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UNITED STATES NAVAL POSTGRADUATE SCHOOL

THESIS

AN ANALYSIS OF

STOCK MARKET INDICATORS

by

Donald J. Dunham, Jr.

1964

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STOCK MARKET INDICATORS

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Donald J. Dunham, Jr.

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AN ANALYSIS OF

STOCK MARKET INDICATORS

by

Donald J. Dunham, Jr.

Lieutenant Commander, Supply Corps, United States Navy

Submitted in partial fulfillment of
the requirements for the degree of

MASTER OF SCIENCE
IN
MANAGEMENT (DATA PROCESSING)

United States Naval Postgraduate School
Monterey, California

1 9 6 4

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Donald J. Dunham, Jr.

This work is accepted as fulfilling

the thesis requirements for the degree of

MASTER OF SCIENCE

IN

MANAGEMENT (DATA PROCESSING)

from the

United States Naval Postgraduate School

Faculty Advisor

Chairman
Department of Management

Approved:

Academic Dean

ABSTRACT

The Dow-Jones Industrial Average, Standard and Poor (500) Index, and Barron's Confidence Index were tested by various FORTRAN programs, and the results were graphed and printed from the Control Data 1604 tapes. Moving averages of differing periods, exponential smoothing using various smoothing constants and orders, and the Trendex model were used in the analysis. These techniques are discussed and analyzed. The representative programs, printouts and graphs are included to assist in determining whether to concentrate on investment in common stock or to deemphasize this portion of the portfolio and replace it in whole or in part with cash or bonds.

The patience of the personnel assigned to the Computer Facility, U. S. Naval Postgraduate School, was greatly appreciated. The direction and encouragement of Professors L. Darbyshire and D. G. Williams of the U. S. Naval Postgraduate School also contributed greatly to the pursuance of this analysis.

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

CHAPTER I

INTRODUCTION

The stock market tells a story that can be heard by those who take the time to listen. There are many techniques available to assist in interpreting this story. Some of these indicators will be discussed and analyzed.

No attempt has been made to determine what stock to buy. The value in this thesis is to assist in determining whether to concentrate on investment in common stock or to deemphasize the common stock portion of a portfolio and replace it in whole or in part with cash or bonds. The assumption made here is that the probability favors the continuation of the trend in a broad index that now exists. This may be due in part to the fact that most averages are composed of active, well-publicized and widely owned issues whose market action individually is "normal" in the technical sense. Another reason is that the process of averaging smooths out vagaries of component stocks, and the result thus more truly reflects the deep and relatively steady economic trends and tides. It is a fact that such averages as the Dow-Jones and Standard and Poor do propagate excellent trend lines on their charts. Admittedly investors cannot trade in the averages; actual commitments must be made in individual issues. However, even experienced traders know that it pays to heed the broad market trend.

Several computer programs, written by the author in FORTRAN and run on a Control Data 1604, are included in the appendices. One subroutine, "DRAW", which is available at the U. S. Naval Postgraduate School, was

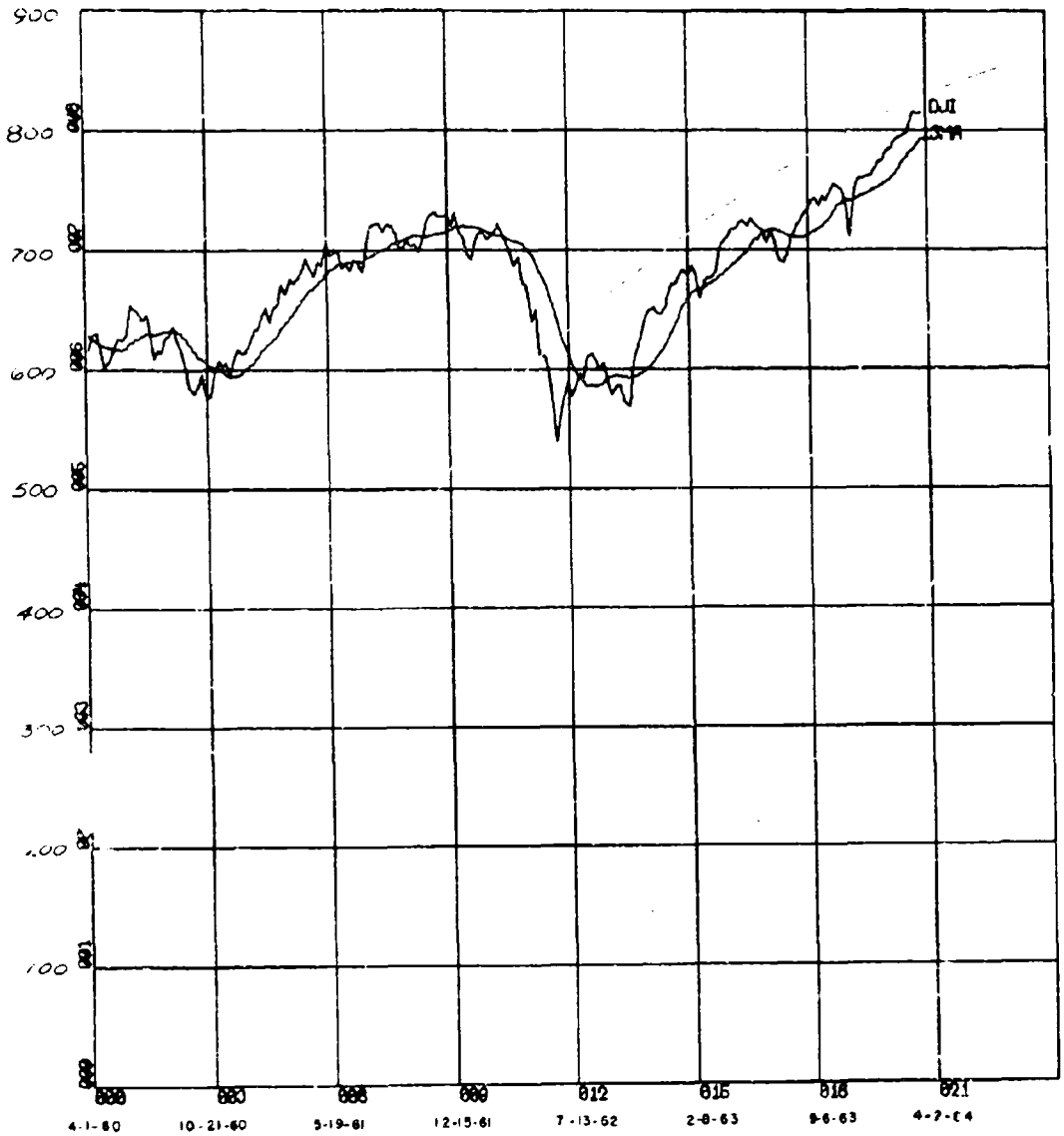
used to obtain the graphs. A limitation imposed by this subroutine is that only 900 data points can be plotted, and the maximum abscissa is 9 inches. These graphs include moving averages, exponential smoothing and the Trendex time series technique.

