN Angle still results, but now at a 68-degree GEOMETRIC angle.

When prices move FOUR units of price in ONE unit of time, a 4x1 GANN Angle still results, but now at a 79-degree GEOMETRIC angle.

### **Gann and Geometric Angles**

<b>Angle</b>	<b>Gann (Price v. Time)</b>	<b>Geometric (in degrees)</b>
A	1x2	32
B	1x1	51
C	2x1	68
D	4x1	79

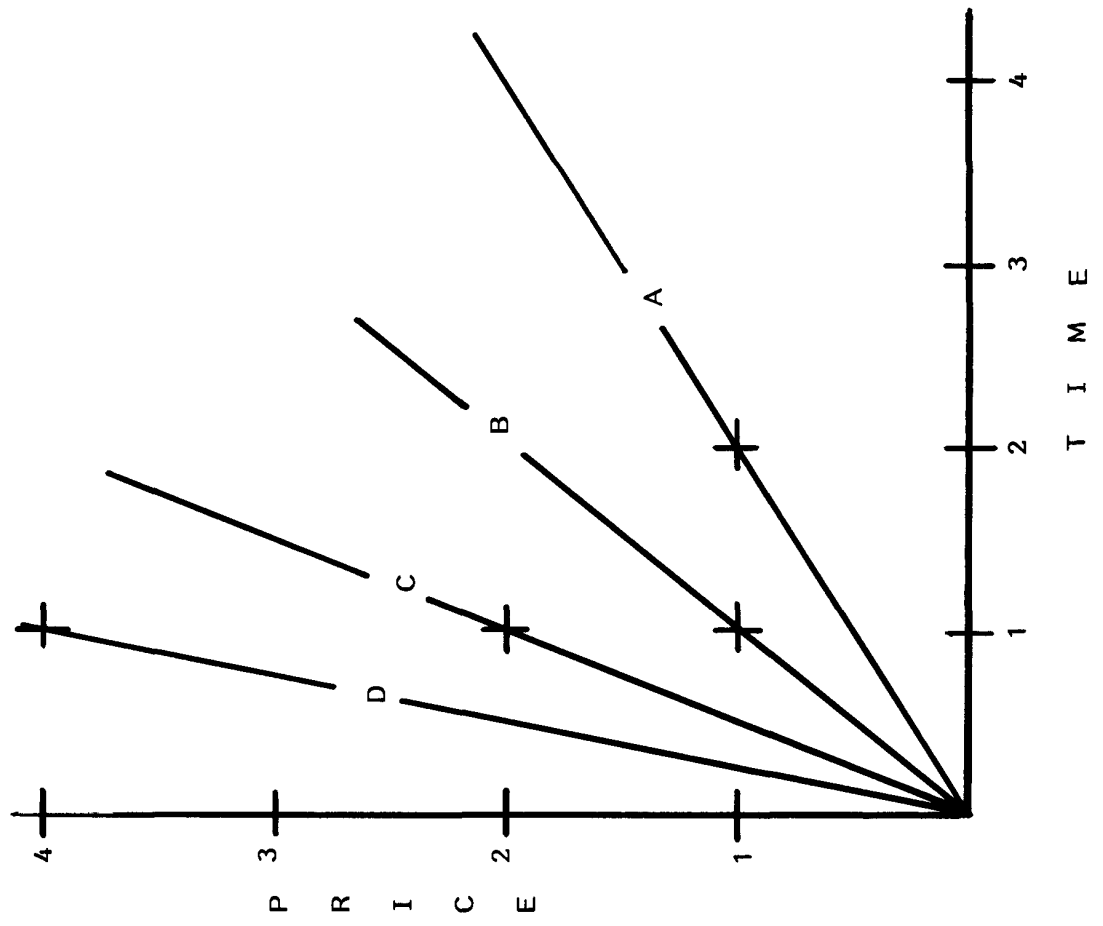


Chart 12  
=====

Charts 13, 14 and 15 are real-time examples of Gann and geometric angles. All 3 charts are of the June 1989 S&P 500 Index contract. Computerized 1x1 and 1x2 Gann Angles, and a 45-degree geometric angle, have been drawn on all 3 charts. The three lines begin from 26380, the low of 8/22/88, a Primary Gann Pivot Point day.

Each chart has a different time period and/or price range.

Chart 13 is for the time period of 9/1/88 to 12/30/88. The price scale is from a low of 26220 to 30360. This is the range defaulted by the software.

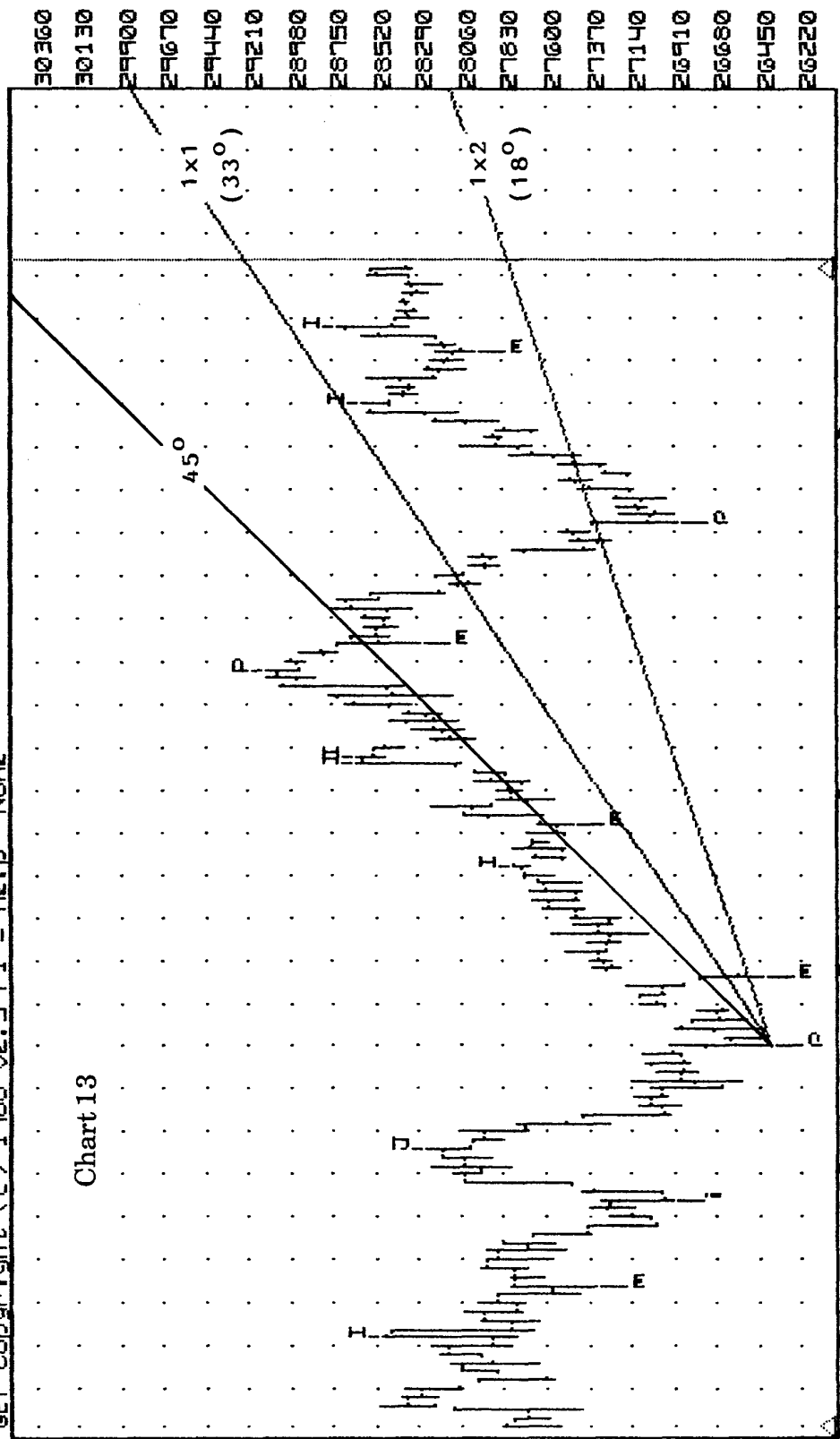
The 1x1 Gann Line intersects the price trend on 9/1/88 (a Minor Gann Pivot Point day), at 26632.

The 1x1 Gann Line is at a geometric angle of 33 degrees.

The 1x2 Gann Line is at a geometric angle of 18 degrees.

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Jul Aug Sep Oct Nov Dec  
 Tuesday 01/03/29 30500  
 S&P INDEX SP0689 Open=28205 High=28230 Low=27890 Close=28070 Open= 351 xK= 04 xD= 70



Chart 14 has the same time period as that of Chart 13. The price range has been changed. The new range is from a low of 26240 to a high of 29440. The result is that the PRICE SCALE of the chart has changed.

The 1x1 Gann Line still intersects the price range at the same point, 26632 on 9/1/88, as it did in Chart 13. The 45-degree GEOMETRIC angle is still the same as that of Chart 13.

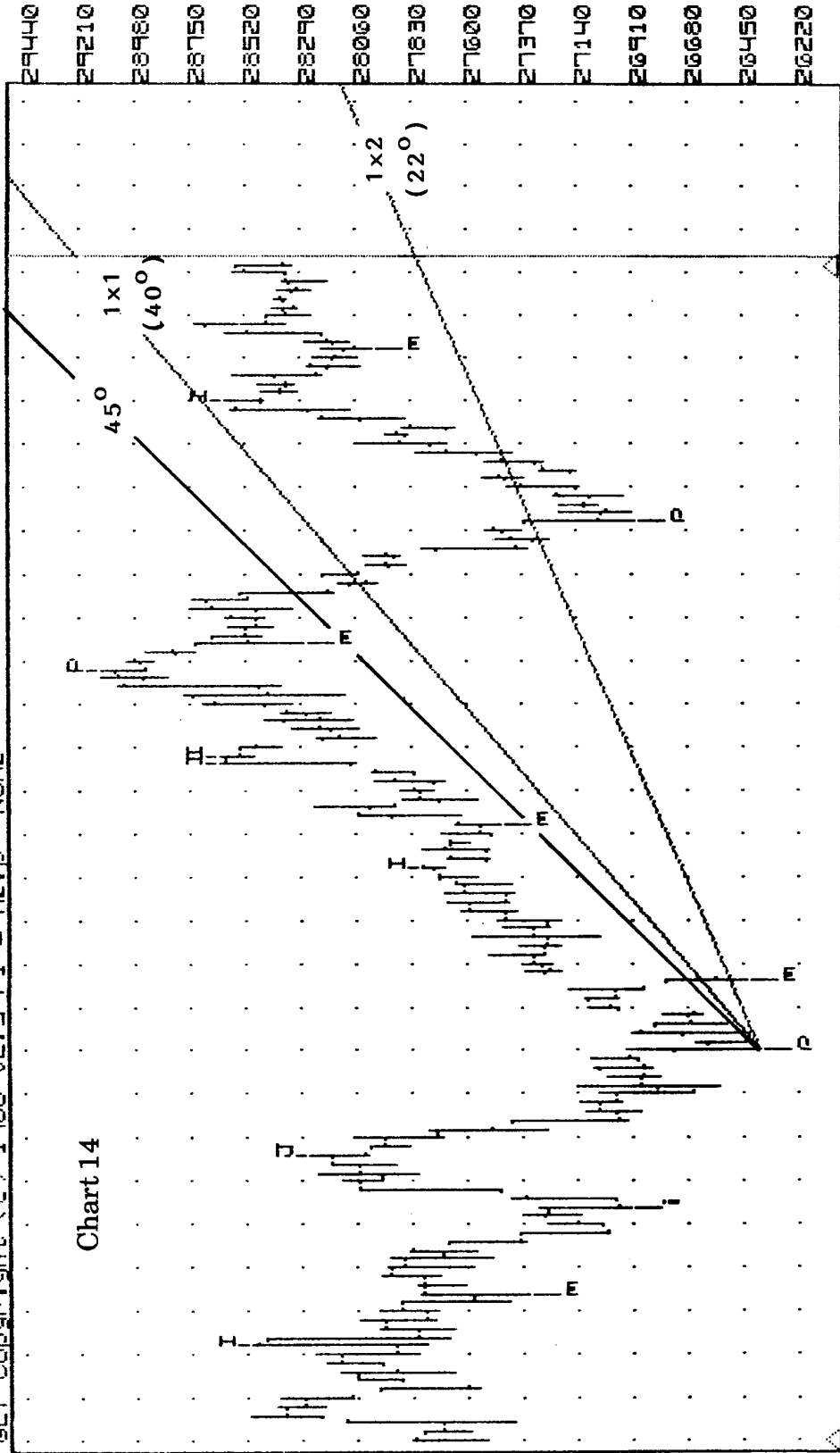
It is clear that the Gann Angles of Chart 6 are not at the same GEOMETRIC angles as those geometric angles of Chart 13.

The 1x1 Gann Line is now at a geometric angle of 40 degrees.

The 1x2 Gann Line is now at a geometric angle of 22 degrees.

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S&P INDEX SP0689    Tuesday 01/03/89 27500    Sep    Oct    Nov    Dec  
 Open=28205    High=28230    Low=27690    Close=28070    Open    351    xK= 64    xD= 70

In Chart 15, both the time period AND the price range have changed from those of Chart 13. This alters the chart SCALES for both PRICE AND TIME.

The time period is from 6/17/88 to 10/31/88.

The price scale is from a low of 26220 to a high of 29440.

The 1x1 line, as in Charts 13 and 14, intersects the price trend at the low of 26632 on 9/1/88. The GEOMETRIC 45-degree line is still the same as that of Charts 13 and 14.

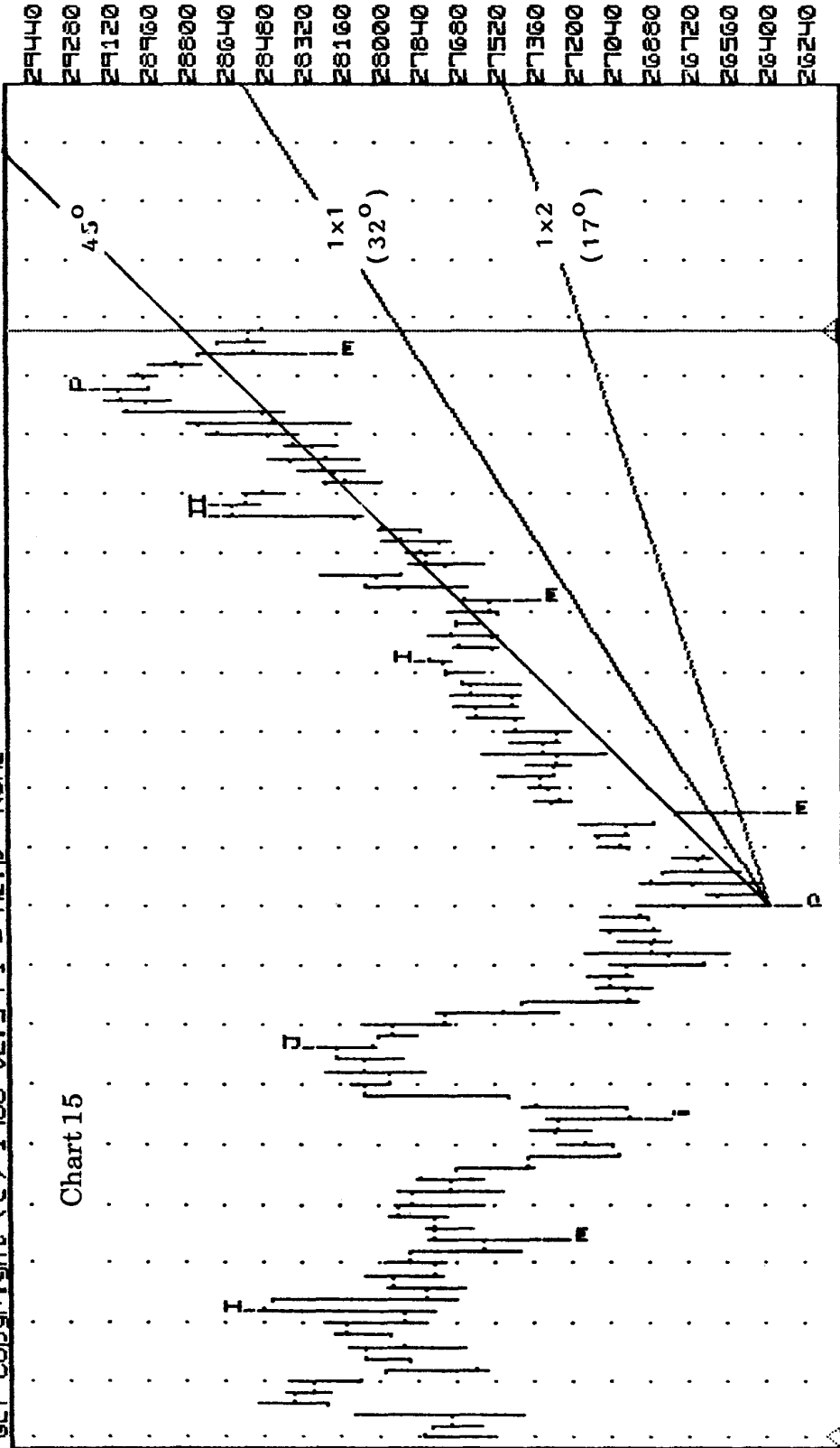
However, the GEOMETRIC angles of the 1x1 and 1x2 lines have again changed.

The 1x1 Gann Line is now at a geometric angle of 32 degrees.

The 1x2 Gann Line is now at a geometric angle of 17 degrees.

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S&P INDEX SP0689

## **GANN'S 50% RETRACEMENT RULE**

The 50% Retracement Rule, based on Gann's 50% and 62-1/2% price levels, is this:

### **GANN'S 50% RETRACEMENT RULE**

**AFTER AN INITIAL, SUSTAINED PRICE MOVE, EITHER UP OR DOWN, PRICES RETRACE TO 50% (4/8) OF THEIR INITIAL MOVE. IF THE RETRACEMENT EXCEEDS 50%, PRICES SHOULD CONTINUE TO THE 62-1/2% (5/8) LEVEL, BEFORE A REACTION OCCURS.**

When prices begin to rise or fall, the most-important level at which some price reaction should occur will be the 50% level. For example, if prices have fallen from \$2.00 to \$1.00, and begin to rise, the strongest level of resistance to further price advancement should be expected at the \$1.50 level.

The next important level is the 62-1/2% level. Again using the above example, if prices continue rising past the \$1.50 level, the next level of resistance should be at approximately \$1.63.

If prices continue past the 62-1/2% level, the third-strongest level of price resistance should be at the 100%, or \$2.00, price level.

Just the opposite is true for prices that have been rising and are now beginning to fall. If a bull trend occurs from \$10.00 to \$20.00, prices will decline to \$15.00 before reacting to the upside.

If prices continue to fall past \$15.00, the next significant support level should be at the 62-1/2% level of the original bull move, or at about \$13.80. Again, prices will react before continuing downward.

Of the 7 Gann levels listed in Table 2, the 50%, 62-1/2% and 100% levels are the most significant, and correspond to GEOMETRIC angles of 45 degrees, 63 degrees, and 90 degrees. These are the ones that will be used for determining Gann's 50% Retracement Zone.

In addition, we will use 26 degrees (the inverse of 63 degrees) for "stops." (Gann actually used geometric angles of 26-1/2, 45 and 63-1/2 degrees, but the 1/2-degree is not critical.)

While the concept of using Gann Angles balances price and time, the geometric angles of 26, 45 and 63 degrees will be used to determine price-only movements. If Gann used these three angles, and met with success, then there must be an inter-relationship *between these angles, independent of a chart's price and time scale.*

It is this relationship between the geometric angles, and not the individual angles themselves, that is the basis for this exciting, simple method of following Gann's work.

Looking at the charts throughout this book, price ranges can be seen starting from a low or a high, moving up or down and, at some point, beginning to retrace the original price move. After these retracements, the original price trend continues. You see what will happen on Friday when it's only Monday. Hindsight is always better than foresight.

Actual trading is a little different. Only price activity that has occurred, and that which is now occurring, can be seen. Evolving price activity may not always be as clear, when only a part of "the big picture" is seen.

Remember, you are not dealing with something that is absolute. Commodity trading deals with events that have not yet happened. For this reason, it might be better to target a general "price zone" rather than just one number. After that zone is reached, then you can "zero-in" to a single price target.

Ideally, to calculate the 50% retracement levels, a trader would only have to select a range, subtract the low from the high of that range, divide by 2, and add the quotient to the low or subtract it from the high.

But again, in dealing with events that WILL occur, rather than those that HAVE occurred, it is important to be flexible in your thinking. Prices may not always react to a single number, and may over- or under-shoot the 50% estimate.

Too, if you're like me, math may not be your best subject. And did you ever try to add or subtract 32nds for T-Bonds?

There must be a method by which you can estimate WHEN to place an order and AT WHAT PRICE, without devoting years of study to Gann. Establishing a "price zone" may be the answer.

But how big should that "price zone" be? Where should the stop-loss orders be placed? (This is another Gann rule. NEVER trade without using "stops.") And how can you SEE when to get in, or when to get out of, a position?

Read on. "A picture is worth a thousand words."

## PART II

### Definitions

Before continuing, there are some terms that should be defined.

- Bear Market - Falling prices.
- Bull Market - Rising prices.
- Closing - On a "closing" basis. The final price of the trading day or period.
- Contract - The total size and value of one trading unit of a single commodity. The value of a contract varies with each commodity.
- Intraday - During the day. Intraday prices are those occurring during a daily trading session; see "Closing."
- L1 - A 63-degree line drawn from P2.
- L2 - A 45-degree line drawn from P2.
- L3 - A 45-degree line drawn from P3.
- Liquidate - Buy or sell a current position for cash.
- Long - "Going long" the market.  
During a bull market, buying a contract in anticipation of selling it later at a higher price.

- Margin** - The amount of capital required to be put “at risk” to buy or sell a contract.
- Market Order** - An order which instructs your broker to buy, or sell, at the commodity’s current market price.
- Minor High** - A high prior to prices entering the Retracement Zone, from which S5 is drawn, and which:
- 1) Has higher highs before it,
  - 2) Has lower highs after it, and
  - 3) Is used in bear markets.
- Minor Low** - A low prior to prices entering the Retracement Zone, from which S5 is drawn, and which:
- 1) Has lower lows before it,
  - 2) Has higher lows after it, and
  - 3) Is used in bull markets.
- Open Interest** - The total number of contracts that, during a specific time period, have not been liquidated by delivery or transaction.
- P1** - A significant high, or low, from which prices will be moving. This point will be the basis for determining the 50% Retracement Zone.
- In a bull-to-bear market, P1 will have lower highs before and after it.
- In a bear-to-bull market, P1 will have higher lows before and after it.
- NOTE: P1 of one range may become P2 of the next price range.
- P2** - A significant high or low to which prices have moved from P1, and from which prices will move into the Retracement Zone.
- In a bull-to-bear market, from the prior P1, P2 will have higher lows before and after it.



In a bear-to-bull market, from the prior P1, P2 will have lower highs before and after it.

NOTE: P2 of one range may become P1 of the next price range.

- P3 - A point on the horizontal price level of P1 and on the vertical level of P2.
- Position - The total number of contracts held by a trader.
- RZH - Retracement Zone High.  
The upper limit of the Retracement Zone. The RZH is the price level at which:  
L1 intersects L3 in a bull trend,  
L2 intersects L3 in a bear trend.
- RZL - Retracement Zone Low.  
The lower limit of the Retracement Zone. The RZL is the price level at which:  
L2 intersects L3 in a bull trend,  
L1 intersects L3 in a bear trend.
- S4 - A 26-degree line drawn from P3.  
(With gaps or a fast market, S4 could be 45-degrees.)  
An initial "stop-loss" line used when prices EXIT the Retracement Zone.
- S5 - A 45-, 63-, 75-, or 82-degree "stop-loss" line, drawn from a minor low or high, and used to liquidate a current position, after prices have ENTERED the Retracement Zone.
- Short - "Shorting the Market."  
In a bear market, "borrowing" one contract to sell, in anticipation of buying it back later, at a lower price.
- Significant High - A high which:  
1) has lower highs immediately before and after it, and  
2) towards which prices had been rising, and  
3) from which prices are now falling.

- Significant Low** - A low which:
- 1) has higher lows immediately before and after, and
  - 2) towards which prices had been falling, and
  - 3) from which prices are now rising.
- Stop-loss Order** - An order which becomes a market order only if a specific price (the “stop”) is reached.
- Buy stop - used in bear markets; the “stop” is placed above the entry price.
- Sell stop - used in bull markets; the “stop” is placed below the entry price.
- Volume** - The number of transactions made in one commodity during a specific time period.

## PART III

### Establishing a Retracement Zone

Look at Chart 16. This is the March 89 Deutschemark contract. The time period is from 4/1/88 to 1/20/89. (The dotted line and crosses are trend and stop signals from the G.E.T. software's "Auto Mode;" they ARE NOT needed to establish a Retracement Zone.)

There are 3 points that will have to be located - P1, P2, and P3.

The first point to locate is *P1*, a significant high or low from which prices will be moving. On the Deutschemark chart, prices are dropping from such a significant high of 6247 on 4/18, an Intermediate Gann Pivot Point day.

The second point to determine is *P2*. This is a reaction point from which prices will change direction from the previous trend, and move towards the 50% Retracement Zone. For instance, if prices were falling from P1, they should now be rising from P2, toward the anticipated 50% Retracement Zone. P2 on Chart 16 is the low at 5292 on 8/10 (a Primary Gann Pivot Point day).

The third point to locate is *P3*. (The coordinates for P3 are described on page 19, of "Definitions.") The two coordinates that locate P3 on Chart 16 are the price of P1, 6247, and the day of P2, 8/10. This point is marked by a "+."

From P2 of 8/10, two lines are drawn up and to the right. *L1* is drawn at an angle of 63 degrees, and *L2* is drawn at an angle of 45 degrees.

From P3, a third line, *L3*, is drawn down and to the right, and at an angle of 45 degrees.

The two intersections of these three lines - L1, L2, and L3 - will identify the upper (RZH) and lower (RZL) limits of Gann's 50% Retracement Zone:

RZH - L1 (upward 63-degree line from P2) crosses L3 (downward 45-degree line from P3).

This is the 63% retracement level, and is 5932 on Chart 16.

RZL - L2 (upward 45-degree line from P2) crosses L3 (downward 45-degree line from P3).

This is the 50% retracement level, and is 5771 on Chart 16.

Two horizontal lines (RZH and RZL) are drawn at the levels of 5932 and 5771, forming a *price channel*. The resulting 161-point channel with the limits of 5932 and 5771 is the *Retracement Zone*, into which you can anticipate prices will enter and react to the downside.

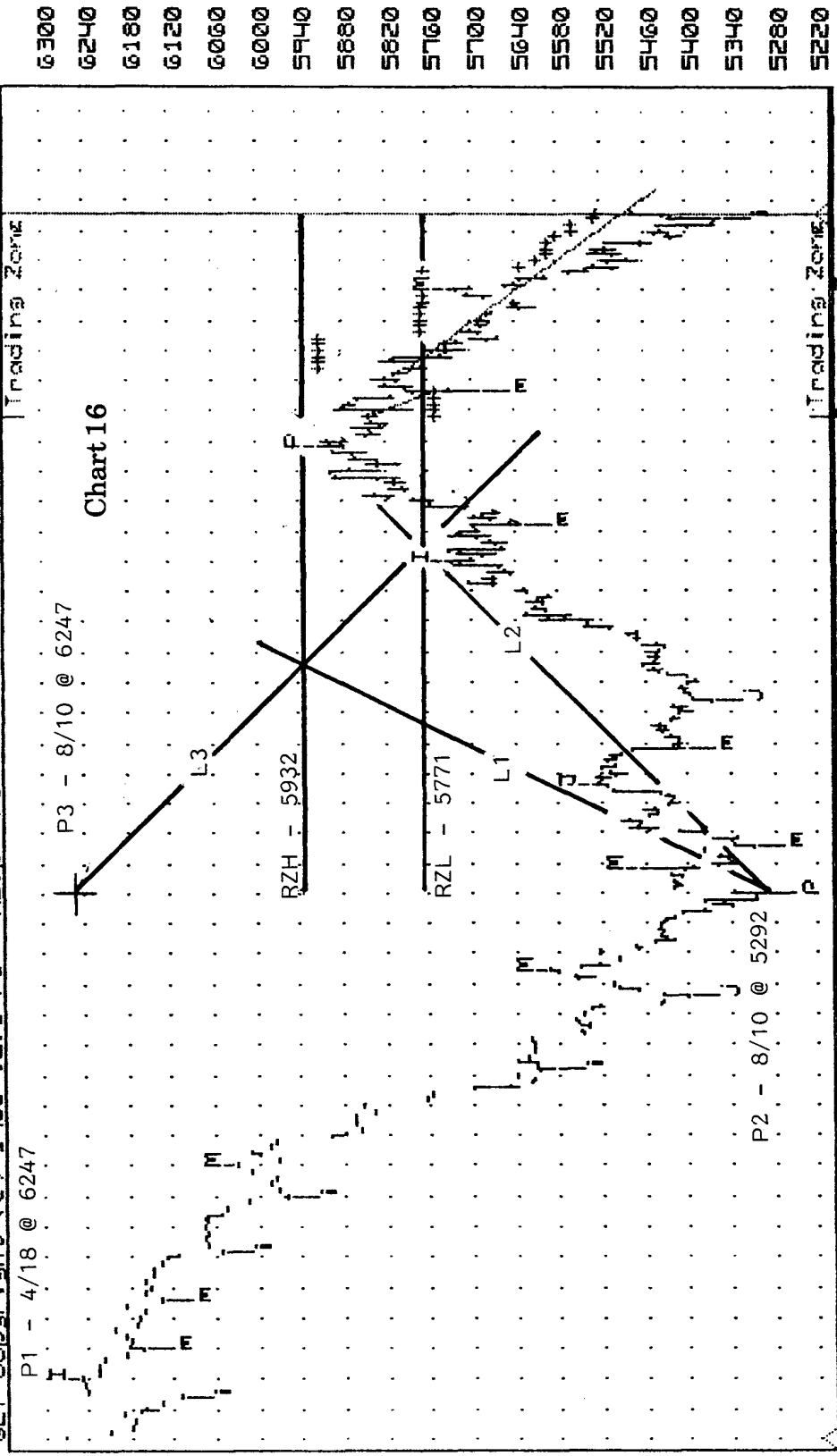
Notice that prices are rising toward the Retracement Zone, but in a choppy pattern. This is due to many “50% retracements” occurring during the bull move from the P2 low of 5292, while heading toward the Retracement Zone objective of 5771 - 5932.

Prices close at 5782 on 11/10. The price trend has entered the Retracement Zone on a *closing basis*. Prices closing in the Retracement Zone is confirmation that a change-in-trend MAY BE DUE, within the Retracement Zone. (Prices could very well continue through the Retracement Zone, but a high probability exists that they will react WITHIN the Retracement Zone.)

When prices close within the Retracement Zone, you should either liquidate your position, or move up your “stops” to protect accumulating profits. But how?

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## PART IV

### Stop-loss Orders

Stop-loss orders are used to protect profits and prevent excessive losses.

A basic *stop order* is an order which liquidates your position should the market turn against it. The stop order becomes a *market order* when, and if, the stop price equals the current market price.

In a bull (rising) market, the stop is placed BELOW the entry price. Bonds seem to be rising. You decide to buy the market at 9516. A stop could be placed at 9500, a risk of \$500.

In a bear (falling) market, the stop is placed ABOVE the entry price. Bonds now may be falling and you're short one contract at 9516. You want some protection if the market reverses. A stop is placed at 9600, again a risk of \$500.

There are different types of stop-loss orders such as the stop with limit (which uses two prices), stop close only (a disaster if the market opens against you, and continues against you throughout the day) and the stop limit close only (even more of a disaster for anyone with less experience than a professional trader).

WHERE to place the stop seems to be a question without an answer. If you use Elliott Waves, stops are placed several points above or below the start of Waves 1, 3 or 5. J. Welles Wilder, Jr.'s Volatility System (reviewed in July 1989 "Technical Analysis of Stocks & Commodities" magazine) places stops in relation to previous days' highs, lows and closes. For a newer trader, any method that allows the trader to limit risk to a comfortable amount of money is fine.

The type of stop used should be a simple stop order. No magic, no frills, just protection. Place your order and place your stop. If you are right, great! Your stop will not be hit. If you're wrong (and you will be!) and prices hit your stop, you're out with minimum, pre-determined losses.

Establishing stops has always been more of an art than a science. There are no universal rules that will cover setting stops for all markets in all market situations.

As one trader said, “*The distance that a stop is placed away from the market is directly proportional to that trader’s tolerance for stress, pain and monetary losses.*”

One way of locating stops is by using *trendlines*, which usually connect two or three non-consecutive lows (in a bull market), or highs (in a bear market).

Trendlines are used for establishing just that - market trends. Chart 17 is of the March 1984 S&P 500 Index. Five trendlines - A, B, C, D and E - have been drawn on the chart. When prices break the trendlines at points a, b, c, d and e, it indicates that the trend is changing, and some type of action should be considered by the trader.

Trendlines can also be used as a guide for estimating stop-loss prices. The stop is placed at the intersection of the trendline and the current market day. But there are two drawbacks to using trendlines for locating stops.

First, stops may be too far away from current market prices to offer reasonable protection points. Points S1 and S2, marked with a “+” on trendlines B and E, are examples of this.

S1 on Trendline B crosses 9/20/83 at 16873. The low for that day is 17205. This equals a risk of 332 points, or \$1660.

S2 on Trendline E crosses 1/10/84 at 16621. The low for that day is 16990. This is risking a whopping 369 points, or \$1945.

If the market were to reverse suddenly, would you be happy losing that amount of capital from your account, or lost profits from your position?

Second, conventional trendlines are not responsive to the actual cyclic pulse of the market. Some profits will be given back before market prices “catch up” to trendline prices.

A way around this is to use Gann geometric angles to locate stops. Some of the benefits are:

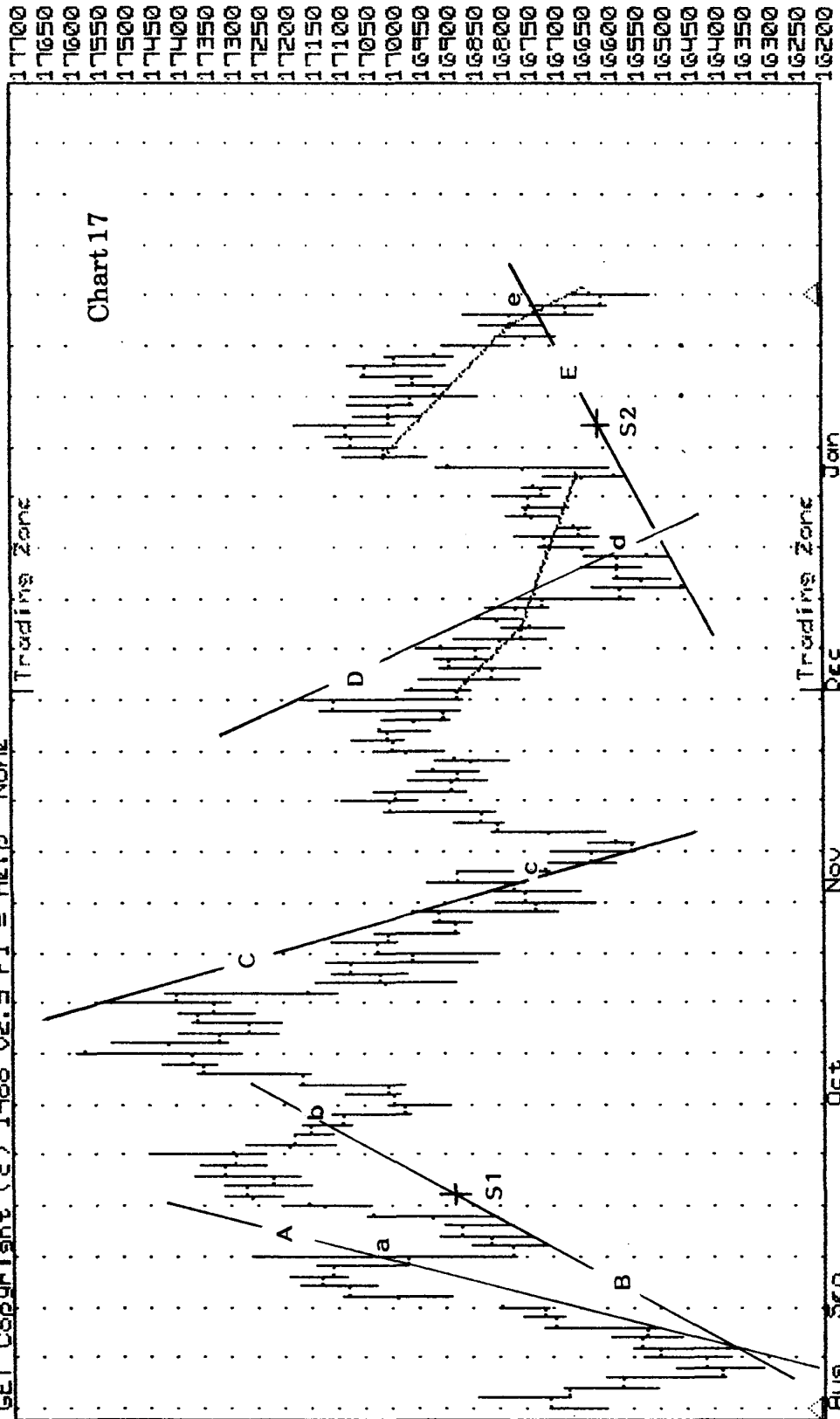
- 1) Only one point, instead of 2 or 3, must be used.
- 2) The point from which the angle is drawn is close to the Retracement Zone.
- 3) Gann Angles have proven to be “market sensitive.”

A 1x1 Gann Angle, for instance, will not intersect prices at the same level for all chart scales. However, the *relationship* between the 45-degree Gann geometric angle, being used as a stop-loss line, and the Retracement Zone angles will be the same.

This cannot be stressed enough. Your concern is THE PRICE RELATIONSHIP BETWEEN WHERE YOU ENTERED THE MARKET AND THE STOP-LOSS LINE, SUPPORTED BY OTHER INDICATORS. You are not looking to enter or exit the market always at a specific point, but at ANY point that will be profitable for you.

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Dec 135 MK# 32 XD# 30



## **PART V**

### **Liquidating in the Retracement Zone**

When prices enter the Retracement Zone, consider at what price you may want to liquidate your long position. This does not mean that you will HAVE to liquidate your position, just because prices are in the Retracement Zone.

Just the opposite. Now is the time to insure current profits, and maximize future profits. There are three ways in which this is done - by stop order, by market order, or a combination of both.

## Stop Order

The first way is by **stop order**.

Chart 18 is a “zoomed in” section of Chart 16. The time period is from 10/24/88 to 12/29/88. The RZH and RZL of Chart 16 have been entered on the chart as well as stop-loss lines S4 and S5, defined in Part II, “Definitions.” Rather than connecting highs or lows, stop-loss lines S4 and S5 are drawn from minor highs and lows, at one of four Gann geometric angles.

S4 is drawn from P3 at a 26-degree angle (this is actually the inverse of 63 degrees). This will be an initial stop-loss line should a short position be taken after prices react to the downside from the area of the Retracement Zone High.

In order to “let profits run,” S5 is drawn from a minor low or high reaction point. This will be a point from which prices will trend into the Retracement Zone. Such a point is on 11/4, at a low of 5633 (a minor Gann Pivot Point).

The Gann angle for S5 will be determined by using a protractor. This angle will usually be 63 or 75 degrees. In a slow market, it may be 45 degrees and in a fast market, 82 degrees. S5 should not be too “tight” for the specific price range. Prices need room to “move.” In Chart 18, S5 is 63 degrees *from 5633 on 11/4*.

Each day, continue moving your stop-loss order up, along the stop-loss line from 5633, until the stop-loss order is filled. This is in consonance with the trading axiom of “letting the market tell you what to do.”

On November 25, the day ends with a lower high and a lower low than on the previous day. The stop for the following trading day, November 28, would be at 5845, the S5 level for 11/25. Your position would have been stopped out, with handsome profits, on the opening of 11/28 at 5820.

*Close-only*, rather than *intraday*, stops could be used to eliminate intraday price fluctuations. Some technicians feel that closing prices reflect the “truer” trend of the market. (I wonder how many “close-only” stops were in place on “Black Monday?”)

Intraday stops are safer in that you know where your position will be liquidated. Some profits may be cut short using intraday stops. You would benefit, though, by having your cash in the account rather than in the market.

Each day, as prices continue to trend through the 50% Retracement Zone, move your stop-loss order up along the S5 line, to the price level of the CURRENT, or PREVIOUS, day.

If you don’t “feel right” about the market, or are satisfied with your profits, use the S5 price level of the CURRENT day. Intraday price-reactions, though, may limit your profits and “stop you out” prematurely.

If you’re confident of the trend continuing and want to allow for some market “vibrations,” use the S5 price level of the PREVIOUS day. However, should a sudden reversal occur, some profits may be lost.

Using the current, or previous, day S5 price level for stops is a personal choice.

## Market Order

The second way is through *market order*. This method will turn points into profits as soon as you call your broker. Your position will be liquidated at the best price available.

Again using Chart 18 as an illustration, you may want to liquidate your position when prices begin entering the upper area of the Retracement Zone. Consider that the RZH of Chart 18 is 5932 and that the high of 11/23 (a Primary Gann Pivot Point day) is 5910. You may feel comfortable with your profits and think the market "cannot go" any higher.

On the next trading day, 11/25, the high was 5907. The 11/23 high of 5910 appears to be a significant high. Both highs are near the upper Retracement Zone limit of 5932. You could have placed a market order on either day to liquidate your position. This would have been somewhere around 5900.

Safety or maximum profits - the choice is yours.

## Stop and Market Order

The RZH in Chart 18 is 5932. On 11/10, prices close within the Retracement Zone at 5782.

Remember, you are dealing with the future - something that can be anticipated but not verified. There's no guarantee on 11/10 that prices will trend exactly to 5932 and then reverse. They could very well continue past 5932 to the 75% or even the 100% level.

But let's say, for whatever reason, you want to liquidate your current position. This could be the way to do it.

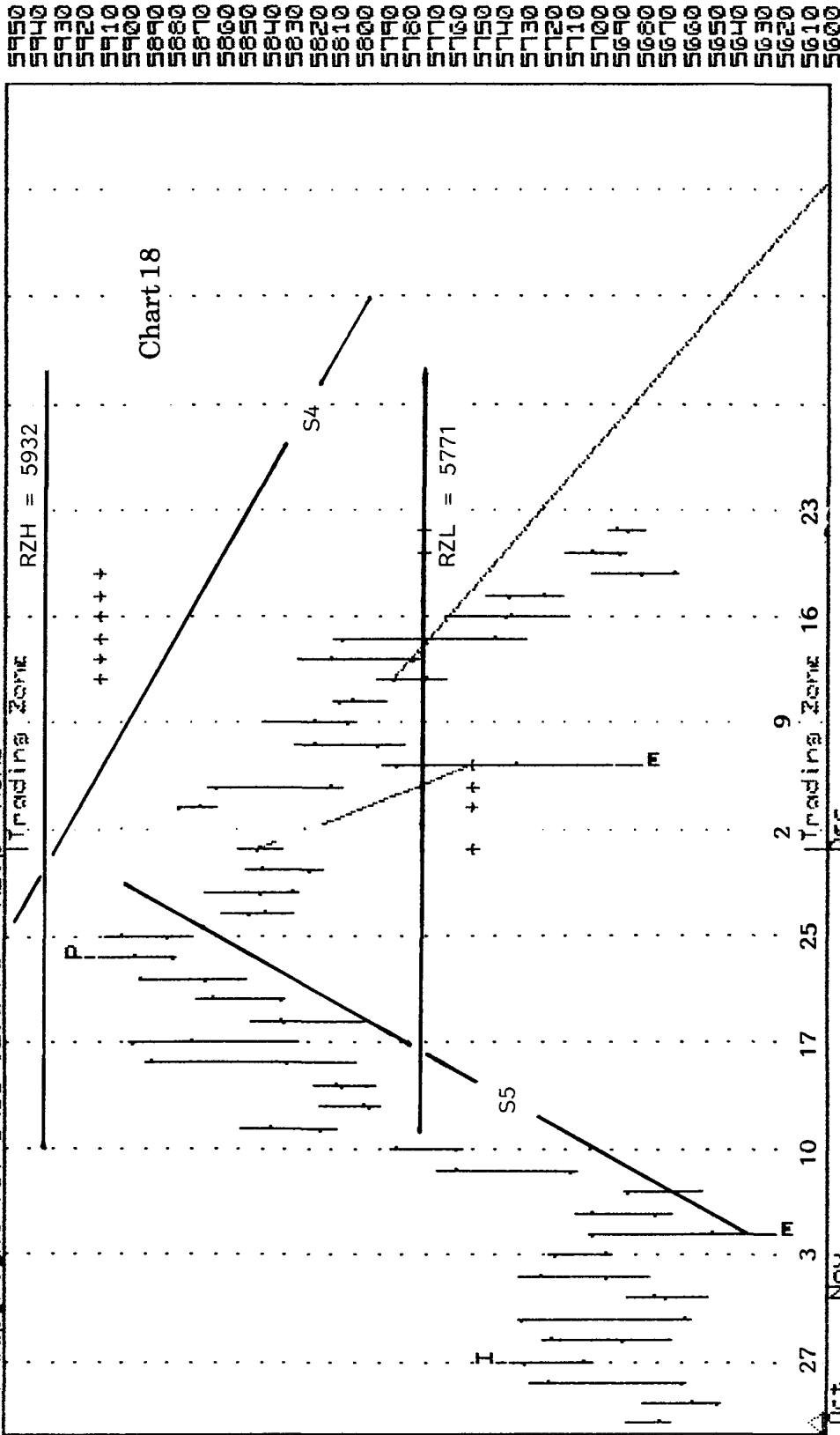
11/4 could be a minor reaction point from which S5 (63-degrees) can be drawn. S5 is the resulting stop-loss line. Place a "day-only" order with your broker to sell your position *at the RZH price* of 5771.

Every day move your stop-loss order up along S5 to the previous day's level and replace your day-only sell order of 5771. If you get 5771, fine. If you don't, you still have the added protection of a stop being moved closer and closer to current market prices. You are establishing a narrower and narrower price channel.

Safety AND maximum profits - when handled correctly these stops can be very worthwhile.

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DEUTSCHE DM0389 Open= 5070 High= 5623 Low= 5065 Close= 5069 Dec= 150 xK= 14 xD= 11  
Monday 10/24/88 5773

## PART VI

### After Profits . . . Now What?

From mid-August to mid-November, you've participated in the American dream - buy low and sell high. Quite a substantial profit has been realized. If, by some means (there's a suggestion in Part VII), a position was taken around 5300 and liquidated at about 5900, even with several trading "ins-and-outs" along the way, your net profit, per contract, would have been about \$6600.

What to do now? Sell high and buy back low. This is taking a "short" position in the market.

As a new trader, you may be skeptical of "shorting the market." Selling short involves "borrowing" a contract, selling that contract at a high price in anticipation of prices falling, and then buying it back later at a lower price. The difference is your profit.

Selling something you don't own may not sound right, but it's done legally many times a day. Short selling can be compared to a promise to pay for something in the future for its use today. In commodities, an amount of margin must be committed, even though you don't "own" the contract.

Again referring to Chart 18, to short the 3/89 Deutschemark contract, you again have two choices.

The first choice is to short the market on a "*stop-and-reverse*" trading strategy. A stop-loss order for 5845 (the S5 price for 11/25) is in place for the market on November 28. A "day-only," "stop-and-reverse" order is placed with your broker. These instructions tell your broker that, for 11/28 ONLY and IF your stop-loss order is filled, you want to automatically short the market. The "day only" part of the order will prevent an incorrect stop from being in place for the following day.

On 11/28, your stop loss order of 5845 is filled and you are automatically short one March Deutschemark contract.

A stop-loss order will also have to be placed to protect your new position from a sudden reversal. The stop is placed at 5942, the price at which S4 intersects the PREVIOUS trading day of 11/25.

REMEMBER: PLACE ANOTHER "STOP-LOSS" ORDER FOR THE FOLLOWING DAY. NEVER TRADE WITHOUT STOPS!

The "stop-and-reverse" method works well in trending markets but involves increased risks of being "whipsawed" in congestion areas. By using it, though, you would have caught the bear move at a very high point.

The second way is to wait for a confirmed RZ exit point. This way of shorting the market may be a little safer. While prices are in the Retracement Zone, they could "bounce around" between the RZH and RZL, causing headaches and sleepless nights.

Wait until prices CLOSE below the RZL of 5771. There is increased confidence of a bear market evolving when this happens. Prices may still re-enter the Retracement Zone from the downside, but the bear trend should resume after this minor reaction. In any event, S4, from P3 of 6247, would prevent any excessive losses should prices "whipsaw" in a bull reversal.

The example of the March 89 Deutschemark contract uses the extreme high and low for a four-month period. The resulting Retracement Zone is unusually wide. Most markets may not trend for such an extended period of time, over such a broad price range.

A narrower high-low range, over a shorter period of time, should result in a smaller, more-specific Retracement Zone. A smaller trading range, though, may not have such a well-defined reaction as the wide Retracement Zone illustrated in Chart 16.

This is another Gann rule: the wider the price spread and the longer the time, the more definite the reaction.

By the way, consider this:

High of 4/18	6247
Low of 8/10	<u>- 5292</u>
Difference	955
50% of 955	478
Low of 8/10	<u>+ 5292</u>
50% Retracement Target	5770
63% of 955	601
Low of 8/10	<u>+ 5292</u>
63% Retracement Target	5893
Close of 11/22	5894!

Maybe Gann WAS right!



## **PART VII**

### **Fine Tuning the 50% Rule**

Refer back to Chart 16, the D-Mark chart.

You may feel that 3-1/2 months is too long to hold a position, even in anticipation of a sizeable profit. This I understand. While you're waiting for profits in November, you've sweated bullets over each and every reversal, and felt you've missed buying opportunities.

Well, maybe you have, and maybe you haven't. Gann stated that it was much better to wait for an optimum trading opportunity, ADD TO positions at reaction points and HOLD for the long term, rather than buy and sell, buy and sell, buy and sell.

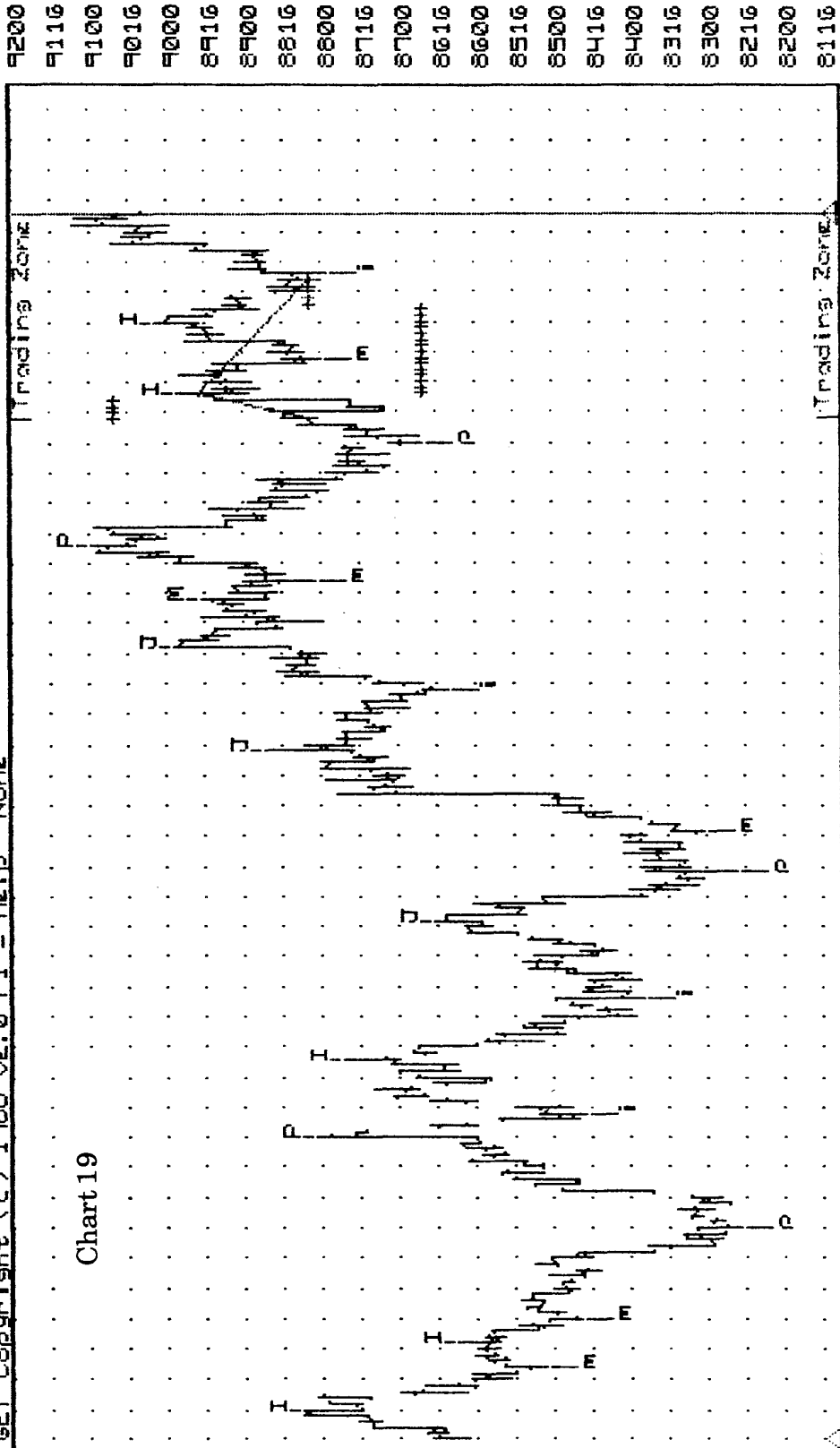
Using the information you've just learned, it is evident that at least 3 different 50% reaction points occurred from August to November at which you could have followed Gann's advice.

This was an exemplary chart. There was a very clear significant high, a significant low, and a retracement point. But what about a market that has a lot of peaks and valleys? Can this be done in a bear AND bull market?

Chart 19 is the March 89 T-Bond contract from 4/4/88 to 1/20/89. This is a real roller-coaster ride, over which fortunes were probably made and lost. I have "zoomed in" to a time period of 4/4/88 to 9/1/88. This is Chart 20.

[File] Auto Train View Scale Gann Options

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T. BONDS TR0389 Open= 9021 High= 9023 Low= 9008 Close= 9010 Dec= 9116 Jan= 84

The first significant high of Chart 20 is 8808 on 4/11, an Intermediate Gann Pivot Point day and P1. There are reactions at several support levels, but prices eventually reach a P2 significant low of 8223 on 5/22. The Retracement Zone is calculated to be RZH = 8612 and RZL = 8510. From the low of 8226 on 5/31, a 75-degree stop-loss line, S5, is drawn.

On 6/6, the close is 8518 - in the Retracement Zone. On 6/7, a small reaction occurs, with prices closing below the RZL at 8504. With a stop for 6/7 at 8408 (the price at which S5 crosses 6/6), the small reaction does not stop out the position prematurely. S5 maintained the long position. In fact, if you had allowed this stop-loss line to determine where to liquidate your position, you would have netted another 55 points or so (about \$1700).

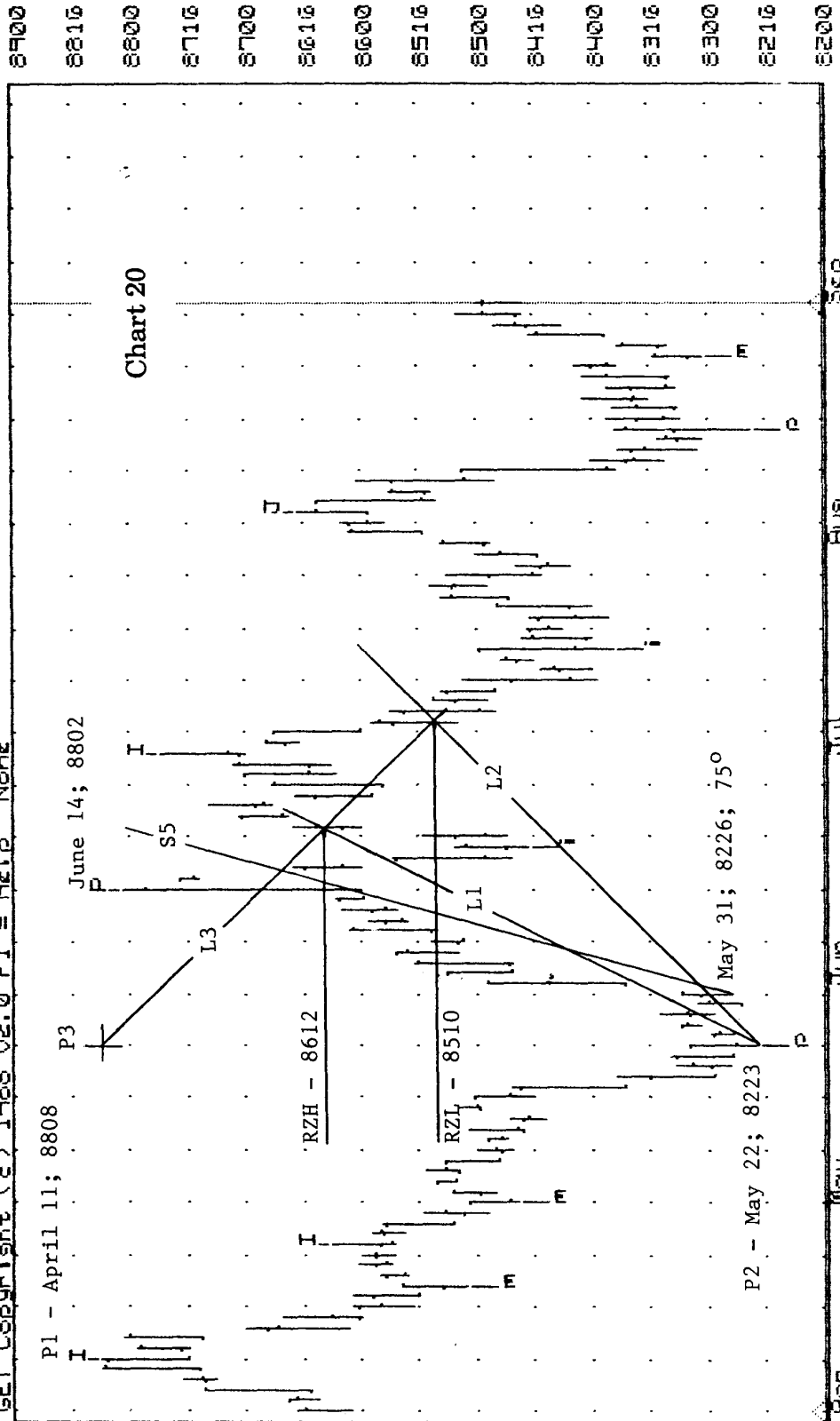
Prices continue through the RZH level and make another significant high of 8802 on 6/14.

The significant high of 8802 on 6/14 (a Primary Gann Pivot Point) is within only 6 points of the previous significant high on 4/11 at 8808. This is not a coincidence. Gann determined that a 50% or 100% level from any top or bottom are the two most important points to watch in determining resistance levels. Regardless of how long it would have taken, the 100% retracement level would have been a realistic target.

The actual retracement amount of this real-time example is 97-1/2%!

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T. DONDS 198899 Thursday 09/01/88 8131  
 Open= 8430 High= 8500 Low= 8418 Close= 8430 Date= 01/01/88 08:48 AM

Chart 21 covers the next price range we will consider. P1 is 8223 on 5/22 (a Primary Gann Pivot Point). P2 is 8802 on 6/14 (another Primary Gann Pivot Point). P3 is at 8223 on 6/14. The resulting RZH is 8510 and the RZL is 8412. After confirming that 6/14 is a significant high, a 75-degree stop-loss line is drawn from 8718, the high of 6/15.

Sure enough. Prices drop into the pre-determined Retracement Zone, from 8802 on 6/14 to a low of 8418 on 6/20. Prices then react sharply to the upside. The market could have been shorted with confidence at about 8612 on 6/15, after 6/14 was confirmed as a significant high. Continue moving stops down, as prices enter the Retracement Zone.

Once prices were in the Retracement Zone, you would have had two choices of how to exit the position. The first would have been to hold the position until being stopped out at about 8500 on 6/21 (the 75-degree stop-loss line intersecting the price trend).

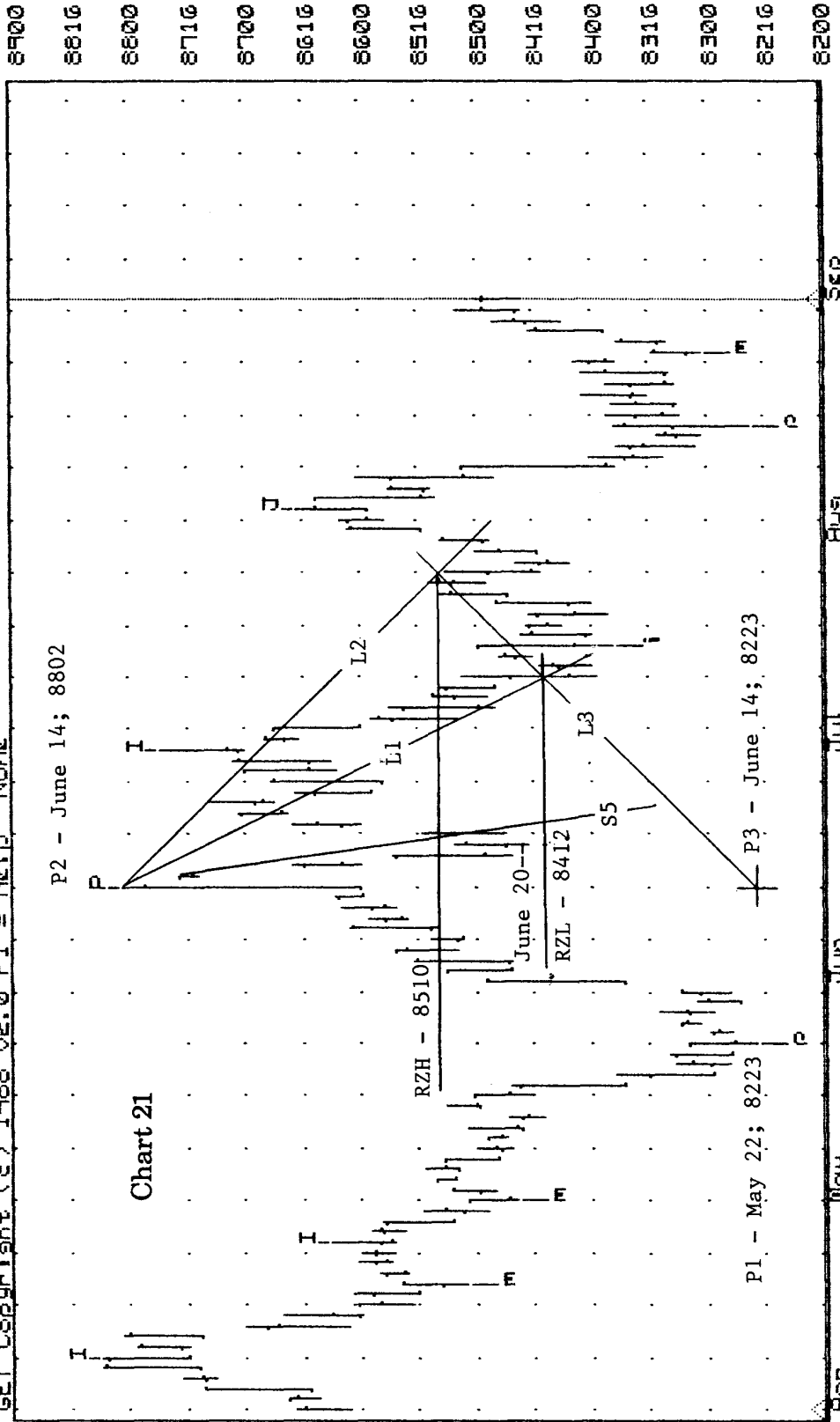
The second way would have been to place a market order to cover your shorts at 8427 or lower. Either way, the position would have resulted in profits that would let you take your wife or husband out to dinner, AND a Broadway show, AND pay off your VISA bill (maybe).

Notice I suggested liquidating at “. . . 8427 or lower . . .” There is an excellent chance of prices reacting at or near the midpoint (50%) of a Retracement Zone. The Retracement Zone’s midpoint of Chart 21 is 8427. In fact, on 6/20 prices opened at 8424 and dropped to a low of 8418, only 9 points below the midpoint.



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T. BONDS TR0389 Thursday 07/01/88 8131  
Open= 8430 High= 8500 Low= 8418 Close= 8430 Dc= -1 Hk= 50 Ad= 47

Look at Chart 22. The Retracement Zone from Chart 21 is drawn in. Draw in the 50% Retracement Zone of P1 at 8223 on 5/22 (a Primary Gann Pivot Point) and P2 at 8723 on 7/1 (an Intermediate Gann Pivot Point). This is easily done with a protractor. Draw this second Retracement Zone in red to help you distinguish between the two Retracement Zones.

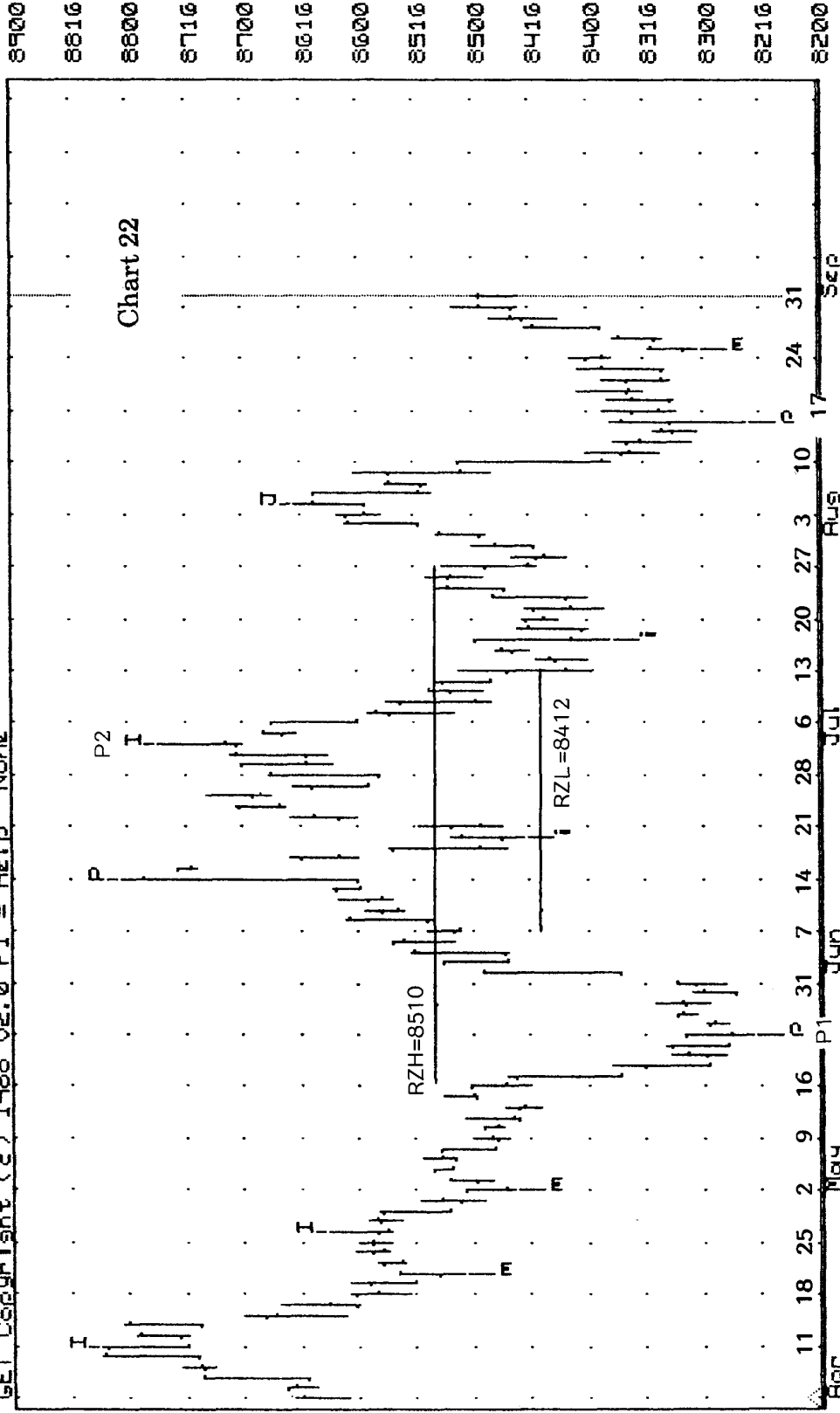
The Retracement Zone that you drew should have a RZH of 8504 and a RZL of 8409. In this zone, notice that there is a lot of congestion.

Gann stated that, when two or more Retracement Zones occur near the same level (8510-8512 and 8504-8509), the midpoint of the ranges will often be the support point of a price decline or a resistance point of a price rally.

8431 is the approximate 50% midpoint level for both Retracement Zones and a very strong reaction level. Prices seem to oscillate around this 8431 level. It is not until 8/2 that prices gap to the upside by opening at 8515. There is increased confidence that prices will trend past the Retracement Zone limits when gaps occur.

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J. BONDS TR0389 Thursday 09/01/88 8131  
 Open= 8430 High= 8500 Low= 8419 Close= 8430 Open -1 Ask= 50 Bid= 40



Even though prices have gapped to the upside on 8/2, you may not want to take a long position. Chart 23 is still the March 89 T-Bonds contract, but with the long-term Elliott-Wave count on the bar chart and the short-term wave count below the bar chart. If you're familiar with Elliott, this is a blessing!

On 8/2 and 8/3, prices seem to be completing a minor C wave of a major B wave to the upside. After that, prices fall dramatically.

What to do? Nothing, just wait. Wait until the minor C wave, of the major B wave, is completed, and the major C wave is evolving from the 8/4 high of 8616 into a bear move, before taking a short position (Sources for Elliott Wave information appear in Appendix D).

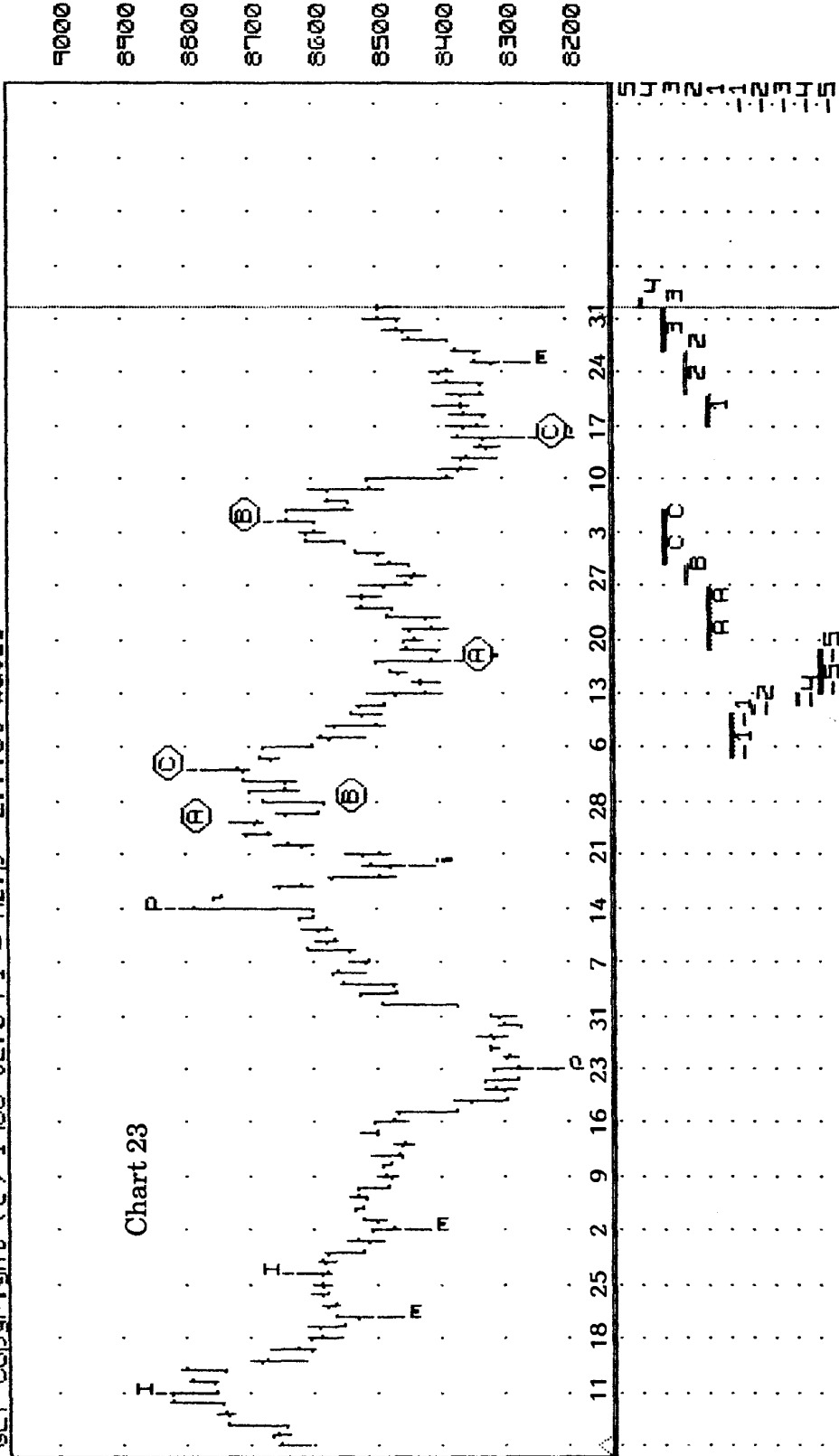
Up to now, we've been determining P1, P2, P3, S4, S5 and Retracement Zones solely from price activity or sophisticated analysis systems such as Gann or Elliott Waves.

Is there a simpler method a new trader can use? Some method or system that is clear and gives supporting evidence for entry and exit points would be ideal.

On to Part VIII.

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Apr TR0389 May Jun Jul Aug Sep  
 Thursday 09/01/88 8111  
 Open 8430 High 8500 Low 8419 Close 8430 Qsec -1 xK= 50 xD= 4F

## PART VIII

### A Word About Stochastics

Stochastics is a momentum indicator popularized by George C. Lane. An overview of stochastics is presented here, enough so even a beginner can use stochastics. For more detail, a videotape instruction course is available from Windsor Books.

Stochastic theory holds that during a bull trend, closing prices will be closer to the top of the range than the bottom. Conversely, during a bear trend, closing prices will be closer to the bottom of the range. When closing prices accumulate toward either end of the price ranges, a change-in-trend usually occurs.

Stochastics use two values - %K and %D - to monitor how much "push" is in a price trend and to indicate an evolving change-in-trend. %K is the actual stochastic value, while %D is the 3-period average of %K.

The formula for stochastics is:

$$\frac{\text{Close} - 5 \text{ day low}}{\text{(5-day high)} - \text{(5-day low)}} = \%K \qquad \frac{(\%K + \%K_{.1} + \%K_{.2})}{3} = \%D$$

These values are charted on a scale from 0 to 100. The scale is divided into 3 sections - oversold, neutral and overbought.

The oversold range is from 0 to 20. When both stochastic values drop into this range, it is an indication that too much of the market has been sold and that buying could be anticipated. This will cause higher prices, with a resulting rise in the stochastic values.

The range between 20 and 80 is a neutral range. Prices and stochastics will generally react within this range, but may not result in major highs and lows, or changes-in-trend. %K will reflect minor reactions while %D will reflect the general trend. If there is doubt, my preference is to go with %D.

The overbought range is from 80 to 100. When both stochastic values enter this range, it is an indication that too much of the market has been bought, prices

may have risen too high and profit-taking is occurring. Prices and stochastic values should react to the downside.

There is only one valid signal, called *divergence*, for trading with stochastics. Divergence occurs when prices are making new highs, but the stochastic peaks are not. Even though prices are still rising, stochastics may be making lower highs. This divergence suggests a bull-to-bear price reversal might be expected.

When prices are making new lows or continue to fall, but the stochastic valleys are “bottoming out” at a higher level, divergence suggests a bear-to-bull reversal might be expected.

Stochastics are considered either “fast” or “slow,” depending on the number of time periods used to calculate them. While a unique period for each market’s stochastics could be determined, many chart services and software packages use a single default setting of somewhere between 9 to 21 days, with either simple or exponentially-weighted (greater values on current prices) values.

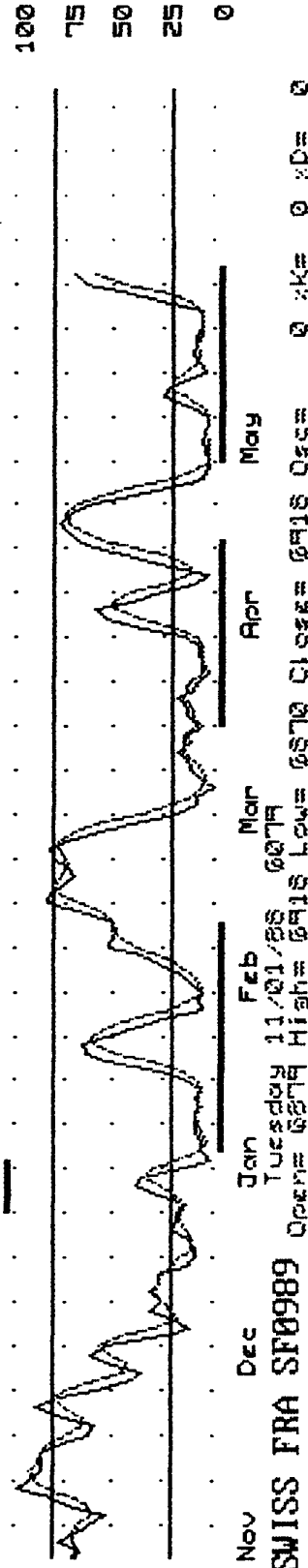
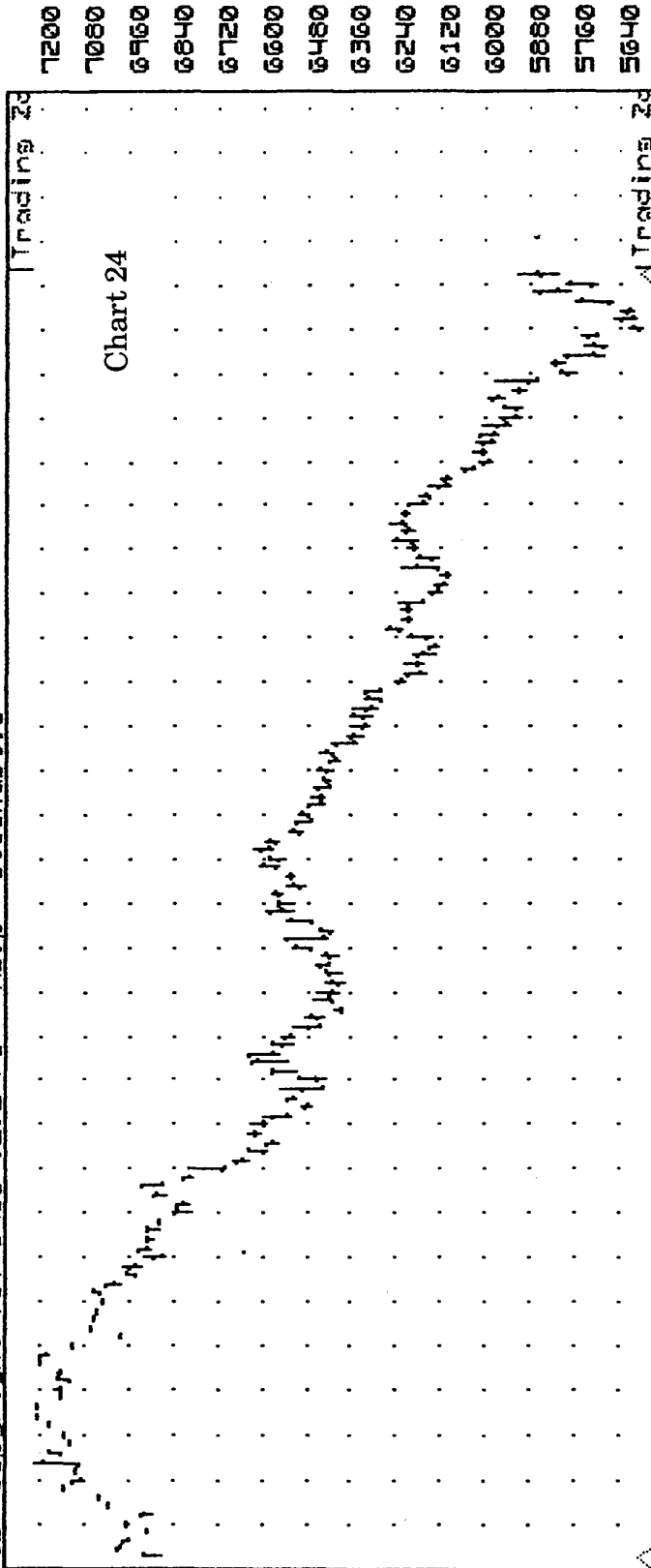
An exception to this is the G.E.T. software (listed in the Appendix), which combines 2 time periods for stochastic charting. These time periods, A & B, are weighted at 30% for A (the longer time period) and 70% for B (the shorter time period).

Chart 24 is of the September 1989 Swiss Franc. G.E.T. stochastics were set at the shorter, “faster” values of 14 periods for A, and 9 periods for B.

These shorter stochastic periods cause more up-and-down stochastic activity relative to actual price movements. More areas of divergence and changes-in-trend (“over 80” and “below 20”) result. These “fast” stochastic signals, rather than being significant, might only indicate minor reactions and cause constant whipsaws, with more losses than gains in capital.

|File| Auto Train View Scale Gann Options

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SWISS FRA SF0989 Open= 6274 High= 6515 Low= 6270 Close= 6515 Open= 6274 High= 6515 Low= 6270 Close= 6515

Chart 25 is also of the September 1989 Swiss Franc. G.E.T. stochastics are set at the longer, "slower" settings of 21 periods for A, and 14 periods for B - those defaulted by the software.

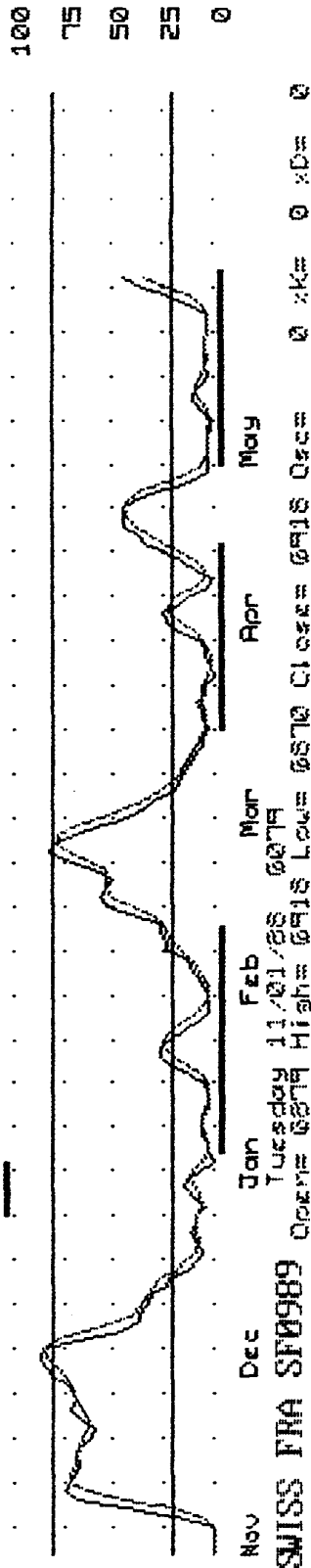
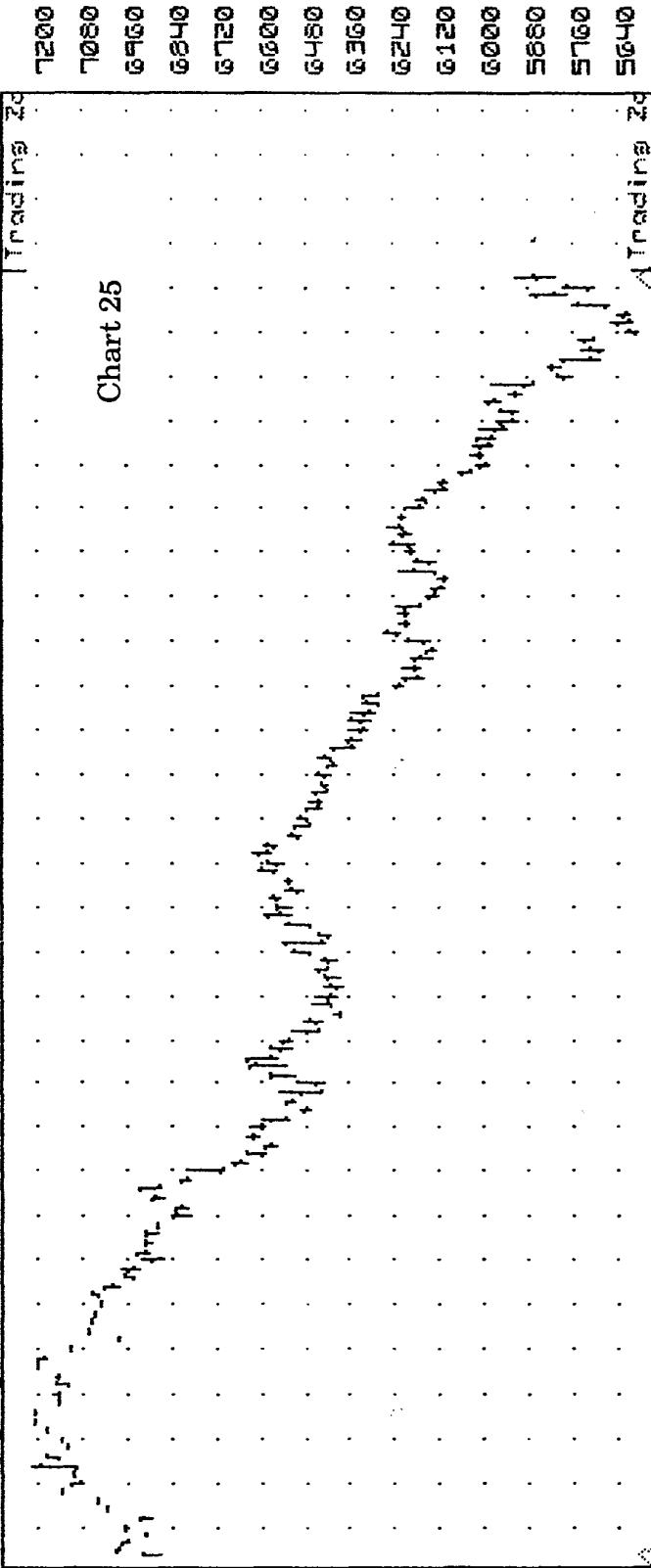
Compare Chart 25 with Chart 24. The longer periods of Chart 25 result in smoother stochastics, with less divergence and stronger trading indicators. Many of the stochastic "over-80" peaks of Chart 24 have been "rounded off" while many of the stochastic "under-20" valleys have been "filled in." More intermediate or major turning points can be identified.

In Chart 25, only 2 technical signals are generated - shorting the market in early December at about 7200 and again in late February at about 6600. The trendlines from the two stochastic peaks are downward - the same as the overall trend of the market.

Compare this to the stochastics of Chart 24, where stochastic trends rise AND fall, even though the general price trend is down.

File Auto Train View Scale Gann Options

SET Copyright (c) 1988 v2.5 F1 = Help Stochastic



SWISS FRA SF0989 Open= 6379 High= 6918 Low= 6570 Close= 6918 Dec= 0 %K= 0 %D= 0

Two “rules of thumb” are popular for trading with stochastics. These occur when %D and %K “cross over” each other, especially with values greater than 80 or less than 20.

When both %K and %D values are rising, generally prices will also be rising. When %K and %D values have “turned” to the downside, (risen above 80 from the downside, crossed over each other, and are now falling below 80), the start of a bear trend could be expected, and the market could be sold.

When prices and stochastic values are falling and stochastics have “turned” to the upside (fallen below 20 from the upside, crossed over each other, and are now rising above 20), this may signal the start of a bull trend and the market could be bought.

Keep in mind that there is a small glitch with stochastics. Stochastics is a statistical, lagging, *momentum* indicator, rather than a strict price indicator. The signals will result from the most-current price activity. The stochastic scale though is limited to values between 0 and 100.

What happens is this. Often, prices will continue to rise or fall with greater strength than stochastics can reflect. In this case, stochastics will bounce around in the 0-20 or the 80-100 zone.

The same thing happens when you try to pour a gallon bucket of water (prices), into a quart jar (0-100 stochastic scale). The jar (stochastics) will hold only a “quart” of %Ks and %Ds. The rest of the water (rising prices) will pour over the sides of the jar. No matter how much water is poured into the jar, the water will only come up to the top (100 on the stochastic scale). This causes divergence - when prices continue to rise or fall, but stochastics do not.

The trick is to know HOW MUCH MORE WATER is in the price bucket before the gallon bucket is empty (prices will reverse).

The G.E.T. Software minimizes this “gallon-of-water-into-a-quart-jar” problem by using 2 “cycle-based,” weighted stochastics in one stochastic signal. When the two stochastic signals do not simultaneously turn within the overbought or oversold zones, a solid bar appears above or below the stochastic signal. The “how-much-water-is-left” problem is not solved, but there is less of it. (There is no such thing as a “perfect” system or problem “cure-all” for futures trading.)

When the long- and short-term stochastics simultaneously “peak” or “bottom,” a greatly-enhanced stochastic trading signal occurs. Stochastics is a fine technical tool and should be used. The theory of stochastics is not changed by G.E.T. - only the manner of generating stochastic signals.



Chart 26 is of the March '89 T-Bonds contract with stochastics and Gann Pivot Points. The solid, more erratic line is %K. The smoother, dotted line is %D.

There is truly order here. By calculating the 50% Retracement Zones, and using the supporting indicator of stochastics, trading could even become enjoyable.

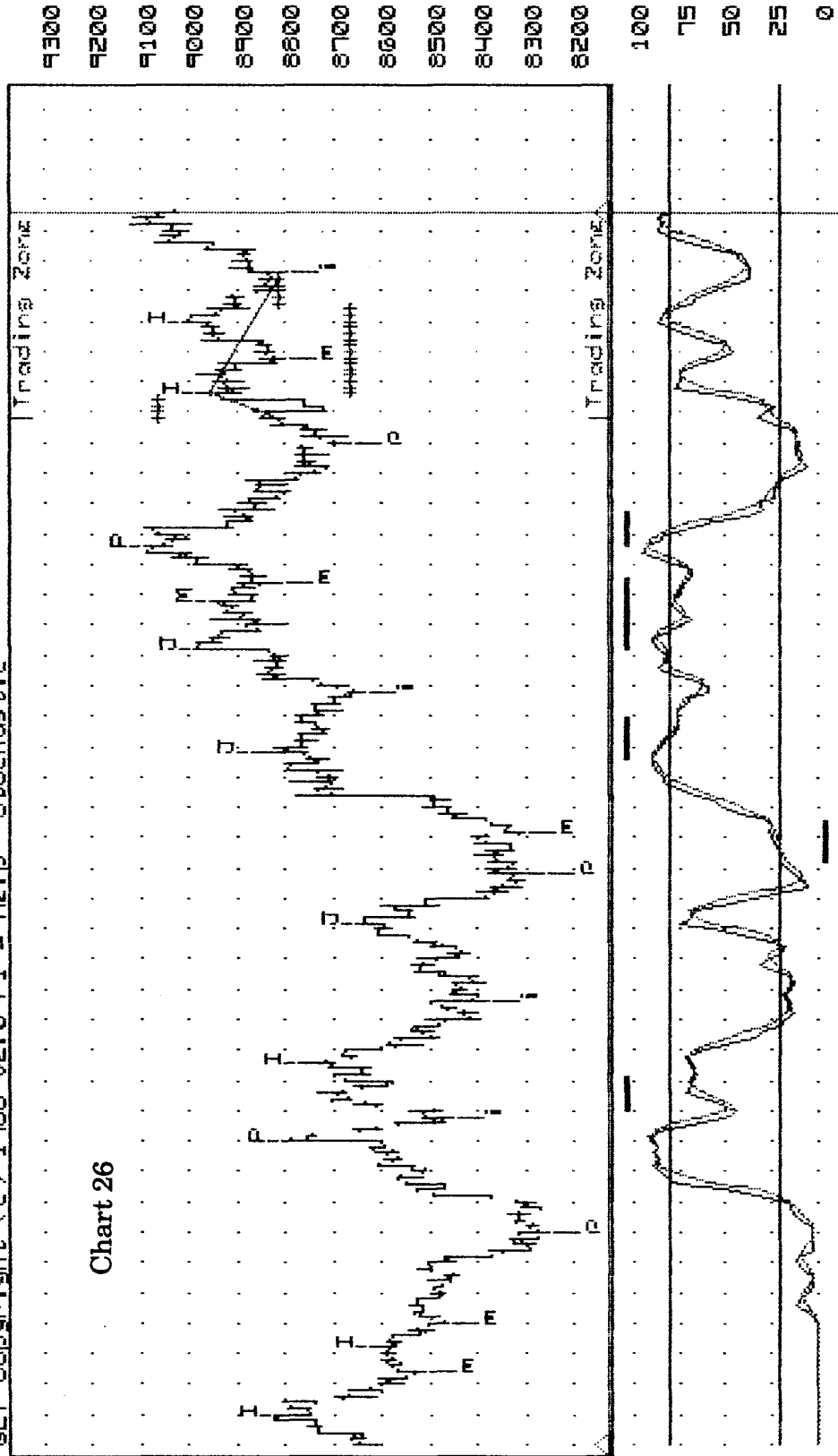
Note the solid bars under and over some of the stochastic peaks and valleys, especially for the period of September through November. These bars indicate that the longer- and shorter-term stochastic signals have not synchronized for that price area, and should be disregarded. Prices could be expected to continue a rising or falling trend, even though stochastics turn down for a period.

But a person just starting to trade may not have software like G.E.T. What to do? There is an answer.

File Auto Train View Scale Gann Options

GET Copyright (c) 1988 v2.0 F1 = Help Stochastic

Chart 26



Apr May Jun Jul Aug Sep Oct Nov Dec Jan  
T. BONDS TR0389 Friday 01/20/89 8110  
Open= 8021 High= 8023 Low= 8006 Close= 8010

Trying to use overbought or oversold stochastics for an extended period of time creates “whipsaw” situations. You’re buying when you should sell and selling when you should buy. Chart 27 is of the March 1989 T-Bond contract and is a good example of this.