CHAPTER II

MOVING AVERAGES

Obtaining moving averages from the Dow Jones Industrial Average is one of the most informative methods of analysis. The determination of the period involved is somewhat controversial. Several periods were analyzed to ascertain the difference in characteristics. A 13 week moving average (13MA) is plotted with the Dow Jones Industrial Average (DJI) superimposed over it in figure 1. The computer program and data are included in appendix A. The Dow Jones Industrial Average was used as of the close of business each Friday from 1 April 1960 through 26 March 1964. If the market was closed on Friday, the last day the market was open during that week was used.

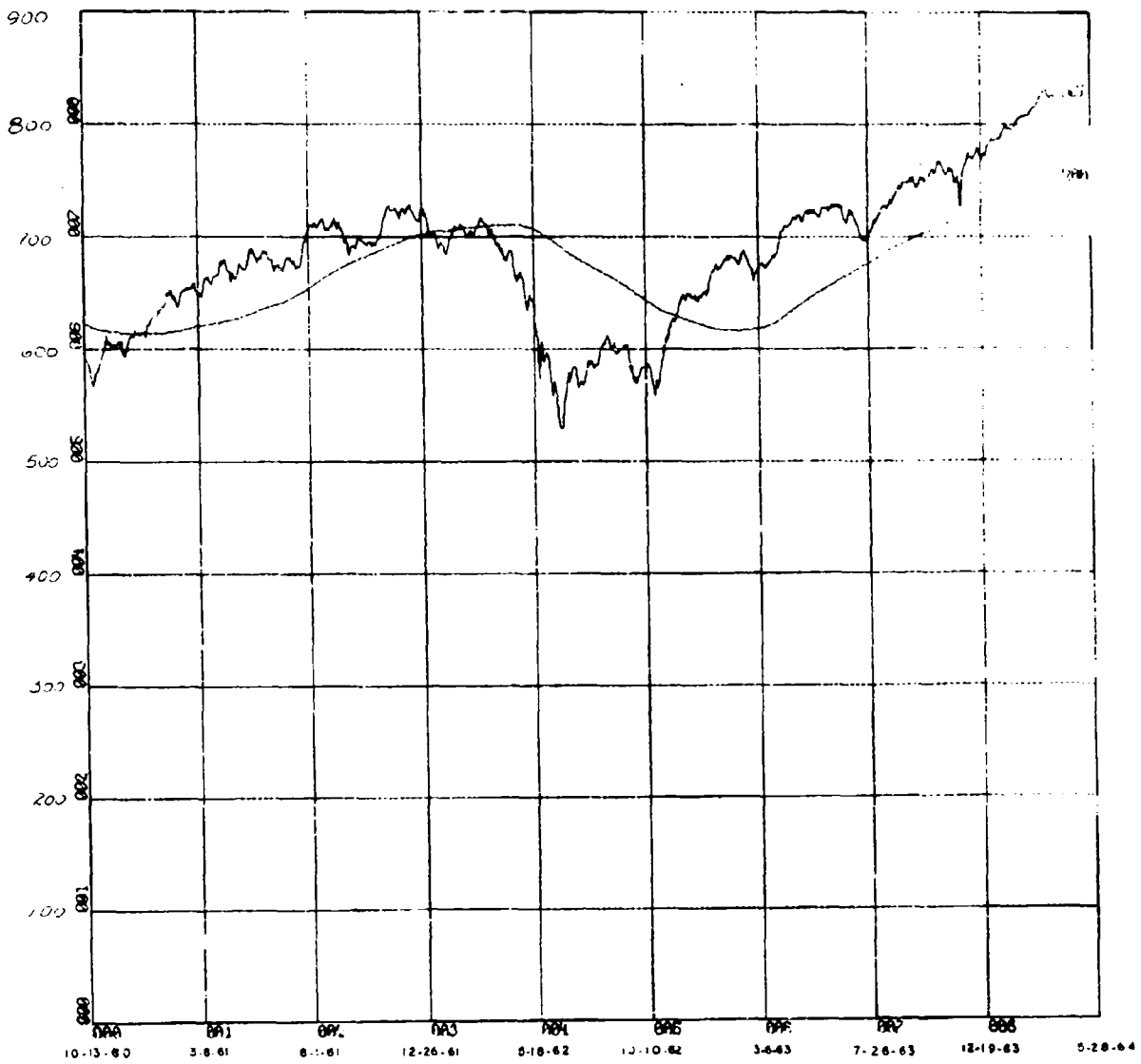
A 200 day moving average (200), figure 2, is more commonly used. This analysis was computed from 14 October 1960 through 26 March 1964. A disadvantage of this system is that the first 199 days of data are lost in computing the average. It is desirable to use a slow-moving average line to obtain a more reliable chart. It should be noted that there were only 3 basic changes to the trend between 14 October 1960 and 26 March 1964. These are clearly identified in figure 2, when the Dow Jones Industrial average broke out on the upside on 16 December 1960, hesitated slightly, and broke out on the upside on 28 December 1960. It broke through on the downside on 30 March 1962 forecasting the crisis of that spring. The current bullish trend was depicted by an upward breakthrough on 20 November 1962. It is true that there were some false breakthroughs; such as 22 November 1963 when President Kennedy was