When stochastic trends differ from price trends, the benefit of stochastics is minimized. Between September 5 and November 7, the stochastics of Chart 27 generally remain overbought (Line A) for the entire period, with the exception of a small drop during the week of September 26. Even then, prices are confined by the 45-degree line, Line B, from the significant low of 8220 on August 16. The result is divergence between Line A and Line B.

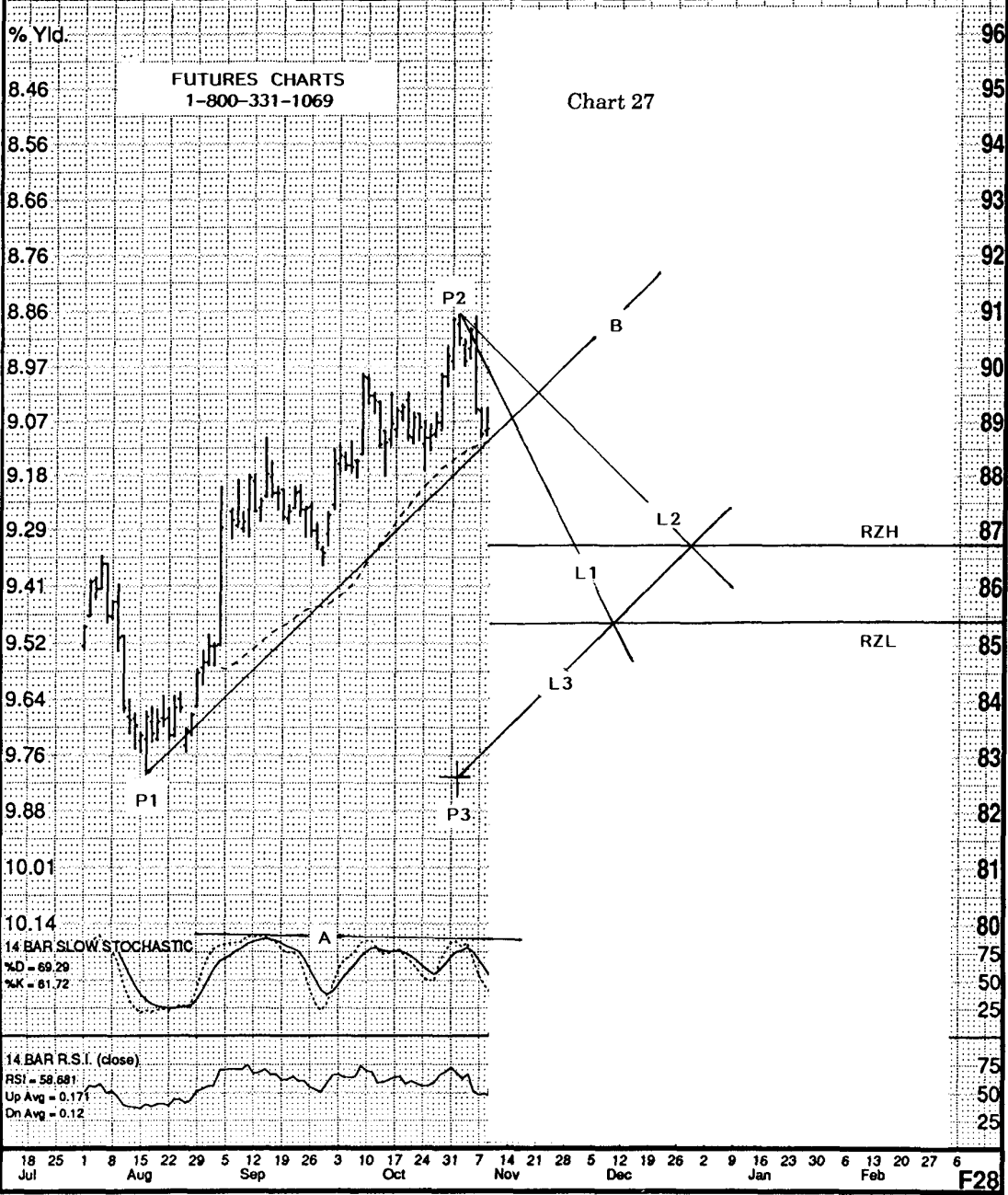
On a daily chart like this, stochastics have little value. Unless you can project prices with either Gann, Fibonacci or Elliott Wave techniques during this period, and assuming you’re long the Bonds from mid-August, there may be little value in using stochastics as a technical indicator.

But, just in case Bonds do fall, a target Retracement Zone has been plotted. The RZH is 8624 and the RZL is 8512.

HIGH 95-16/32 on 03/04/87  
 LOW 0-00/32 on 10/30/87  
 14 BAR RSI = 58.681 14 BAR STO. = 50.82  
 UP AVG = 0.171 Slow %D = 69.29  
 DN AVG = 0.12 Slow %K = 61.72  
 AS OF 02/03/89

**MARCH 89 T-BONDS**  
 Ctr \$100,000 @ 8% Trading: 5-8:30PM -7:20 AM-2PM CT  
 1/32 = \$31.25 Min.Tick: 1/32 4/32 per grid unit  
 Ctr. Exp: Mar 21 Option Exp: Feb 17  
 © Copyright 1989 Commodity Trend Service

Date	Open	High	Low	Close
01/30	9115	9118	9027	9030
01/31	9030	9106	9016	9028
02/01	9029	9101	9019	9029
02/02	9103	9107	9029	9103
02/03	9103	9106	9012	-



Recall that on page 22, one of Gann's techniques in pinpointing changes-in-trends was to start with a yearly chart to locate a general change-in-trend price or time zone. Then a weekly chart is used in the same way, and then a daily chart. We can do the same.

Chart 28 is the nearest-contract weekly chart for T-Bonds. Recall that on Chart 27, stochastics are overbought on about September 5. Yet, on the weekly chart, at about the same late-August-early-September time period (Point 1), stochastics are just beginning to rise from an oversold area. Prices and stochastics continue to rise into late October, when prices reach approximately 9100. %K then turns sharply down.

If, for whatever reason, you suspect stochastics are diverging from price on a daily chart, always check the monthly chart. The monthly chart will give you a larger view of price trends and activity, supported by stochastics.

On the weekly chart, Chart 28, Point 2 approximates to the week of October 31, the high of that week being 9028. Compare this time period to the same one on Chart 27.

While you're looking at Chart 28, plot two Retracement Zones.

Zone 1: P1 is the mid-October, 1988 low at about 7600.  
P2 is the late-February 1988, first high, at just under 9600.

Zone 2: P1 is the late-February, 1988 second high at just under 9600.  
P2 is the early-August low at 8400 (Point "-1-.")

Plot one Retracement Zone in red and the second Retracement Zone in blue. Pay special attention to the resulting price turning points and price actions, the associated stochastic level, and any stochastic divergence just before prices turn upward.

Compare the price and stochastic action of the weekly chart to the upcoming daily chart, Chart 29.

# T-BONDS - WEEKLY

Nearest Futures Contract as of Friday's close

© Copyright 1989 Commodity Trend Service

Date	Open	High	Low	Close
10/06	9529	9810	9522	9809
10/13	9808	9824	9718	-

FUTURES CHARTS  
1-800-331-1069

Chart 28

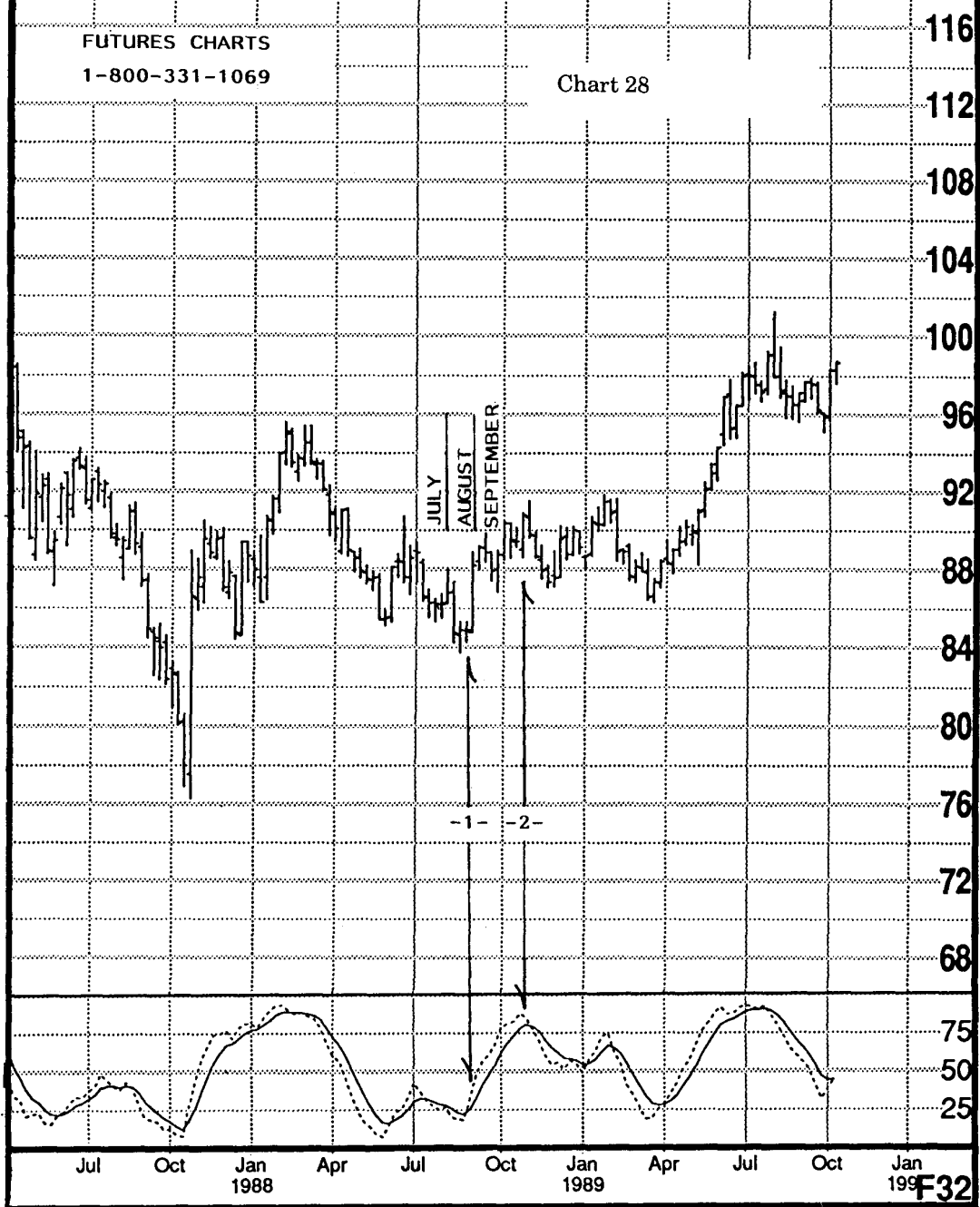


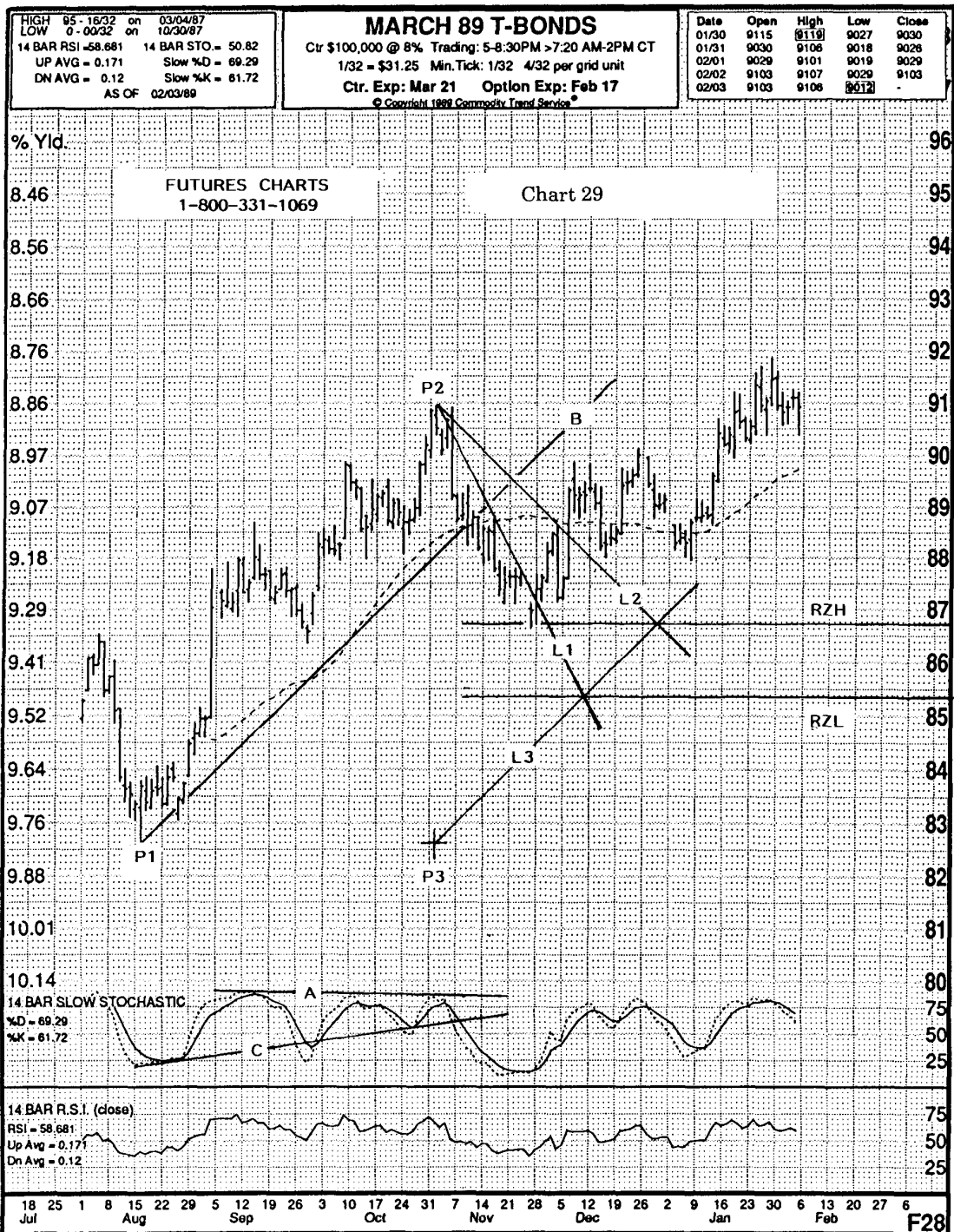
Chart 29 shows that stochastics, like prices, sometimes have trendlines. %K stochastics have peaked three times - September 14, October 10 and November 1. During this time stochastics have been divergent from prices, indicating an evolving change-in-trend. Trendline "A" connects the approximate stochastic highs.

On November 4, prices drop from a high of 9028 to a low of 8904. On the same day, %K and %D turn downward and break 75.

On November 7, prices open and close under the 45-degree line (Line B), drawn from the August 16 significant low of 8220. By this time, six signals suggest a short position:

- 1) 3 stochastic peaks.
- 2) Stochastics divergent from price.
- 3) Stochastic Line C being broken to the downside.
- 4) Price Line B (45-degrees) being broken to the downside.
- 5) On the monthly T-Bonds chart:
  - A) Prices are at the mid-point of the Retracement Zone of P1 = "-1-" and P2 = "-2-," and
  - B) Stochastic %K has peaked and is turning down. After the following week, stochastics will cross.

Using 8220 on August 16 as P1, and 9028 on November 3 as P2, a Retracement Zone results with a RZH of 8622 and RZL of 8512.





Prices and stochastics continue to fall along L1 until November 27 to a low of, you guessed it, 8621. This is only 1 point away from the 50% RZH of 8622.

Prices close above L1 the next day (in this example, prices trend along L1 so closely that L1 could be considered S4 as well). Stochastics begin to turn up on November 28 and cross 25 to the upside on November 30. %D is in a definite uptrend as well, as prices show another nice move through December 12.

Using the daily AND weekly price and stochastics charts would have resulted in a profitable 4-month period. The up move from mid-August to late-October was about 230 points or about \$7000. The November down move would have netted approximately another \$3000. Merry Christmas!

Chart 30 is a section of Chart 26. The time period is from 5/13 to 8/18/88.

Prices begin to rise, starting on a Primary Gann Pivot Point day of 5/23 from the day's low of 8218. By definition, this is P1.

G.E.T. stochastics fail to give a strong indicator until 6/6. But then, stochastics are entering the over-80 area and give no clear indicator for future price direction. Stand aside for now.

Another Gann Primary Pivot Point registers for 6/12 at a high of 8802. Again, by definition, this point will qualify as P2 for a Retracement Zone. P3 is on 6/12 at the 8218 level. The RZH is 8508 and the RZL is 8413.

On 6/17, stochastics have crossed and fallen below 80. Prices are falling as well toward the Retracement Zone. As both stochastic values fall below 80, a short position could be taken. But remember, this is only a signal to enter the market. There is no guarantee of how long, or how far, prices will fall. A stochastic drop from 80 to 20 may equal a price drop of 10, 100, or 1000 points.

S5 is drawn from P2 at a 75-degree angle. A 63-degree angle appears to be too "loose" for the price trend.

Price closes *above* S5, at 8503, on 6/20. This is above 8426, the midpoint of the Retracement Zone. These two indicators suggest a long position at the opening of 6/19 with a stop at 8412, 1 point below the RZL.

Prices open higher on 6/21 (a good sign for you) and drop to a low of 8424; you risked \$378.00. Stochastics have also crossed to the upside from about 50 - another good sign for you. Prices begin to rise. On 6/23, prices gap to the upside - a THIRD good sign for you.

S4 is drawn at a 45-degree angle for our illustration. Prices continue to follow this line until 7/5 at which time they close at the high of the day at 8626.

From 6/24 to 7/6, stochastics stabilize at about 65 while prices rise to a high of 8723 on July 1 (the Gann "I" Pivot Point). Prices are rising while stochastics are not - divergence. This is a sign of possible price weakness and a change in trend.

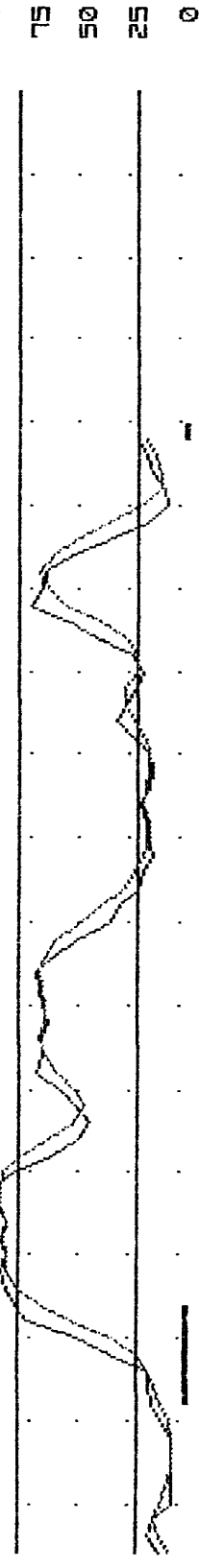
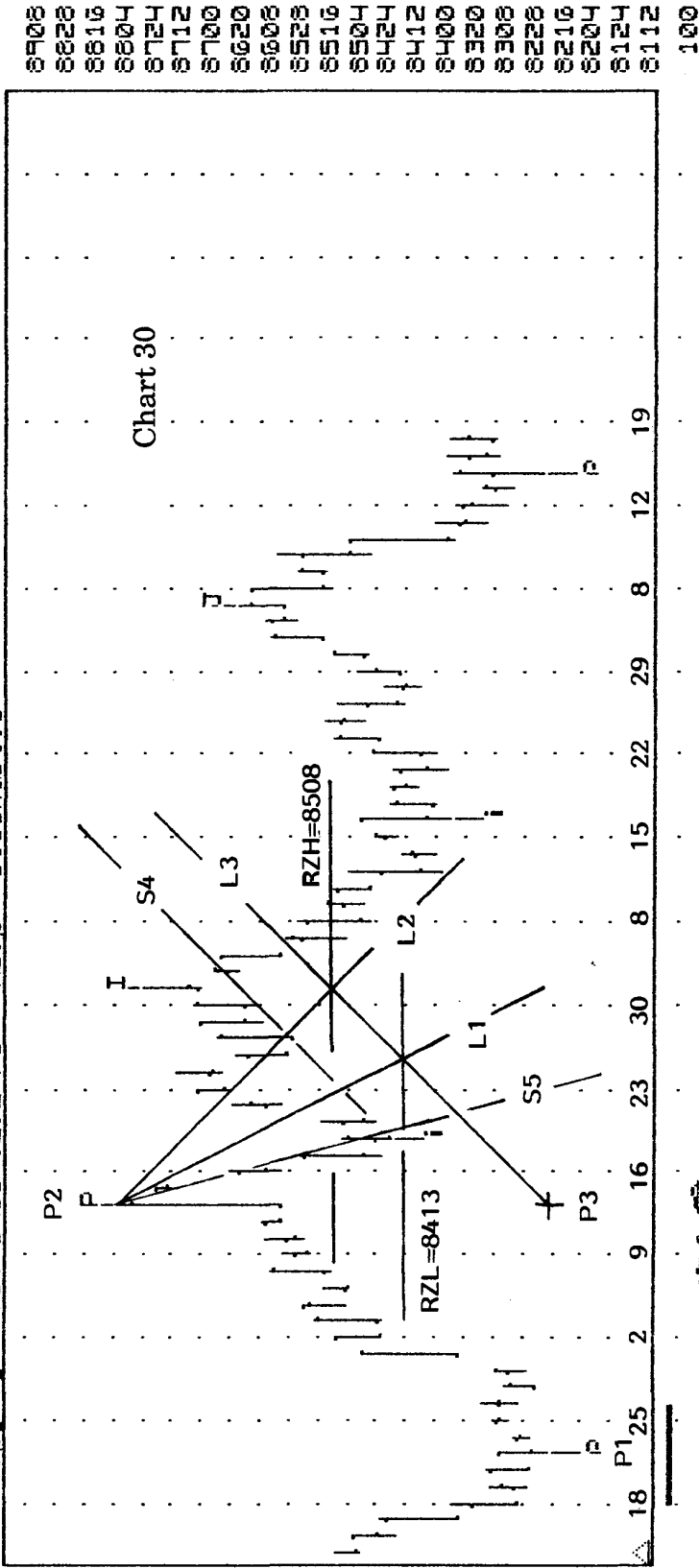
Anticipate liquidating your long position at the opening of 7/6, or placing a tighter stop, perhaps at 8617, the low of 7/5.

After 7/6, as suggested by stochastic divergence, prices fall into mid-July, when stochastics become oversold.

Prices react to another 50% Retracement Zone in early August. Referring back to Chart 26, prices can be seen to eventually retrace 100% from the 5/23 low of 8210 to the Gann Primary Pivot Point day of 8/16, with a low at 8220.

File | Auto Train View Scale Gam Options

SET Copyright (c) 1988 v2.5 F1 = Help Stochastic



May Jun Jul Aug  
 T. BONDS TR089 Thursday 08/18/88 8324  
 Open= 8304 High= 8320 Low= 8308 Close= 8314 Open -38 High= 21 xD= 16

## **PART IX**

### **What to Trade — United States Treasury Bonds**

One of the first questions many beginning traders ask is, “What is the best market to trade?”

Well, what do you mean by “. . . the best . . . ?” If you have hundreds of acres growing coffee, why would you want to know the prices of Canadian rapeseed? Let’s assume by “. . . the best . . . ,” you are asking which markets will be most profitable for you to trade.

By sending away for commodity information, your name may end up on mailing lists that send packets of advertising cards. Some of the claims, while they may have occurred in the past, should not be considered as a guarantee of what prices, or the company, may do for you in the future.

“\$20,000 Profit In Just Two Months”

“Control over \$40,000 of Gold for as Little as \$500”

“Buy \$20,000 Worth of Silver for \$3,990”

“\$4,000 in One Week . . . in the S&P 500 Index”

“\$5,000 Returned \$15,000 Cash (with) Precious Metals”

“Double Your Money . . . 600% Profit in 5 Years”

And the claims go on and on and on.

After a while, the more information you receive, the more confused you become about which broker to use, or which commodity to trade. Appendix A is a list of markets currently traded on the American exchanges.

Of all the futures markets, the United States Treasury Bond market has proven to be, overall, the most responsive, liquid and fastest-growing market.

The beginning trader should consider the T-Bond market as the first market in which to trade.

A United States Treasury Bond is a security with a maturity longer than 10 years. The futures market trades those with twenty-year maturities. Bonds are auctioned four times a year - in March, June, September and December; hence, these are the contract months that are traded, with the last trading day being the eighth from the last business day of the delivery month. The worldwide, financial appeal of bonds results in billions of dollars flowing through these financial instruments.

Bonds tend to rank among the highest of all futures markets in terms of liquidity. The 1977 total annual volume for Treasury-Bond futures was about one million contracts. In 1986, that trading volume surged to almost 52.6 million contracts. To the beginning trader, this means that there will always be either a buyer, or a seller, for any number of Bond contracts the trader may wish to transact.

The liquidity factor for Bonds in comparison to other commodities is reflected in Table 3 on the next page. Listed are 44 commodity futures, their exchanges, % margins, effective % margins, the number of contracts that are required to be traded for equal dollar profit, and the relative contract liquidity for each commodity. T-Bonds have the third highest rate of liquidity.

Treasury Bonds are traded on the Chicago Board of Trade. One Bond contract is an agreement to make delivery (a short position) or to later accept delivery (long position) of \$100,000, face value, of Treasury Bonds.

Bond prices are quoted in a percentage of par value. The minimum increment is 1/32 of a point, or \$31.25. (Appendix A will explain how to calculate Bond prices.) If, for instance, a trader is long one contract and prices rise from 78% to 79% par value, the trader has made \$1000 (32 points x \$31.25). The daily limit for Bonds (the maximum amount trading rules will allow Bond prices to move above or below the previous day's closing price) is 3 points (96/32nds), or \$3000 per contract.

Trading hours for Bonds are unique. Like most other futures, they are traded during day sessions - 8:00 AM to 2:00 PM, Chicago time. But unlike other futures, Bonds are also traded during evening hours - 5:00 PM to 8:00 PM, Standard Time, and 6:00 PM to 9:00 PM, Daylight Saving Time.\*

T-Bonds are directly related to changes in interest rates. From a low of approximately 7.25% in 1977 to the mid-14% experienced in 1981-82, interest rates, and Bond prices, have had a financial roller-coaster ride. The new trader can expect dramatic results trading T-Bond futures in days, rather than weeks or months.

Margin requirements (the amount of money that is put "at risk" to trade) may vary with individual brokers and a futures' volatility. For Bonds, you may expect a per-contract margin of \$2500 to \$3500, again depending upon many

variables. But compared to margins for other financial and agricultural markets, which have been as high as \$7000, \$10,000 and even up to \$20,000 PER CONTRACT, margins for Bonds are very attractive for the per-dollar return that could be realized.

\*Information taken from the C.B.O.T. pamphlet, "U.S. TREASURY BOND FUTURES."

Table 3, appearing below, is reprinted here with the permission of Technical Analysis of Stocks and Commodities Magazine. ©1989 Technical Analysis, Inc., Seattle, WA 98146-0518.

## Trading Liquidity: Futures

Commodity Futures	Exchange	% Margin	Effective % Margin	Contracts to Trade for Equal Dollar Profit	Relative Contract Liquidity
Eurodollar	IMM	0.4	8.7	6	..... » 100
Standard & Poor's 500	CME	9.7	23.4	1	..... » 83
U. S. Treasury Bonds	CBT	2.2	13.0	4	..... » 70
Crude Oil	NYM	10.0	19.4	6	.....
Gold	CMX	3.4	10.6	5	.....
Silver	CMX	4.6	4.7	2	.....
Soybeans	CBT	4.0	8.8	4	.....
Japanese Yen ¥	IMM	1.8	5.2	2	.....
West German Mark DM	IMM	2.2	6.0	3	.....
Sugar-World #11	CSCE	14.5	22.6	7	.....
Corn	CBT	4.3	8.9	9	.....
Swiss Franc	IMM	2.3	6.5	2	.....
Gasoline, Unleaded	NYM	7.1	12.7	4	.....
10-Year Treasury Notes	CBT	1.6	13.1	6	.....
Coffee "C"	CSCE	11.5	9.8	1	.....
Heating Oil #2	NYM	10.1	11.1	4	.....
Soybean Meal	CBT	4.4	9.0	6	.....
Cattle, Live	CME	2.8	10.1	8	.....
Cotton #2	CTN	4.5	8.1	3	.....
Wheat	CBT	3.8	9.1	7	.....
Soybean Oil	CBT	4.2	9.3	10	.....
Pork Bellies	CME	8.1	4.1	3	.....
Copper	CMX	8.6	15.7	4	.....
British Pound (new) £	IMM	1.6	7.1	3	.....
Canadian Dollar	IMM	0.8	4.6	4	.....
Cocoa	CSCE	7.6	7.8	6	.....
NYSE Composite Index	NYFE	4.6	11.6	2	.....
5-Year Treasury Notes	CBT	1.3	22.8	12	.....
Major Market Maxi Index	CBT	3.4	7.0	1	.....
Wheat	KC	3.4	7.2	6	.....
Municipal Bonds	CBT	1.4	6.6	3	.....
U.S. Treasury Bills	IMM	0.3	9.5	8	.....
Hogs	CME	4.2	11.7	13	.....
Platinum	NYM	6.0	17.2	7	.....
Cattle, Feeder	CME	2.3	7.0	6	.....
Orange Juice	CTN	5.3	9.3	4	.....
U.S. Dollar Index	CNT	2.4	9.0	5	.....
Wheat	MPLS	3.5	8.2	7	.....
Value Line Average	KC	3.6	9.8	1	.....
Canola (Rapeseed U.S. \$)	WPG	4.3	11.2	28	.....
Soybeans	MCE	4.0	8.6	18	.....
CRB Futures Price Index	NYFE	2.9	15.3	3	.....
Silver	CBT	6.2	6.3	12	.....
Lumber	CME	3.0	12.7	10	.....

Trading Liquidity: Futures is a reference chart for speculators. It compares markets according to their per-contract potential for profit and how easily contracts can be bought or sold (i.e., trading liquidity). Each is a proportional measure and is meaningful only when compared to others in the same column.

The number in the "Contracts to Trade for Equal Dollar Profit" column shows how many contracts of one commodity must be traded to obtain the same potential return as another commodity. Contracts to Trade = (Tick \$ value) x (3-year Maximum Price Excursion).

"Relative Contract Liquidity" places commodities in descending order according to how easily all of their contracts can be traded. Commodities at the top of the list are easiest to buy and sell; commodities at the bottom of the list are the most difficult. "Relative Contract Liquidity" is the number of contracts to trade times total open interest times a volume factor which is:

$$1 \text{ or } \exp \left( \frac{\ln(\text{volume})}{\ln(5000)} \right) - 2$$

Margin source: REFCO, Inc.

# PART X

## Putting It All Together

This section covers eight trading sequences (which Gann called “campaigns”). The contract is September 1989 T-Bonds. All the information that will be used for trading has been covered in the previous nine sections. The trades were taken as examples of using Retracement Zones, Stochastics and Gann geometric angles.

**DO NOT LOOK AHEAD TO ANY PAGES BEFORE YOU REVIEW EACH PAGE AND UNDERSTAND WHAT WAS DONE, AND WHY. THIS IS IMPORTANT. IN REAL TRADING YOU WILL NOT HAVE THE BENEFIT OF LOOKING FORWARD AT MARKET PRICES, COMING BACK TO CURRENT PRICES AND SAYING “OH YEAH, I’LL DO SUCH-AND-SUCH BECAUSE . . .”**

The following trading rules will be used. These same guidelines can be used in real-time trading as well:

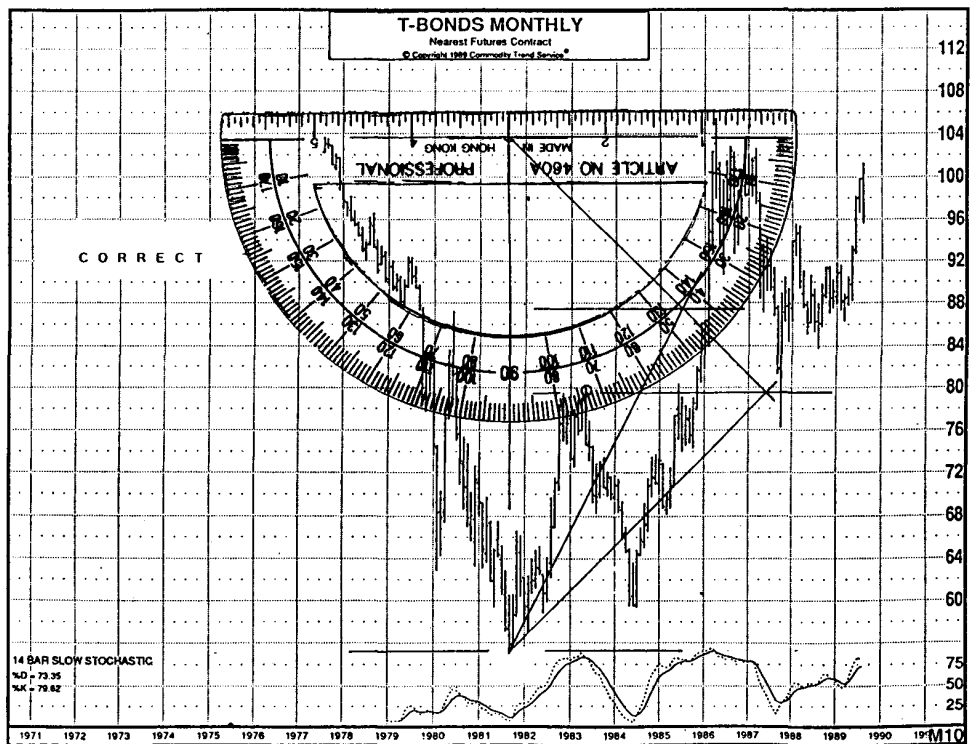
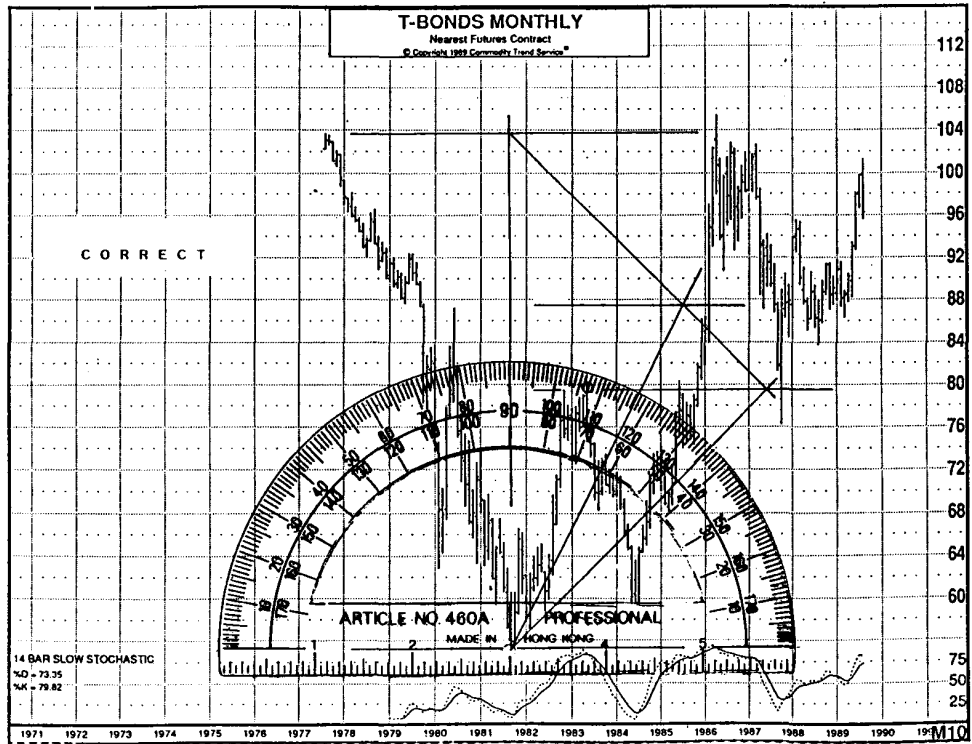
- 1) Locate points that qualify, by definition, as P1, P2 and P3. Unless you know Gann or Elliott Wave techniques, P1 and P2 turning points can be identified by definition and supported by stochastics.
  - 1) Stochastics crossing under 20 and turning up suggests a rising market.
  - 2) Stochastics crossing over 80 and turning down suggests a falling market.

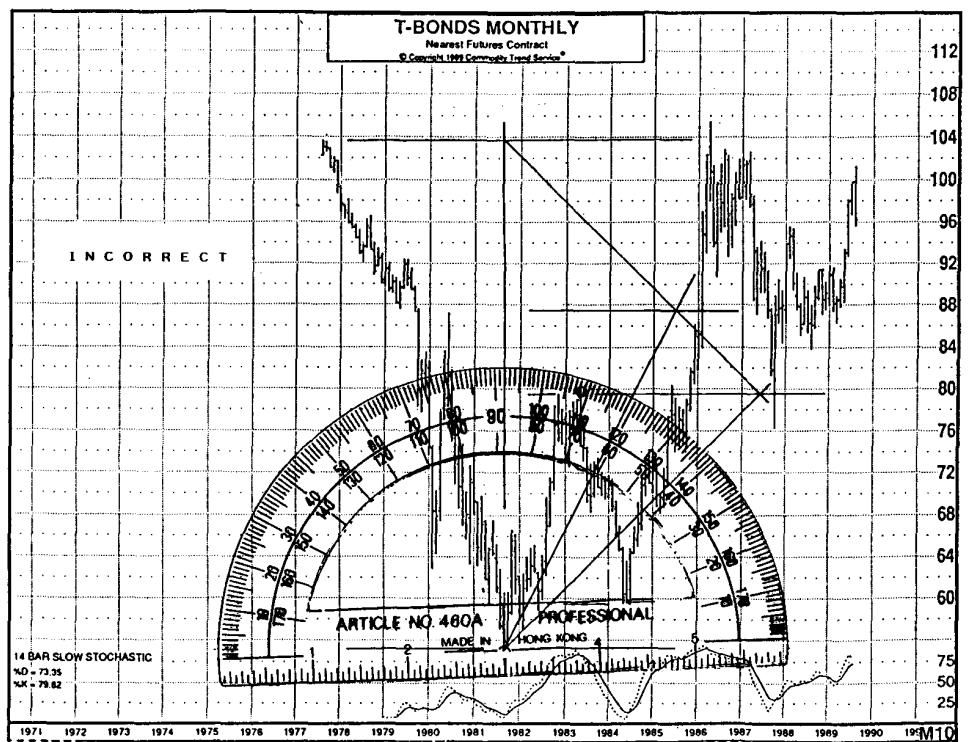
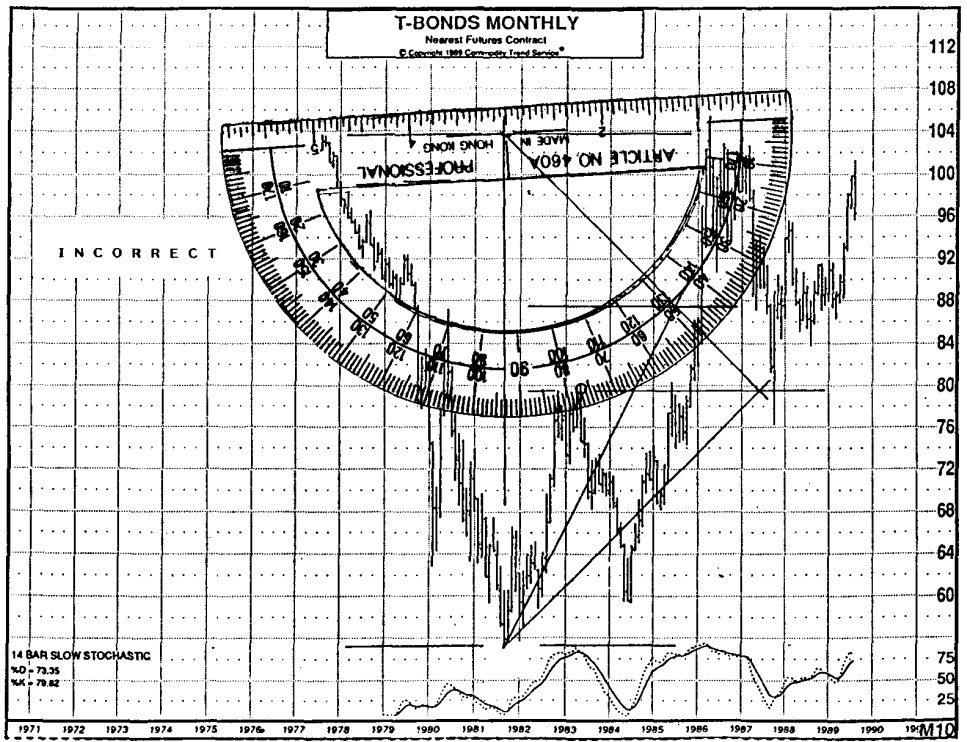
Determine P1 and P2 points from the “under-20” or “over-80” stochastic crossover points.

- 2) Confirm that a new price trend from P2 is starting. The start of a price trend is confirmed when:
  - 1) Both stochastics have been less than 20 (from bear to bull) or greater than 80 (from bull to bear), have crossed over and are reversing direction, and
  - 2) Prices have reversed direction and *closed* above (or below) a 45-degree line from a previous minor reaction point before P2.
  - 3) In a bear market, lower highs are being made.
  - 4) In a bull market, higher lows are being made.
- 3) Determine P3.  
P3 is at the PRICE level of P1 and the TIME point of P2.
- 4) Draw L1 and L2 from P2 and L3 from P3.  
L1 is a 63-degree line and L2 is a 45-degree line. L3 is a 45-degree line.  
Make sure the protractor is 90-degrees to time at P2 and horizontal to the price level at P1. (See Charts 31 and 32.)



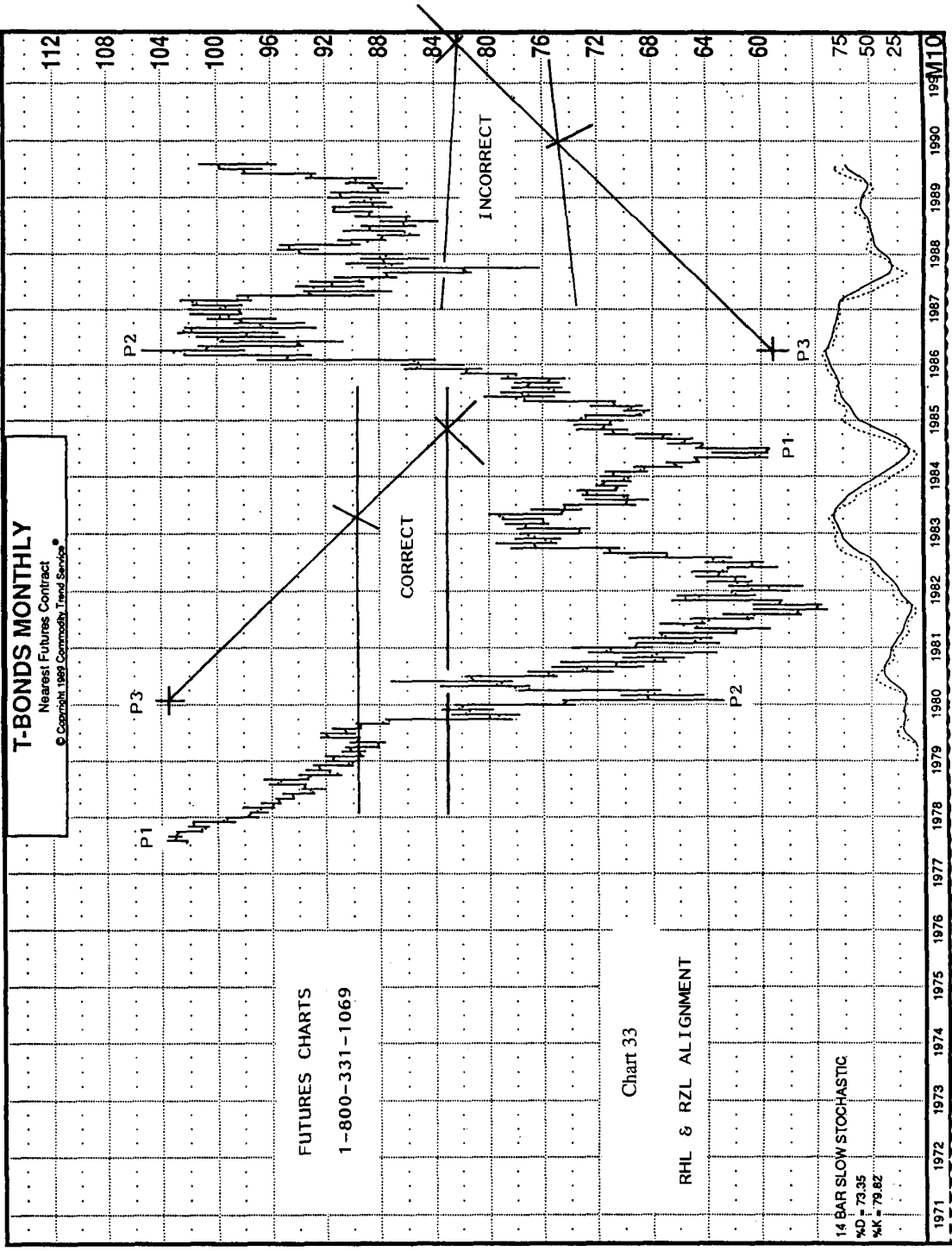
Chart 31





- 5) Draw the Retracement Zone High and Retracement Zone Low limits. The intersection of L1 and L3 is the 63% Retracement Level. The intersection of L2 and L3 is the 50% Retracement Level. Both lines must be horizontal and parallel. (See Chart 33.)





- 6) Estimate the Gann geometric angle that prices are following. Trending prices should follow a 45-, 63-, 75- or 82-degree Gann Angle. Draw several angles from P2 until prices establish a trend. Don't draw this line too "tight" for prices - prices need room to move.
- 7) Take a long or short position after a trend is established. A trend is established when:
  - 1) Prices, on a *closing basis*, break a previous trendline from the opposite direction of the new trend.
  - 2) The new trend is confirmed by supporting indicators, such as stochastics.
- 8) Place stops along S5. Use either current-day or previous-day price levels.
- 9) As prices enter the Retracement Zone, draw S5 from a minor low (if prices are rising) or high (if prices are falling). Prices crossing S5 could suggest a change in trend. Anticipate a possible reaction at or near the midpoint of the Retracement Zone. If one occurs and prices close across S5, liquidate your position. If prices advance through the Retracement Zone, the next price target could be at the 75%, and then the 100%, level.
- 10) Look for a new entry point. If prices reverse in the Retracement Zone and your position is liquidated, consider a new trade:
  - 1) When prices close outside the Retracement Zone;
  - 2) When the new trend is confirmed by stochastics.
- 11) A 26-degree line from P2 as S4 could be a good "first line of defense" stop-loss line. This line (unless there's a substantial price jump) is your initial stop-loss line as prices exit the Retracement Zone. Hint: A good stop-loss price might be one point above the Significant High or one point below the Significant Low. Keep this stop until AFTER the first minor reaction. Minor reactions after a Significant High or Low may cause prices to react almost, *but not quite*, to the Significant High or Low.
- 12) In general, be flexible in your objectives. Anticipate several different price reactions.
- 13) Never assume you "have to" make a set amount of money on a trade. Take profits whenever you can.

In the following eight trades, \$100 per trade was allowed for expenses. Point value for Treasury Bonds is \$31.25.

In November 1988, you begin watching the September 1989 contract for T-Bonds. There is an upward trendline from early September through to November. Bonds peak around 9000 and decline. Stochastics also are declining.

In mid-November, stochastics cross 20 to the downside and prices begin to churn. A low of 8600 is reached on 11/25. Both prices and stochastics begin to rise from that point. Stochastics break 20 to the upside.

By definition, the high of 11/1 at 8928 qualifies as P1. The low of 11/25 at 8600 qualifies as P2. P3 is on 11/25 at the 8900 level. L1, L2 and L3 are drawn. A Retracement Zone results with a RZH of 8820 and a RZL of 8800.

Remember, this is ONLY A TARGET. THERE IS NO LAW THAT DICTATES OR GUARANTEES THAT PRICES WILL ENTER THIS ZONE; ONLY SOME ASSURANCE.

On 11/29, prices close above L2 from P2, as well as above the minor reaction point A of 8729 on 11/16. Stochastics have not broken 20 to the upside.

On 11/30, prices open and close above L2 as well as above the two 45-degree lines from reaction points P1 and A. Stochastics are above 20 and rising. These 3 indicators suggest a bull move. You decide to buy on the opening the next day.

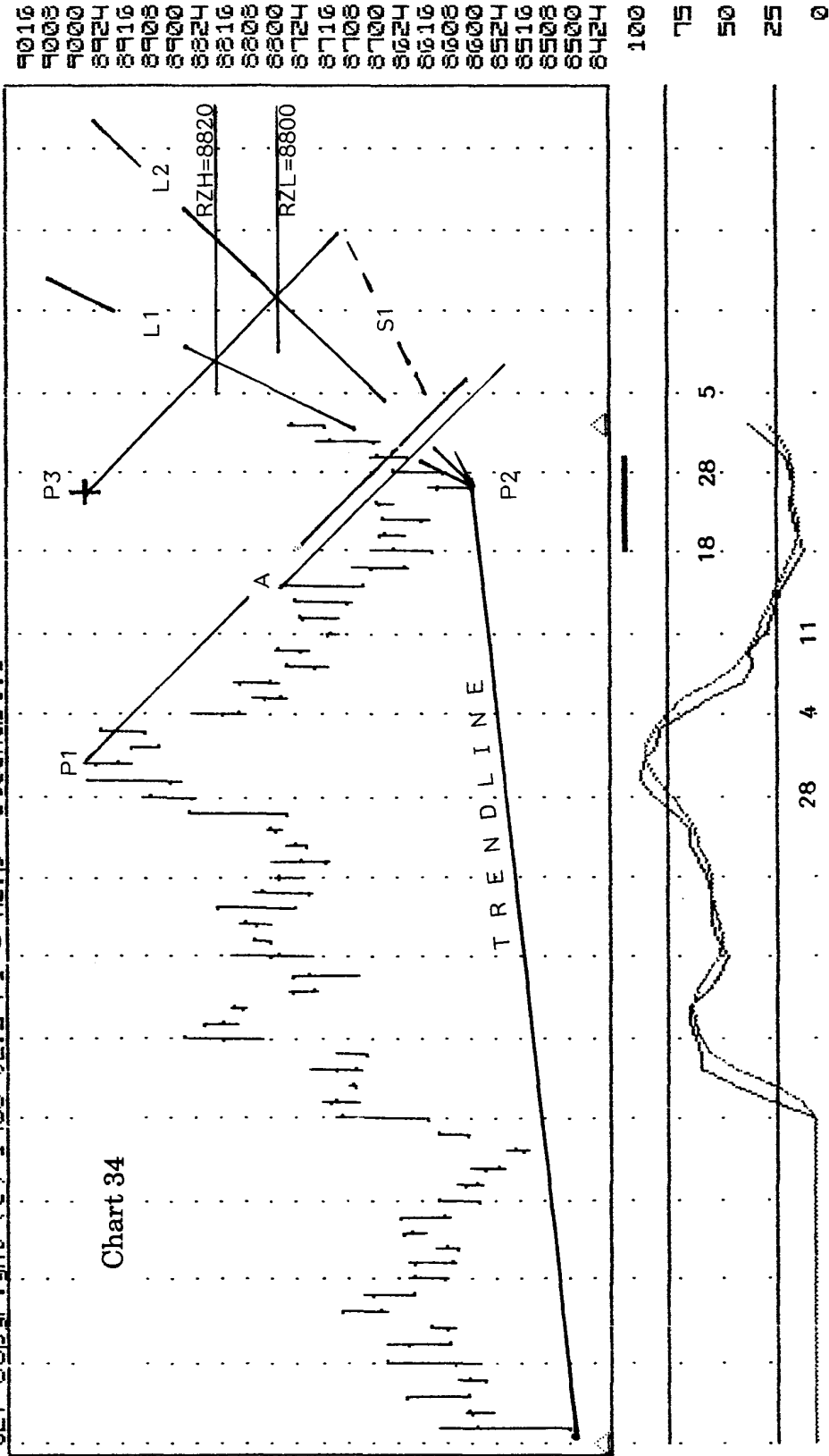
Prices open at 8715 on 12/1/89. Your stop is placed at 8612 (the point at which 12/1/88 crosses S1, a 26-degree line from P2.) This is an unusually wide stop, but recall that prices need room to move before they can establish a trend. A closer stop would be the price level at which L2 crosses 12/1, or 8620.

Refer to Chart 34.

File Auto Train View Scale Gann Options

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Chart 34



Sep 28 Oct 4 11 18 28 5 Dec  
 Thursday 12/01/88 8900  
 T. BONDS TR0989 Open= 8715 High= 8720 Low= 8715 Close= 8725 %K= 35 %D= 25

On the evening of 12/2/88, you chart prices and find that they have fallen - A LOT, to a low of 8620. You shake and sweat, get control and realize you're still in good shape.

Stochastic %K jogged a little, but %D is still upward. S1 saved your position. You're down about \$500, BUT ONLY IF YOU SELL.

Monday, 12/5/88, was an "inside day" - that's a good sign for you. Prices are up - and so should be your stop. Move your stop to 8615, the price at which S1 crosses 12/5/88.

On 12/6, you become a believer when you see that prices have closed at 8821! You're up over \$1000 and want to call your broker to sell. But wait - re-evaluate your position.

First, because of such a big move, anticipate some churning and draw both a 75-degree and an 82-degree line from the low of 12/6, for future stops. Notice that stochastics are still in the neutral zone.

Next, move your stop to a price level that will insure profits but leave room for future price activity. This might be the level at which the 82-degree line crosses 12/6, or the RZL of 8800.

On 12/7/88, prices straddle the RZH, opening at 8824 and closing at 8819. The 82-degree line is a little tight, so you use the 75-degree line for stops. This line crosses 12/8/88 at about 8805. Move your stop to 8805 for the market of 12/8.

On 12/8/88, %K has turned down from 80. %D is beginning to turn. Move your stop to the RZH of 8820 for trading on 12/9. Anticipate a downturn. (P.S. The low of 12/8/88 was 8807. Using Gann geometric angles, our stop was at 8805.)

On 12/9/88, you're stopped out at 8820.

For the next two days prices oscillate around the RZH, but there is no clear indicator for taking a position. Stand aside. Notice though that the highs for 12/7 at 8906 and 12/12 at 8905 were contained by S4 from P3.

Calculate a new Retracement Zone. P1 is the high of 12/12 at 8905. P2 is the low of 11/25 at 8600, and P3 is 8600 on 12/8/88. This results in a Retracement Zone with a RZH of 8718 and a RZL of 8702, into which prices may trend for another buying opportunity.

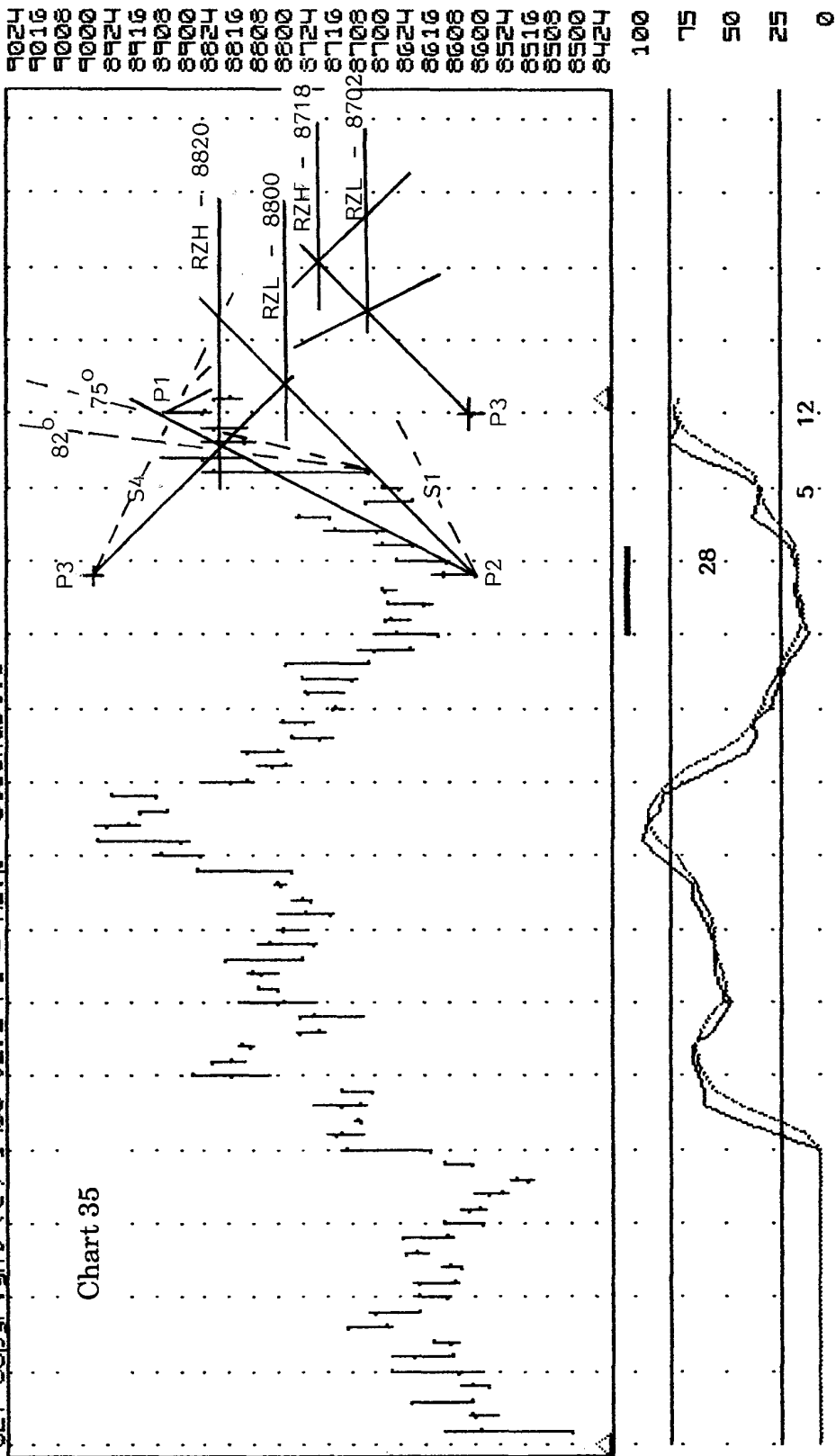
Refer to Chart 35.



**File Auto Train View Scale Gann Options**

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Chart 35



Sep                      Oct                      Nov                      Dec  
 Tuesday 12/13/88 8815  
**T. BONDS TR0989**    Open= 8821 High= 8821 Low= 8812 Close= 8815    Dec 25    %K= 76    %D= 76

You've completed your first trade:

TRADE 1:	Sold on 12/9/88	@ 8820
	Bought on 12/1/88	@ 8715
	Total Points	= 1-05 = 37 points

\$1056.25 profit in 7 trading days!

Previous profit balance	= -0-
Profit from Trade 1	= \$1056.25
Current profit balance	= \$1056.25

You'll later read that "the trend is your friend." The trend is up. Therefore, take only long positions.

On 12/12 and 12/13, prices churn around the previous RZH of 8820. On 12/14, stochastics have crossed to the downside. Prices have fallen on that day and close at 8719, that price also being the low of the day. (Another coincidence; our RZH is 8717).

Prices closing at 8719 are under the 45-degree line, B1, from the previous minor reaction point on 12/2 at a low of 8620. Stochastics crossing, even in the neutral zone, may normally be a sign of lower prices.

Prices are at the RZH of 8717. Remember, the RZH is the 50% retracement level, at which Gann said prices would react. The RZL is 63% and allows some margin for fundamental influences on prices.

A reaction to the upside could be anticipated. There is not enough profit potential here to take a short position. The overall trend is up; therefore, only long positions should be considered. Wait for a confirmation of an uptrend and go long.

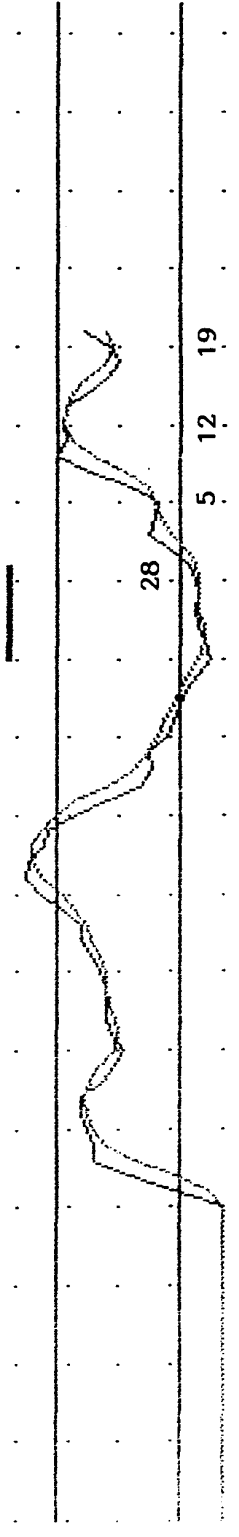
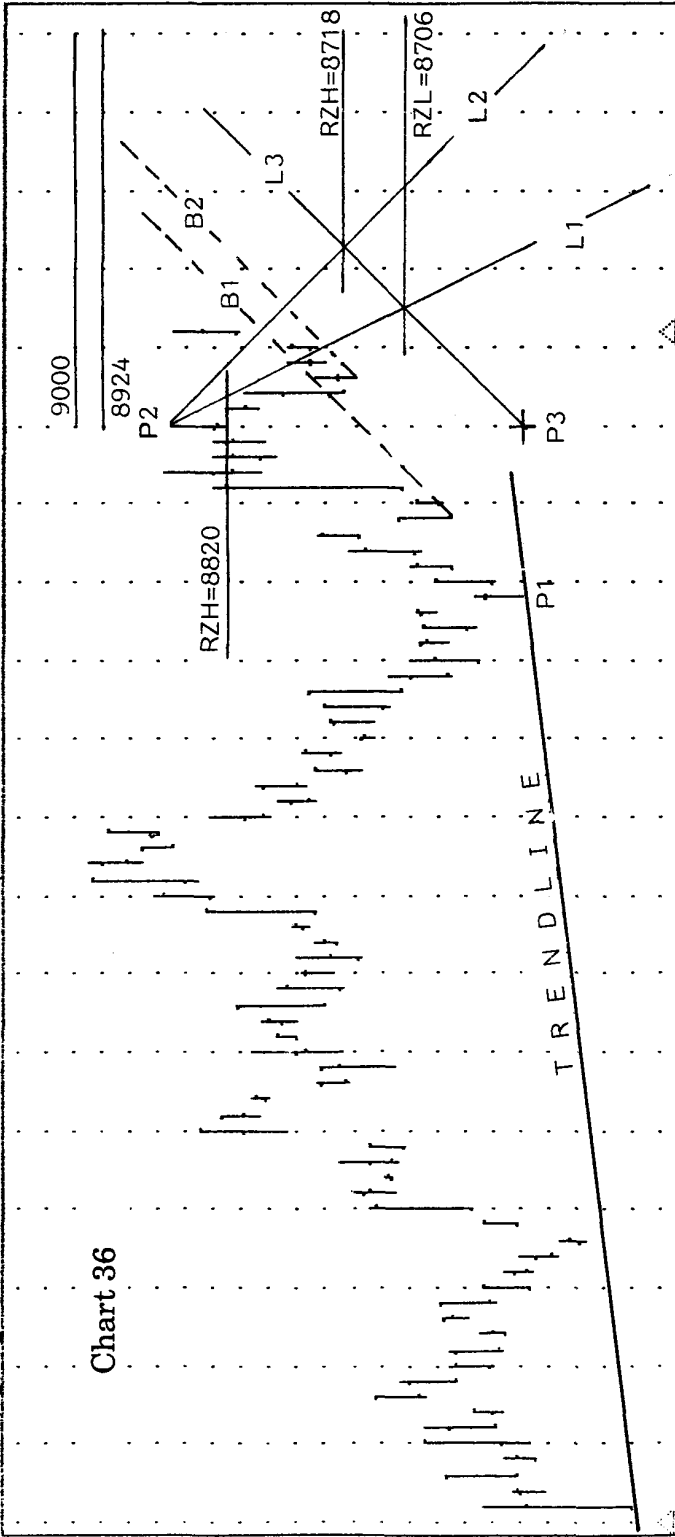
A new uptrend is confirmed on 12/19. Prices have opened AND closed over L1 from P2. At the same time, stochastics have turned up. This is a good place to go long, with a potential target of 8924-9000. That price range is a 100% retracement from 10/31 and 11/1.

On 12/20, you're long at the opening of 8818. A stop is placed at 8800 (the 45-degree line, B2, from the 12/15 low of 8716, crossing 12/20). This risk is about \$600.

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Chart 36



Sep Oct Nov Dec  
 Tuesday 12/20/88 2900  
 T. RANS 10089 Open= 8218 High= 8709 Low= 8517 Close= 8828 Dec= 8 wk= 67 xD= 57

From the 12/15 low of 8716, 45-degree and 63-degree stop-loss lines are drawn. Prices stabilize for two days, reacting back to the 63-degree line. You determine that the 45-degree line, rather than the 63-degree line, will be used for stops.

Prices gap to the upside. Because of this price jump, the angle for determining stops is changed from 45-degrees to 63-degrees. A stop for 12/23 is placed at 8824 - where 12/22 crosses the angle. On 12/23, stochastics have crossed 80 and begin to turn. This is a sign of a possible change in trend.

On 12/23 you place a stop at 8904 - again where the 63-degree angle crosses 12/23 - for trading on 12/27. Tight stops should be used because of an anticipated change of trend indicated by stochastics.

On 12/27, you're stopped out at 8904. (The open and high of 12/27 was 8907 — pin-point accuracy!)

Stochastics turning in the over-80 zone is an indication of a possible move to the downside. There are now two clear major turning points to establish the next Retracement Zone, based on the stochastic activity.

The low of 11/22 at 8600, when stochastics crossed under 20, is P1. The recent high of 12/23 at 8916, when stochastics crossed over 80, is P2. P3 is on 12/23 at the 8600 level. The resulting RZH is 8724 and the RZL is 8704.

On 12/29, prices have closed under L1 from 12/23 and stochastics have crossed 80 to the downside. The market could be shorted on the next day's opening, with a stop at 8827 - the L1 level for that day.

This Retracement Zone could be a major area of resistance. If you calculate the Retracement Zones for early-December, late-October-to-mid-November, and mid-October, you will see they are all at about the same price levels. (Gann's rule held that there is strong resistance or support at a price level where two 50% Retracement Zones occur.)

Both prices and stochastics seem to be in an uptrend. The RZH level of 8724 is the same level (100%) from which prices rebounded on 12/15. Rather than chipping away to take small profits, consider using the 8724 level as a buying opportunity.

TRADE 2:	Sold on 12/27	@ 8904	
	Bought on 12/20	@ 8818	
	Total Points	= 0-18	= 18 points

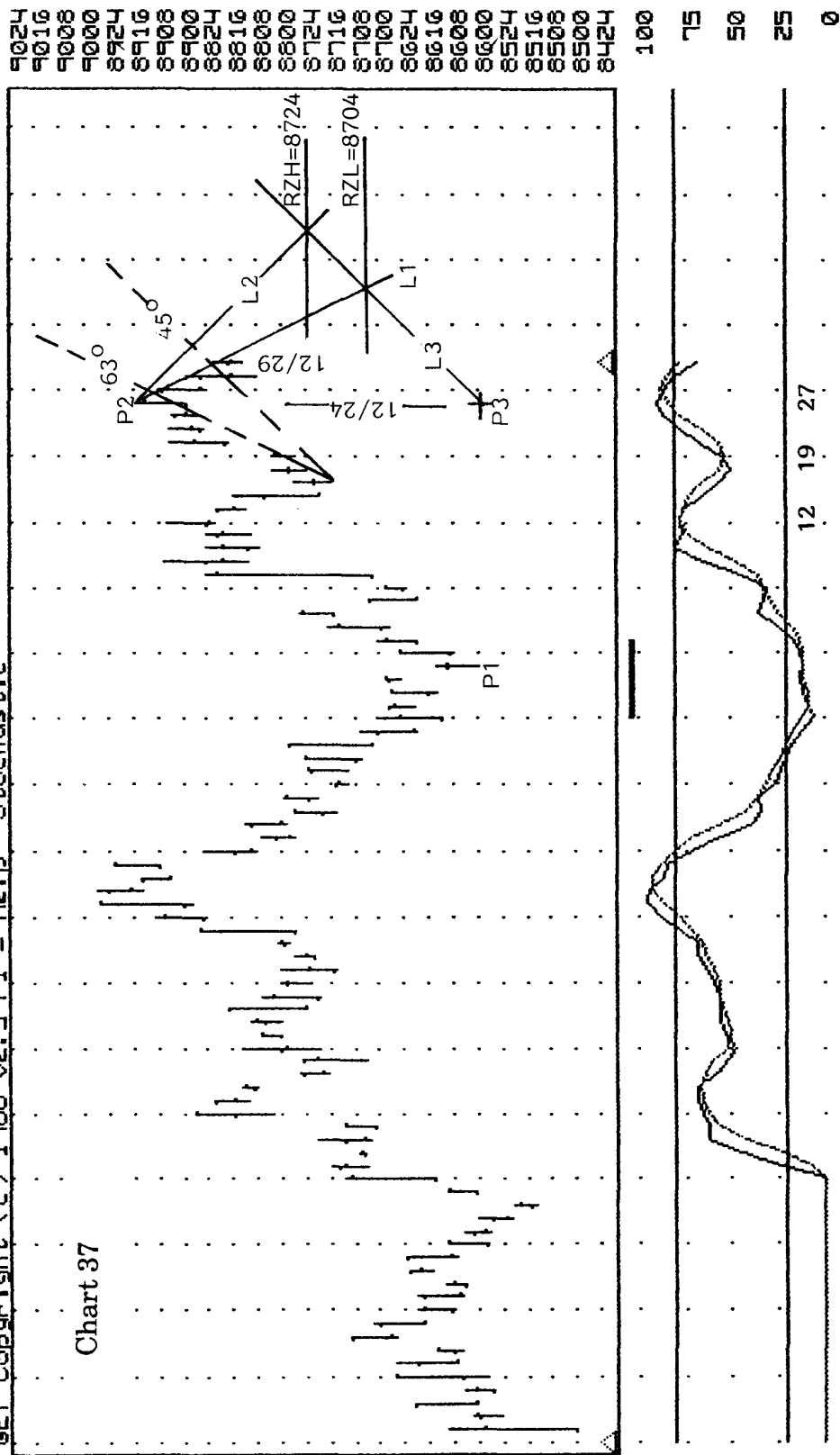
\$462.50 profit in 4 days.

Previous profit balance	=	\$1056.25
Profit from Trade 2	=	\$462.50
Current profit balance	=	\$1518.75

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Chart 37



Sep Oct Nov Dec  
 T. BONDS TR0989 Thursday 12/29/88 8615  
 Open= 8817 High= 8822 Low= 8813 Close= 8816 Dec= 85 wk= 69 xD= 76

Here's another coincidence. The low of 1/3 is 8721. The low of 1/4 is 8726. The low of 1/5 is 8718. And the low of 1/6 is 8724. The RZH is 8724. (\* on chart)

The lows for the next four days are 8812 (1/9), 8812 (1/10), 8812 (1/11) and 8810 (1/12). The low on 12/20 was 8817. Prices gapping up to this area indicate it is an area of strong support. (\*\* on chart)

On 1/10, stochastics stabilize and turn up. On 1/9, 1/10, and 1/11, prices again stabilize in a tight channel.

On 1/12, prices make a bull move of 28 points, closing at 8906 for the day, and near new highs.

Another Gann rule - buy new highs and sell new lows.

Stochastics have already turned up. Prices have closed over L2 for three days.

After seeing price and stochastic activity up to 1/11 on Chart 38, buying the market is the only way to go. Let's assume you bought on the opening of the first day after prices closed above L2 AND stochastics have crossed and are turning up.

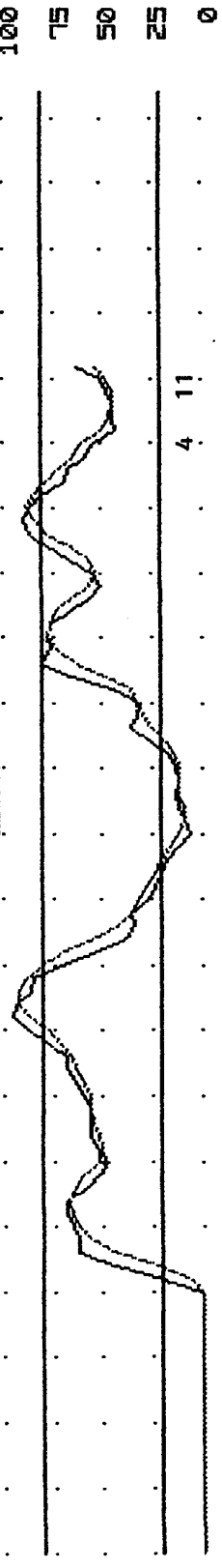
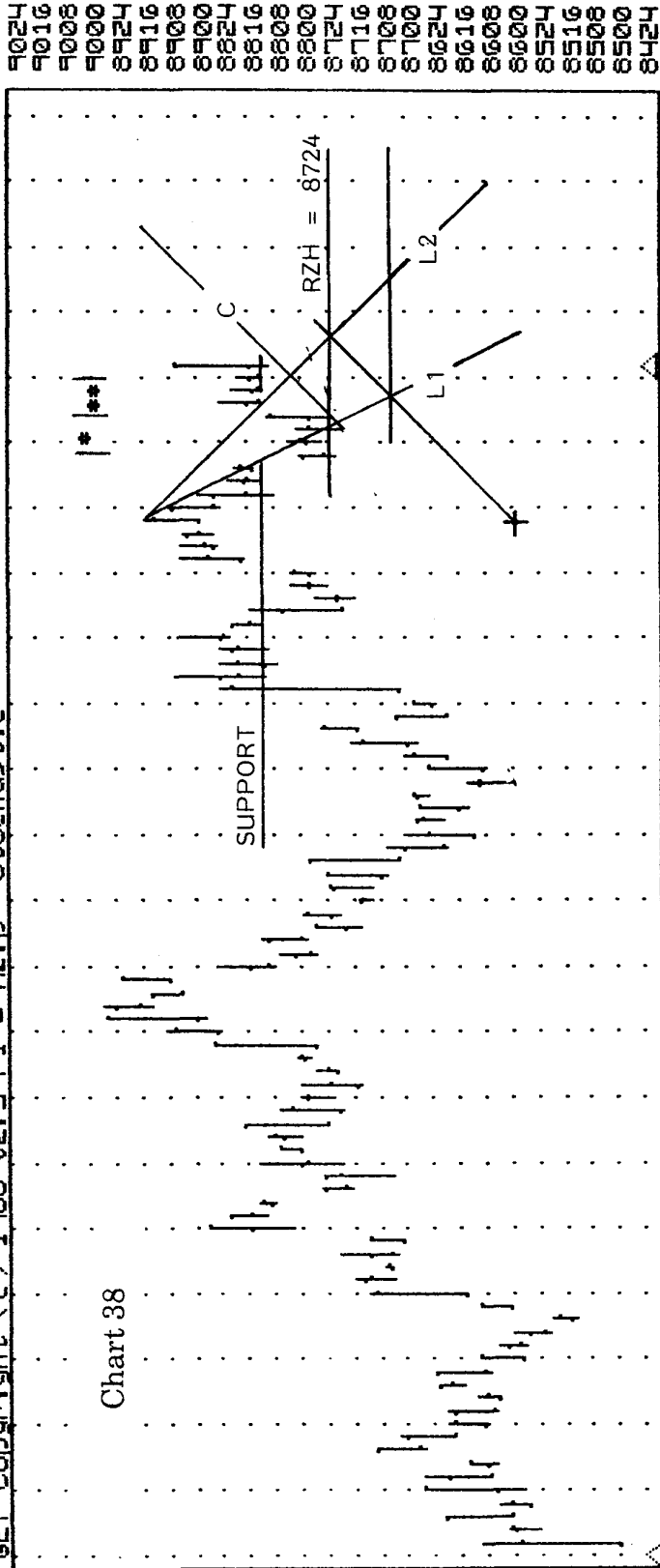
Your position is long at 8815 on 1/11 or 1/12. A stop is placed at 8803, the price level at which the 45-degree line, line C from the 1/5 low of 8718, crosses 1/8.

Refer to Chart 38.

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Chart 38



Sep Oct Nov Dec Jan  
 T. BONDS TR8989 Thursday 01/12/89 8512  
 Open= 8815 High= 8900 Low= 8810 Close= 8700 Dec= 15 %K= 63 %D= 54

Trading now may get a little tricky. Intuition and experience pay off. There is a lot to be learned from examples like this one.

Prices have closed above two previous highs - mid-December's 8915 and early-November's 8928. New highs to determine P2 have not been made. Stochastics are bouncing around above 80, you're long one September Bond from 8816 and . . . now what?

First, notice the divergence. Prices are rising while stochastics are falling. Prices seem to be in an upward channel.

In this instance, draw 45-degree lines from reaction points as your stop-loss lines. Prices may fluctuate within this upward divergence channel. The easiest and safest way to handle this is to set your stops and let the market take you out of your position.

45-degree lines D and E are examples. Stops can be set at the price level of the PREVIOUS day and stop-line level. If you prefer a little more room, set the stops at the level of the SECOND-PREVIOUS day.

Another option may be to place sell orders 32 points above the previous day's high, while moving your stop up daily. That amount is a substantial move, but if you get it, that's all the more profit. If the market stops you out, that's still profit.

Using line E, and the price level of two previous days, your position would have been stopped out on 1/31 at 9018.

Another winner, and a big one at that:

TRADE 3:	Sold on 1/31	@ 9018	
	Bought on 1/10	@ 8816	
	Total Points	= 2-03	= 67 points

\$1993.75 profit in 15 trading days!

Previous profit balance	= \$1518.75
Profit from Trade 3	= \$1993.75
Current profit balance	= \$3512.50

When the expected bear move occurs, again a price target is needed. Two Retracement Zones have been plotted. Both zones use the high of 1/27 at 9117 as P2.

P1-1 for the first zone is the 1/5 low of 8718 resulting in a RZH1 of 8829.

P1-2 for the second zone is the 11/25 low of 8600 resulting in a RZH2 of 8824 and a RZL2 of 8726.

During a divergent period, it is important to keep close stops. Prices may have a tendency to collapse, and collapse with little warning. It's something like holding a balloon full of air and letting it go. Things happen very quickly and the



balloon (prices) could go every which way. Too wide of a stop may cause an undue amount of profit to be lost.

If you doubt this, take a look at the next section and Chart 39. It will prove the point.

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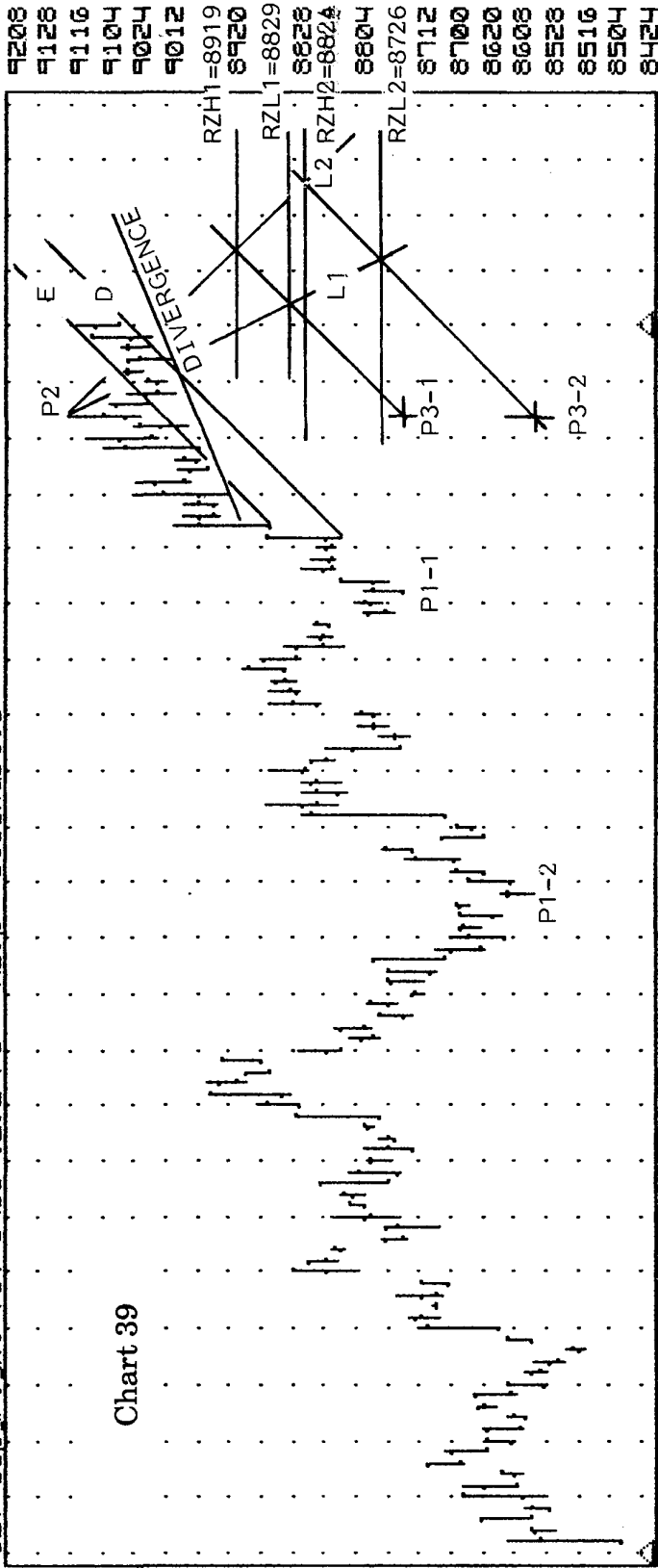
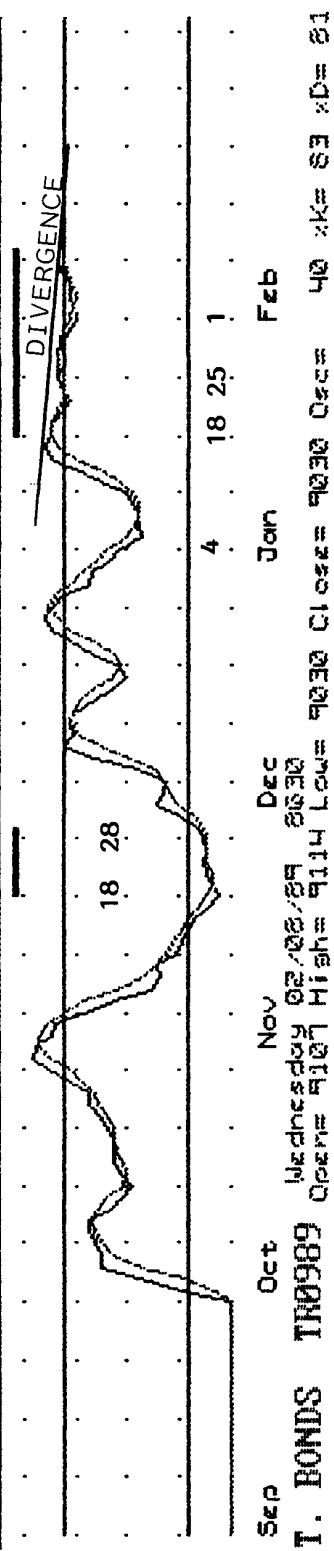


Chart 39



Sep Oct Nov Dec Jan Feb  
 T. BONDS TR0989 Wednesday 02/08/89 8630  
 Open= 9107 High= 9114 Low= 9030 Close= 9030 Dec= 40 %K= 83 %D= 81

### LOOK OUT BELOW!!!

From the high of 9117 on 2/8, prices on 2/9 plummet right through our first Retracement Zone into our second. On 2/10 prices reach a low of 8806, closing at 8821. (The midpoint of the lower Retracement Zone is 8809).

Stochastics probably have already run half their course before you would see them. But there is a clue. Whenever %K "hooks" sharply, like it did on 2/8, anticipate a sudden and dramatic price move. This hook could come on the day of the price move, or one day before.

There are not technicals a beginning trader could use to chart a move such as this. Place your order, set your stop and hold on for the ride! A possible order would be to cover your short position somewhere in the Retracement Zone.

Again, what you see in Chart 38 is the whole picture. On the evening of 2/9 all you would see is the price collapse and the stochastics in the neutral area. There is one clue to possible lower prices - the gap between 2/9 and 2/10. After prices crash into the first Retracement Zone, and close on 2/9 at 8912, trading opens on 2/10 at 8906. Knowing of that gap, you may want to short the market with a potential target near the 63% level of the Retracement Zone. With such downward momentum, a 100% retracement of 8718, or even 8600, may not be unexpected.

Assuming you would want to crap shoot this trade, you could have shorted the market after the opening of 2/10 and set your stops along either the 82-degree or 75-degree line from the high on 2/8 of 9114.

Both stochastic values cross 20 on 2/14/89. Considering the size of the move and accumulated profit in two days, why wait for "just that little bit more?" Cover your shorts on the opening of 2/15 at 8803. (The low for the day was 8801.)

Taking this trade would have aptly rewarded you.

Refer to Chart 40.

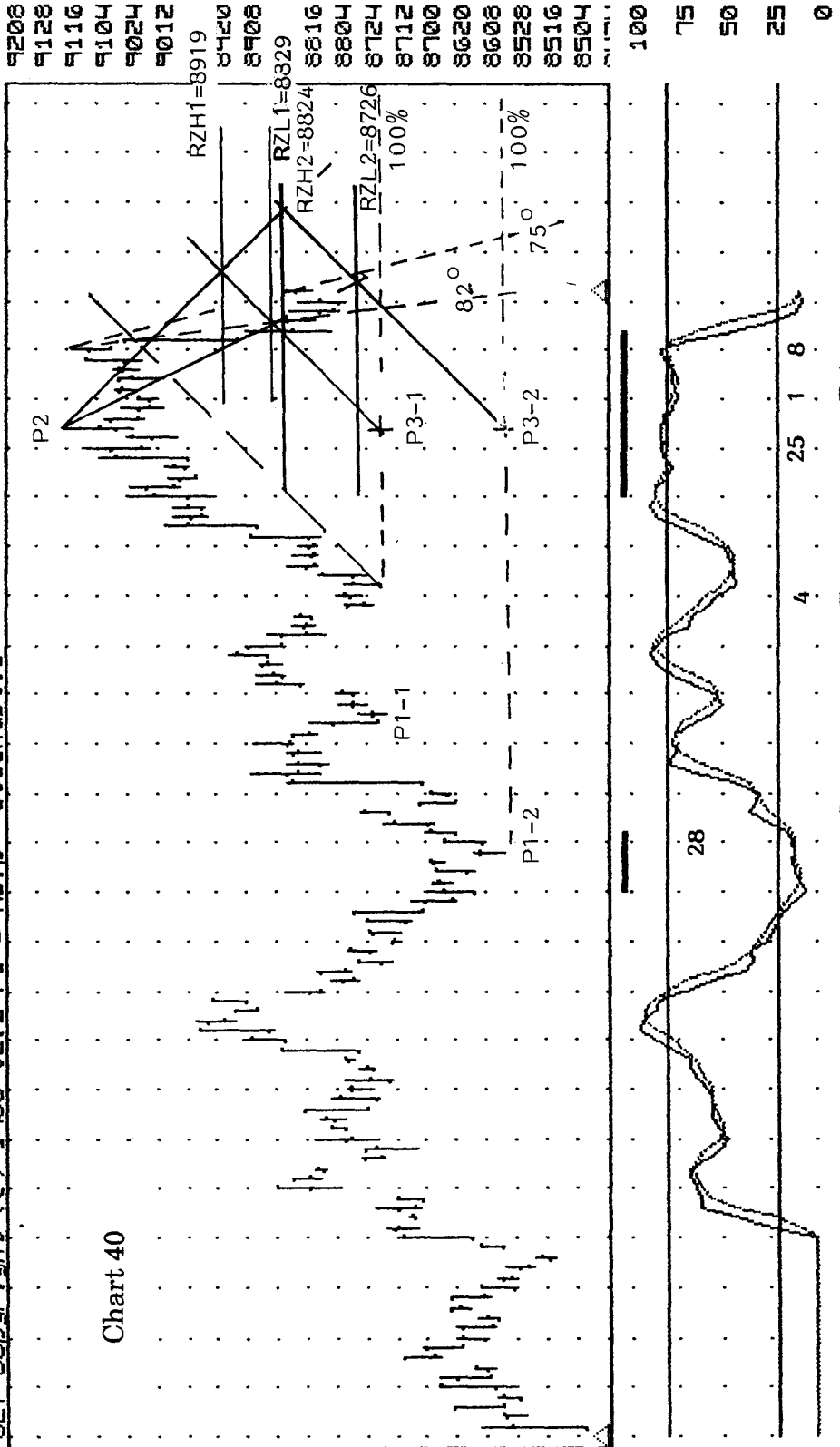
TRADE 4:	Sell short on 2/10	@ 8908	
	Bought on 2/15	@ 8804	
	Total Points	= 1-04	= 36 points

\$1025.00 profit in 3 trading days!

Previous profit balance	= \$3512.50
Profit from Trade 4	= \$1025.00
Current profit balance	= \$4537.50

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T. BONDS TR8989 Thursday 02/10/89 8528  
 Open 8820 High 8824 Low 8817 Close 8817 %K= 34 %D= 8

From early February to early March, prices vibrate between the RZH of 8824 and the RZL of 8726. Stochastics remain oversold, with no definitive sign of movement either up or down.

A 45-degree trendline (F) drawn from a minor reaction point on 2/21 at a high of 8902, is broken on 3/6 with prices opening and closing above it. Prices are still under the RZH of 8824. This could be either a resistance or support level.

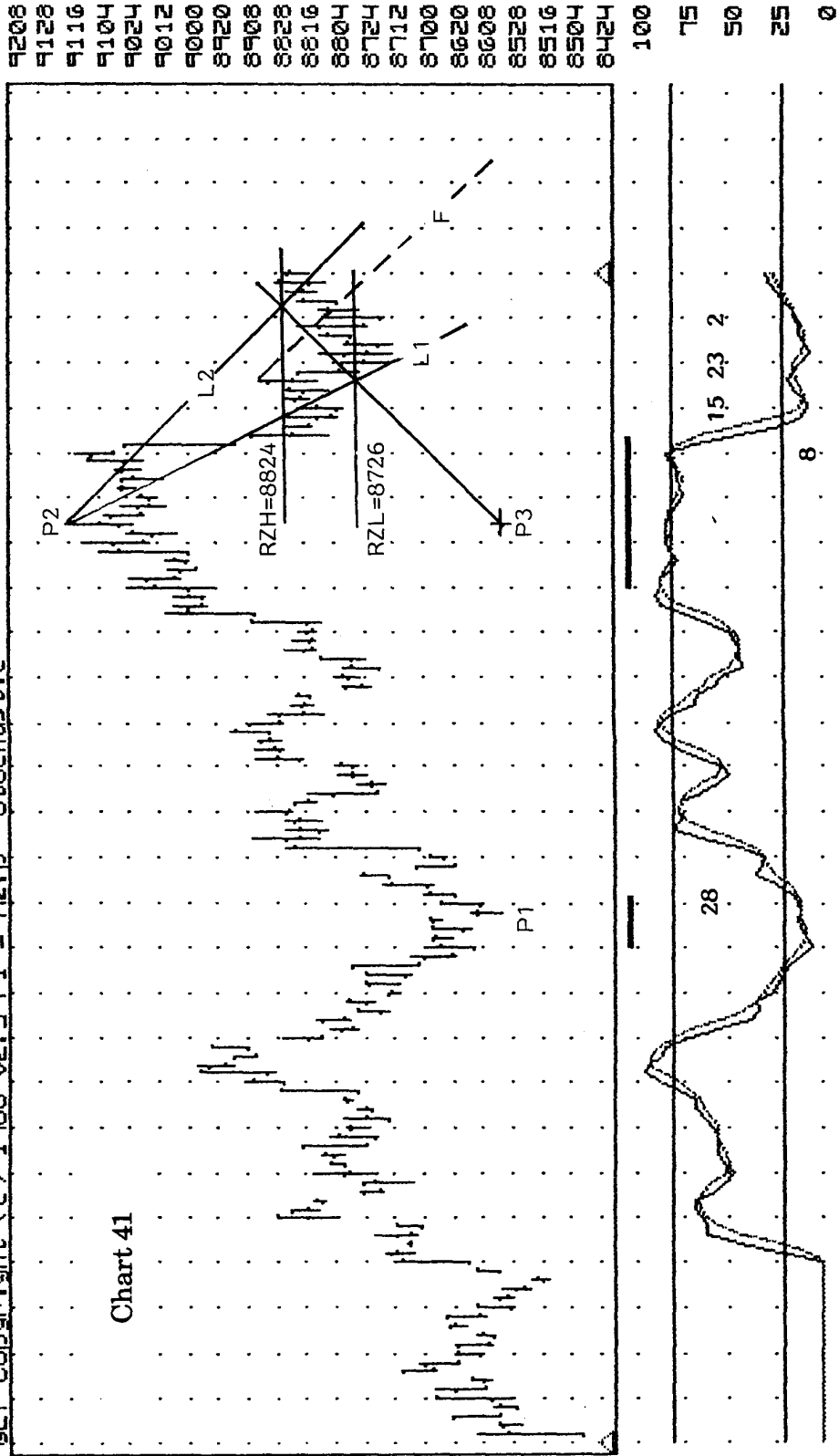
On 3/8, prices close at 8826. On 3/9, prices again close under the RZH of 8814. Both stochastics have risen above 20.

From doing so well on your last four trades, you feel confident in your ability, and decide to buy the market on 3/10 at the opening of 8820 (even without very decisive signals). A stop is placed at the RZL of 8726.

Time to make more money.



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Whoops . . . what happened? On 3/13, the day after placing your order, you get stopped out for a loss of \$812.50 (including commission), when prices drop to a low of 8725. (Our RZL is 8726. Does this suggest something about the Retracement-Zone limits?)

This same thing happened to me recently, trading with Platinum. That was a \$1000 per-contract loss in an hour. But that's OK (it is?). You've learned another Gann lesson. Remember, you must expect some losses and not let it affect your trading. No system is 100% perfect.

You assumed prices would have to rise because stochastics suggested they "have to." Prices don't "have to" do anything.

This is another admonition of Gann. Never trade on hope, greed or fear. We did two out of the three in this case. Because we had four winning trades, we got greedy, assumed prices would do what we thought they would do and hoped for another \$1000-in-3-days move.