X-SCALE = 3.60E+01 UNITS/INCH
Y-SCALE = 1.00E+02 UNITS/INCH

DUNHAM 237 DJI VS DJI 13 WEEK MOVING AVERAGE
1 APRIL 1960 THRU 27 MAR.1964

FIG. 1



X-SCALE = LABEL+A2 UNITS/INCH
Y-SCALE = LABEL+A2 UNITS/INCH

DUNHAM 237 DOW JONES INDUSTRIALS VS 200 DAY
MOVING AVERAGE 14 OCT.1960 THRU 26 MAR.1964

FIG. 2

assassinated, but these are either explained by outside forces or are a signal using the rules listed below.

The 13 week moving average in figure 1 does n[illegible] seem to permit an analysis as well as the 100 or 200 day moving averages. It provides a faster reaction to trend changes, but the large number of intersections make the analysis more difficult. Monthly moving averages of periods 3 and 6 were tested, but proved unsatisfactory since the line moved too rapidly for an effective analysis.

The following interpretations of figures 1 and 2 are recommended:

(1) If the average line flattens out following a previous decline, or is advancing, and the Index penetrates that average line on the upside, this comprises a major buying signal.

(2) If the Index falls below the moving average price line while the average line is still rising, this also is considered to be a buying opportunity.

(3) If the Index is above the line and is declining toward that line, fails to go through and starts to turn up again, this is a buying signal.

(4) If the Index falls too fast under the declining average line, it is entitled to an advance back toward the average line and a buying opportunity for this short-term technical rise is indicated.

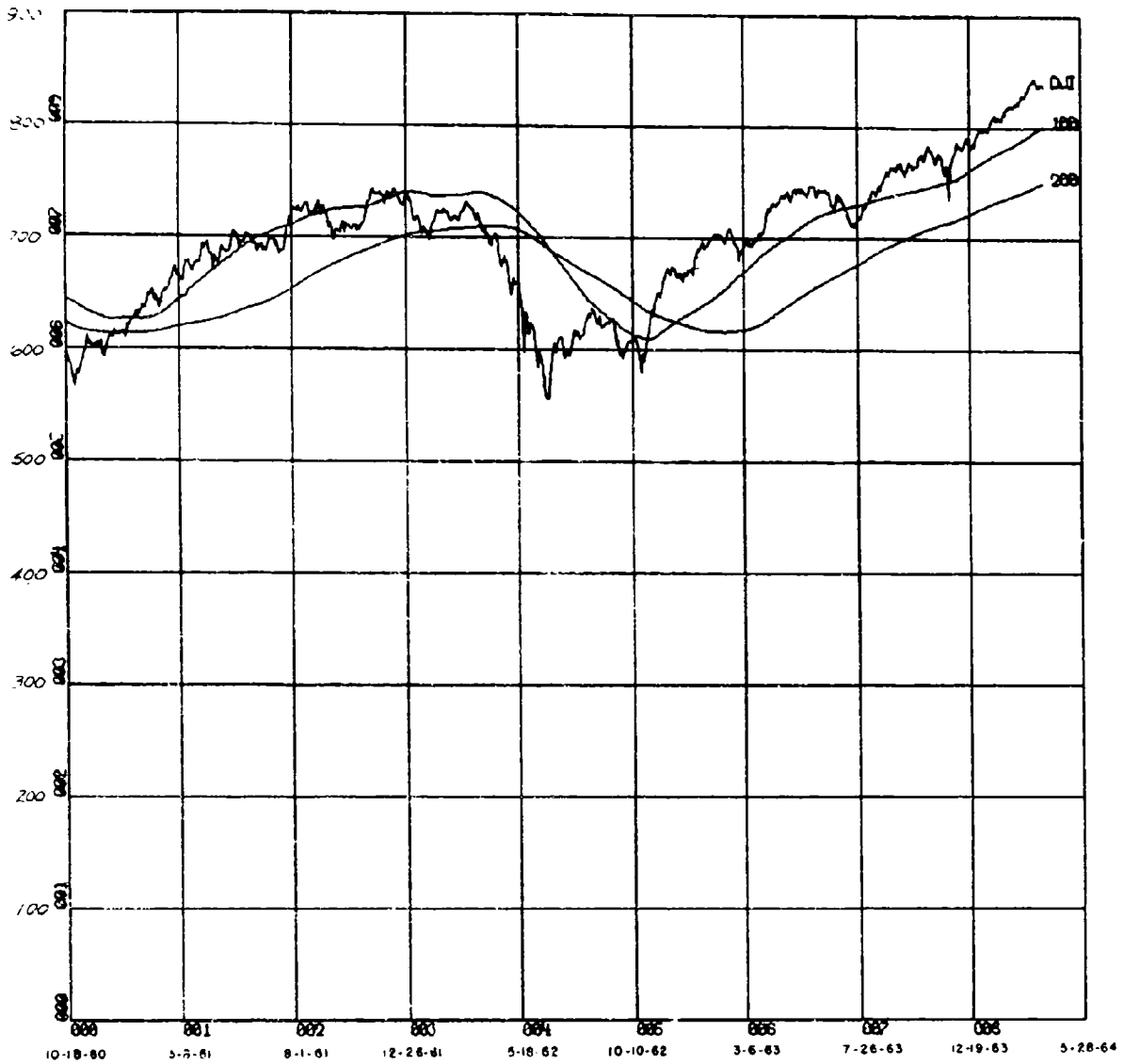
(5) If the average line flattens out following a previous rise, or is declining, and the Index penetrates that line on the downside, this comprises a major selling signal.