Trade by the rules that have proven themselves and with which you are comfortable. Never trade because you think you "have to" trade.

Prices rise for three straight days after your first loss. On 3/15 and 3/16 prices open AND close above L2, drawn from the 1/27 high of 9117. Stochastics are rising into the neutral zone. But being a little gun-shy from your first loss, and remembering that the RZH at 8824 seems to be strong resistance, you decide to wait.

Good decision!

Refer to Chart 42.

Your first loss:

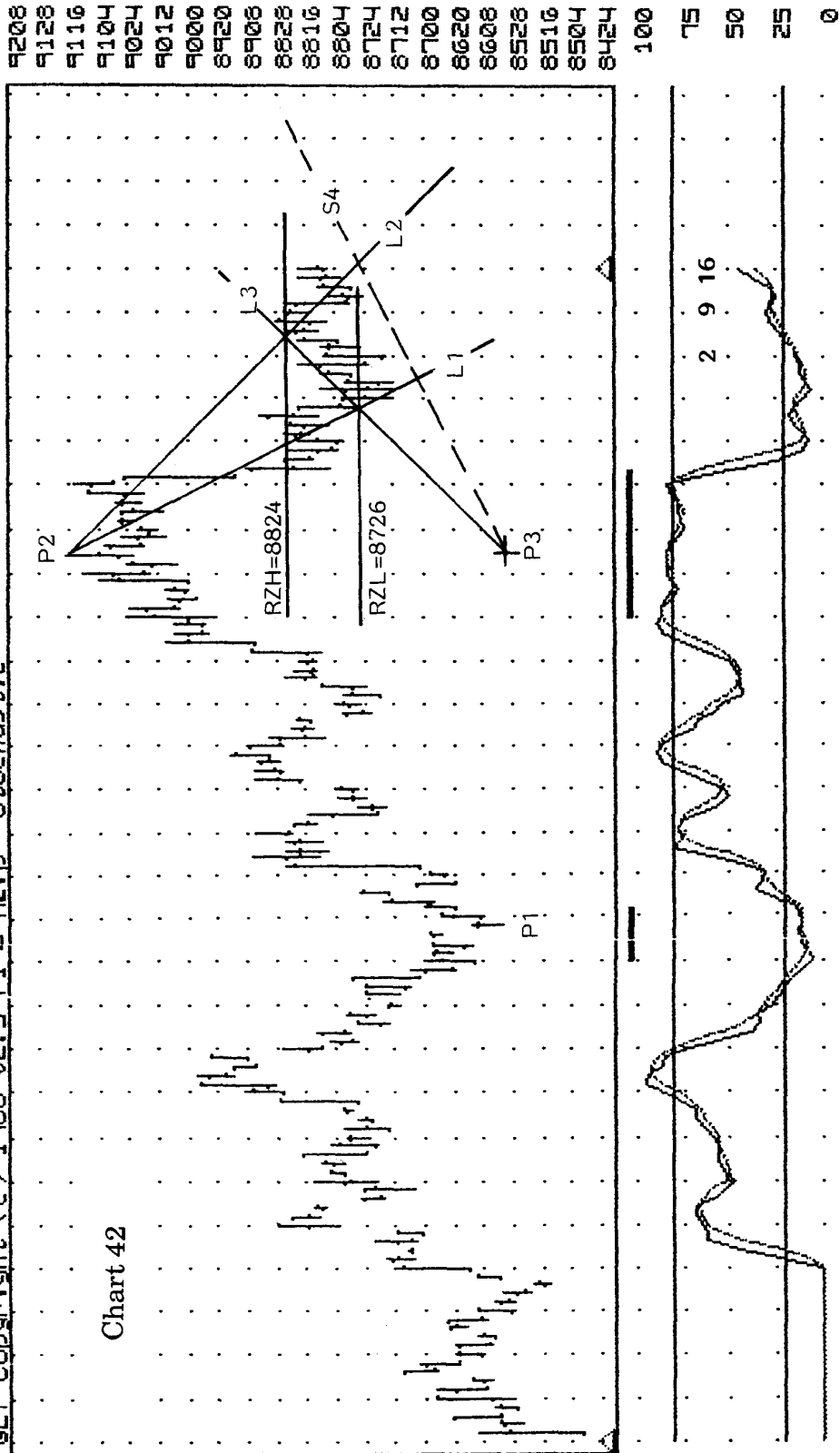
TRADE 5:	Bought on 3/10	@ 8820
	Stopped out on 3/11	@ 8726
	Total Points	= 26 points

\$912.50 one-day loss

Previous profit balance	= \$4537.50
Loss from Trade 5	= \$ 912.50
Current profit balance	= \$3825.50

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Sep Oct Nov Dec Jan Feb Mar

T. BONDS TR0989 Thursday 03/16/89 8630

Open= 8808 High= 8818 Low= 8807 Close= 8811 Dec= -20 %K= 44 %D= 30



Well, if one price collapse is good, then two must be better. And this third one must be the best of all. It brings us back to within 14 points of where we started in late November.

On 3/17, from an opening at 8810, prices tumble 57 points to a low of 8617. They stabilize for two days and begin to rise, but are contained by the downward 45-degree line, line G, from P1.

A target Retracement Zone is plotted with a RZH of 8804 and a RZL of 8723. This could be only a minor reaction area, because stochastic values for the P1 of 3/8 are in the neutral zone. (A better P1, indicated by stochastics being above 80, would be at 9114 on 2/8.)

Prices eventually may exceed this 8804 - 8723 zone because of a suggestive stochastic indicator. On 3/17, the day prices fell, %D can be seen to have turned sharply downward. On 3/22, stochastics again can be seen to have turned sharply - this time upward. Recall that this sharp turn - described as a "hook" - suggests a strong and sudden price move. Since this is the case, we would be looking for a buying opportunity somewhere in the 8723 - 8804 range.

Both stochastic values cross 20 to the upside on 3/27. Prices have previously closed at 8714 - above the minor 75-degree trend line F.

Normally, prices closing above a minor trend line and stochastic values indicating an uptrend, could be a buy signal. However, the risk-to-reward ratio for taking a trade is not good.

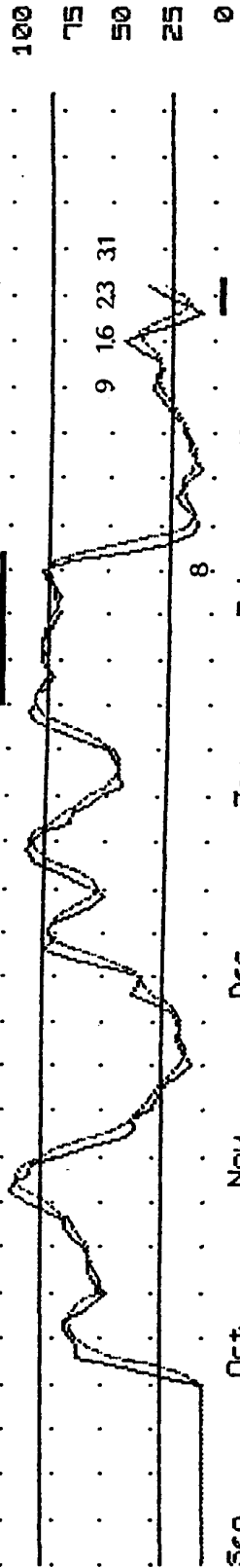
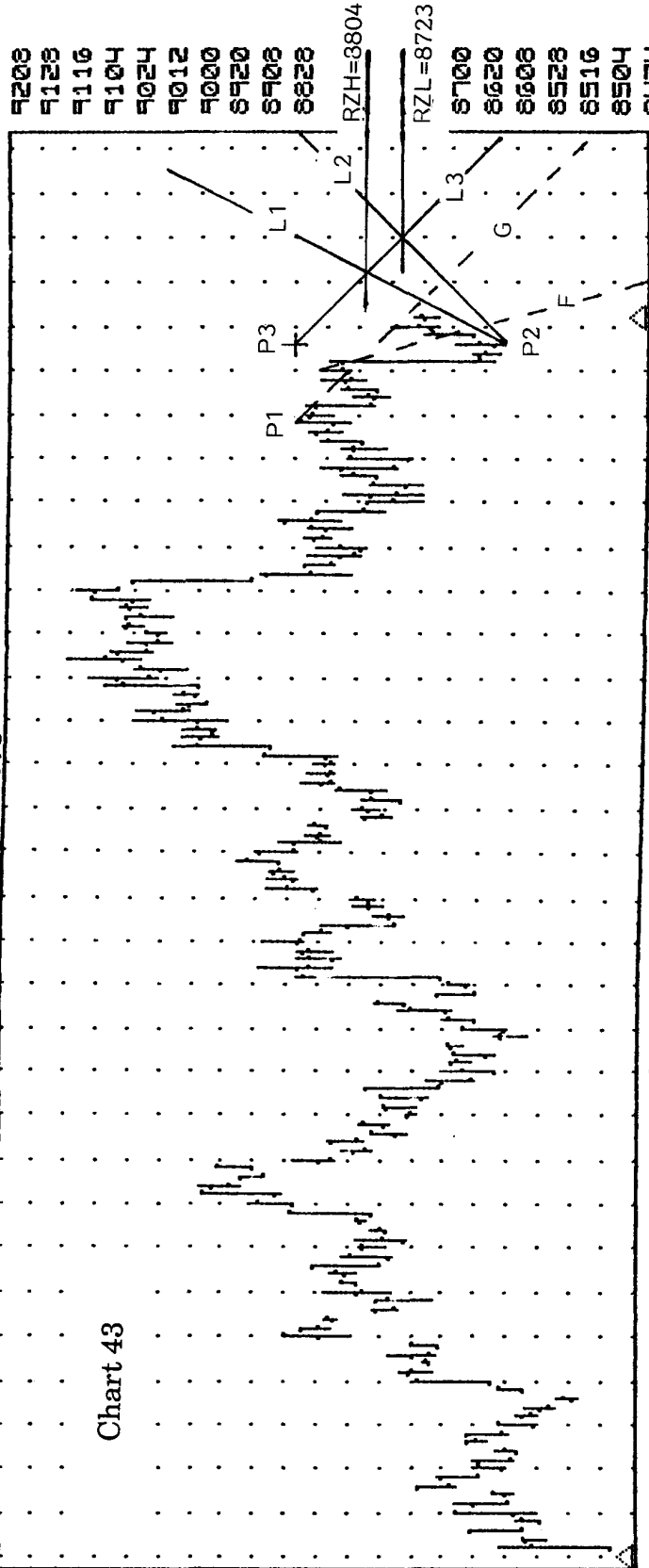
To go long above 8714 would require a stop at 8624, L2 crossing the day. Prices are approaching a Retracement Zone with possible resistance levels at 8723 and 8804. The minimum profit you could anticipate would be to 8724 (the RZL), or about \$343. You're risking twice what you could anticipate making. Stand aside for a better buying opportunity.

Refer to Chart 43.

File Auto Train View Scale Gann Options

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Chart 43



Sep Oct Nov Dec Jan Feb Mar  
 Tuesday 03/22/89 8700  
 J. BONDS TR0989 Open= 8717 High= 8725 Low= 8716 Close= 8721 Qoc= -19 %K= 57 %D= 30

On 3/28 prices open and close above line G. On 3/29 prices close at 8802 (the RZH from Chart 43 is 8804). Stochastics are in mid-range with a strong upward bias. This could be the buying opportunity for which we've been looking.

On 3/30, you're long at the opening of 8808 with a stop at 8720 (L1 crosses 3/19). A new Retracement Zone is drawn, with P1 being the 2/3 high of 9116, P2 as the 3/12 low of 8610 and P3 at the 9116 level on 3/12. The RZH is 8924 and the RZL is 8829.

Prices escalate upward for two days, with a high on 4/3 of 8912. This high is only three points away from the 8909 midpoint of the new Retracement Zone. Prices retreat a bit, but still straddle the RZL of 8900.

On 4/5 %K is at 85 and %D is at 78. Stochastics are turning. Look back several months on the chart. The area of 8824 - 8900 seems to be a real resistance/support area. Draw a horizontal resistance line at each of these levels. In this area you're already up about \$800 in three days. Time to get out. If you didn't sell at the mid-point of the Retracement Zone or let the 63-degree L1 stop you out, you could have placed, on 3/30, a good-till-cancel sell order for 8909.

Stochastics are turning, prices stabilize for a day or two, but notice that the general trend of the market from September is still up. Any reaction occurring here may only be temporary profit-taking before the bull move continues. If the 8912 high of 3/20 turns out to be a significant high, another Retracement Zone at about 8724 can be calculated. This would be the place to buy the market.

Refer to Chart 44.

The winning continues:

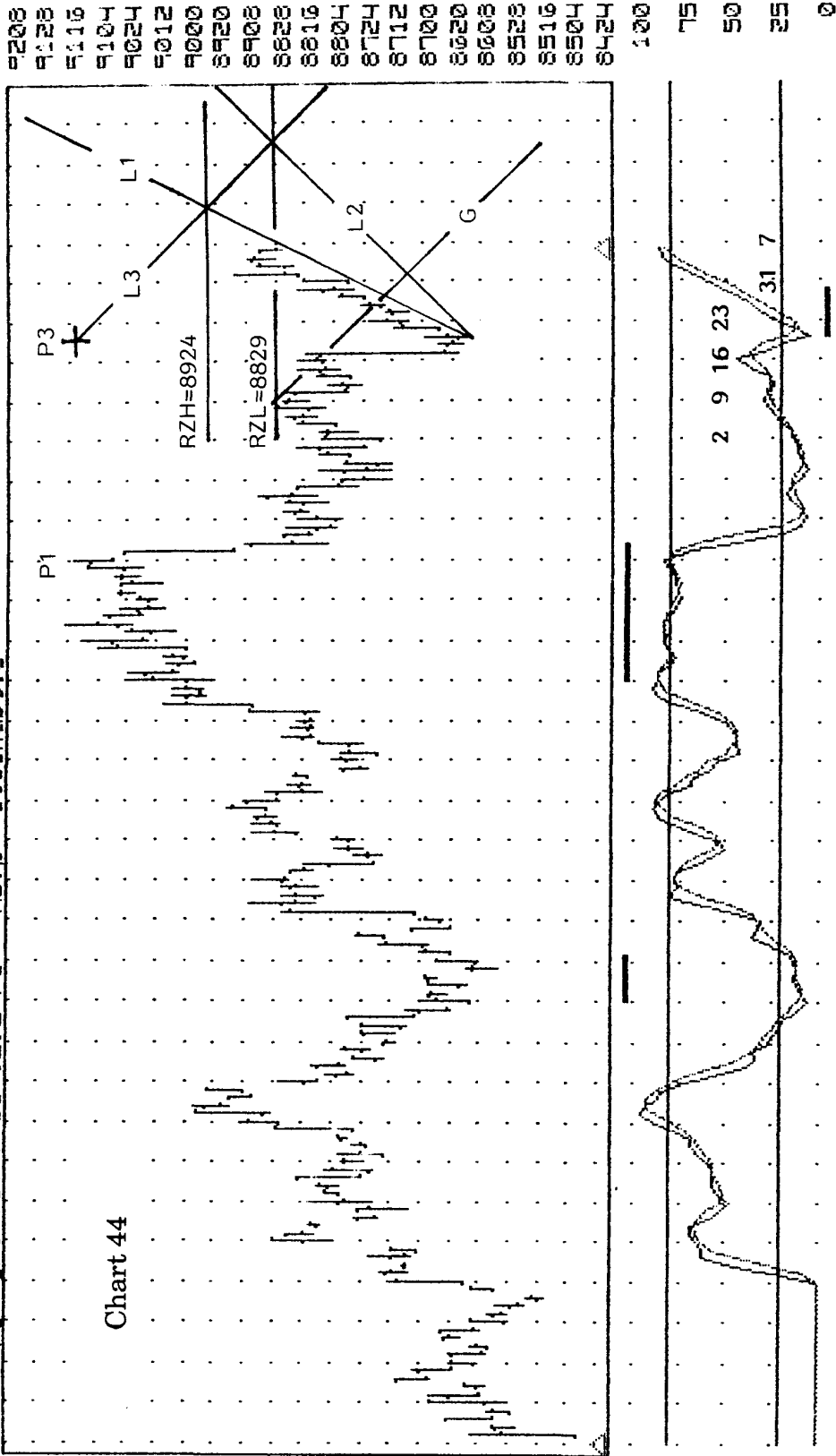
TRADE 6:	Sold on 4/3	@ 8909
	Bought on 3/30	@ 8804
	Total Points	= 1-05 = 37 points

\$1056.25 profit in 2 trading days!

Previous profit balance	= \$3825.00
Profit from Trade 6	= \$1056.25
Current profit balance	= \$4681.25

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Sep Oct Nov Dec Jan Feb Mar Apr  
 Thursday 04/06/89 8715  
 Open: 8702 High: 8702 Low: 8625 Close: 8628

25 Apr 88 8:00 AM

Prices peak at 8914 on 4/7, with that point becoming P2. P1 is the low of 8614 on 3/21 and P3 is at the level of 8614 on 4/17. A RZH of 8802 and a RZL of 8712 are formed.

From P2 prices begin to drop. But with the strong, general uptrend of prices from mid-March, there is strong assurance of much higher prices.

Rather than waiting for prices to evolve and drawing trendlines and retracement zones until the price bars can't even be seen, try this.

Place an order to buy the market at the 50% level, with a stop at the 63% level of 8712.

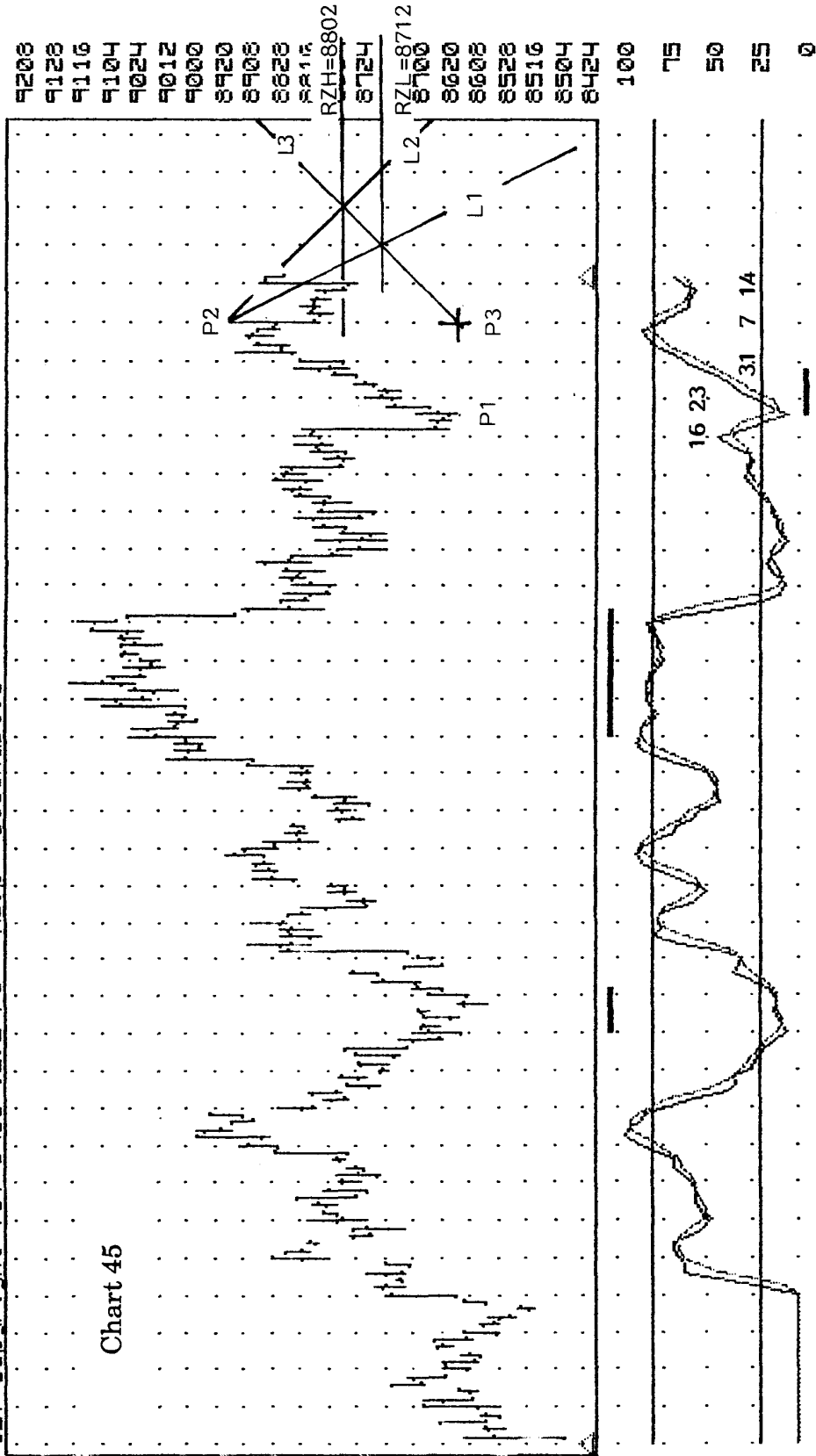
Look at Chart 45. Stochastics broke 80 to the downside and prices began to consolidate on 4/10 and 4/11, above the RZH (50%). An order to buy the market at 8802 (RZH) with a stop at 8712 (RZL) could have been placed. This is a risk of about \$700. If you want less risk, place your buy order at the midpoint of the Retracement Zone (8723) with a stop at 8712. Just realize that there is less chance of your order being filled.

On 4/13, your order to buy at 8802 is filled. Prices on 4/14 jump 30 points, closing at 8831.

Buying at the 50% level in this case would have gotten you in within four points of the low of the trend. A close near the top of a range without a gap on the following day (this occurred on 4/14) strongly suggests even higher prices are to come.

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Chart 45



Sep Oct Nov Dec Jan Feb Mar Apr  
 Friday 04/27/89 8716  
 T. BONDS TR0989 Open= 8826 High= 8914 Low= 8808 Close= 8810 Date= 29 Apr 77 xD= 82

After 4/21, prices trend in an upward channel. Corresponding stochastics level off.

On 4/27 and 4/28 prices are reaching new highs for the trend. Stochastics are still leveling off. This same thing happened in mid-January. Anticipate a bear move due to this divergence.

From the minor reaction point of 4/14 at 8725, draw a 45-degree and 63-degree line. After the price jump to the 9000 mark and a reaction, prices seem to follow the 63-degree line closer than following the 45-degree line.

Great. Use the 63-degree line as a stop-loss line, with the 45-degree line as a change-in-trend line. Again, your concern is not WHEN to liquidate your position, but WHERE.

A good-till-cancel sell order is placed for 9005 on 4/26 (one point above the high of 4/20). At the same time, the stop order is moved up along the 63-degree line daily. The price-limit channel you've established is getting narrower and narrower.

The high of 4/26 is 9004. This is the same high of 4/20. There is apparent resistance. Stochastics are above 80. Time to get out.

On 4/27, your broker calls to tell you your order was filled at 9005. If it had not been filled, you would have been stopped out anyway on 5/1 at 8920, the price at which the 63-degree line crosses 5/1.

Prices are still in a 8908-9013 channel. Stochastics are consolidating, under 80. Again . . . divergence. And from our previous experience, a sudden move in prices could be anticipated.

The long-term trend for Bonds is definitely up. The logical plan would be to buy at a 50% pullback. Use stochastics to assist in determining P1 and P2.

P1 is the significant low at 8614 on 3/21. Stochastics "hooked" under 20.

P2 is the 9013 high of 4/28. Stochastics peaked a third time during divergence. (Hint: things always seem to happen after the third time in futures trading.) P3 is at 8614 on 4/15. The RZH is 8814 and the RZL is 8724.

Don't turn the page yet. Mark down this trade:

Buy at 8814, stop at 8724, good till cancel.

Refer to Chart 46.

6 wins, 1 loss:

TRADE 7:	Sold on 4/27	@ 9005
	Bought on 4/13	@ 8802
	Total Points	= 2-03 = 67 points

\$1993.75 in 5 days!

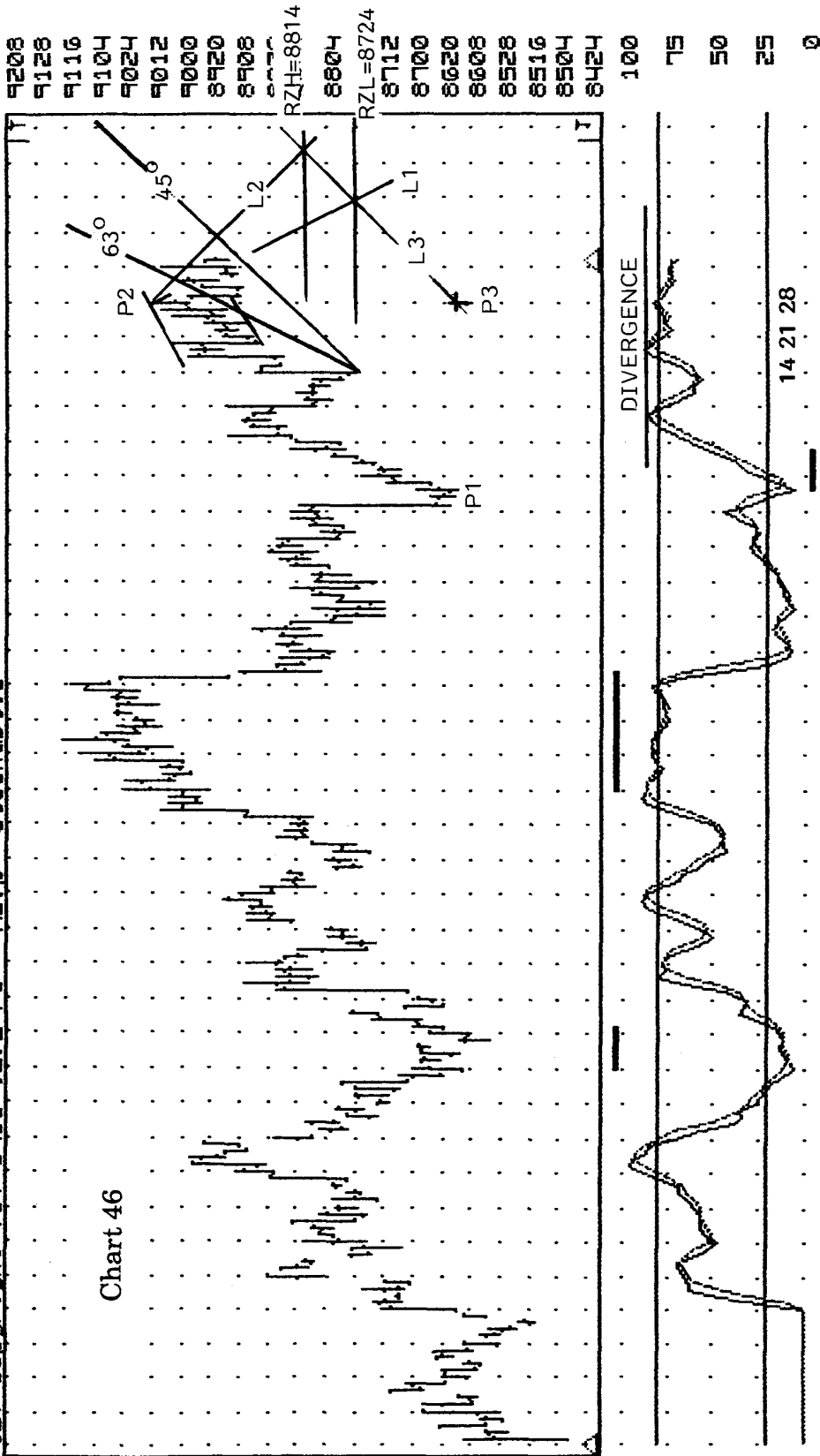
Previous profit balance	= \$4681.25
Profit from Trade 7	= \$1993.75
Current profit balance	= \$6675.00



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Chart 46



Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
T. BONDS TR0989	Open= 8423	High= 8423	Low= 8412	Close= 8418	Open= 8418	Close= 8418	Open= 8418	Close= 8418

If this last order you placed was in a baseball game, instead of the futures market, it would be called a “bang-bang” play. If it were in a popular beer commercial, it would be described as “. . . not getting much better than this.”

On 5/10 your order to buy the September Bonds at 8814 is filled. On 5/11 Bonds consolidate for a day, moving only a couple of points up or down from the previous day.

And then on the 3rd day (I told you so) - bang, bang. Prices close at 9025. That’s a move of 74 points and a gross return of \$2312.50 per contract.

Well, that’s fine, but IT DOES get better (much better) than this.

On 5/11 stochastics again “hook” in mid range, indicating there is more movement in this market. Recall that whenever a large move occurs (74 points in one day is a LARGE move), traders are going to take profits. And when that happens, prices may consolidate or decline before continuing. Unfortunately, there is no way a beginning trader has of knowing how much of either will occur. Now is the time to protect profits. There are two ways of protecting profits in a situation as this.

Drawing an 82-degree Gann Line will work, but may be impractical. It doesn’t leave much room for the market to work. Instead, consider using a 63- or 75-degree line intersecting the day. This will give you the price level at which to place your stop.

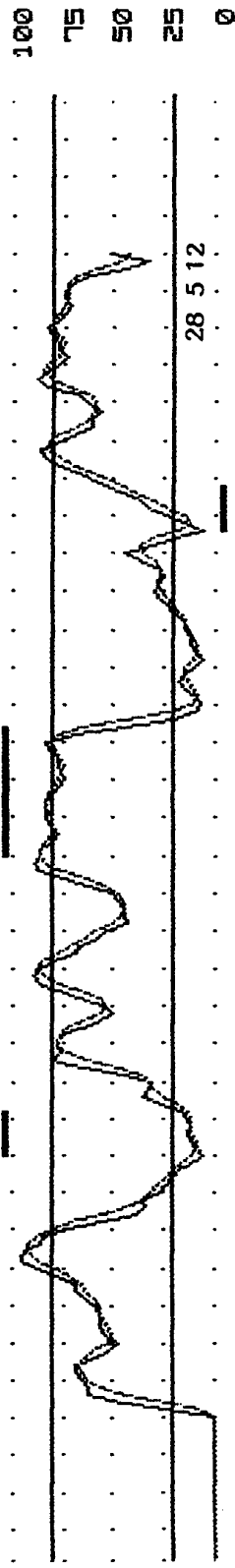
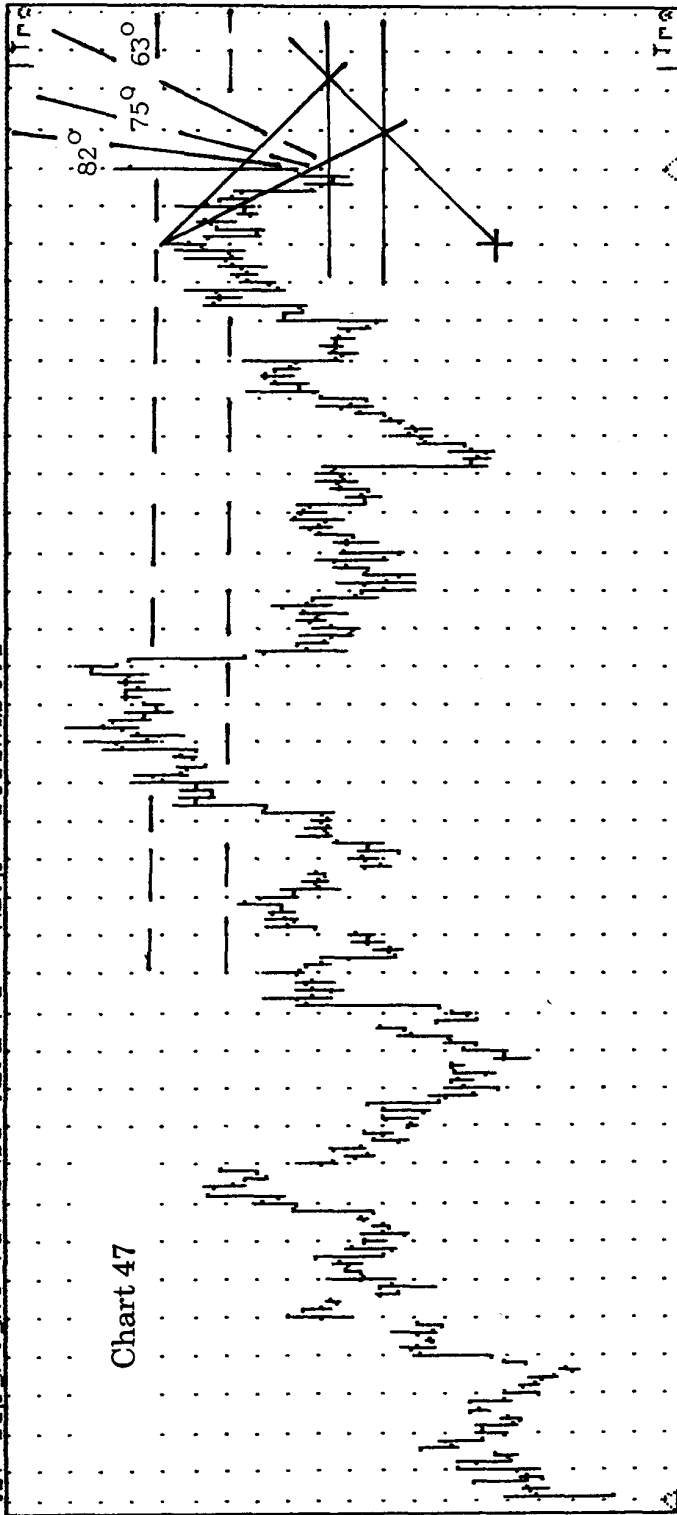
If you’re tired of angles, look at past price activity. It appears that from mid-December there has been an area around 8920 that has acted as resistance to rising prices, or support for falling prices. Then too, the most-recent high prior to this move was at 9012. Somewhere in between may be good.

It’s a personal preference, refined with experience, that will serve you best. There are no fast and firm rules for setting stops.

Refer to Chart 47.

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Sep Oct Nov Dec Jan Feb Mar Apr May  
 T. BONDS TR0989 Open= 8626 High= 9031 Low= 8626 Close= 9025 Date= 4 Yr# 52 XD= 43  
 Friday 05/12/89 8621  
 28 5 12

During May and early June, stochastics remain oversold and divergent to prices. Certainly you want to maintain your position, protect past profits and insure future profits.

Stochastics are of little or no help in determining turning points. The G.E.T. software has generated a continuing signal to disregard stochastics. As prices are evolving, you will not know how much farther they may or may not rise, or the angle at which they will move.

Recall again that Gann called a 1x1 Gann Line the "Death Line." Breaking that line signals the end of a trend.

Use Gann's 1x1 theory this way. From every minor reaction during the uptrend, draw a 45-degree and 63-degree line. In Chart 42, using the 45-degree line results in stops of \$1500 to \$2000. Much too much. The 63-degree line, though, reduces stops to about \$500 - \$700. Much more manageable.

Should prices start becoming "too tight" for the 63-degree line, and you think they need more room to "move," use the 45-degree line for stops.

Such a situation occurred on 5/26. Prices reacted due to profit taking, stabilized for five days, and continued the bull move. After the big move of 5/30 to highs of 9300, stops could have been along the 63-degree line, again until they became too tight for prices.

But remember:

**IN A RISING MARKET, NEVER LOWER YOUR  
STOP FROM ITS CURRENT LEVEL.**

**IN A FALLING MARKET, NEVER RAISE YOUR  
STOP FROM ITS CURRENT LEVEL.**

If, for instance, your stop is at 9400 using the 63-degree line and changing to the 45-degree line would reduce the stop to 9324, DON'T. Keep your stop at 9400 until the 45-degree line "catches up" to 9400.

You will always have trading situations in which you think you could have "gotten a couple more points" and think you were stopped out prematurely. "What could have been" does not make profits. "What already has been" does.

Using 63-degree lines to determine stops would have kept you in the market until 9516 on 6/15. (Stochastics, on this day, broke 80 to the downside.) Not bad at all.

Chart 48 is the entire price range of the September 1989 Treasury Bond contract that we've been trading. The final tally for profits is:

TRADE 8:	Sold on 6/15	@ 9516	
	Bought on 5/10	@ 8814	
	Total Points	= 7-02	= 226 points

\$6962.50 in 25 trading days.

Previous profit balance	= \$ 6675.00
Profit from Trade 8	= \$ 6962.50
Current profit balance	= \$13,637.50

### **\$13,637.50 PROFIT IN SEVEN MONTHS.**

That profit was realized from:

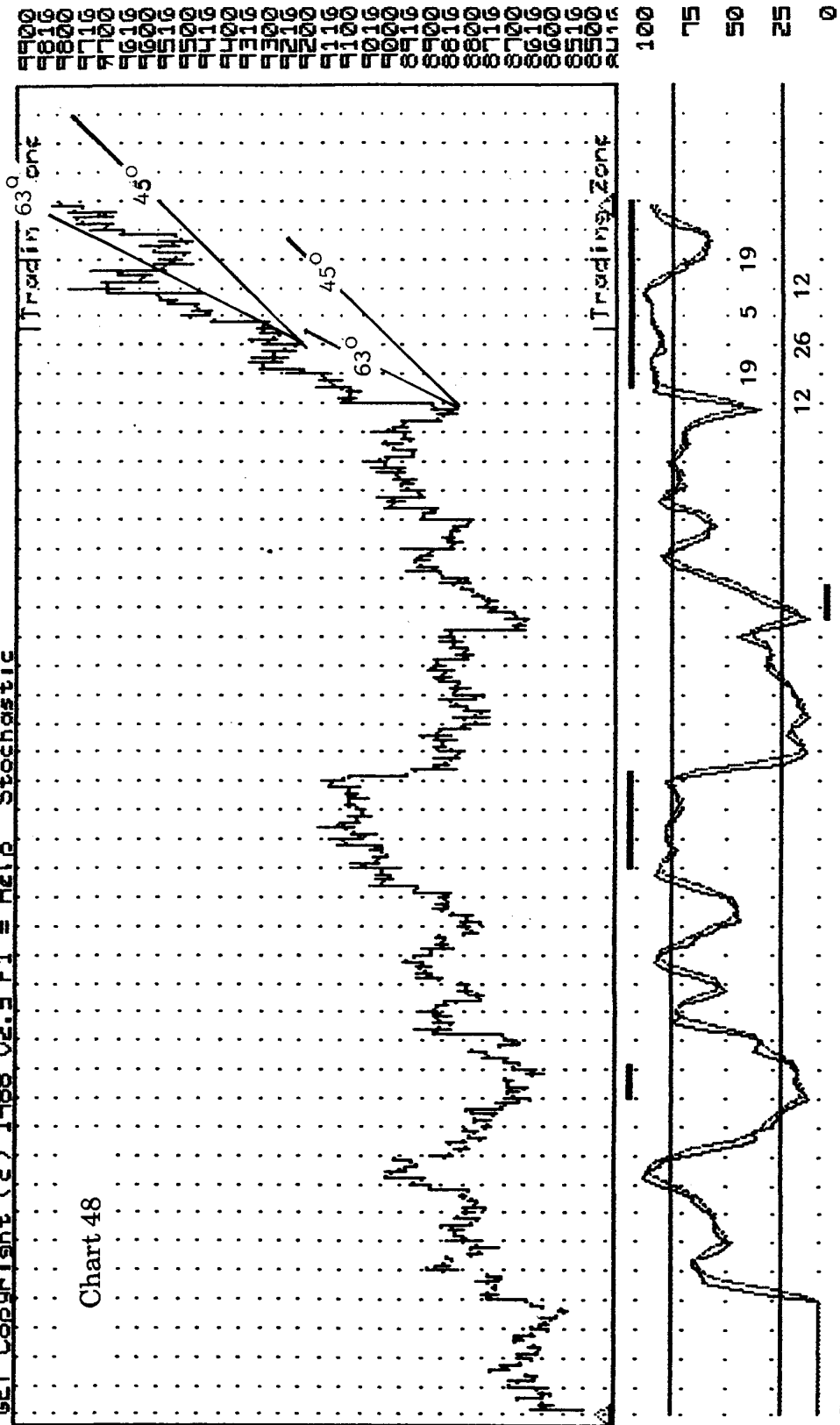
- 1) An hour or two of charting prices per night.
- 2) A little common sense, understanding the 50% Retracement Rule, and other basic Gann rules.
- 3) Trading only one contract in one market.

In Part XI, you'll see examples of using Gann's 50% Rule and Retracement Zones for various markets, years and time periods.

The more practice and the more charts you see, the more you'll find that the suggestions contained here work - time after time after time.

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The guidelines of *THE W. D. GANN METHOD OF TRADING - A SIMPLIFIED CLEAR APPROACH* can be used with any period of trading- from 5-, 15-, 30- and 60-minute tick charts for intraday trading, to daily, weekly, and even to monthly bar charts.

The rules can be used in agricultural, financial, currency, or any other markets. Price projections can be made without a computer or even a calculator. The procedures can be refined to any number of trades or contracts you wish to make.

*THE W. D. GANN METHOD OF TRADING - A SIMPLIFIED CLEAR APPROACH*, is not a be-all-end-all system of trading commodities. It will not bring overnight wealth. Such a system does not exist.

But with a little effort and a reasonable amount of paper trading to learn the principles involved, Gann's methods will give you a sound understanding and basis for earning consistent profits.

The following charts are of the December, 1989, S&P 500 contract.

## TRADING THE S&P 500 CONTRACT

### CHART 49:

Chart 49 begins on 6/30 at a low of 32200. Prices begin to rise. The possible uptrend is confirmed on 7/5 and 7/6 by stochastics, which appear below the bar chart.

Price momentum "stalls out" between 7/20 and 7/24. Prices are in a *channel* between the high of 34470 on 7/20, and the low of 33850 on 7/23.

On 7/27, prices gap to the upside from the previous-day's high of 34500, (by opening at 34582 and reaching a low of only 34530).

Prices continue the uptrend until 8/7 and 8/11, when equal highs of 35770 (8/7) and 35780 (8/11) are reached. On 8/11 prices close at 35111 with stochastics confirming a possible change-in-trend. This is important.

Stochastics remain overbought between 7/13 and 8/10. There appears to be no clear indication for future price direction.

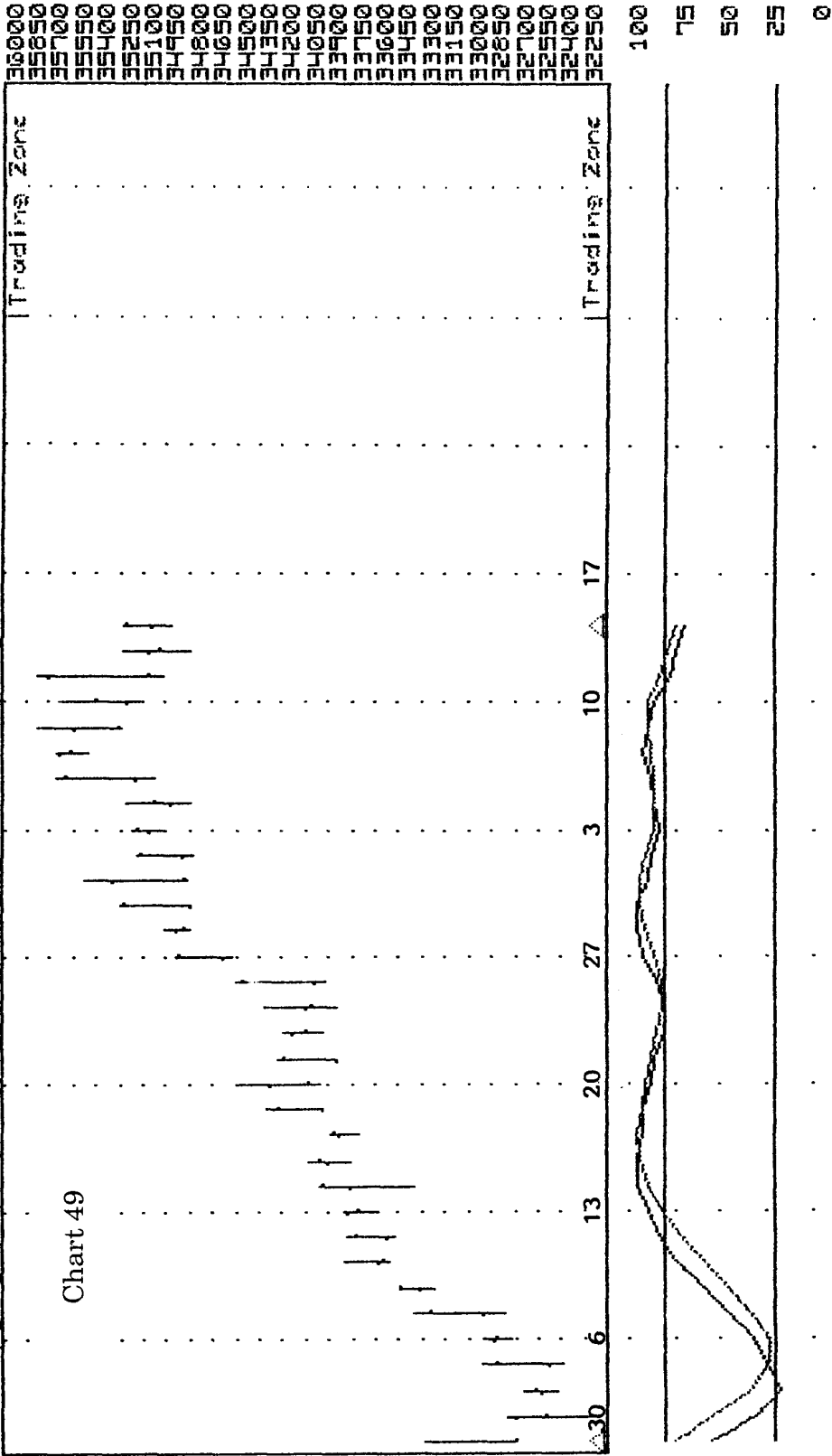
Prices should now turn down . . . BUT HOW FAR? Based on our method - to a zone of 35770-35820.

Net profit from Chart 49 .....	\$9,400
Total net profit .....	\$9,400



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Jun Jul

Aug

Thursday 06/29/89 35534

S&P INDEX SP1289 Open=33275 High=33275 Low=32625 Close=32700 Open 141 xk= 55 yD= 74

Chart 50:

In Chart 50, prices have fallen to a low of 34440 on 8/20, and then gapped to the upside, reaching a top of 35840 on 8/25.

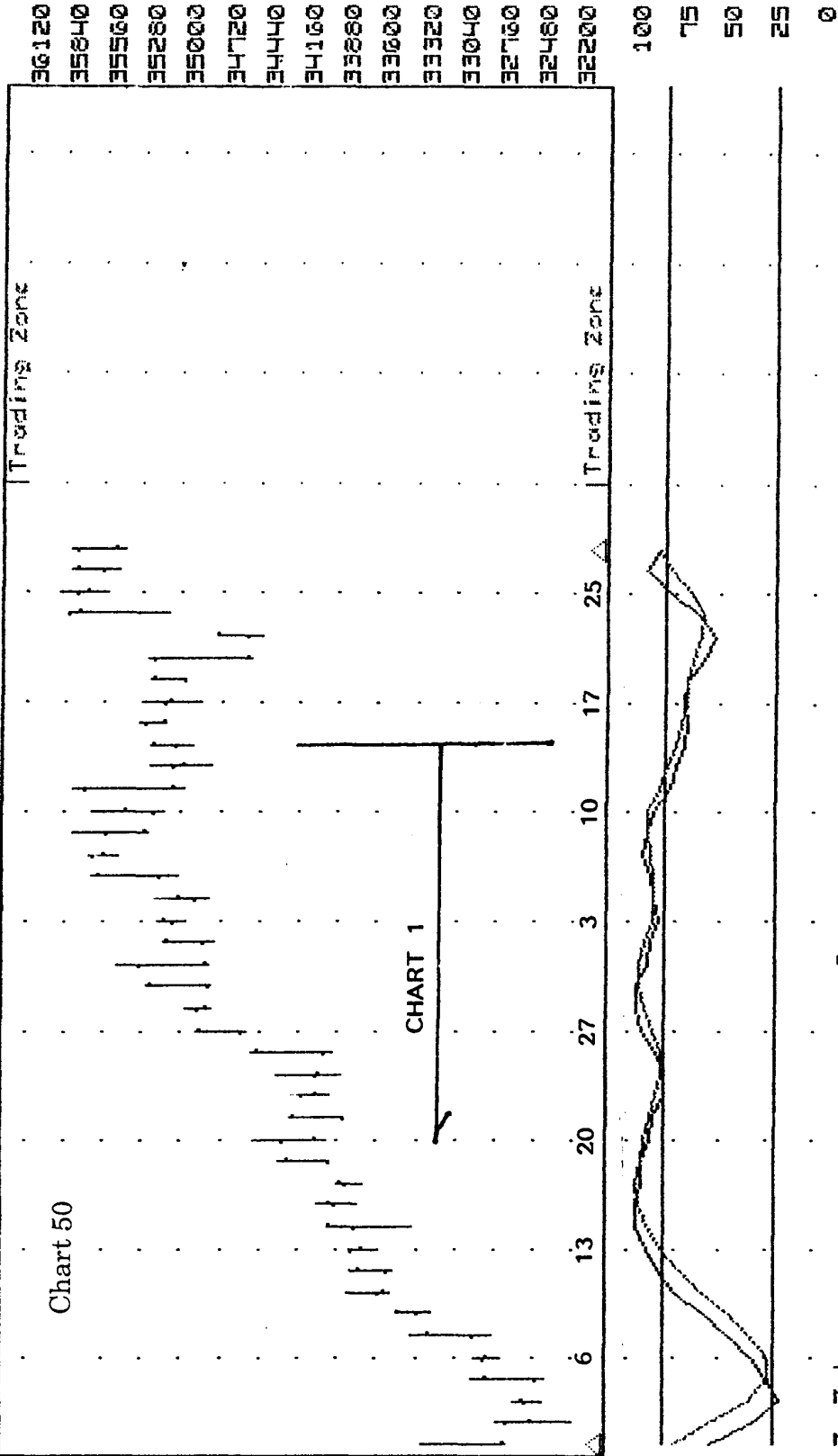
Gaps are usually good, except in a situation as this. Anticipate price falling to the 34920 - 34552 area.

*THE W. D. GANN METHOD OF TRADING - A SIMPLIFIED, CLEAR APPROACH* explains:

- WHY, in such a situation, a gap MAY NOT be a buy signal.
- WHY only BUY, and not SELL orders should be placed,
- WHY lower prices could be anticipated to the 35022 - 34650 area,
- WHEN, and AT WHAT PRICE the market could be bought, and
- HOW FAR prices may fall again, before another buying opportunity occurs.

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JunJul

AUG

Tuesday 08/29/89 35720

S&P INDEX SP1289 Open=35752 High=35790 Low=35420 Close=35490 Desc= 103 MK= 84 XD= 84

Chart 51:

On 9/15, prices have fallen to within only 2 points of our projected zone of 34920 - 34552, to a low of 34550. But prices CLOSE ABOVE THE ZONE, at 34965. Again, prices *churn* within a channel, BUT NEVER FALL BELOW 34550.

An uptrend is confirmed on 9/29, at which time the market could be bought.

On 10/4, indicators suggest a top may be approaching.

The long position is stopped out on 10/11 and a short position taken on the opening of 10/12 at 36025.

*THE W. D. GANN METHOD OF TRADING - A SIMPLIFIED, CLEAR APPROACH* explains:

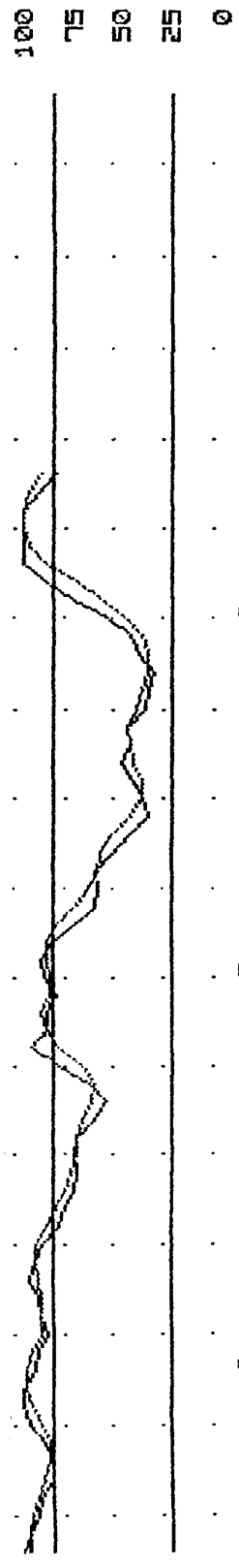
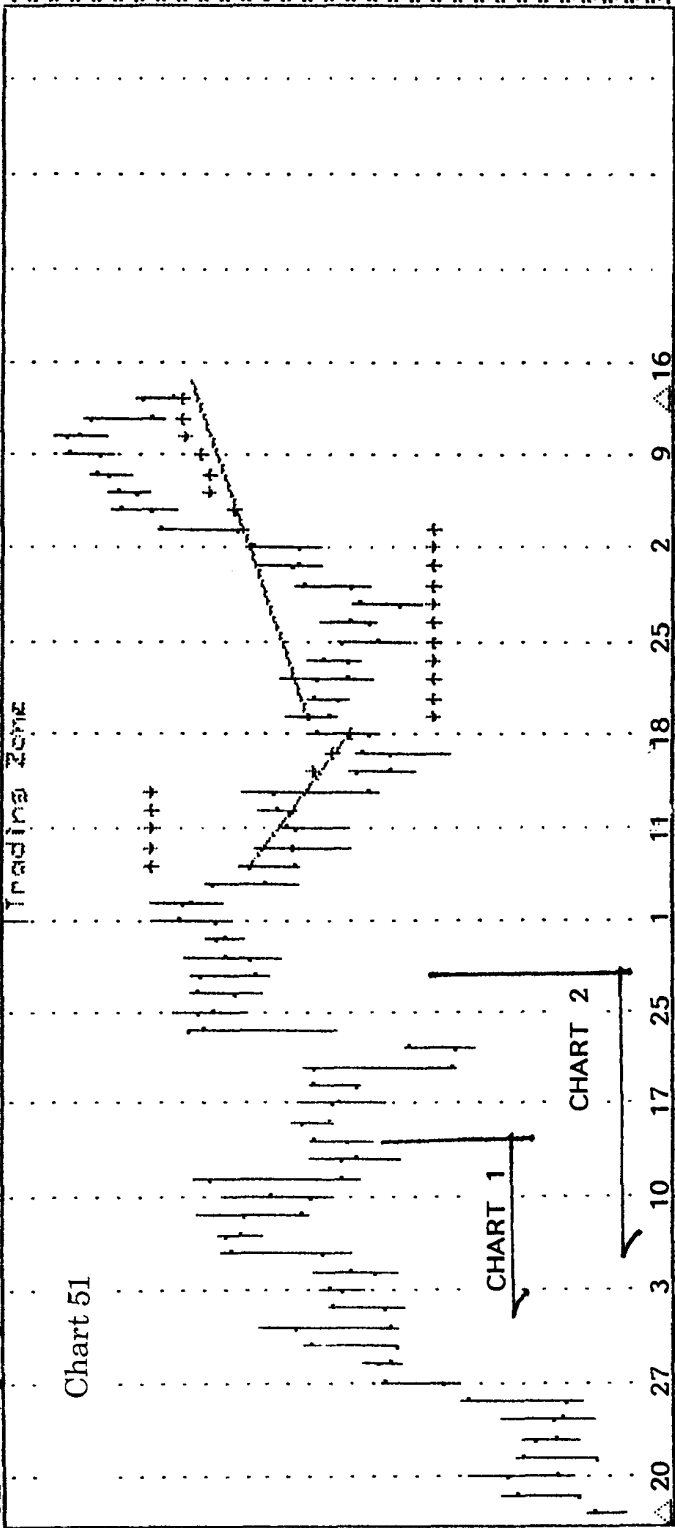
- WHAT causes the channel between 35400 and 34500,
- WHICH indicators could confirm a buy or sell signal, in a similar situation,
- WHERE to place "*stops*" at these new highs,
- WHEN to anticipate a *change in trend*, and
- WHY the long position was *liquidated* on 10/11 and a short position taken on 10/12.

Profit for Chart 51 .....\$5,000

Net Profit 2 trades .....\$14,400

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Jul Aug Sep Oct

S&P INDEX SP1289 Tuesday 07/18/89 34620

Open=33630 High=33890 Low=33715 Close=33800

440 xK= 43 xDs= 45

Chart 52:

WELCOME TO THE FRIDAY-THE-13TH CRASH!

Principles presented in *THE W. D. GANN METHOD OF TRADING - A SIMPLIFIED, CLEAR APPROACH*, could have allowed you to be short on the opening of 10/13.

Staying short from an entry of 36025 on 10/12 could have NETTED APPROXIMATELY \$15,000 on "Friday the 13th."

On 10/16, the market opened within a range that could have been projected using the February 27 low of 29890.

Granted, the 10/13 crash was an exceptional event, but what is more important is this:

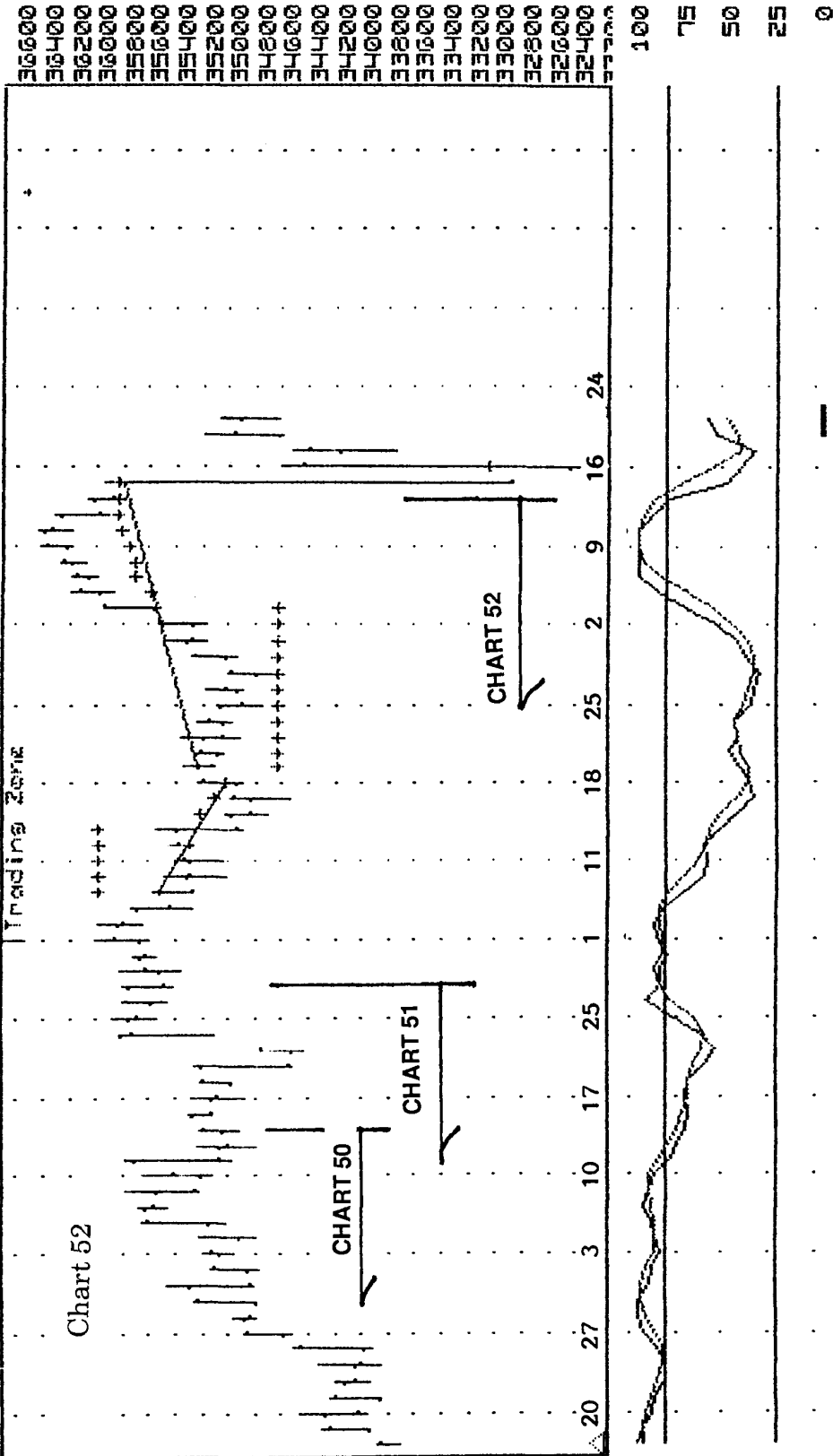
THE SAME PRINCIPLES USED TO CHART SUCH A POTENTIAL PROFIT (AS ON 10/13), APPLY TO ALL MARKETS, AND ALL TIME PERIODS.

Profit from Chart 52 .....\$13,745

Net Profit 3 trades .....\$27,900

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Jul Aug Sep Oct  
 S&P INDEX SP1289 Open=34420 High=35000 Low=34035 Close=35045 Open=1020 High=58 XD= 47  
 Friday 10/20/89 3:10:06

Chart 53:

Chart 53 is the 12/89 S&P 500 contract from 1/27 to 10/31/89.

One more potential profit opportunity on 10/20 is evident after 10/13.

The *Retracement Zone* for Chart 53 was established by using the 2/27 low of 29890 and the 10/10 high of 36450 - a time period of over 7 1/2 months and 6560 points.

The Zone has a high limit of 33170 and a low limit of 32110 - a range of 1060 points. The midpoint of the range is 32640.

Even after a 7-1/2 month period, a price spread of 6560 points, and a violent, one-day collapse of over 3000 points on 10/13, prices halt *IN THE RETRACEMENT ZONE*.

EVEN AFTER two violent days of price swings, such as those of 10/13 and 10/16, two more trading opportunities are evident, using Gann's Rules.

*THE W. D. GANN METHOD OF TRADING - A SIMPLIFIED, CLEAR APPROACH WORKS!*

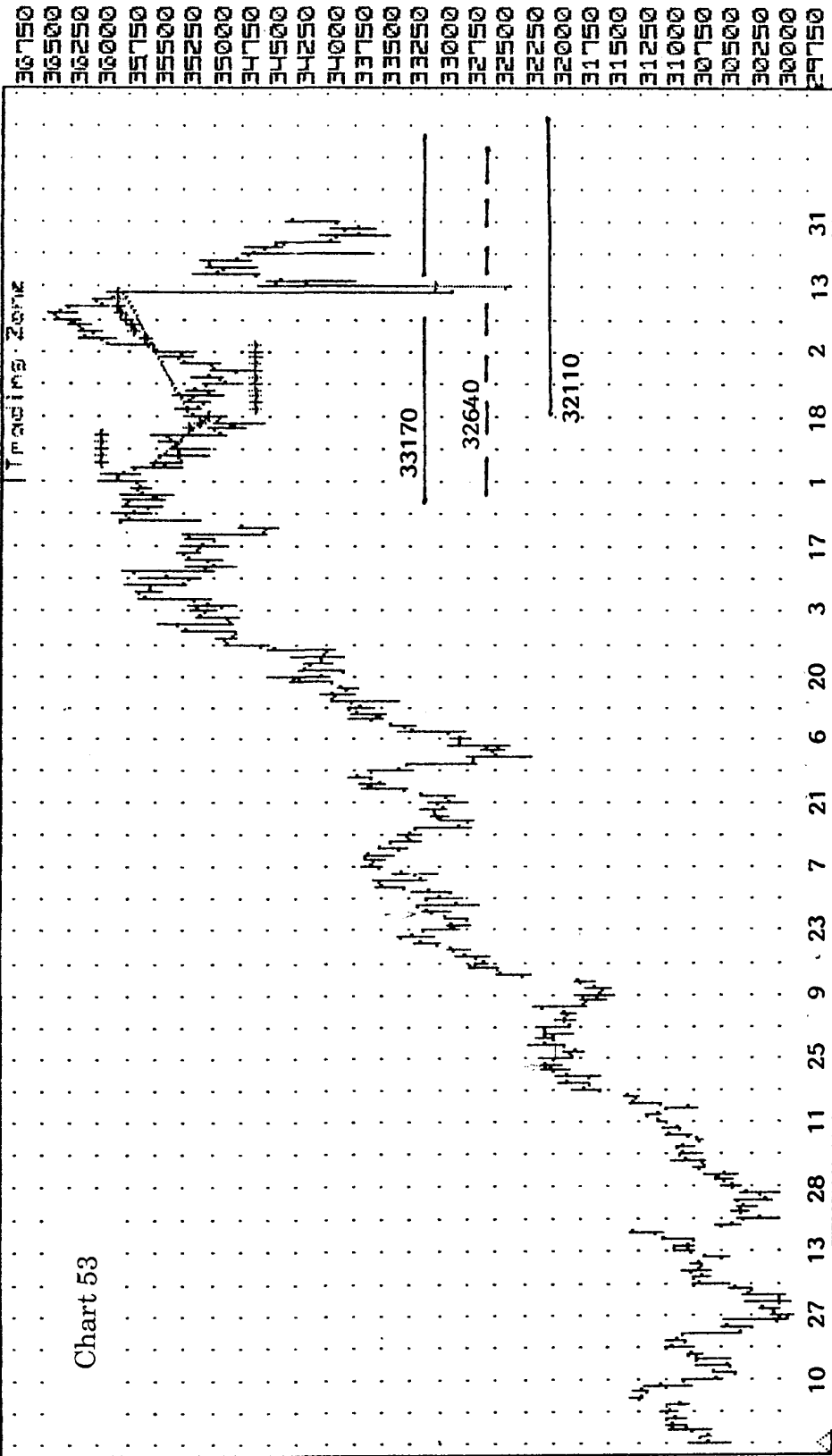
Profit from Chart 53 .....	\$4,500
Net Profit 4 trades .....	\$32,400



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Chart 53



S&P INDEX SP1289 Open=35742 High=35745 Low=32385 Close=32385 Date 202 wk= 48 xD= 71

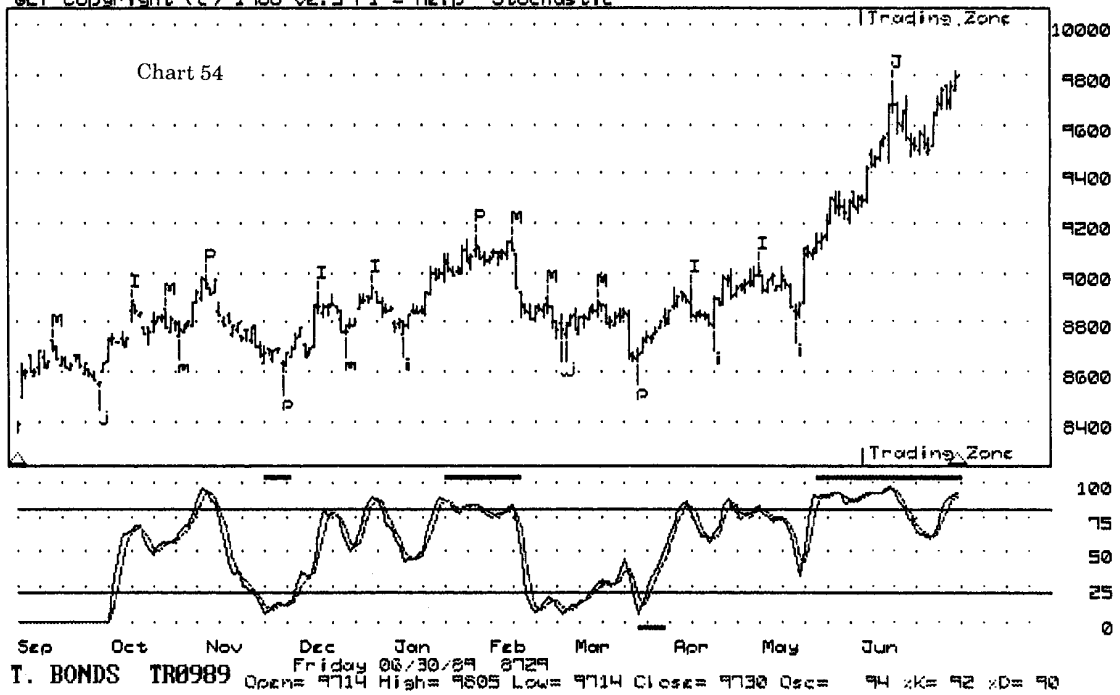
Charts 54 and 55 on the following page show the September '89 Bond contract chart with some different studies. All these studies are available on the G.E.T. software, listed at the end of this book.

Chart 54 compares stochastic activity with Gann Pivot Points. The Primary (P) Gann Pivot Points are the most significant. From Chart 54, it is clear that the high of 9800 is not the highest price at which Bonds will sell, since a Primary Gann Pivot Point has not yet registered.

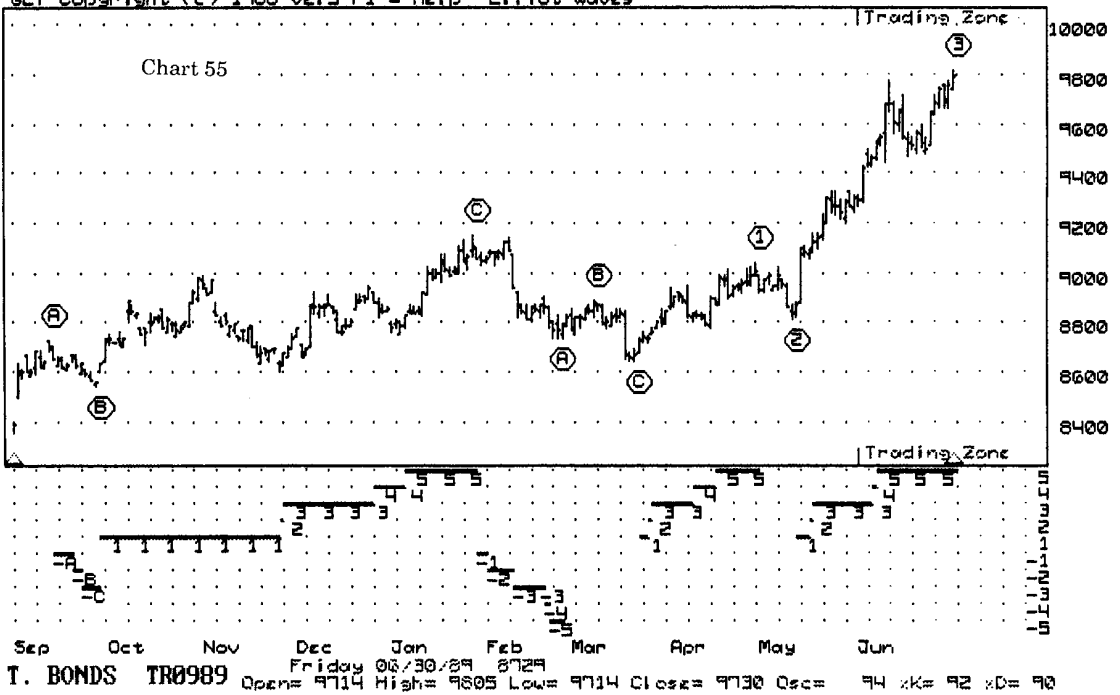
Chart 55 reflects long-term and short-term Elliott Wave counts. If you trade by Elliott Waves, or want to learn this effective method of technical analysis, invest in one of the many Elliott Wave books. There is no better way of learning Elliott.



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## PART XI

### Does It Work All the Time?

In this section are 19 charts illustrating Retracement Zones and Gann's 50%, 63%, 75% and 100% levels.

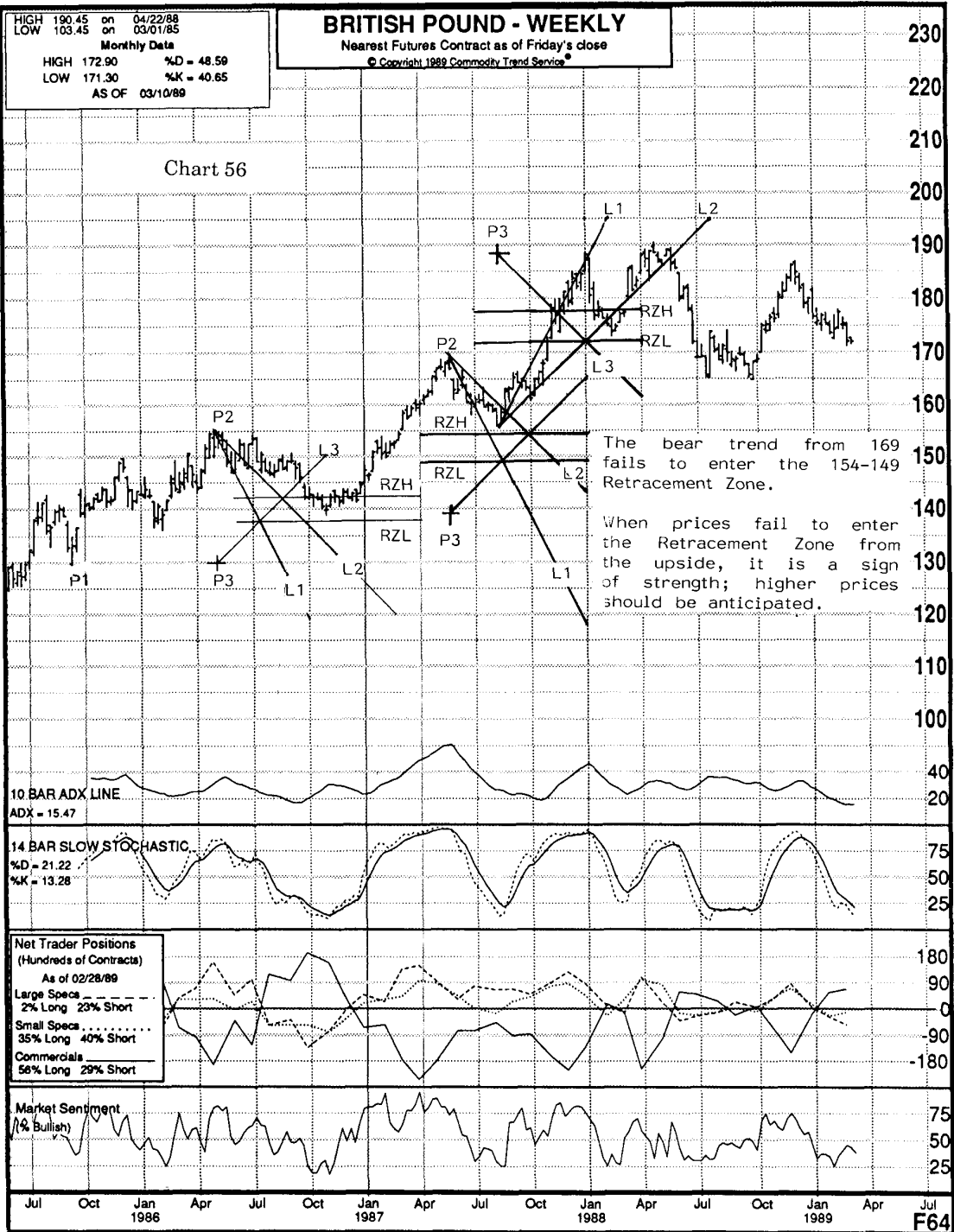
There are various markets, including the S&P 500 Index, Treasury Bonds and Swiss Franc. These three markets generally are the more stable and rhythmic. Agriculturals, metals and those subject to foreign influence may not be as desirable for a beginning trader, because of sensitive fundamentals (such as weather) and governmental influences.

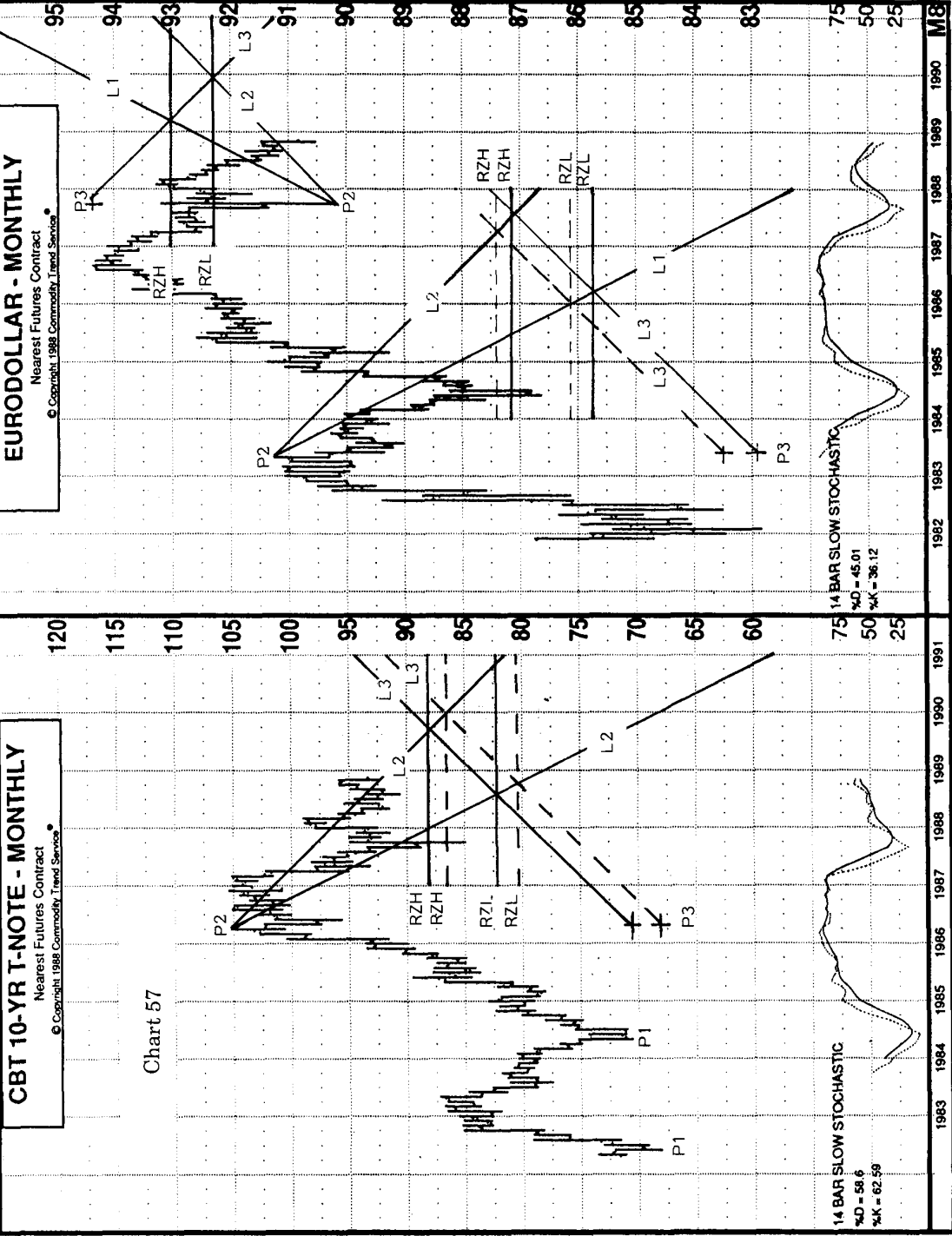
Time periods include intraday (5- and 15-minute intervals), daily, weekly, monthly and yearly.

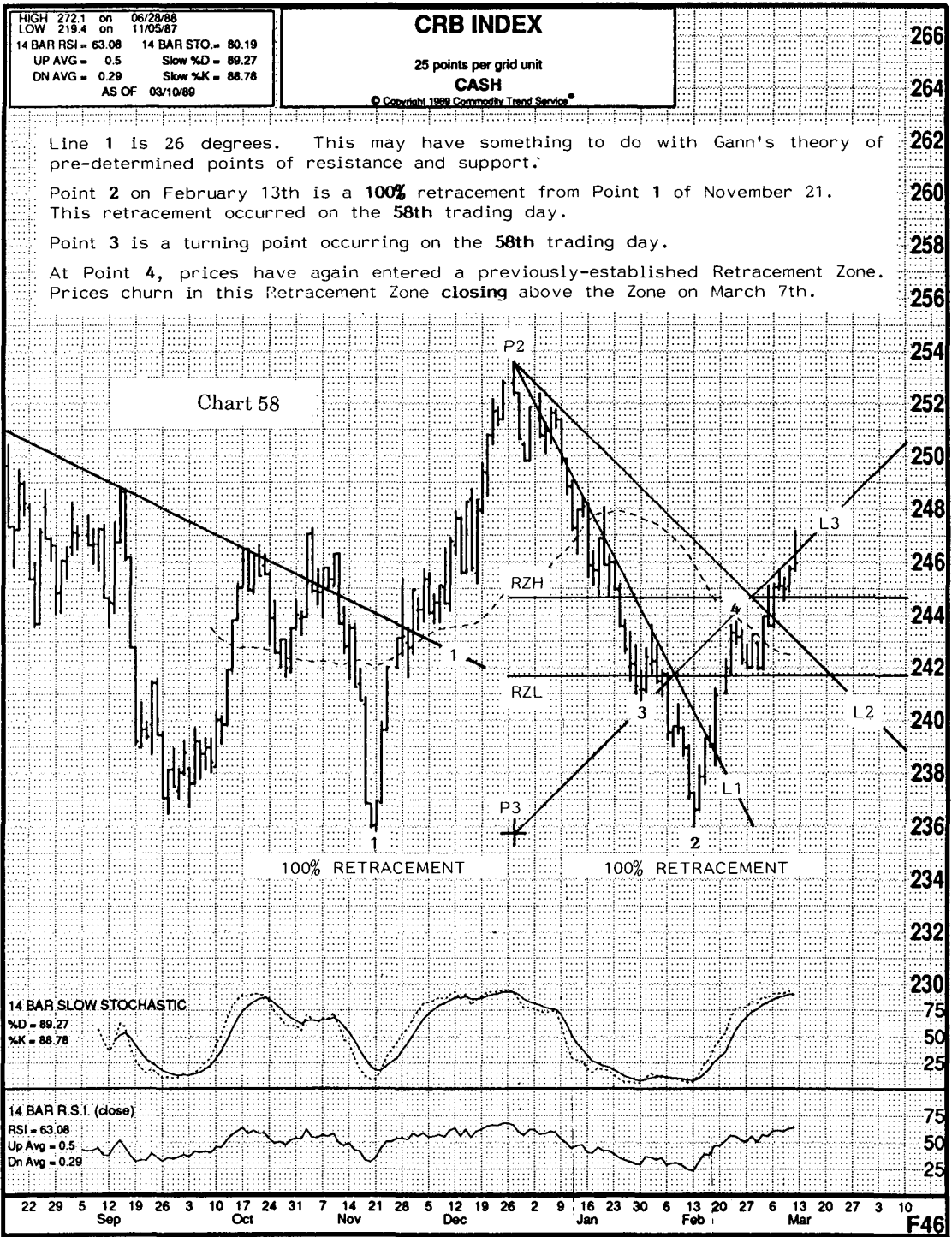
On all the charts, Gann geometric angles and Retracement Zones are used to project price targets and trends. Those that appear are the most obvious. They are by no means the ONLY Gann geometric angles and Retracement Zones. You can practice charting other Retracement Zones by following the methods presented. Using different colored pens will help in seeing the Retracement Zones' inter-relationships.

The following Gann rules can be seen in the charts' price activity:

- 1) Prices will significantly react at the 50% retracement level.
- 2) If prices exceed the 50% retracement level, the next level at which they will react is the 62-1/2% retracement level.
- 3) If prices exceed the 62-1/2% retracement level, the next level at which they will react is the 75% retracement level.
- 4) If prices exceed the 75% retracement level, the strongest level of support or resistance will be the 100% level.
- 5) Support and resistance levels also occur at multiples of 50%, 62 1/2%, 75% and 100%.







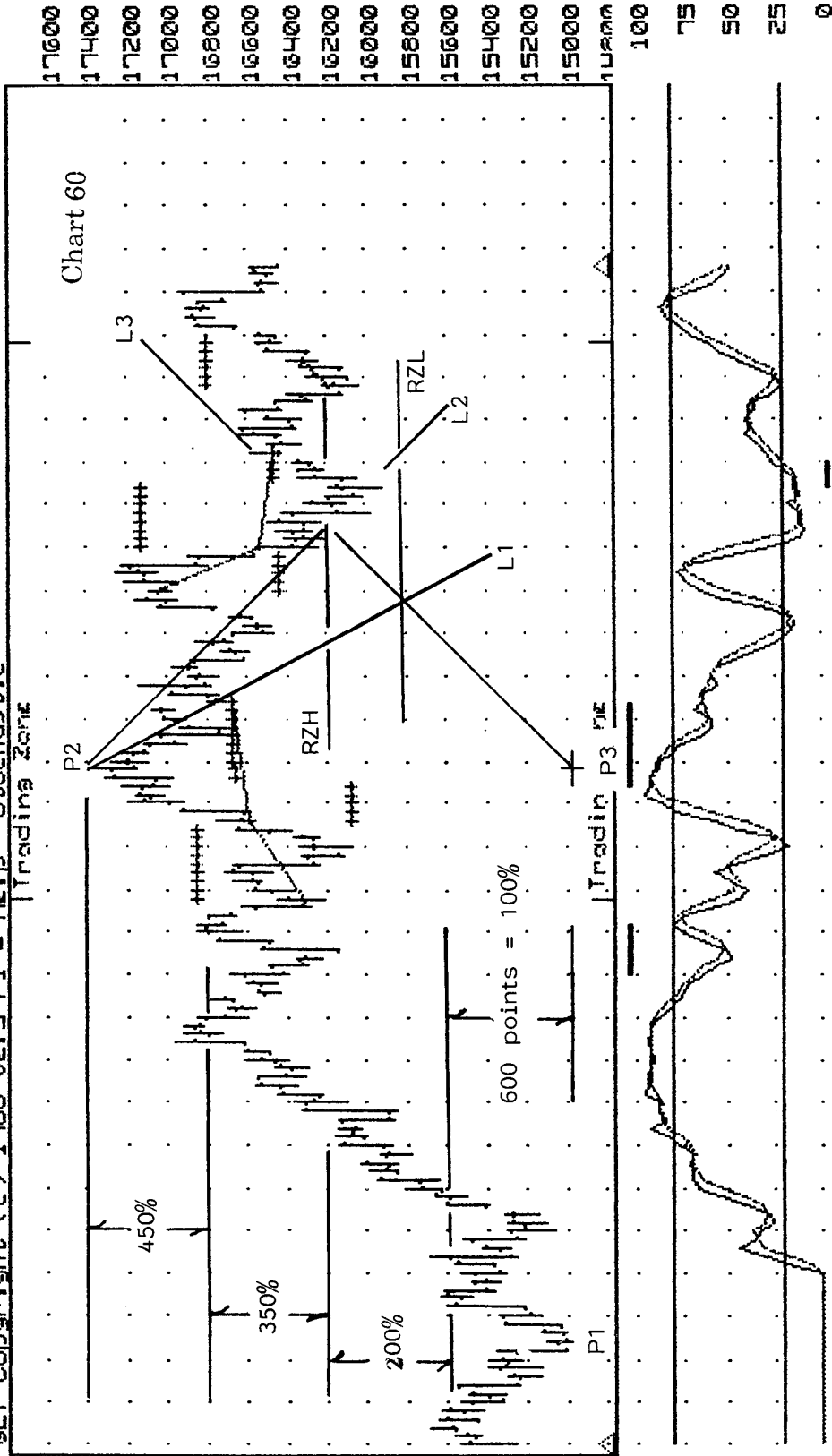




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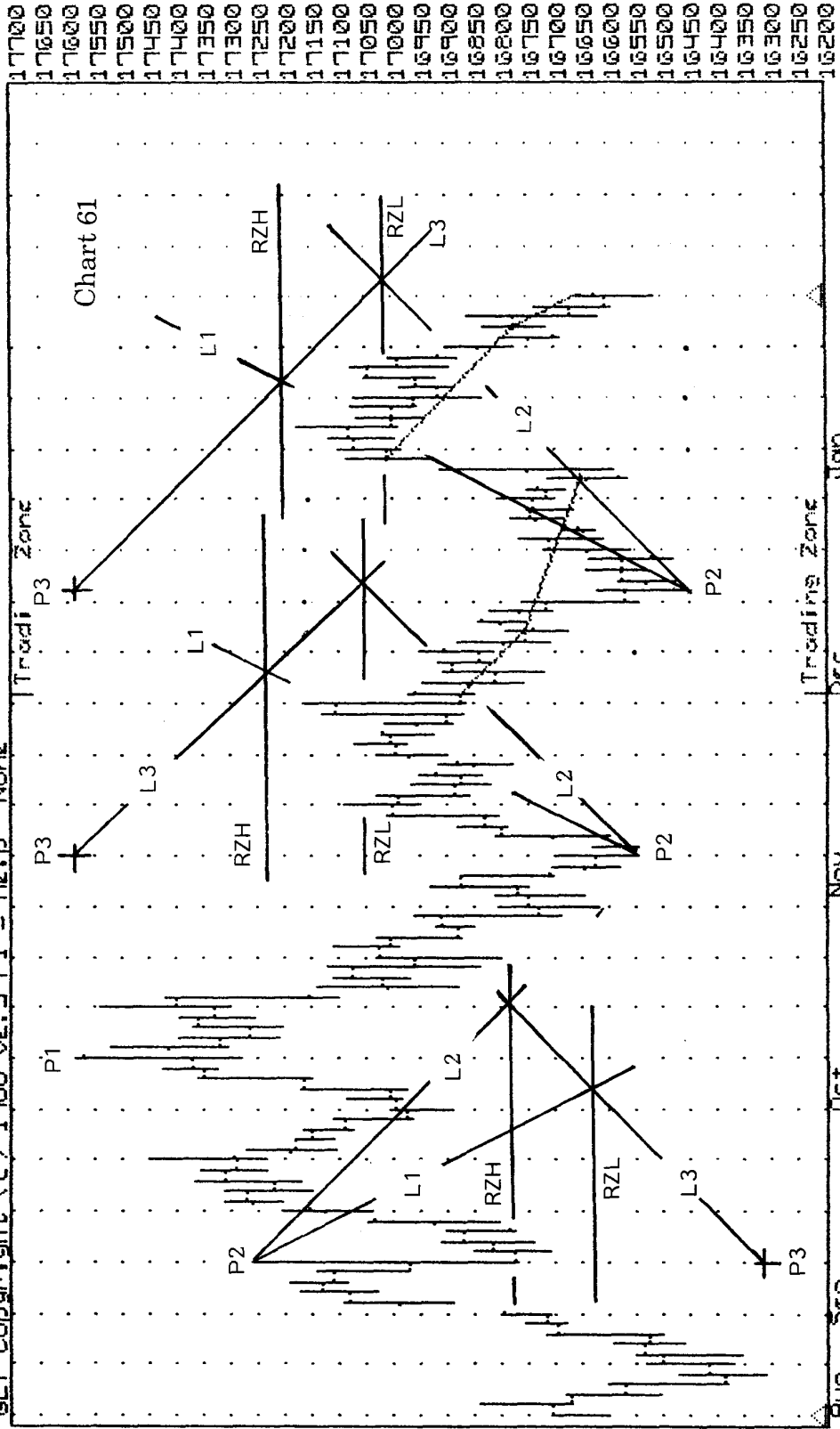
|Trading Zone



Mar Apr May Jun Jul Aug Sep  
 Thursday 09/15/88 15873  
 S&P INDEX SP0983 Open=16505 High=16590 Low=16435 Close=16435 Qsec= 168 wk= 49 xD= 52

|File| Auto Train View Scale Gann Options

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SPH84D.CW  
Friday 08/19/83 16945  
Open=16910 High=16905 Low=16800 Close=16705 Open -135 Ask 32 Bid 30