(6) If the Index rises above the moving average price line while the average line is still falling, this also is considered to be a selling opportunity.

(7) If the Index is below the line and is advancing toward that line, fails to go through and starts to turn down again, this is a selling signal.

(8) If the Index advances too fast above the advancing average line, it is entitled to a reaction back toward the average line and a selling opportunity for this short-term technical reaction is indicated [8].

Another system which is sometimes used is illustrated in figure 3. The computer program with output data is shown in appendix B. This program can be used in conjunction with the rules recommended for figure 2. For bear market insurance a very simple procedure to remember is that a sell signal is effected when the Dow Jones Industrial Average falls below the lower of the two moving average lines 1 .



X-SCALE = 1.88E+02 UNITS/INCH
Y-SCALE = 1.00E+02 UNITS/INCH

DUNHAM BOX 237 DJI VS 200 DAY VS 100 DAY MOVING AVERAGES 14 OCT.1960 THRU 26 MAR.1964

FIG. 3

CHAPTER III

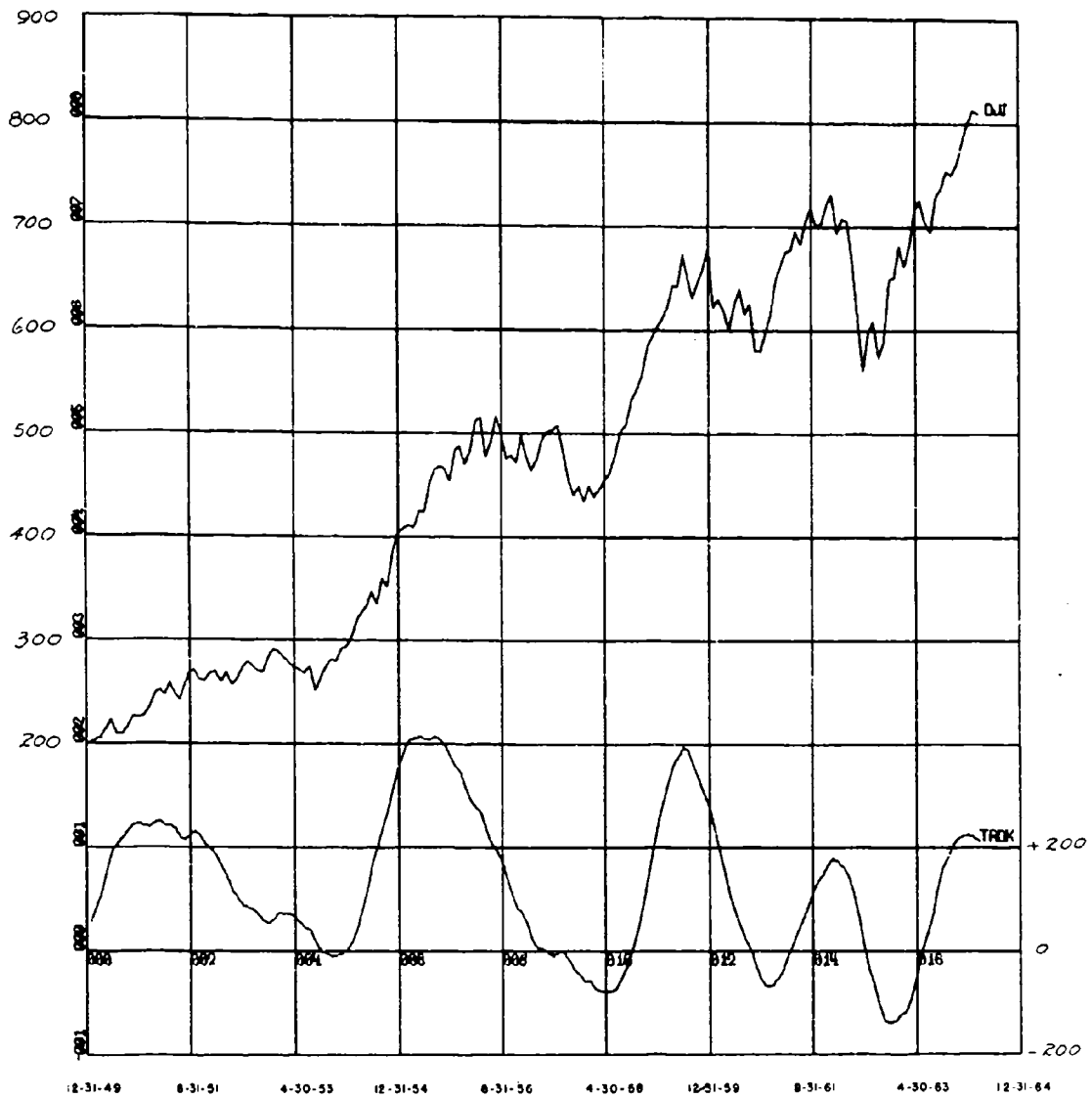
TRENDEX MODEL

The Trendex model first came to the attention of the author when it was described by E. S. C. Coppock in the 15 October 1962 issue of Barron's. This discussion was limited to the bull market era between 1950 and 1962. This period has been extended through April 1964 using the Dow Jones Industrial Average on the last market day of the month, figure 4. To determine the broader applicability of this model, the Standard and Poor composite of 500 stocks (STPR) was used commencing in January 1928. Figure 5 indicates that there is also a correlation in bear markets.

Figure 6 superimposes the Trendex curve (TNDX) from the 13 week moving average on figure 1. Appendix A contains the Trendex output. Little advantage is gained here except that two indicators are available on one graph from the same data. An attempt with a 200 day moving average with Trendex was of no value because it increased too slowly.

The computer programs for the Dow Jones Industrial Average and the Standard and Poor (500) are similar and are included in appendices C and D respectively.

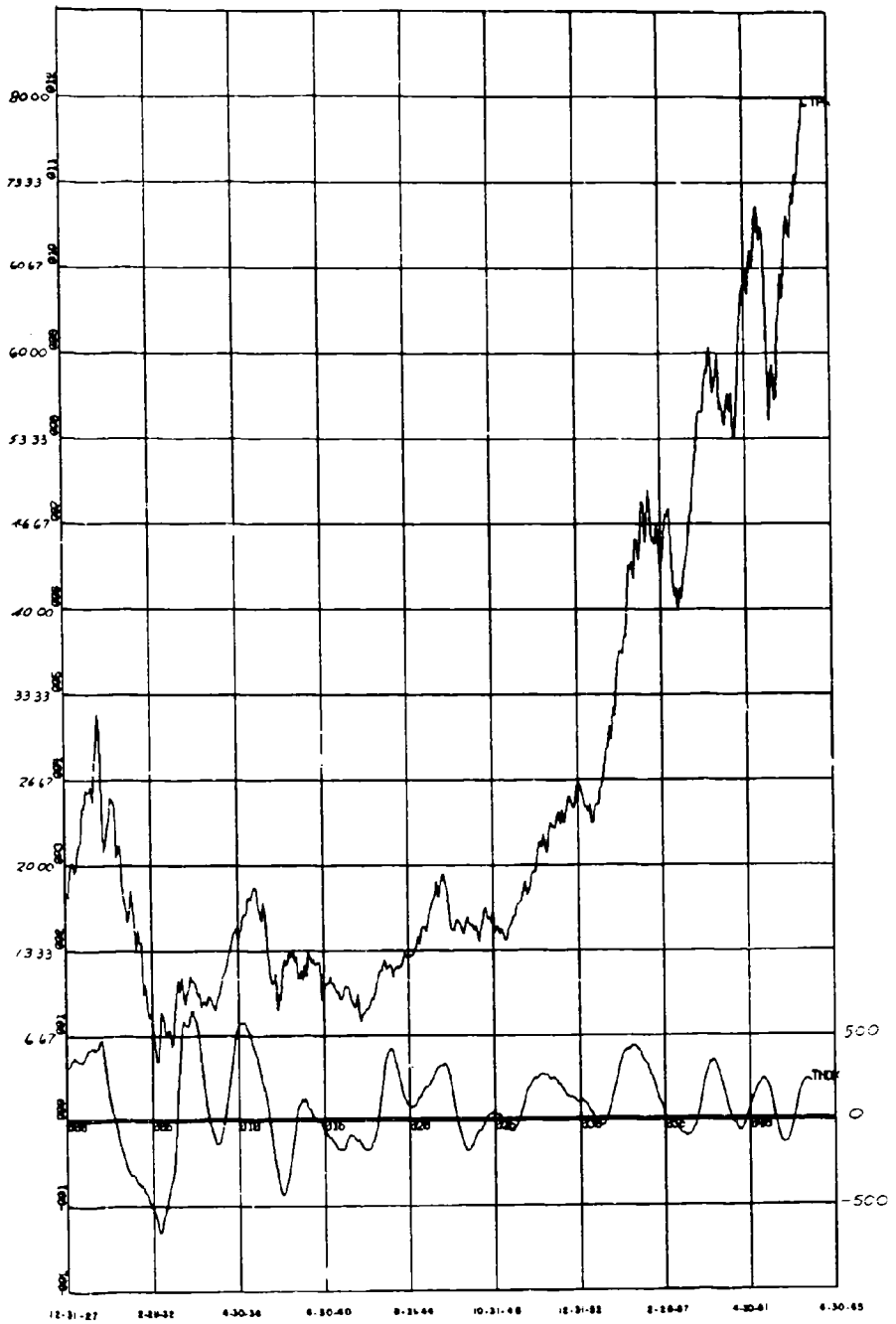
Reasonable assumptions about the growing family of investors might include the following: the vast majority have no special training as investors; being human, they tend to procrastinate; new investors indulge their hopes, fears and imaginations; since few people are truly temperate, most investors become in turn unduly optimistic and unduly pessimistic, and are swept along with the crowd. In short, then, psychological or