File | Auto Train View Scale Gann Options

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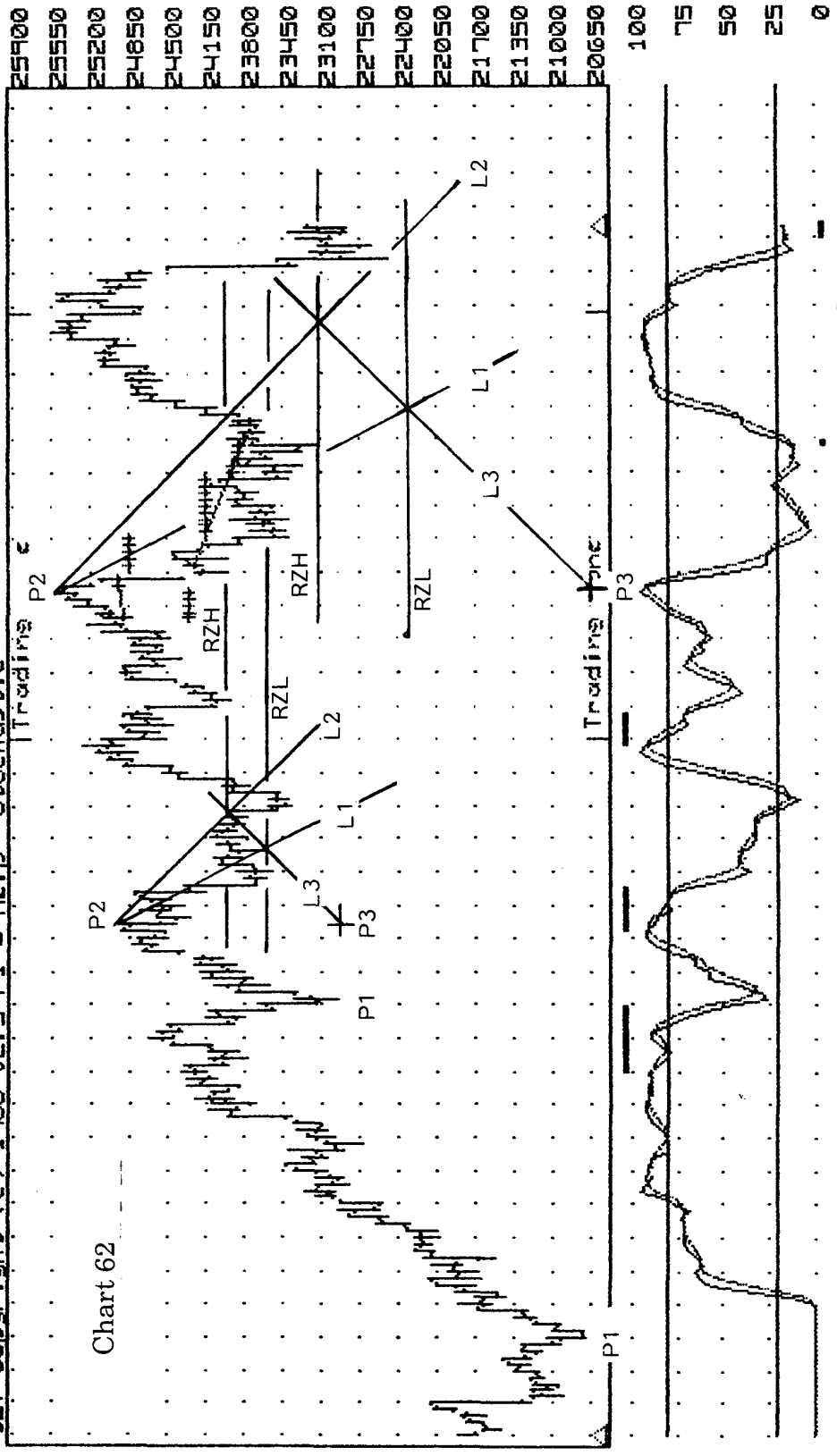
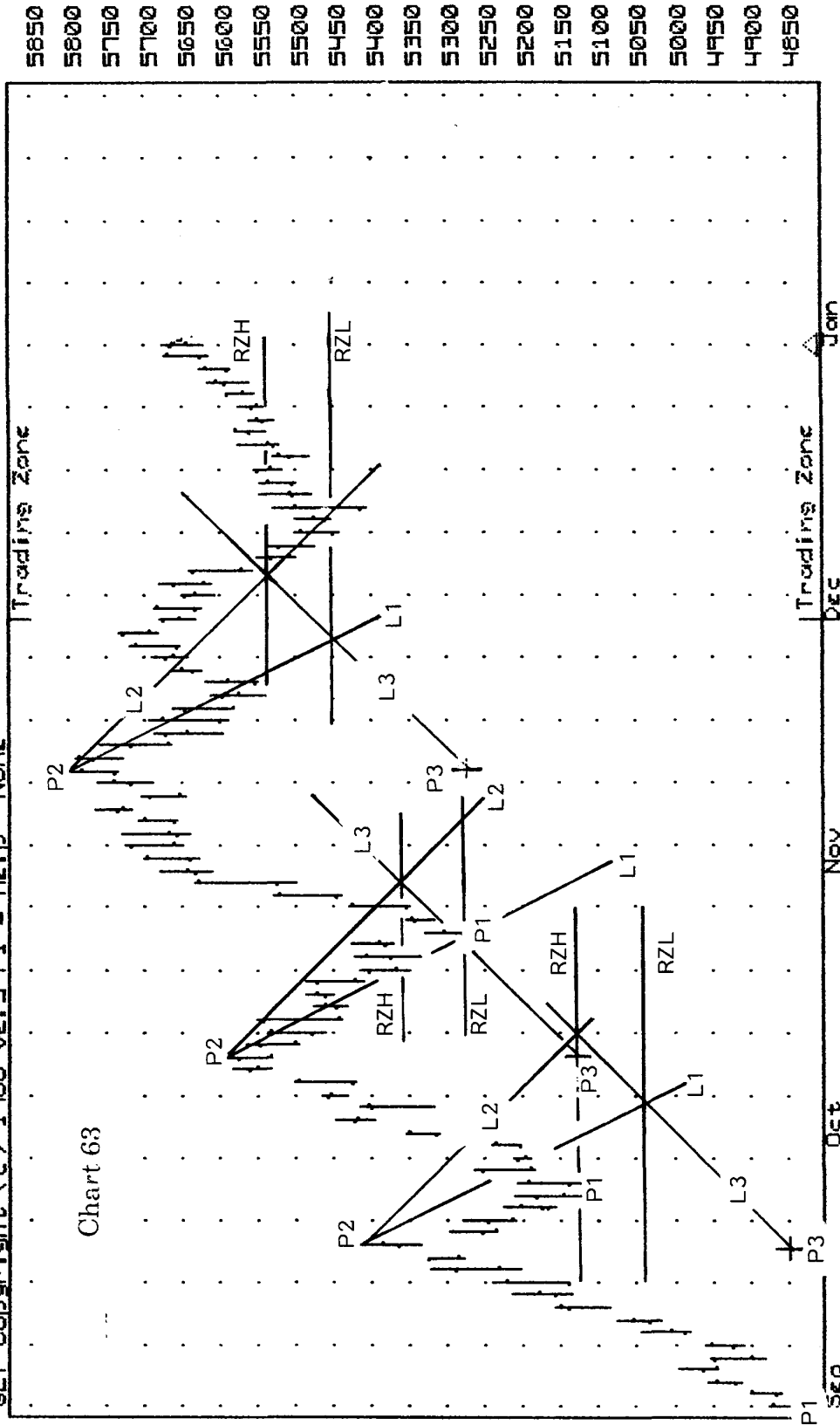


Chart 62

Jan Feb Mar Apr May Jun Jul Aug Sep  
 Friday 04/19/86 22151  
 Open=22900 High=23250 Low=22670 Close=23221 Ocas=-1291 xK= 18 xD= 16  
 SPUB6D.CW

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Sep                      Oct                      Nov                      Dec                      Jan  
 Tuesday 09/01/81 5337 LEET  
 SWISS FRA SF03B2 Open= 4875 High= 4875 Low= 4848 Close= 4871 Qc=    0    %K=    0    %D=    0

**[File] Auto Train View Scale Gann Options**

GET Copyright (c) 1988 v2.5 F1 = Help None

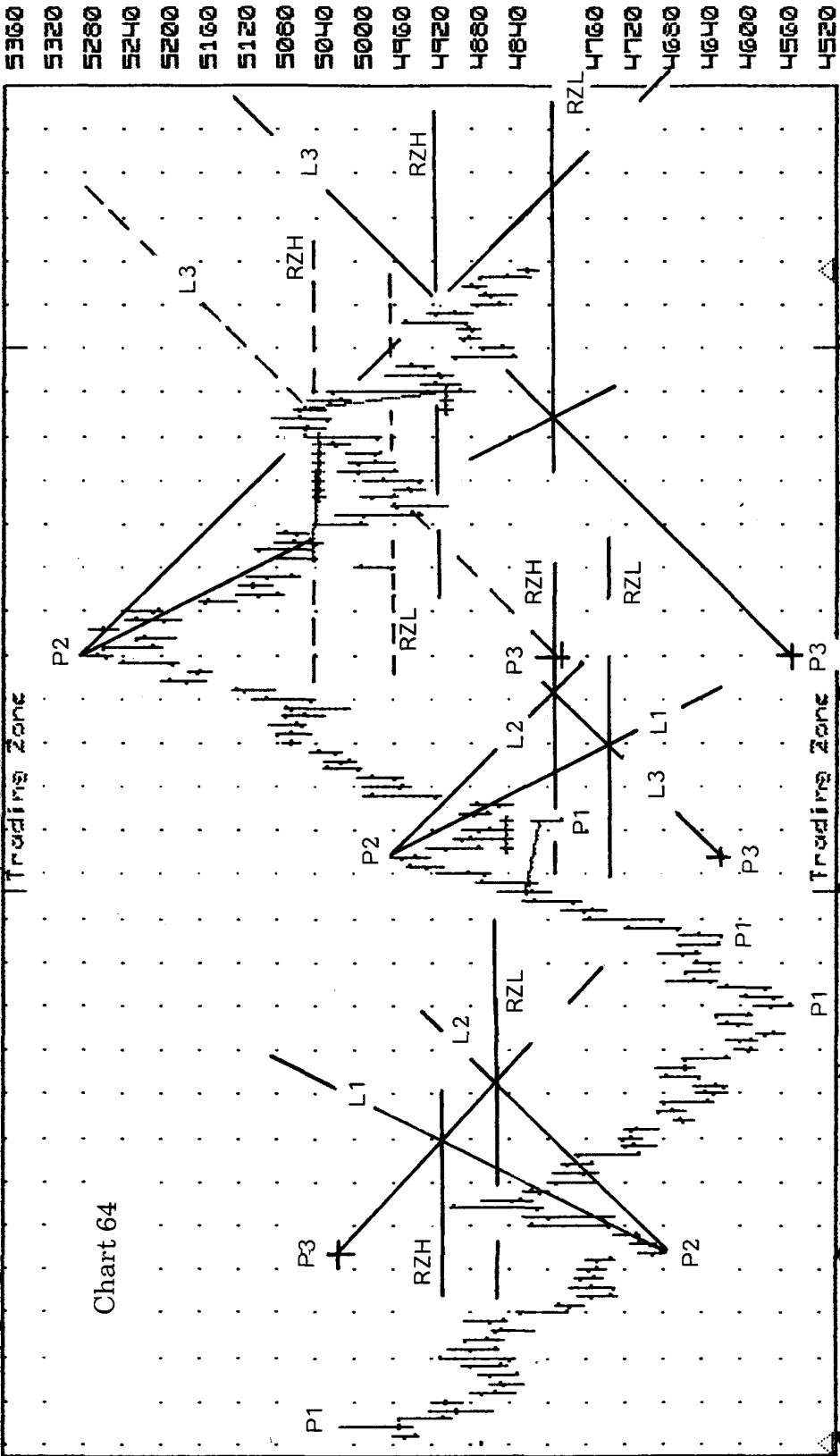
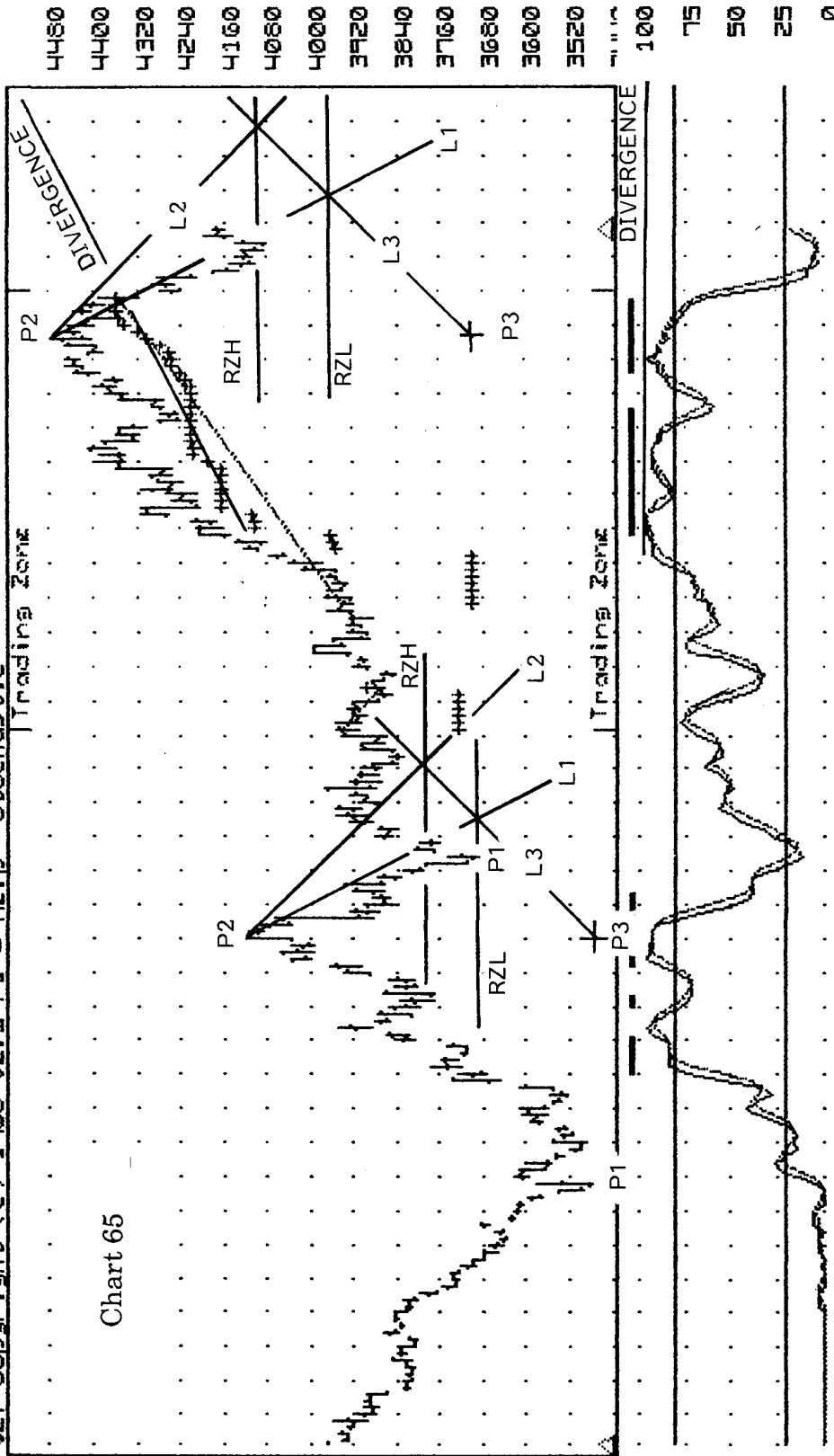


Chart 64

Trading Zone  
 SWISS FRA SF8383  
 Open: 4624 High: 4833 Low: 4513 Close: 4524  
 Dec 03/14/88 4930  
 Monday 03/14/88 4930  
 Nov  
 Oct  
 Sep  
 Feb  
 Jan  
 Mar

|File| Auto Train View Scale Gann Options

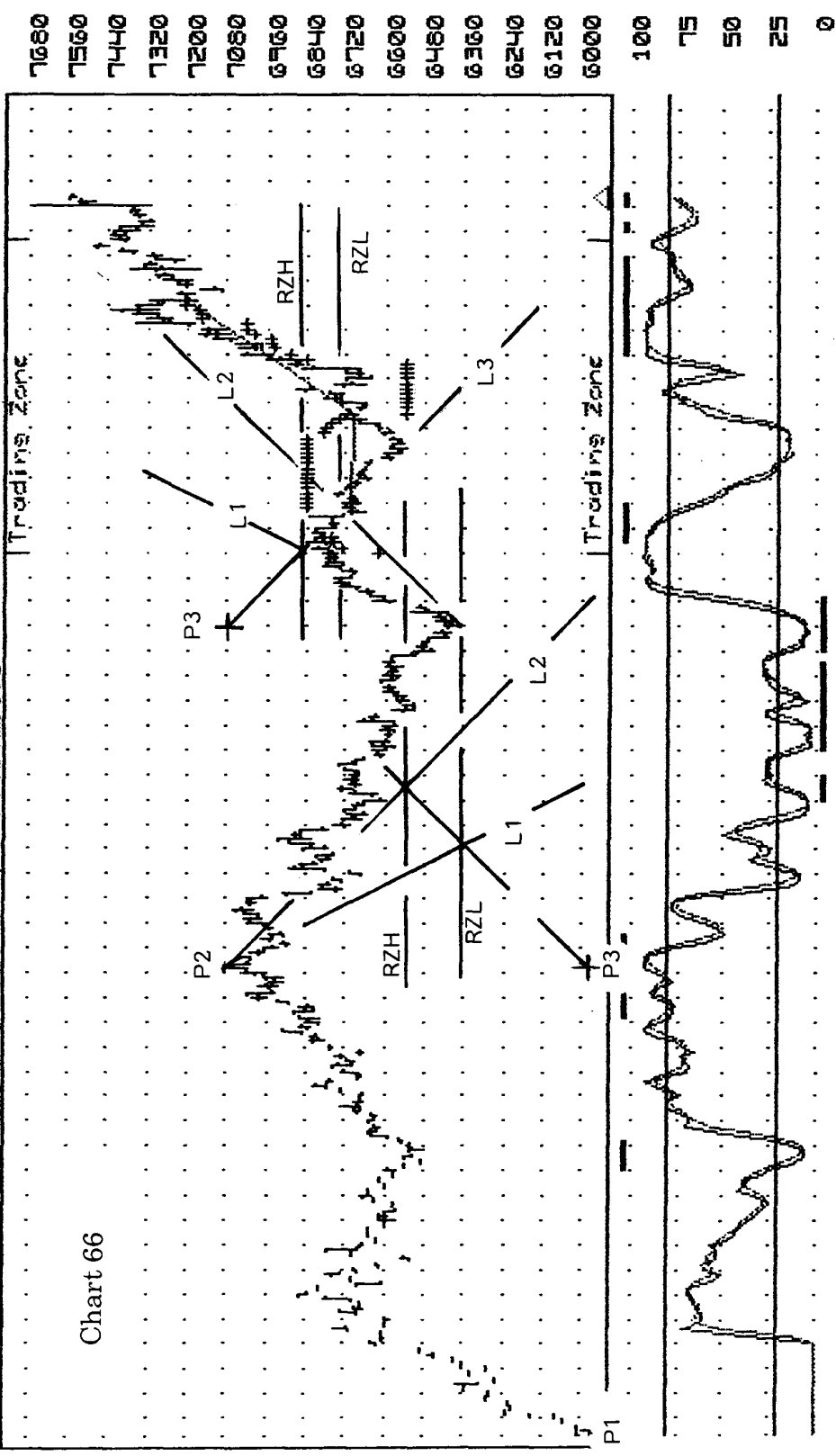
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Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
SFT185D.CW								
Monday 09/10/85 3779								
Open= 4170 High= 4180 Low= 4160 Close= 4171 Open -180 wk= 13 xD= 11								

File | Auto Train View Scale Gann Options

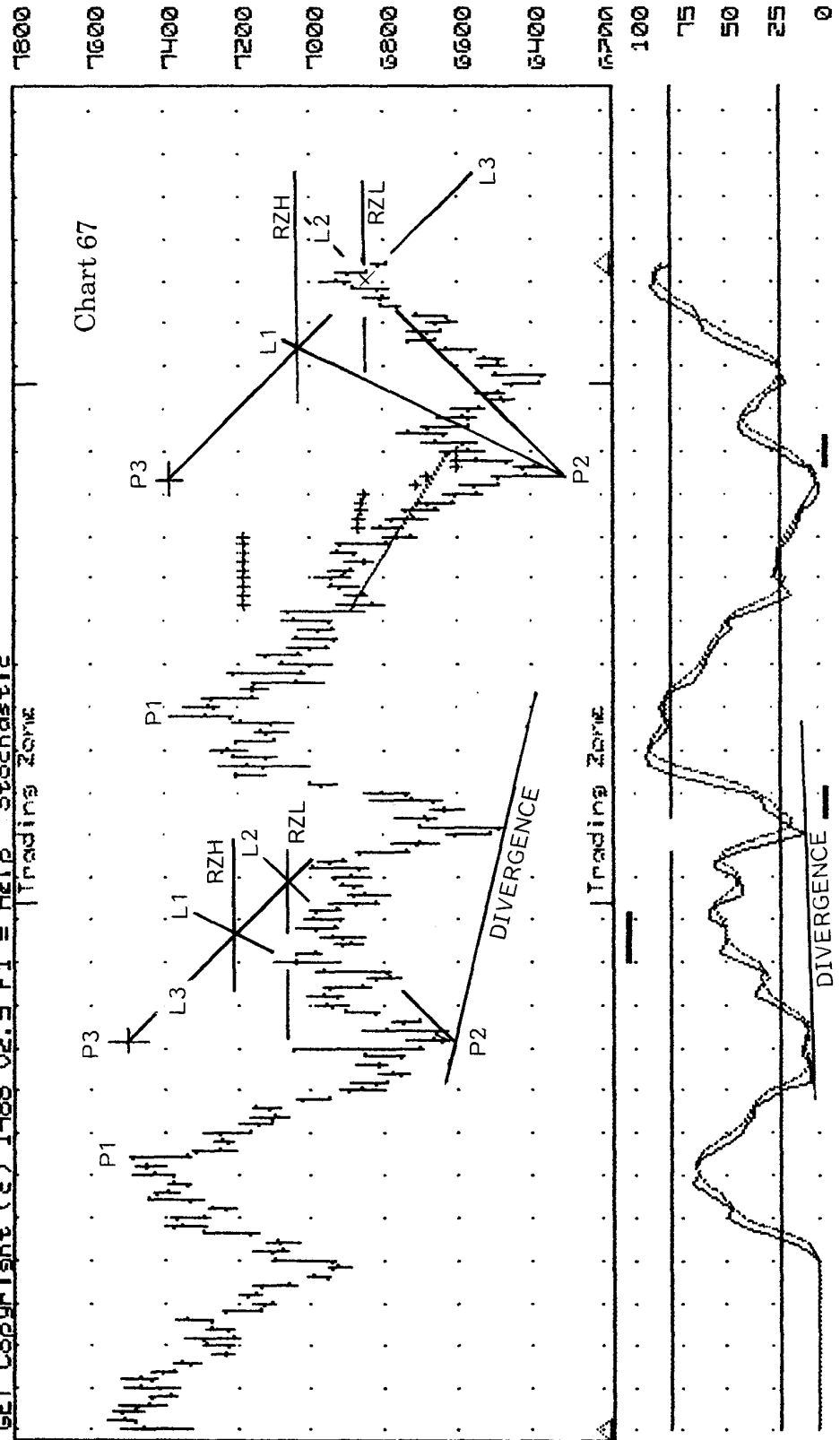
SET Copyright (c) 1988 v2.5 F1 = Help Stochastic



Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec  
 Monday 12/14/87 6483  
 SFZB7D.CW Open= 7560 High= 7560 Low= 7545 Close= 7550 Dec= 194 Ak= 77 AD= 74

|File| Auto Train View Scale Gain Options

GET Copyright (c) 1988 v2.5 F1 = Help Stochastic  
 Trading Zone

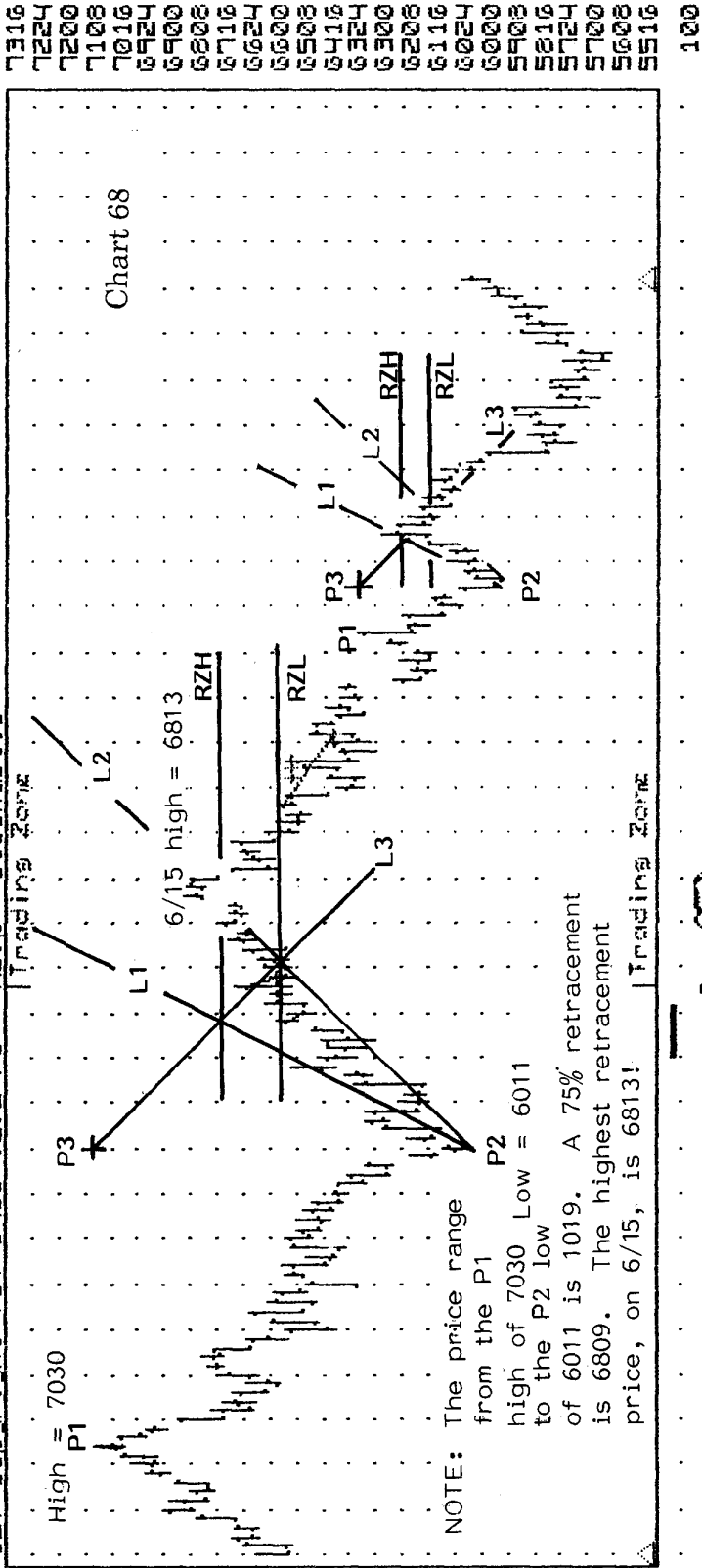


Sep Oct Friday 03/20/81 0024  
 T. BONDS TR0381 Open= 6204 High= 6604 Low= 6780 Close= 6780 Qseq= 67 xk= 80 xD= 85  
 Jan Feb Mar



File Auto Train View Scale Gann Options

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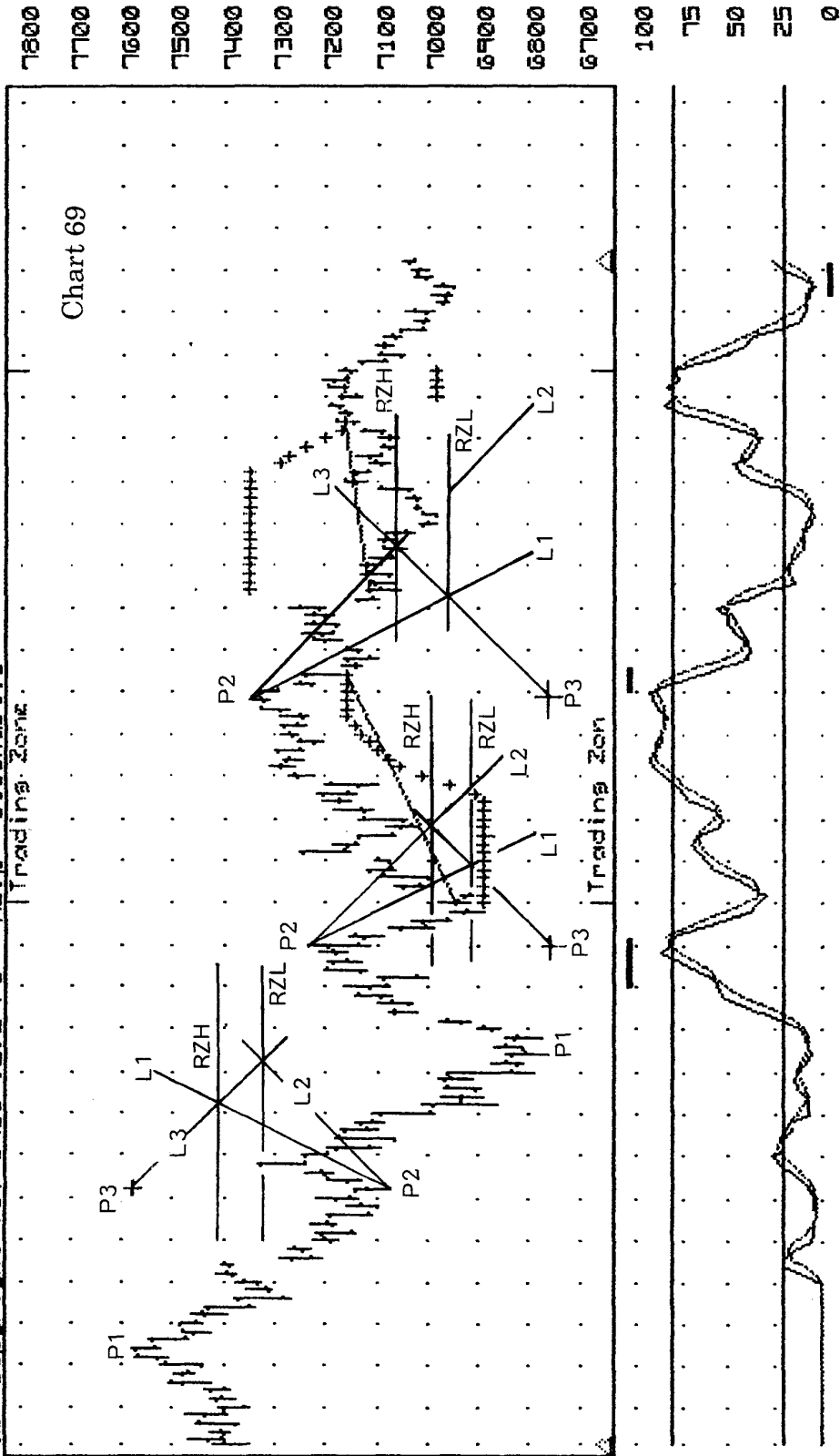
Mar Apr May Jun Jul Aug Sep

T. BONDS TR0981 Wednesday 09/09/81 6818

Open= 5019 High= 5710 Low= 5012 Close= 5707 Day= 416 Ask= 0 Bid= 0

File | Auto Train View Scale Gann Options

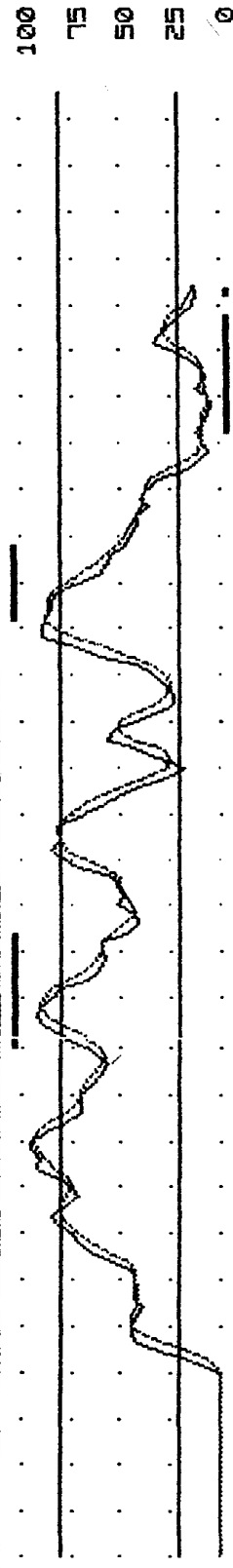
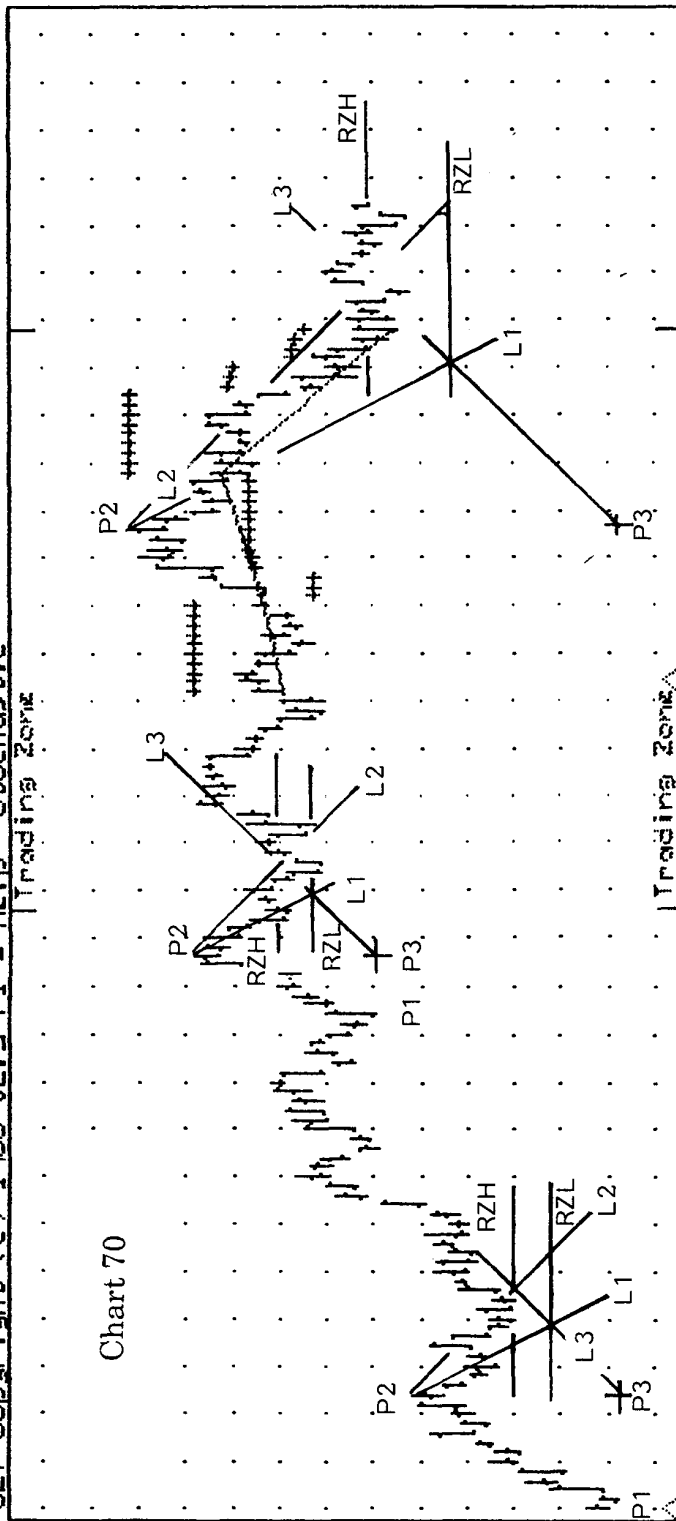
SEI Copyright (c) 1988 v2.5 F1 = Help Stochastic  
Trading Zone



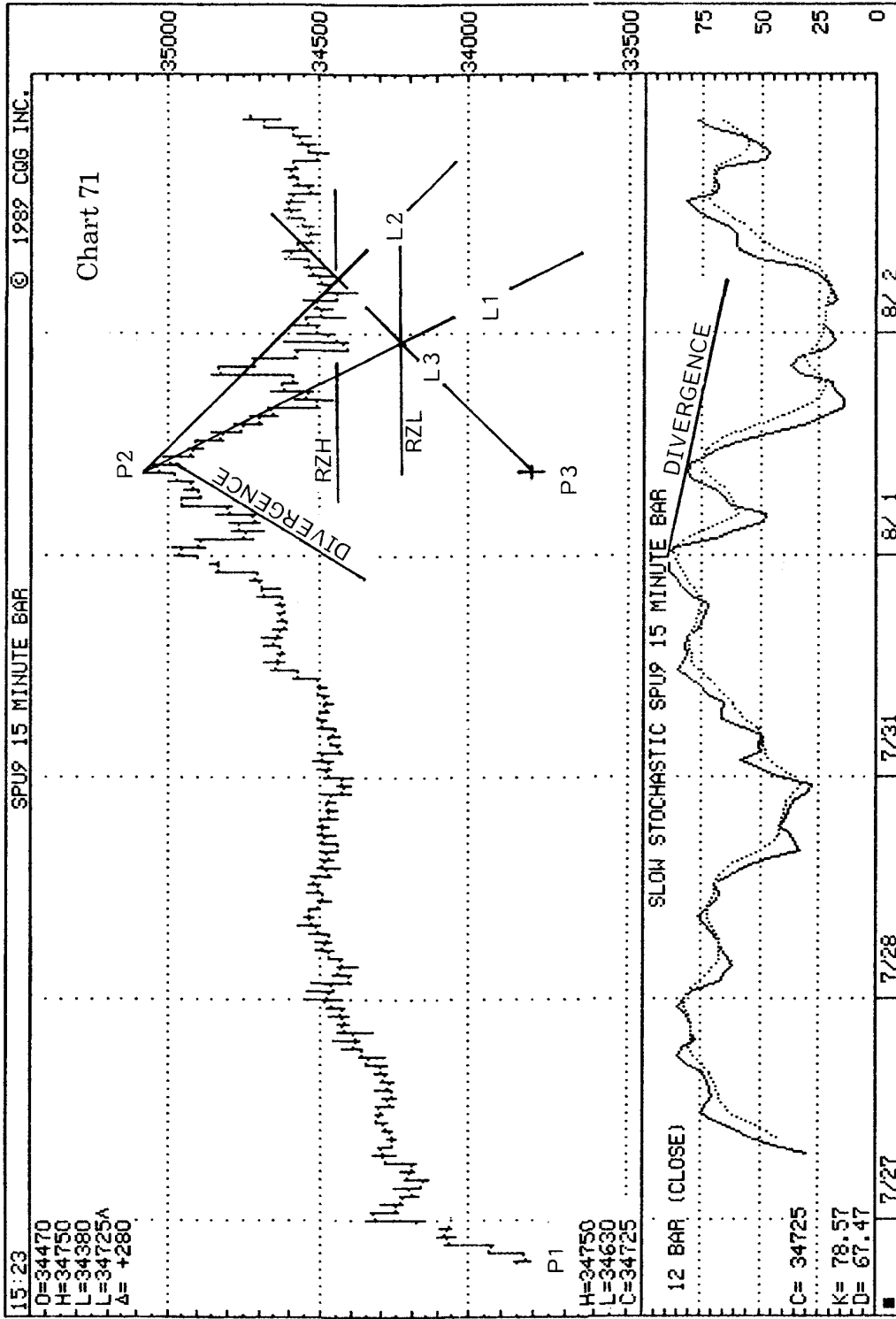
Jun	Jul	Aug	Sep	Oct	Nov	Dec
T. BONDS	TR1283	Open= 7012	High= 7015	Low= 7009	Close= 7009	Dec= -23
		Tuesday 12/20/83	7000			

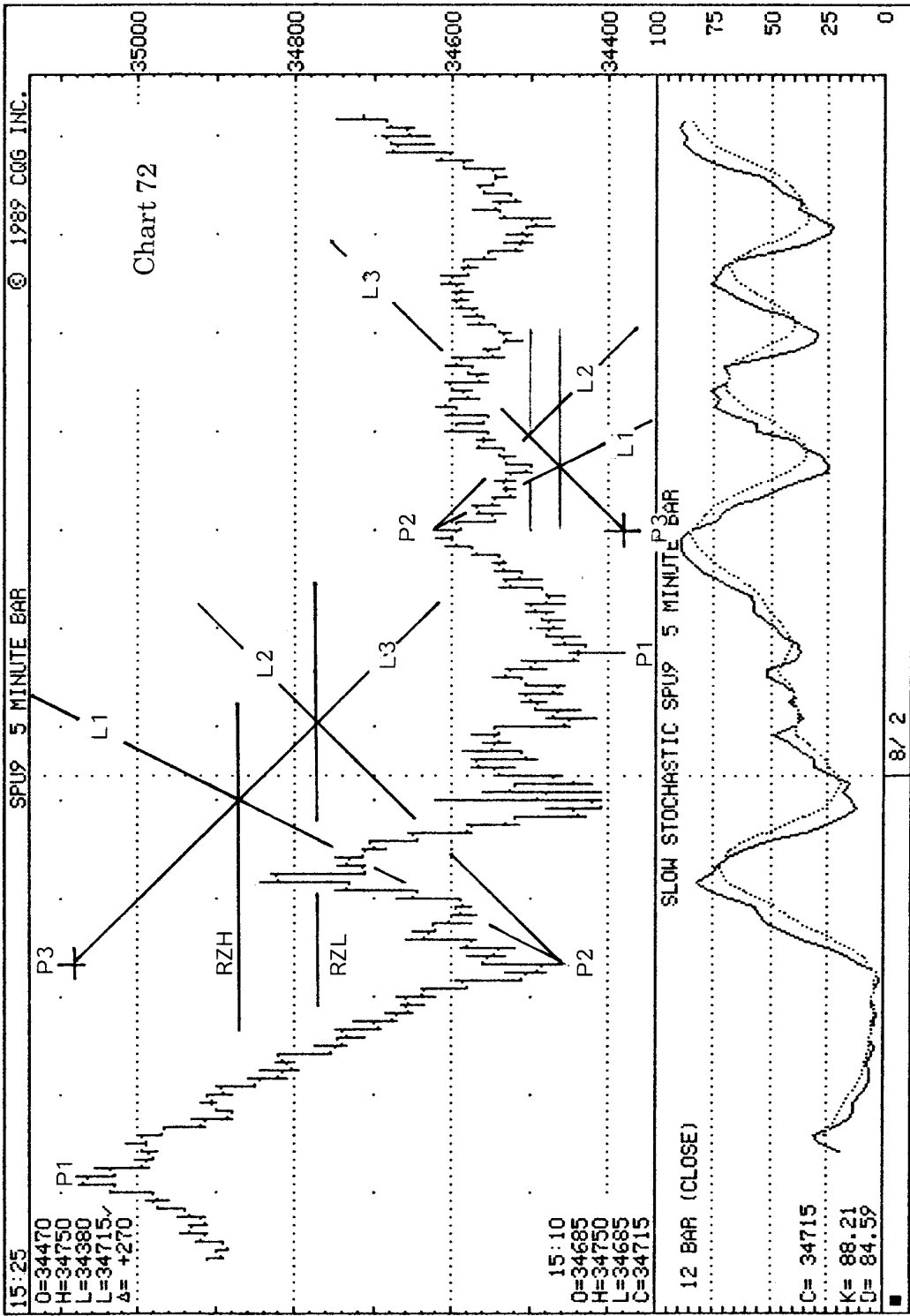
**[File] Auto Train View Scale Gann Options**

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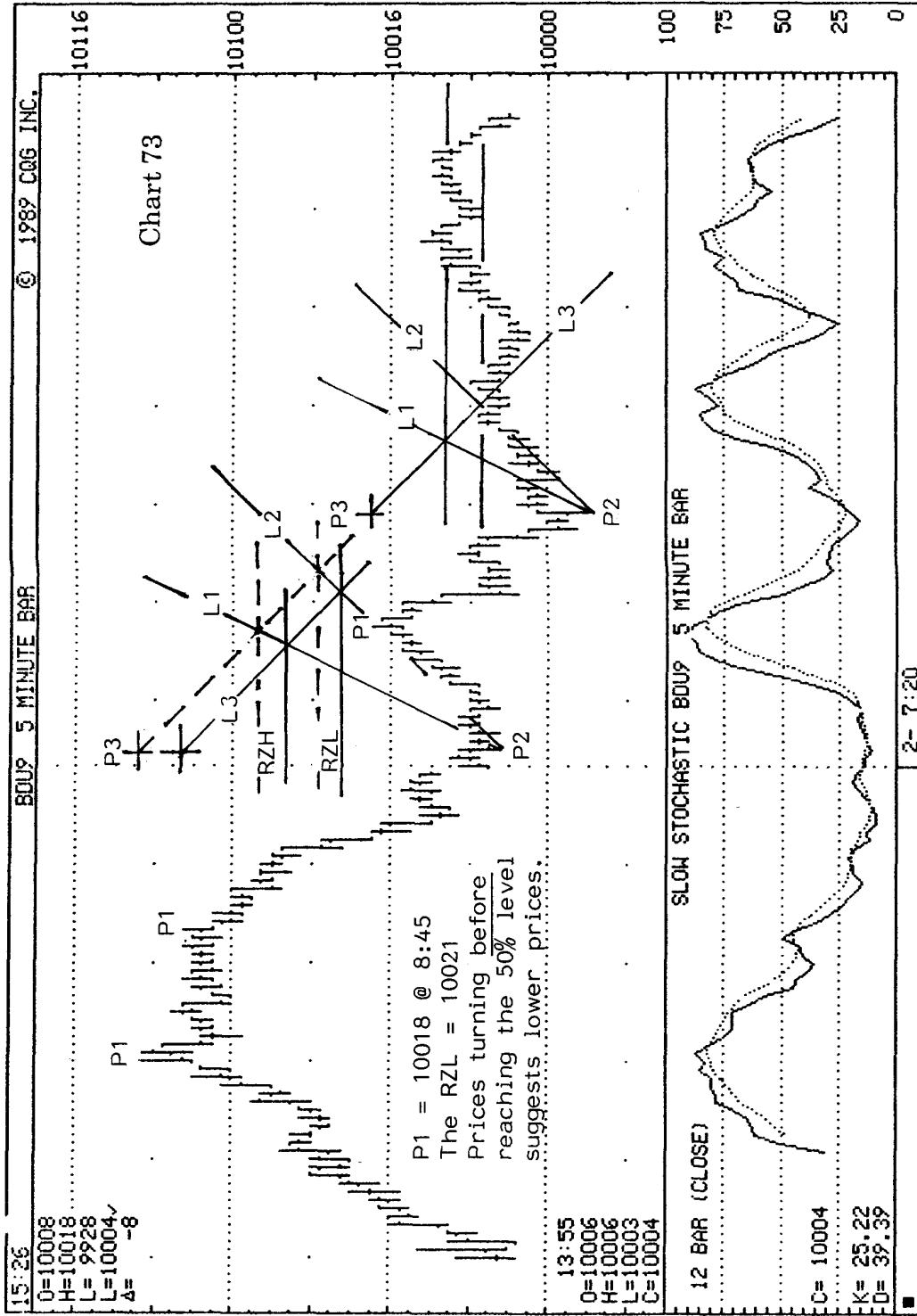
Sep Oct Nov Dec Jan Feb Mar  
 Tuesday 01/28/85 0612  
**T. BONDS TR0385** Open= 7114 High= 7126 Low= 7107 Close= 7123 Desc = -10 xK= H3 xD= 30





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## PART XII

### Getting Started

*“Trading financial instruments is arguably the purest way on earth to make money. There is a certain Zen to any occupation which requires you to render no service, and produce no product and yet, by simply gathering information and making decisions, allows you to profit. Of course, the rub is that to be successful, you must be able to collect that information and interpret it better than the next guy.”*

Steve Notis

“Technical Analysis of Stocks & Commodities” Magazine

While trading futures can be very profitable, it is also extremely volatile and speculative. For this reason, there are several “caveats” about futures trading that must be made.

#### 1) USE ONLY RISK CAPITAL - MONEY YOU CAN AFFORD TO LOSE.

There must be sufficient financial security - savings, a home, insurance, college fund. Whatever your needs may be for personal financial security, they must be satisfied before risking capital on futures trading.

Most firms require an initial margin of anywhere from \$5000 to \$20,000. While it's exciting to put up a \$3500 margin for a contract of T-Bonds, knowing that Bonds “only have to move 1%” for you to make \$1000, that \$3500, AND MORE, CAN BE JUST AS EASILY LOST.

The money in your account can be multiplied many times over in future months and years. It can also be lost in hours.

In his book, WALL STREET STOCK SELECTOR, Gann includes a section titled "Can a man lose \$100,000,000" (pgs. 33-34). Gann lists some huge, huge losses by experienced investors. Here are just a few.

- J. O. Armour lost over \$300,000,000
- W. C. Durant lost \$120,000,000
- Daniel Drew lost \$13,000,000 and died broke.
- Thomas W. Lawson was worth between \$30,000,000 and \$50,000,000 - and lost it all.

I think it's a fair statement that many of you reading this may never be in a position to lose eight or nine figures. The point, however, is crystal clear. Don't mortgage the farm to play with futures.

## 2) KNOW YOUR BROKER.

The brokerage business is one of big competition and big bucks. The greatest majority of brokers, especially futures brokers, are honest, competent money managers who have only their clients' best interest at heart. My own broker described his position to me this way:

*"Sometimes, I think my most important job is not to write tickets or trade futures, but to keep my clients from hurting themselves."*

(Send me a stamped, self-addressed envelope. I'll send you his card.)

Deal with a broker who you can meet. For the beginning trader, having a full-service broker - one who knows the markets and can advise you when to get in - AND WHEN TO STAY OUT - is worth many times the higher commissions you may pay.

One broker cannot service all clients. The broker who might be good for your friends may not be right for you. You will have to find one with whom you share common interests and will feel comfortable.

With a good broker - one that's good for you - you will make a friend as well as dollars.

## 3) LEARN FROM ALL THE MATERIAL THAT'S AVAILABLE.

Appendix D is a list of information sources including books, charting services, commodity exchanges, computer hardware and software, and periodicals concerning futures trading.



Read the listed books, contact vendors for their information, and research and talk to people involved in the commodities industry. There may be material that, like brokers, is right for you, and not for others.