X-SCALE = 2.00E+01 UNITS/INCH
Y-SCALE = 1.00E+02 UNITS/INCH

DUNHAM DOW JONES INDUSTRIALS VS TRENDEX DJI
31 JAN.1950 THRU 30 APR.1964 MONTHLY

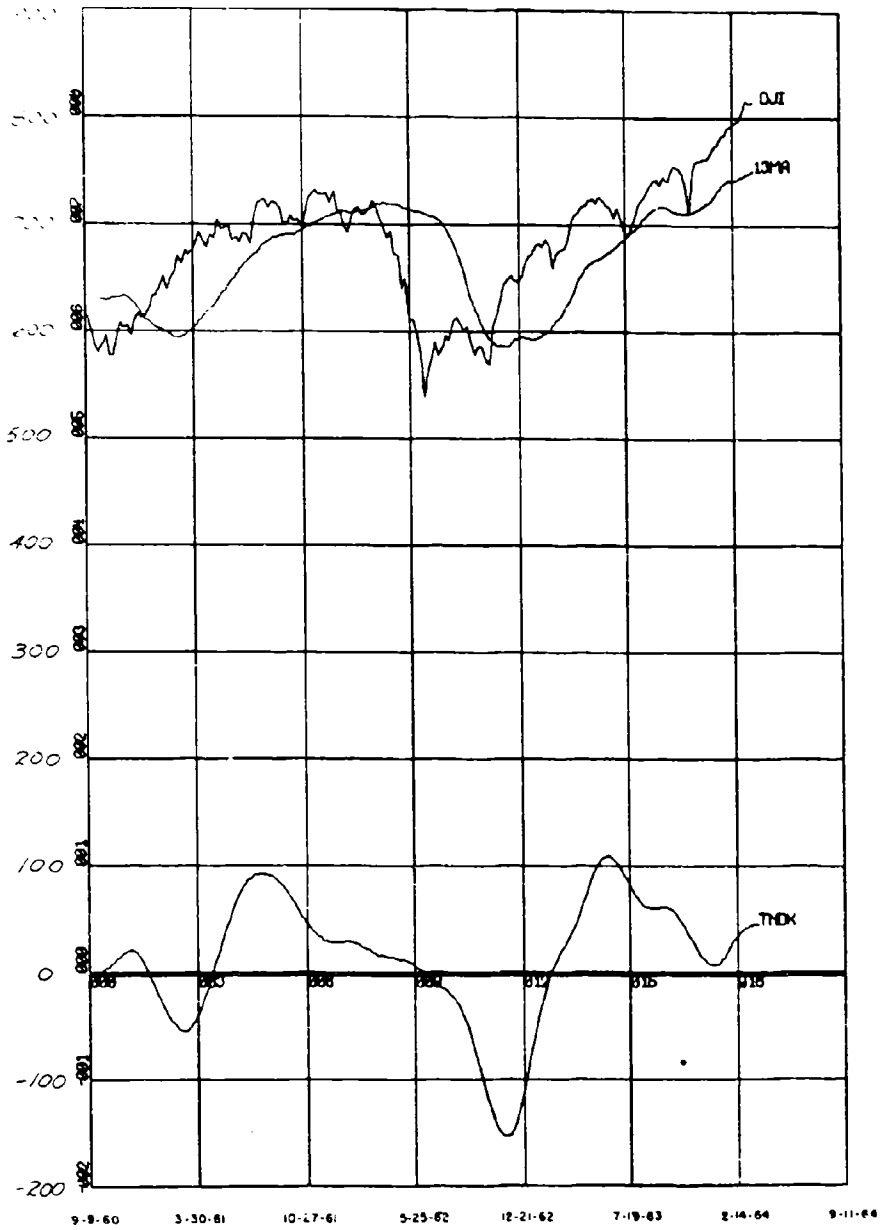
FIG. 4



X-SCALE = 5.88E+01 UNITS/INCH
Y-SCALE = 1.88E+02 UNITS/INCH

DUNHAM STANDARD AND POOR(500) VS TRENDEX
STANDARD AND POOR 31 JAN.1928 THRU 30 APR.1964

FIG. 5



X-SCALE = 3.00E+01 UNITS/INCH
Y-SCALE = 1.00E+02 UNITS/INCH

DUNHAM 237 DJI VS DJI 13 WEEK MOVING AVERAGE VS TRENDEX 13 WEEKMOVING AVERAGE 9/09/60-3/27/64

FIG. 6

emotional factors play a great part in determining the actions of most investors. A way to record and evaluate the ever-increasing impact of emotion on market prices should be added to the investor's tool box.

Despite words of warning, emotional buying and selling will continue, thereby increasing the amplitude of market movements. These movements can be highly profitable to the investor who can appraise them properly, detect their acceleration and deceleration and act accordingly; contrary to the emotions of the crowd. The crowd liquidates holdings during a panicky decline and ignores basic economic facts. They overdo because they are motivated by emotion rather than by reason. The distortion created by impulsive buying and selling can be great. Emotional influences on the stock market gather momentum until they reach a climax. Excesses are usually followed by corrections.

Time and change are the basic elements in evaluating trends. The selection of proper time spans for a study of rate of change determines the effectiveness of the technique. The persistence of a trend for many months is more reliable than trends of short duration for the majority of investors.

The Trendex model is based on the monthly percentage change of an acceptable index. This is more meaningful than points of change. Since it gives a so-called buy signal when the risk is low just prior to the start of an important sustained advance (the second phase of a bull market), it is of no value to the in-and-out trader.

The value of the 10 month weighted moving average (column 18) is posted to the current date, figure 4, and is a simple curve which oscillates above and below a zero line. In statistical theory, if the

emotional factor were not present in stock market prices, there would be no widely oscillating curve - the line would be nearly horizontal. Its waves are, in effect, a picture of the emotional, or irregular pattern, since the trend and cyclical variations have been removed. Seasonal factors are not considered in this model.

According to Mr. Coppock [4], well timed buying is far more difficult for the non-professional investor than timely selling. He, therefore, prefers to think of the curve as a very long-term buying guide and suggests buying several strong good-quality stocks for the long term when the curve first turns upward from a position below the zero line.

Although not as accurate, the maximum points provide a reasonable correlation with downswings of the market. This indicator is purportedly to be used in the purchase of high grade stocks which are to be held for a long period. However, utilization of this indicator in conjunction with other technical devices expands its applicability to the market in general.

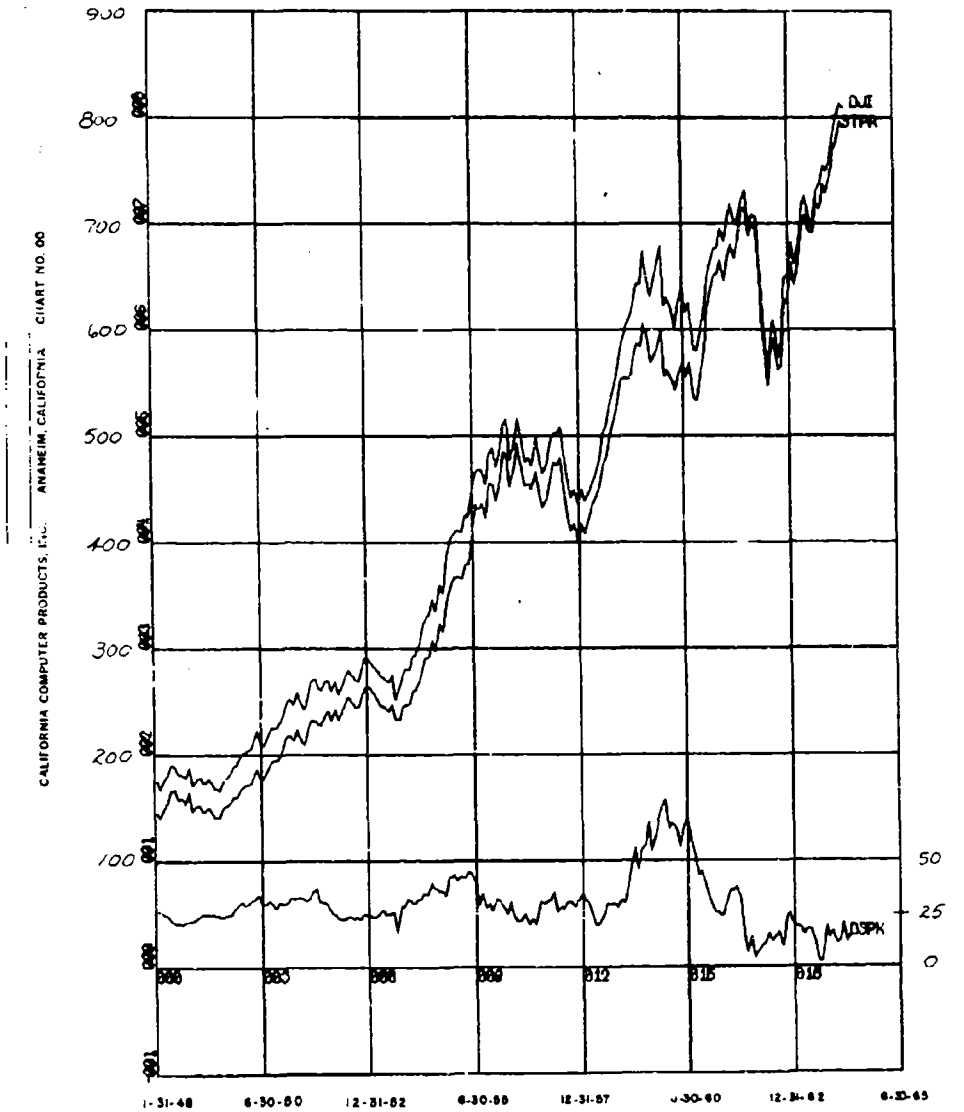
Several refinements to this technique suggest themselves, some of which have been tested here; the use of a very broad composite as the source of raw data, improved sensitivity through the use of weekly data, and the use of a monthly mean price instead of a closing price. It is the opinion of the author that there is value in using this model in the selection of individual stocks, provided the pattern of the prices used is compatible to the moving average introduced. A shorter term signal will be provided by a weighted moving average with a shorter period.

CHAPTER IV

DISPARITY INDEX

This program, appendix E, provides an interesting result. An expression commonly heard is that since the Dow Jones Industrial Average is composed of only 30 stocks; it, therefore, cannot provide a good indication of the market. An index that contains more stocks should be used. Figure 7 demonstrates that there is a very close parallel between the Dow-Jones Industrials (DJI) and the Standard and Poor (500) (STPR). The usual thumb-rule of Dow Jones/Standard and Poor ratio of 10:1 was used. The Standard and Poor times 10 is subtracted from the Dow-Jones and plotted (DSPX) in figure 7.

This also provides a quick measurement of the market movement. If Standard and Poor (500) was up .25 on the day and the Dow-Jones Industrial Average was off .50, then there is a bullish 3 point disparity in favor of the Dow. The next move of the Dow would probably be an advance. The Standard and Poor Index would have reflected the fact that on that particular day the general market was stronger than the Dow-Jones Industrial Average said it was. The Dow should have advanced by 2.50 to be commensurate with the general market. A 4 point advance in the Dow-Jones Industrial Average should be matched by at least a .40 gain in the Standard and Poor Index. Anything considerably below .40 would indicate the Dow-Jones advance was not typical of the general market. A decline would be expected to follow; but not necessarily immediately. However, if this situation persists, the vulnerability of the market would increase. In the case of such disparities, one of two things would be



X-SCALE = 3.09E+01 UNITS/INCH
Y-SCALE = 1.00E+02 UNITS/INCH

DUNHAM 237 DJI VS STANDARD AND POORS 500 VS
DISPARITY INDEX 31 JAN.1948 THRU 30 APR.1964

FIG. 7

expected to take place. Either the general market would come up to the Dow or the Dow would come down to the market price level. Past performance indicates a higher probability of the latter. Blue chip issues are the last to fall in a bear market.

This measurement of differential is also valuable as a major intermediate market indicator, especially when measuring the extent that the blue chip issues are running ahead of the general market late in a bull cycle. The Disparity Index quickly reflects the initial degree of general market deterioration paralleling a decline in the Advance-Decline Index. The Advance-Decline Index reflects general deterioration in a market that is losing strength, but the Disparity Index measures the degree of vulnerability and suggests how far the Dow-Jones Industrial average will go on the probable reaction. Figure 7 indicates that a "behind-the-market" status for the blue chips on a negative disparity is quite rare.