Whatever information you receive, however remote you may think it is at the time, is important. By reading this far, you have certainly shown an interest in futures trading. Capitalize on that interest and read all that you can on the subject.

#### 4) LEARN FROM YOUR MISTAKES.

There will be losses; that's the only sure thing of futures trading. But what you do about those losses is important.

You could forget about them and hope they will go away.

Or you could accept them as a learning experience, go back over the charts you've maintained (as I know you have), and find out what went wrong. More often than not, you'll find out the losses happened not because of the markets, but because of what Gann described as "fear and greed."

Gann felt that, when a trader finds himself in a losing position, he will refuse to accept his position out of fear of losing money and hold onto that lost cause, rather than getting out of a bad position and learning from his mistakes.

Greed causes one of Gann's "Twenty-Four Never Failing Rules" to be violated - never let a profit turn into a loss. Out of greed, a trader will hold on to a winning position "just a little bit longer." Unfortunately, that "... little bit longer ..." often reverses profits into losses.

Making mistakes is part of learning futures trading. There is nothing wrong with making mistakes as long as you learn from those mistakes.

If you are just learning about the futures markets and the large number of technical studies that exist today, you may not have access to a computer and the software to generate charts, or know where to find charts (aside from those companies in Appendix D). I have a suggestion.

Most major libraries have business sections. Take \$5.29, go to the Business Section and ask them for their book of commodity charts. You will find intraday,

daily, weekly and monthly charts. Xerox \$4.00 worth of charts. It doesn't matter which contracts or time periods you choose, but choose those contracts and time periods that have a fair amount of up-and-down, rather than sideways, action.

Go to a local office-supply store and buy a protractor with the remaining \$1.29.

Take the charts and PRACTICE, PRACTICE, PRACTICE! "Paper trade" a \$10,000 account for yourself. Cover the right portion of the chart and project 50% Retracement Zones. It may surprise you how often, and predictable, Gann Retracement Zones occur.

While paper trading, you may want to remember some of Gann's rules and suggestions:

1) TRADE FOR THE LONG TERM

Leave the intraday trading and scalping to the professional traders who have the time, knowledge and capital to trade in this way.

2) TRADE WITH THE TREND

If the market is going up, trade only the long positions from bear reactions. If the market is falling, trade only the short positions from bull reactions.

"The trend is your friend."

3) TRADE FOR A REASON

Never trade just to trade. Know why the trade is being made.

"If in doubt, stay out."

4) TRADE AT THE MARKET

Never limit your orders, fix a buying or selling price, or think the market "has to" go up or go down. The market doesn't "have to" do anything; it does not care how much cash you have at risk.

The Retracement Zones illustrated here and those that you will calculate are only targets. There can be some assurance, BUT NO GUARANTEE, that prices will always act as described in this publication.

It is for this reason that, while Gann's 50% Retracement Rule is a good rule, it should not be the ONLY rule used to trade risk capital.

PAST PRICE PERFORMANCES ARE NOT A GUARANTEE OF FUTURE PRICE ACTIVITY.

In writing this book, I tried to include some lighter comments. However, understand this:

**COMMODITY TRADING IS A DEADLY-SERIOUS VENTURE. VAST AMOUNTS OF MONEY CAN BE MADE - AND LOST - IN A MATTER OF MINUTES.**

**FOR THIS REASON, LEARN AS MUCH AS YOU CAN ABOUT TRADING BEFORE ENTERING EVEN ONE TRADE.**

**AND ONCE YOU ENTER THAT TRADE, NEVER ASSUME ANYTHING ABOUT PRICE MOVEMENTS AND TRENDS.**

GANN SAID IT ALL:

**“NEVER TRADE ON HOPE AND FEAR. KNOW WHY THE TRADE IS BEING MADE.”**

And remember . . . practice makes perfect - and profits.

Good luck and good trading.

## APPENDIX A

**Futures Markets Information**  
*(Information believed to be accurate.  
Check with your broker for any changes.)*



## MARKET INFORMATION

Commodity	Trading Hours Central Time	Delivery Months	Contract Size	Price Quoted In	Pt. Value	Min. Price Fluctuation	Maximum Daily Limit
<b>CHICAGO BOARD OF TRADE</b>							
Corn	9:30 - 1:15	H,K,N,U,Z	5,000 bu	¢/bu	1¢ = \$50.00	1/4¢ = \$12.50	10¢ = \$500
Crude Oil	9:30 - 1:30	G,J,M,Q,V,Z,*	1000 bbls	\$/barrel	1 pt = \$10.00	1¢ = \$10.00	\$1 = \$1000 = 100pts
GNMA	8:00 - 2:00	H,M,U,Z	\$100,000	32nds/pt	1/32 = \$31.25	1/32 = \$31.25	64/32nds = \$2000
Gold, kilo	8:00 - 1:30	G,J,M,Q,V,Z,**	32.15 troy oz	\$/oz	10pts = \$3.215	10¢/oz = \$3.215	\$50 = \$1607.50
NASDAQ 100	8:15 - 3:15	H,M,U,Z,**	\$250 x Index	100th/pt.	.01 = \$ 2.50	.05 = \$12.50	none
Major Market Index	8:15 - 3:15	H,M,U,Z,**	\$100 x Index	1/8ths ofpt.	1/8 = \$12.50	1/8 = 12.50	none
Maxi Major Market Index	8:15 - 3:15	H,M,U,Z,**	\$250 X Index	100ths/pt.	.01 = \$2.50	.05 = \$12.50	none
Municipal Bonds	8:00 - 2:00	H, M, U, Z	\$100,000	32nds/pt.	1/32 = \$31.25	1/32 = \$31.25	64/32nds = \$2,000
Oats	9:30 - 1:15	H,K,N,U,Z	5,000 bu	¢/bu	1¢ = \$50.00	1/4¢ = \$12.50	10¢ = \$500
Plywood	10:00 - 2:15	F,H,K,N,U,V	76,032 sq ft	\$/m sq ft	1 pt = \$ .76	10pts = \$ 7.60	\$7 = \$532 = 700 pts
Silver, New	8:05 - 1:25	G,J,M,Q,V,Z	1,000troy oz	¢/oz	1 pt = \$ .10	10 pts = \$ 1.00	50¢ = \$500 = 5000 pts
Soybean Meal	9:30 - 1:15	F,H,K,N,Q,U,V,Z	100 tons	\$/ton	1pt = \$ 1.00	10pts = \$10.00	\$10 = \$1000 = 100 pts
Soybean Oil	9:30 - 1:15	F,H,K,N,Q,U,V,Z	60,000 lbs	¢/lb	1 pt = \$ 6.00	1 pt = \$ 6.00	1¢ = \$600 = 100 pts
Soybeans	9:30 - 1:15	F,H,K,N,Q,U,X	5,000 bu	¢/bu	1 pt = \$50.00	1/4¢ = \$12.50	30¢ = \$1500
Treasury Bonds	8:00 - 2:00	H,M,U,Z	\$100,000	32nds/pt	1/32 = \$31.25	1/32 = \$31.25	64/32nds = \$2000
Treasury Notes	8:00 - 2:00	H,M,U,Z	100,000	32nds/pt	1/32 = \$31.25	1/32 = \$31.25	64/32nds = \$2000
Wheat	9:30 - 1:15	H,K,M,U,Z	5,000 bu	¢/bu	1¢ = \$50.00	1/4¢ = \$12.50	20¢ = \$1000
<b>NEW YORK COFFEE, SUGAR &amp; COCOA EXCHANGE</b>							
Cocoa (Metric)	8:30 - 2:00	H,K,N,U,Z	10Mton	\$/M ton	1pt = \$10.00	1pt = \$10.00	\$88 = \$880 = 88 pts
Coffee "C"	8:45 - 1:30	H,K,N,U,Z	37,500 lbs	¢/lb	1pt = \$ 3.75	1pt = \$ 3.75	4¢ = \$1500 = 400 pts
Sugar	9:00 - 12:43	H,K,N,U,V	112,000 lbs	¢/lb	1pt = \$11.20	1pt = \$11.20	*
<b>NEW YORK COTTON EXCHANGE</b>							
Cotton	9:30 - 2:00	H,K,N,V,Z	50,000 lbs	¢/lb	1pt = \$ 5.00	1pt = \$ 5.00	2¢ = \$1000 = 200 pts
Orange Juice	9:15 - 1:45	F,H,K,N,U,X	15,000 lbs	¢/lb	1pt = \$ 1.50	5pts = \$ 7.50	5¢ = \$750 = 500 pts
Propane	9:45 - 2:15	F,H,K,N,U,Z	100,000 gal	¢/gal	1pt = \$10.00	1pt = \$10.00	1¢ = \$1000 = 100pts
<b>INTERNATIONAL MONETARY MARKET &amp; INDEX AND OPTION MARKET</b>							
Br. Pound	7:20 - 1:24	H,M,U,Z	25,000 BP	¢/BP	1pt = \$ 2.50	5pts = \$12.50	5¢ = \$1250 = 500 pts
Can. Dollar	7:20 - 1:26	H,M,U,Z	100,000 CD	¢/CD	1pt = \$10.00	1pt = \$10.00	75¢ = \$750 = 75pts
Cert. of Deposit	7:20 - 2:00	H,M,U,Z	\$1,000,000	basis pts	1pt = \$25.00	1pt = \$25.00	80 pts = \$2000
Deutschemark	7:20 - 1:20	H,M,U,Z	125,000 DM	¢/DM	1pt = \$12.50	1pt = \$12.50	1¢ = \$1250 = 100 pts
Eurodollar	7:20 - 2:00	H,M,U,Z	\$1,000,000	basis pts	1pt = \$25.00	1pt = \$25.00	100 pts = \$2500
French Franc	7:20 - 1:28	F,H,J,M,N,U,V,Z	250,000 FF	¢/FF	1pt = \$ 2.50	5pt = \$12.50	500 pts = \$1250
Japanese Yen	7:20 - 1:22	H,M,U,Z	12,500,000 JY	¢/JY	1pt = \$12.50	1pt = \$12.50	1¢ = \$1250 = 100 pts
S&P 500 Index	8:30 - 3:15	H,M,U,Z	500xS&P Index	100ths/pt	1pt = \$ 5.00	5pts = \$25.00	none
Swiss Franc	7:20 - 1:16	H,M,U,Z	125,000 SF	¢/SF	1pt = \$12.50	1pt = \$12.50	1.5¢ = \$1875 = 150 pts
T-Bills (90 Days)	7:20 - 2:00	H,M,N,U,Z	\$1,000,000	basis pts	1pt = \$25.00	1pt = \$25.00	60 pts = \$1500
S&P OTC 250	8:30 - 3:15	H,M,U,Z	500 x Index	100ths/pt.	1pt = \$5.00	5pts = \$25.00	none
<b>COMMODITY EXCHANGE INC. (NY)</b>							
Copper	8:50 - 1:00	F,H,K,N,U,Z	25,000 lbs	¢/lb	1pt = \$ 2.50	5pts = \$12.50	5¢ = \$1250 = 500 pts
Gold	8:00 - 1:30	G,J,M,Q,V,Z	100 troy oz	\$/oz	1pt = \$ 1.00	10pts = \$10.00	\$25 = \$2500 = 2500 pts
Silver	8:05 - 1:25	F,H,K,N,U,Z	5,000 troy oz	¢/oz	1pt = \$ .50	10pts = \$ 5.00	50¢ = \$2500 = 5000 pts
Aluminum	8:30 - 1:15	F,H,K,N,U,Z**	40,000 lbs	¢/lb	1pt = \$ 4.00	5pts = \$20.00	5¢ = \$2000 = 500 pts

Commodity	Trading Hours Central Time	Delivery Months	Contract Size	Price Quoted in	Pt. Value	Min. Price Fluctuation	Maximum Daily Limit
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### CHICAGO MERCANTILE EXCHANGE

Cattle, Fdr.	9:05 - 1:00	F,H,J,K,Q,U,V,X	44,000 lbs	\$/cwt	1pt = \$ 4.40	2½pts = \$11.00	1.5¢ = \$660 = 150pts
Cattle, Live	9:05 - 1:00	F,G,J,M,Q,V,Z	40,000 lbs	\$/cwt	1pt = \$ 4.00	2½pts = \$10.00	1.5¢ = \$600 = 150pts
Hogs	9:10 - 1:00	G,J,M,N,Q,V,Z	30,000 lbs	\$/cwt	1pt = \$ 3.00	2½pts = \$ 7.50	1.5¢ = \$450 = 150pts
Lumber	9:00 - 1:05	F,H,K,N,U,X	130,000 bd ft	\$/m/bd ft	1pt = \$ 1.30	10pts = \$13.00	\$5 = \$650 = 500pts
Pork Bellies	9:10 - 1:00	G,H,K,N,Q	38,000 lbs	¢/lb	1pt = \$ 3.80	2½pts = \$ 7.60	2¢ = \$760 = 200pts

### KANSAS CITY BOARD OF TRADE

Value Line Index	8:30 - 3:15	H,M,U,Z	\$500 x Index	100ths/pt	1pt = \$ 5.00	5pts = \$25.00	none
Mini-Value Line	8:30 - 3:15	H,M,U,Z	\$100 x Index	100ths/pt	1pt = \$ 1.00	5pts = \$ 5.00	none
Wheat	9:30 - 1:15	H,K,N,U,Z	5,000 bu	¢/bu	1¢ = \$50.00	1/4¢ = \$12.50	25¢ = \$1250

### NEW YORK MERCANTILE EXCHANGE

Crude Oil	8:45 - 2:10	H,M,U,Z**	1000 bbls	\$/bbl	1pt = \$10.00	1pt = \$10.00	\$1 = \$1000 = 100pts
Gasoline, Leaded	8:30 - 2:00	H,M,U,Z**	42,000 gal	¢/gallons	1pt = \$ 4.20	1pt = \$ 4.20	2¢ = \$840 = 200pts
Gasoline Unleaded	8:30 - 2:00	H,M,U,Z**	42,000 gal	¢/gallons	1 pt = \$4.20	1pt = \$4.20	2¢ = \$8.40 = 200pts
Heating Oil	8:50 - 2:05	H,M,U,Z**	42,000 gal	¢/gallons	1pt = \$ 4.20	1pt = \$ 4.20	2¢ = \$840 = 200pts
Palladium	7:50 - 1:20	H,M,U,Z	100 troy oz	\$/oz	1pt = \$ 1.00	5pts = \$ 5.00	\$6 = \$600 = 600pts
Platinum	8:00 - 1:30	F,J,K,M,N,V	50 troy oz	\$/oz	1pt = \$ .50	10pts = \$ 5.00	\$20 = \$1000 = 2000pts
Potatoes, New	8:45 - 1:00	F,H,J,K,X	100,000 lbs	¢/50 lbs	1pt = \$20.00	1pt = \$20.00	40¢ = \$800 = 40pts

### MID AMERICA COMMODITY EXCHANGE

British Pound	7:20 - 1:34	H,M,U,Z	12,500 bp	¢/bp	1pt = \$ 1.25	5pts = \$ 6.25	5¢ = \$625 = 500pts
Canadian Dollar	7:20 - 1:36	H,M,U,Z	\$50,000	¢/cd	1pt = \$ 5.00	1pt = \$ 5.00	75¢ = \$375 = 75pts
Cattle Live	9:05 - 1:15	F,G,J,M,Q,V,Z	20,000 lbs	\$/cwt	1pt = \$ 2.00	2½pts = \$ 5.00	1.5¢ = \$300 = 150pts
Corn	9:30 - 1:30	H,K,N,U,Z	1,000 bu	¢/bu	1¢ = \$10.00	1/4¢ = \$ 2.50	10¢ = \$100
Deutschemark	7:20 - 1:30	H,M,U,Z	62,500 dm	¢/dm	1pt = \$ 6.25	1pt = \$ 6.25	1¢ = \$625 = 100pts
Gold	8:00 - 1:40	F,H,J,M,N,U,V,Z	33.2 troy oz	\$/oz	1pt = \$ .33	10pts = \$ 3.32	\$50 = \$1660 = 5000pts
Hogs	9:10 - 1:15	G,J,M,N,Q,V,Z	15,000 lbs	\$/cwt	1pt = \$ 1.50	2½pts = \$ 3.75	1.5¢ = \$225 = 150pts
Japanese Yen	7:20 - 1:32	H,M,U,Z	6,250,000 jy	¢/jy	1pt = \$ 6.25	1pt = \$ 6.25	1¢ = \$625 = 100pts
Oats	9:30 - 1:30	H,K,N,U,Z	1,000 bu	¢/bu	1¢ = \$10.00	1/4¢ = \$ 2.50	10¢ = \$100
Silver	8:05 - 1:40	G,J,M,Q,V,Z	1,000 oz	¢/oz	1pt = \$ .10	10pts = \$ 1.00	50¢ = \$500 = 5000pts
Soybeans	9:30 - 1:30	F,H,K,N,Q,U,Z	1,000 bu	¢/bu	1pt = \$10.00	1/4¢ = \$ 2.50	30¢ = \$300
Swiss Franc	7:20 - 1:26	H,M,U,Z	62,500 sf	¢/sf	1pt = \$ 6.25	1pt = \$ 6.25	1¢ = \$625 = 100pts
Treasury Bills	8:00 - 2:15	H,M,U,Z	\$50,000	basis pts	1pt = \$12.50	1pt = \$12.50	600pts = \$750
Treasury Bonds	8:00 - 2:15	H,M,U,Z	\$500,000	32nd/pt	1/32 = \$15.62	1/32 = \$15.62	64/32nds = \$1000
Wheat	9:30 - 1:30	H,K,N,U,Z	1,000 bu	¢/bu	1¢ = \$10.00	1/4¢ = \$ 2.50	20¢ = \$200

### NEW YORK FUTURES EXCHANGE

NYSE Index	8:30 - 3:15	H,M,U,Z	500 x Index	100th/pt	1pt = \$ 5.00	5pts = \$25.00	none
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### Key - Delivery Months

Jan — F    May — K    SEP — U    Plus first 5 months — \*  
 Feb — G    June — M    Oct — V    Plus first 3 months — \*\*  
 Mar — H    July — N    Nov — X  
 Apr — J    Aug — Q    Dec — Z

### Key - Maximum Daily Limit

\* — No limits front 2 months  
 \*\* ½ (50pts) all other months

## APPENDIX B

### Daily Market Prices

Now that you're ready to begin trading, it might be a good idea to become familiar with the daily futures market prices.

On the following page is a list of the futures' market prices from the Wall Street Journal of 4/25/89. (If people know that you are now a futures trader, you should at least carry this paper around with you.) There is a wealth of information here that becomes invaluable as you become more familiar with the markets.

The section for Treasury Bonds, with explanations for the various columns and numbers, appears below.

- 1) Commodity (Exchange traded); contract size; unit dollar value.
- 2) Contract month.
- 3) Opening price of the trading session.
- 4) Highest price reached during the trading session.
- 5) Lowest price reached during the trading session.
- 6) Closing price of the trading session.
- 7) Difference between the current closing price and the closing price of the previous session.
- 8) The highest price reached during the entire time that the contract is trading.
- 9) The lowest price reached during the entire time that the contract is trading.
- 10) The open interest for that particular contract month.
- 11) The estimated volume for that trading session; the volume for the previous trading session; the total open interest for the previous trading session; the net change in open interest between the current and previous trading session.

## FUTURES

	3)	4)	5)	6)	7)	Yield	10)
	Open	High	Low	Settle	Chg	Settle Chg	Open Interest
<b>1) ---</b>	<b>TREASURY BONDS (CBT) - \$100,000; pts. 32nds of 100%</b>						
June	89-22	90-08	89-16	89-21	....	9.135	244,017
Sept	89-21	90-04	89-15	89-19	....	9.143	41,199
Dec	89-21	90-02	89-14	89-17	....	9.150	14,671
Mr90	89-21	90-00	89-14	89-15	....	9.157	5,722
<b>2) ---</b>	June	89-16	89-25	89-11	89-13 +	1 9.165 -	.004 3,635
	Sept	89-09	89-11	89-09	89-10 +	2 9.176 -	.008 1,364
	Dec	89-03	98-05	89-03	89-05 +	2 9.195 -	.008 347
	Mr91	....	....	....	89-00 +	2 9.214 -	.007 97
	June	....	....	....	88-27 +	3 9.233 -	.011 196
<b>11) ---</b>	Est vol 235,000; vol TTues 195,335; op int 311,257, +1,684.						
	<b>TREASURY BONDS (MCE) - \$50,000; pts. 32nds of 100%</b>						
	June	89-28	90-08	89-17	89-21 -	2 9.135 +	.007 8,694
	Sept	89-25	90-01	89-19	89-19 -	2 9.143 +	.008 130
	Est vol 4,200; vol Tues 3,683; open int 8,870, -105.						



# COMMODITY FUTURES PRICES

Open High Low Settle Change  
 - GRAINS AND OILSEEDS -

Commodity	Contract	Open	High	Low	Settle	Change	Lifetime High	Lifetime Low	Open Interest
CORN (CBT)	5,000 bu.	265 1/4	265 3/4	263 1/4	265 1/4	+1 1/4	369	207 1/2	41,706
	May	268	269	264 1/2	268 1/2	+1 1/2	360	233	58,661
	Sept	261 1/4	262 1/4	260 1/4	261 1/4	+1	295	235	50,518
	Dec	267 1/4	267 3/4	266	267 1/4	+1	286 1/2	257 1/2	6,678
	MR90	268 1/4	269 1/4	268	268 1/4	+1	289 1/2	260	1,341
	May	271	271 1/2	270 1/2	271 1/2	+1 1/2	284	261 1/2	512
	July	271	271 1/2	270 1/2	271 1/2	+1 1/2	284	261 1/2	512
Est vol 40,000; vol Tues 57,202; open int 171,298, -1,213.									

Commodity	Contract	Open	High	Low	Settle	Change	Lifetime High	Lifetime Low	Open Interest	
OATS (CBT)	5,000 bu.	187	191	182 1/4	187 1/2	+5 1/4	340	179	2,524	
	May	194	198	190 1/4	191 1/4	+5 1/2	277	187	4,861	
	Sept	198 1/2	201 1/2	195 1/4	195 1/4	+4 1/4	243	193 1/2	1,386	
	Dec	203	208	200 1/2	201 1/4	+4 1/4	247	200 1/2	1,448	
	Est vol 1,000; vol Tues 2,489; open int 10,311, -34.									
	SOYBEANS (CBT)	5,000 bu.	736	741	734 1/4	740 1/4	+8	1003	647	22,109
		May	740	743 1/4	736	742	+5 1/4	986	684	36,786
Aug		737	740	733 1/4	737 1/4	+3 1/4	951	723 1/2	5,487	
Sept		719 1/2	724	716	720 1/4	+4	835	695 1/4	5,505	
Nov		710	714 1/2	705 1/2	710 1/2	+3	793	663	27,450	
MR90		719	723	715	719	+2 1/2	767	684	3,184	
Mar		735	740	732 1/4	737 1/4	+4 1/2	911	700	1,067	
May	732	735	728	733	+4	778	711	505		
Est vol 45,000; vol Tues 56,586; open int 104,586, +399.										

Commodity	Contract	Open	High	Low	Settle	Change	Lifetime High	Lifetime Low	Open Interest
SOYBEAN MEAL (CBT)	100 tons	223	224	222	223 1/2	+1	304	200	50,200
	May	223	224	222	223 1/2	+1	304	200	50,200
	Aug	220	221	219	220 1/2	+1	298	214	5,850
	Sept	217	218	216	217 1/2	+1	290	210	3,902
	Oct	215	216	214	215 1/2	+1	289	209	3,208
	Dec	212	213	210	211 1/2	+1	280	210	6,712
	MR90	212	212	210	211 1/2	+1	280	209	2,000
May	211	211	210	211 1/2	+1	280	209	309	
May	211	211	210	211 1/2	+1	280	209	309	
Est vol 14,000; vol Tues 24,793; open int 57,630, -1,166.									

Commodity	Contract	Open	High	Low	Settle	Change	Lifetime High	Lifetime Low	Open Interest
WHEAT (CBT)	5,000 bu.	414	414 1/2	407 1/4	411 1/4	+3 1/2	445	330	8,390
	May	404	404 1/2	399	402 1/2	+1 1/2	422	307	30,845
	Sept	411	411 1/2	406 1/4	409 1/2	+3	429	359 1/2	11,832
	Dec	423 1/2	424	422 1/4	423 1/2	+1 1/2	440 1/2	378	7,262
	MR90	429	429 1/2	425	428 1/2	+3 1/4	443	403 1/2	1,199
	May	418	419 1/2	415	418 1/2	+2	432	403 1/2	414
	July	418	419 1/2	415	418 1/2	+2	432	403 1/2	414
Est vol 9,000; vol Tues 11,657; open int 59,942, -830.									

Commodity	Contract	Open	High	Low	Settle	Change	Lifetime High	Lifetime Low	Open Interest	
WHEAT (MPLS)	5,000 bu.	416 1/4	420 1/2	416 1/4	417 1/4	+3 1/4	436 1/2	399	2,643	
	May	413 1/4	414 1/4	407 1/4	411 1/4	+3 1/4	430	370	2,131	
	Sept	413 1/4	416	412 1/4	413 1/4	+2	428 1/2	388	2,762	
	Dec	420 1/2	421	420	421	+2	432	405	138	
	Est vol 1,988; vol Tues 4,621; open int 7,675, +70.									
	BARLEY (CBT)	5,000 bu.	116	117	114	115 1/2	+1 1/2	148	110	3,756
		May	111	112	110	111 1/2	+1 1/2	148	110	3,756
Sept		120	120	118	119 1/2	+1 1/2	140	116	3,177	
Oct		120	120	118	119 1/2	+1 1/2	140	116	3,177	
Nov		122	122	119	121 1/2	+1 1/2	140	116	202	
Dec		122	122	119	121 1/2	+1 1/2	140	116	463	
MR90		122	122	119	121 1/2	+1 1/2	140	116	463	
Est vol 2,220; vol Tues 1,358; open int 13,341, +86.										

Commodity	Contract	Open	High	Low	Settle	Change	Lifetime High	Lifetime Low	Open Interest
FLAXSEED (WPG)	5,000 bu.	364	364 1/2	362 1/2	364 1/2	+1 1/2	401	324	1,116
	May	363 1/2	364 1/2	362 1/2	364 1/2	+1 1/2	401	324	1,116
	Sept	373 1/2	373 1/2	373 1/2	373 1/2	+1	402	368	1,010
	Oct	373 1/2	373 1/2	373 1/2	373 1/2	+1	402	368	1,010
	Nov	362 1/2	364 1/2	361 1/2	363 1/2	+1	402	368	1,010
	Dec	362 1/2	364 1/2	361 1/2	363 1/2	+1	402	368	1,010
	MR90	372 1/2	373 1/2	371 1/2	372 1/2	+1	402	368	1,010
Est vol 1,025; vol Tues 949; open int 5,290, -821.									

Commodity	Contract	Open	High	Low	Settle	Change	Lifetime High	Lifetime Low	Open Interest	
RAPESEED (WPG)	5,000 bu.	340	340 1/2	338 1/2	340 1/2	+1 1/2	400	323	13,516	
	May	335	335 1/2	332 1/2	334 1/2	+1 1/2	390	323	4,698	
	Sept	362 1/2	363 1/2	361 1/2	362 1/2	+1 1/2	402	361	4,719	
	Nov	372 1/2	372 1/2	370 1/2	372 1/2	+1 1/2	378	357	1,945	
	Est vol 2,490; vol Tues 2,572; open int 23,925, -4.									
	WHEAT (WPG)	5,000 bu.	140	140 1/2	138 1/2	140 1/2	+1 1/2	168	135	1,594
		May	145	145 1/2	144	145 1/2	+1 1/2	167	144	2,162
Sept		149 1/2	149 1/2	147 1/2	148 1/2	+1 1/2	157	144	1,835	
Oct		150 1/2	150 1/2	148 1/2	149 1/2	+1 1/2	156	145	1,067	
Nov		151 1/2	151 1/2	149 1/2	150 1/2	+1 1/2	154	146	344	
Dec		151 1/2	151 1/2	149 1/2	150 1/2	+1 1/2	154	146	344	
MR90		151 1/2	151 1/2	149 1/2	150 1/2	+1 1/2	154	146	344	
Est vol 1,350; vol Tues 1,262; open int 7,002, +91.										

Commodity	Contract	Open	High	Low	Settle	Change	Lifetime High	Lifetime Low	Open Interest
RYE (WPG)	20 metric tons	135	135 1/2	133 1/2	135 1/2	+1 1/2	171	134	339
	May	137	137 1/2	135 1/2	137 1/2	+1 1/2	164	134	700
	Oct	138	138 1/2	137 1/2	138 1/2	+1 1/2	154	133	582
	Nov	138	138 1/2	137 1/2	138 1/2	+1 1/2	154	133	582
	Dec	138	138 1/2	137 1/2	138 1/2	+1 1/2	154	133	582
	MR90	138	138 1/2	137 1/2	138 1/2	+1 1/2	154	133	582
	July	138	138 1/2	137 1/2	138 1/2	+1 1/2	154	133	582
Est vol 21,406; vol Tues 25,063; open int 79,924, -624.									

Commodity	Contract	Open	High	Low	Settle	Change	Lifetime High	Lifetime Low	Open Interest
CATTLE - FEEDER (CME)	40,000 lbs.	75 1/2	75 3/4	75 1/4	75 1/2	+1/8	84	74	995
	May	76 1/2	76 3/4	75 1/2	76 1/4	+1/8	84	74	995
	Aug	75 1/2	76 1/4	75 1/4	76 1/4	+1/8	83	75	4,303
	Sept	76 1/2	76 3/4	75 1/2	76 1/4	+1/8	83	75	4,689
	Oct	76 1/2	76 3/4	75 1/2	76 1/4	+1/8	83	75	4,689
	Nov	77 1/2	77 3/4	76 1/2	77 1/4	+1/8	82	76	1,601
	MR90	78 1/2	78 3/4	77 1/2	78 1/4	+1/8	83	75	345
Est vol 2,154; vol Tues 2,728; open int 14,121, -43.									

Commodity	Contract	Open	High	Low	Settle	Change	Lifetime High	Lifetime Low	Open Interest
CATTLE - LIVE (CME)	40,000 lbs.	70 1/2	70 3/4	70 1/4	70 1/2	+1/8	78	67 1/2	37,785
	May	70 1/2	70 3/4	70 1/4	70 1/2	+1/8	78	67 1/2	37,785
	Aug	67 1/2	68 1/4	67 1/4	67 1/2	+1/8	73	66	18,393
	Sept	67 1/2	68 1/4	67 1/4	67 1/2	+1/8	73	66	18,393
	Oct	67 1/2	68 1/4	67 1/4	67 1/2	+1/8	73	66	18,393
	Nov	67 1/2	68 1/4	67 1/4	67 1/2	+1/8	73	66	18,393
	MR90	67 1/2	68 1/4	67 1/4	67 1/2	+1/8	73	66	18,393
Est vol 21,406; vol Tues 25,063; open int 79,924, -624.									

Commodity	Contract	Open	High	Low	Settle	Change	Lifetime High	Lifetime Low	Open Interest
CATTLE - FEEDER (CME)	40,000 lbs.	75 1/2	75 3/4	75 1/4	75 1/2	+1/8	84	74	995
	May	76 1/2	76 3/4	75 1/2	76 1/4	+1/8	84	74	995
	Aug	75 1/2	76 1/4	75 1/4	76 1/4	+1/8	83	75	4,303
	Sept	76 1/2	76 3/4	75 1/2	76 1/4	+1/8	83	75	4,689
	Oct	76 1/2	76 3/4	75 1/2	76 1/4	+1/8	83	75	4,689
	Nov	77 1/2	77 3/4	76 1/2	77 1/4	+1/8	82	76	1,601
	MR90	78 1/2	78 3/4	77 1/2	78 1/4	+1/8	83	75	345
Est vol 2,154; vol Tues 2,728; open int 14,121, -43.									

Commodity	Contract	Open	High	Low	Settle	Change	Lifetime High	Lifetime Low	Open Interest
CATTLE - LIVE (CME)	40,000 lbs.	70 1/2	70 3/4	70 1/4	70 1/2	+1/8	78	67 1/2	37,785
	May	70 1/2	70 3/4	70 1/4	70 1/2	+1/8	78	67 1/2	37,785
	Aug	67 1/2	68 1/4	67 1/4	67 1/2	+1/8	73	66	18,393
	Sept	67 1/2	68 1/4	67 1/4	67 1/2	+1/8	73	66	18,393
	Oct	67 1/2	68 1/4	67 1/4	67 1/2	+1/8	73	66	18,393
	Nov	67 1/2	68 1						

## APPENDIX C

### Calculating Treasury Bonds Prices

Calculating prices for T-Bonds is more difficult than for other commodities. Bond prices are quoted in 32nds, rather than in multiples of a hundred. This requires adding or subtracting in 32/32nds.

For instance, the Retracement Zone for Chart 8 has a RZH of 8510 and a RZL of 8412. The midpoint of this Zone is 8427. But if 8412 were subtracted from 8510, and the remainder divided by 2, the answer is 49, NOT 8427.

The Bond price of 8510 is 85 and 10/32nds and often written as "85-10." The Bond price of 8412 is 84 and 12/32nd and can be written as "84-12."

Adding or subtracting Bond prices requires "borrowing" 32/32nds from the whole-number portion of the price and then adding it to the fractional portion of the price. This is an example from Chart 8:

$$\begin{array}{rclcl} \text{RZH:} & 85-10/32 & = & & 84-42/32 \\ \text{RZL:} & 84-12/32 & = & - & \underline{84-12/32} \\ & & & & 30/32 \end{array}$$

$$\frac{30/32}{2} = 15/32$$

$$\begin{array}{rcl} \text{RZL:} & & 84-12/32 \\ 1/2 \text{ Retracement Zone:} & & + \underline{15/32} \\ \text{Retracement Zone Midpoint:} & & 84-27/32 \end{array}$$

If you trade Treasury Bonds, and prefer to work with decimals instead of thirty-seconds, I've included a conversion chart on the next page.

**TABLE 4**

**TREASURY BOND CONVERSION - 32nds TO DECIMALS**

<u>32nds</u>	<u>Decimals</u>	<u>32nds</u>	<u>Decimals</u>
1	.03	17	.53
2	.06	18	.56
3	.09	19	.59
4	.12	20	.62
5	.15	21	.65
6	.19	22	.68
7	.21	23	.71
8	.25	24	.75
9	.28	25	.78
10	.32	26	.81
11	.35	27	.84
12	.37	28	.87
13	.40	29	.90
14	.43	30	.93
15	.41	31	.96
16	.50	32	1.00

Example:  $9627 = 96 - 27/32 = 96.84$

## **APPENDIX D**

### **Information Sources**

There is a great deal of information available on commodities. The information in Appendix D is divided into six sections:

- BOOKS
- CHARTING SERVICES
- COMMODITY EXCHANGES
- COMPUTER HARDWARE AND SOFTWARE; COMPUTER-  
IZED DATA
- MISCELLANEOUS INFORMATION
- PERIODICALS

Items are included not as an endorsement, but only to assist a new trader in finding “what is out there.”

Information was deemed to be accurate at the time of publication.

## BOOKS

Allen, R. C. - *The Professional Trading System*  
Windsor Books; 1982

Bernstein, Jacob - *Facts on Futures*  
Probus Publishing; 1986

Frost, Alfred J. and Robert R. Prechter - *Elliott Wave Principle: Key to Stock  
Market Profits*  
New Classics Library  
Chappaqua, NY; 1978

Gann, W. D. - *How to Make Profit in Commodities*  
(or ANY book or article by or about Gann)  
Lambert-Gann Publishing Co., Inc.  
Box 0  
Pomeroy, WA, 1942

Kaufman, P. J. - *Commodity Trading Systems and Methods*  
John Wiley & Sons, New York; 1978

Kogan Page, London/Nichols Publishing Co. - *Guide to World Commodity  
Markets* (See "Commodity Exchanges")  
John Parry, Consultant Editor  
120 Pentonville Road  
London, England N1 9JN

Koy, Kevin - *The Big Hitters*  
Intermarket Publishing Corp.  
401 S. LaSalle Street  
Suite 401  
Chicago, IL 60605

Lane, George C. - *Using Stochastics, Cycles & R.S.I. . . . to the Moment of Decision*  
Investment Educators  
Park Ridge, IL; 1986

McLaren, Bill - *Gann Made Easy*  
Gann Theory Publishing Co.  
10290 Rosewood  
Overland Park, KS 66204  
\$180; book with 60-page chart manual

New York Institute of Finance - *How the Bond Market Works*  
New York Institute of Finance, NY; 1988

Prechter, Robert J. - *The Major Works of R. N. Elliott*  
New Classics Library  
Chappaqua, NY; 1980

Tamarkin, Bob - *"The New Gatsbys: Fortunes and Misfortunes of Commodity Traders"*  
Morrow Publishers  
New York, NY; 1985  
(MUST reading before your first trade!!!)

Vodopich, Donald - *Trading for Profit with Precision Timing*  
Precision Timing  
Atlanta, GA; 1984

Wilder, J. Welles - *New Concepts in Technical Trading Systems*  
Trend Research  
Greensboro, NC; 1978

Woy, James B. - *Commodity Futures Trading: A Bibliographic Guide*  
RR Bowker & Co.  
1180 Avenue of the Americas  
New York, NY 10036; 1976  
A book containing ANY information and terms you ever wanted to know about commodities.

Most of these titles are available from: Windsor Books  
P.O. Box 280  
Brightwaters, NY 11718

They also provide an excellent list of other futures trading titles.

## **CHARTING SERVICES**

### **Commodity Price Charts**

219 Parkade

Cedar Falls, IA 50613

Attn: Kathy

800-221-4352, Ext. 763 (National)

800-772-0023 (In Iowa)

LARGE price charts; trading recommendations

Sample issues may be available

### **Commodity Trend Service; "Futures Charts"**

Joe J. Van Nice, President

P.O. Box 32309

Palm Beach Gardens, FL 33420

800-331-1069 (National)

800-432-1309 (In Florida)

### **CRB Futures Chart Service; Commodity Research Bureau**

30 South Wacker Drive

Suite 1820

Chicago, IL 60606

800-826-7685 (National)

800-454-9116 (In Illinois)

## COMMODITY EXCHANGES

An interesting book from the previous list is *Guide to World Commodity Markets*, which lists worldwide commodity exchanges.

Regardless of what commodity you wish to trade - from French Robusta Coffee, to Japanese Toyohashi Dried Cocoon, to Malaysian Rubber, to Netherlandian Eggs, to United Kingdom Potatoes and, of course, Uruguanian Agriculturals - there's a market for it.

Chicago Board of Trade (CBT)  
Education and Marketing  
Literature Services Department  
LaSalle and Jackson  
Chicago, IL 60604  
312-435-3500  
800-THE-CBOT

Chicago Mercantile Exchange (CME)  
30 S. Wacker Drive  
Chicago, IL 60606  
312-930-1000

Chicago Rice & Cotton Exchange  
141 W. Jackson  
Chicago, IL 60604  
312-341-3078

Citrus Associates of the New York Cotton Exchange, Inc.  
4 World Trade Center  
New York, NY 10048  
212-938-2650

Coffee, Sugar & Cocoa Exchange (CSCE)  
4 World Trade Center  
New York, NY 10048  
212-938-2650  
800-433-4348



Commodity Exchange Inc., New York (COMEX)  
4 World Trade Center  
New York, NY 10048  
212-938-2900

International Monetary Market at CME, Chicago (IMM)  
30 S. Wacker Drive  
Chicago, IL 60606  
312-930-1000  
800-323-4405

Kansas City Board of Trade (KC)  
4800 Main Street  
Suite 303  
Kansas City, MO 64112  
816-753-7500  
800-821-5228

Mid-America Commodity Exchange (CME)  
141 West Jackson Blvd.  
Chicago, IL 60604  
312-435-0606  
800-572-3276

Minneapolis Grain Exchange (MPLS)  
400 South 4th Street  
Room 150  
Minneapolis, MN 55415  
612-338-6212

New Orleans Commodity Exchange  
308 Board of Trade Place  
New Orleans, LA 70130  
212-938-2650

New York Cotton Exchange (CTN)  
4 World Trade Center  
New York, NY 10048  
212-938-2650

New York Futures Exchange (New York Stock Exchange; NYFE)  
20 Broad Street  
New York, NY 10005  
212-656-4949

New York Mercantile Exchange (NYM)  
4 World Trade Center  
New York, NY 10048  
212-938-2222

Winnipeg Commodity Exchange  
550 Commodity Exchange Building  
360 Main Street  
Winnipeg, Manitoba, Canada R3C 3ZA

## **COMPUTER HARDWARE AND SOFTWARE; COMPUTERIZED DATA**

Computer hardware and software for trading are generally available in three ways:

- 1) Complete hardware, software and data-retrieval packages.

CQG is the most-widely known.

For a monthly fee which includes hardware leasing, data-retrieval, technical analysis software, data lines, and exchange fees, a CQG unit can be installed at your location - home or office.

- 2) Computer boards with integrated data-retrieval and technical analysis software for your PC for both real-time (as price ticks are occurring) and end-of-day quotes.

An example of a real time quote service is FutureSource.

For a security deposit and a monthly fee, FutureSource supplies technical analysis software, a data-retrieval card, and real-time data (price ticks as they are occurring). The data is received by your computer via a dedicated telephone line or satellite dish.

End-of-day quotes are available through companies such as CSI.

CSI charges a monthly fee for integrated technical analysis and data-retrieval software for retrieving data via your computer's modem and telephone line.

- 3) Separate data and technical analysis software.

Lotus Signal will supply the data. An independent technical analysis software package, such as Equis International's "Meta Stock" can be used. The Lotus referral in this section can supply a list of compatible software programs that can be used with Lotus Signal.

The beginning trader may already have a basic, IBM-compatible XT computer. This may be an economical way to learn about commodities and technical analysis.

## SUGGESTED COMPUTER HARDWARE

Make:	IBM or IBM-compatible
Monitor:	EGA or VGA, 18" or 19" screen (14" is standard)
Class:	AT or better 286-style is better; 386 is Top Gun.
Speed:	Minimum 16Mhz 20 Mhz or faster would be better
Base Memory:	640K minimum with 512K expanded memory (Setting expanded memory is not a do-it-yourself project!)
DOS:	3.0 or better (4.0 is available)
Hard Drive:	Minimum 30 or 40 Megabyte (for the small additional price, get the 40, and more if possible) 45 milli-second, or faster access time 1:1 interleave
Floppy Drive:	1.2 Megabyte
Modem:	Internal; 1200 Baud
Keyboard:	101 expanded keyboard
Surge Suppressor:	Any reliable model
Printer:	A dot matrix/near-letter-quality is fine. A letter-quality or laser printer looks nice, but for commodity trading, money is made with price ticks, rather than price charts. The number of chart colors doesn't matter. The bottom line is the information on the chart.
Cost:	Anticipate an investment of between \$3500 and \$5500 for the hardware, keeping in mind that: 1) You get what you pay for, and 2) It is a business investment.

**BPO Computers**

7701 Stonewood Dr. NW  
North Canton, OH 44720  
Attn.: Dan Patterson  
216-497-6400

BPO is familiar with computer hardware necessary for trading stocks and commodities.

**CQG Inc.**

P.O. Box 758  
Glenwood Springs, CO 81602  
Attn.: Marketing Representative  
800-525-7082 (National)  
303-945-8686 (In Colorado)

Real-time quotations, technical analysis and enhanced graphics on futures/options.

**Commodity Communications Corporation; "FutureSource"**

955 Parkview Blvd.  
Lombard, IL 60148  
312-977-9067  
800-621-2628

Demo disk available.

**Commodity Systems Inc. (CSI)**

200 W. Palmetto Park Road  
Suite 200  
Boca Raton, FL 33432  
800-327-0175

Automated data retrieval and associated software for technical analysis.

**Compu-Trac Inc.**

P.O. Box 15951  
New Orleans, LA 70175-5951  
Attn.: Tim Slater  
800-535-7990 (United States)  
800-433-4081 (Canada)

Automated data retrieval and associated software for technical analysis.

Dow Jones & Company, Inc.  
P.O. Box 300  
Princeton, NJ 08543-0300

Automated data-retrieval and associated software for technical analysis.  
Financial information data bases.

Equis International, Inc.  
P.O. Box 26743  
Salt Lake City, UT 84126  
800-882-3040

Technical-analysis software including:  
"MetaStock Professional"  
"The Technician" (general analysis of the market)  
"The DownLoader" (data retrieval)  
Demo disk available.

Gannsoft Publishing Co.  
11670 Riverbend Drive  
Leavenworth, WA 98826  
509-548-5990

"Ganntrader I" software (Gann's charting methods).  
Books and courses on Gann trading.  
Computerized historical data.

Lotus Signal  
8280 Greensboro Drive  
Suite 320  
McLean, VA 22102  
Attn.: Chris Myers  
800-321-TICK

Real time AND end-of-day quotes.  
"Quotrek" portable quote machines.

Relevance III  
4400 Belmont Park Terrace  
259 King Henry Court  
Nashville, TN 37215  
615-297-3537  
Technical analysis software

Rhea, Stanley H. - CTA  
7 Saturn Circle  
Rancho Mirage, CA 92270  
619-324-0841  
386-20 Turbo (22 & 27 MHz) IBM-compatible clone

T.B.S.P.  
2265 Westwood Blvd.  
Suite 793  
Los Angeles, CA 90064  
213-312-0154  
Technical analysis software; historical data.  
Demo disk available.

Technical Tools  
344 State Street  
Suite 204  
Los Altos, CA 94022  
415-948-6124  
"Quoteline" and "QuoteButler" data software.

Trading Techniques, Inc.  
550 E. Robinson  
Suite 2  
Barberton, OH 44203  
216-753-7676  
Gann-Elliott Wave-Fibonacci software.  
Trading Courses.

Price charts used in this publication, unless otherwise noted, are from the Gann-Elliott Trading (G.E.T.) System, developed by Tom Joseph of Trading Techniques Inc. It is a software package well worth the investment for those wishing to learn technical analysis but may be too much for the beginning trader.

The G.E.T. System must be seen to be fully appreciated. G.E.T.'s technicals include Gann Clusters, Gann Angles, Elliott Wave counts (both long-term and short-term), Fibonacci retracements, an Auto Trade mode, and two unique features - T.J.'s Web levels and the 5/35 Oscillator. (As of this writing, a new version of G.E.T. has just been released and is better than ever!)

The G.E.T. manual not only explains the program, but includes a clear and practical presentation of Elliott Wave theory.

The "P," "J," "I" and "M" points appearing on some charts are computerized Primary, Major, Intermediate and Minor Gann Price Pivot Points. The software

measures the percentage price swing from each high and each low and defines each price swing accordingly. Gann Lines generating from these Pivot Points have varying degrees of influence on a price trend. For instance, the lines originating from a "P" point have the most influence on future prices. Lines originating from an "M" point have the least influence. This is one of the proprietary features of the software.

And no, I am NOT selling the software, nor do I have any financial interests in Trading Techniques. Credit is just being given where credit is due.

For further information on software or other services that may be offered by Trading Techniques, contact:

Tom Joseph  
Trading Techniques, Inc.  
550 East Robinson Avenue  
Suite 2  
Barberton, Ohio 44203  
216-753-7676



## MISCELLANEOUS INFORMATION

Robert K. Baird

Paine Webber, Inc.  
401B Street, Suite 1100  
San Diego, CA 92101  
619-236-0460  
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## **APPENDIX F**

### **Request for Information**

The field of commodity trading is expanding every day. It is difficult for any one person to keep up with the ever-increasing amount of information about commodity trading.

I may be able to help.

Over the years, I've received more information than I could have included in this manual. In appreciation for investing in my book, I'd be happy to share whatever information I may have with you.

Complete the "REQUEST FOR INFORMATION" form for any information requests, questions, comments or suggestions you may have, and return it with a stamped, self-addressed envelope.

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