CHAPTER V

EXPONENTIAL SMOOTHING

Moving averages have many of the desirable characteristics of a practical method for smoothing out fluctuations. They have a stable response to changes, and the rate of response can be controlled by the selection of the number of periods included in the average. The most serious drawback is to keep track of past data, so that the moving totals can be adjusted, adding new information and dropping old. It is difficult to change the rate of response.

Exponential smoothing is a special kind of moving average that does not require keeping a long historical record and cuts down on data-processing time. The rate of response can be adjusted readily.

The formula for this system is simply to add to the old average a fraction of the difference between the new data and the old average. It is usually written as: new average $= \alpha$ (new data) $+ (1-\alpha)$ old average; where α is a fraction. In the program, appendix F, the new average = old average $+ \alpha$ (new data-old average) to reduce the computer time.

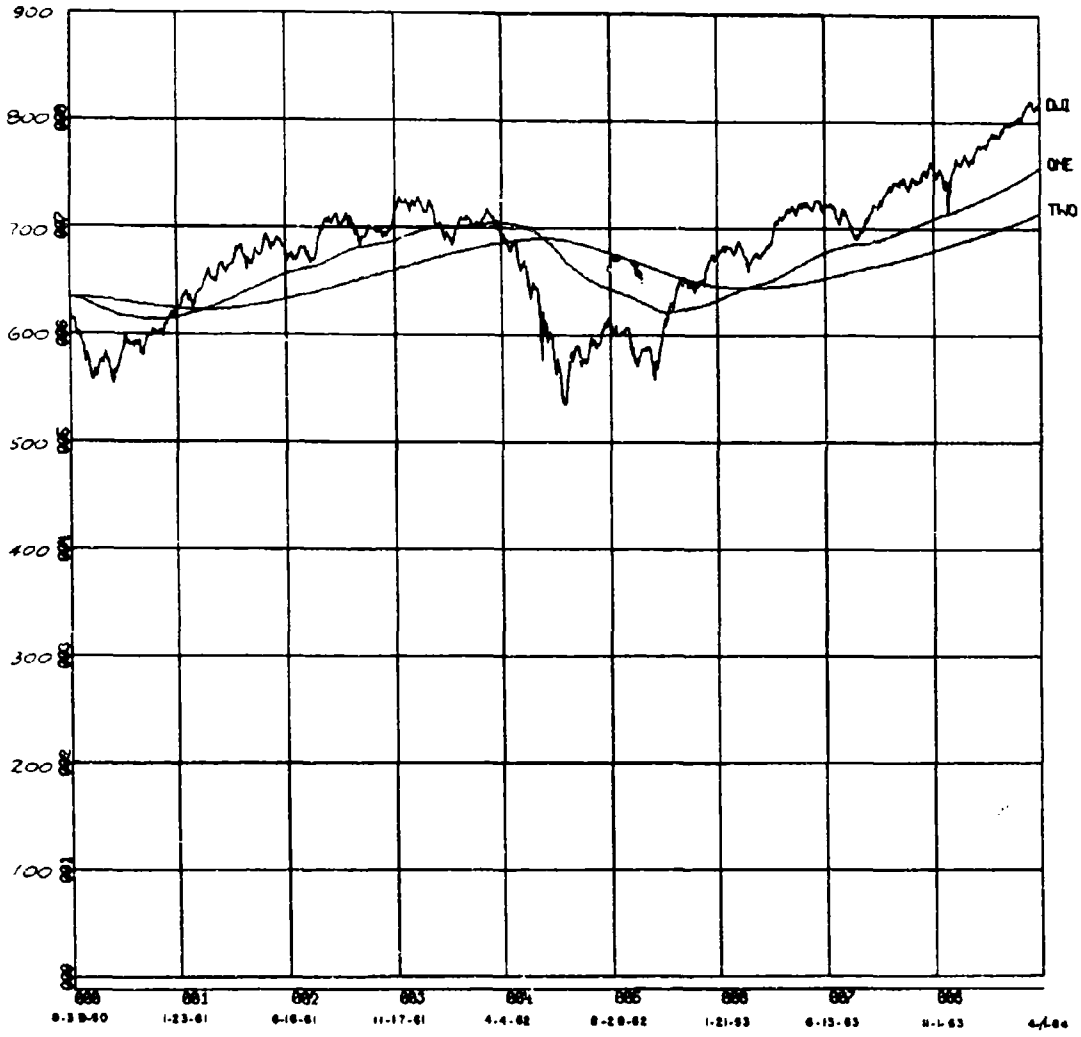
The smoothing constant, alpha, that gives the equivalent of an N-month moving average is $\frac{2}{N+1}$. The total fraction of the weight given to all the data more than N-months old is $(1-\alpha)^{N+1}$. To approximate a 200 day moving average, a smoothing constant .01 was used. The same rules regarding the evaluation of moving averages apply here.

First order exponential smoothing does not track a trend in the data, but an apparent trend can be computed to correct the calculated

average for its effect. This can be more readily accomplished by second order exponential smoothing. This is merely a repeat of the first order system. The second order average is equal to the first order average plus a fraction of the difference between the first and second order averages. Figure 8 shows the first order average (ONE) and second order average (TWO) superimposed on the Dow-Jones Industrial Average using a smoothing constant of .01. A comparison with figure 2 shows the equivalence of the first order exponential to the 200 day moving average.

An attempt to forecast the Dow-Jones Industrial Average one day in advance is shown in appendix G. Figures 9 and 10 show daily plots of the Dow-Jones Industrial Average (DJI), the first order exponential average (ONE), the second order exponential average (TWO), the expected Dow-Jones (used in a statistical sense) (EDJI), the forecast (FCST) and the differential between the forecast and the actual Dow (EROR), for the period 30 August 1960 through 31 March 1964. Figure 9 shows a smoothing constant, α, of .01 which did not produce desired results. In figure 10 the smoothing constant was increased to .30, and much better results were received.

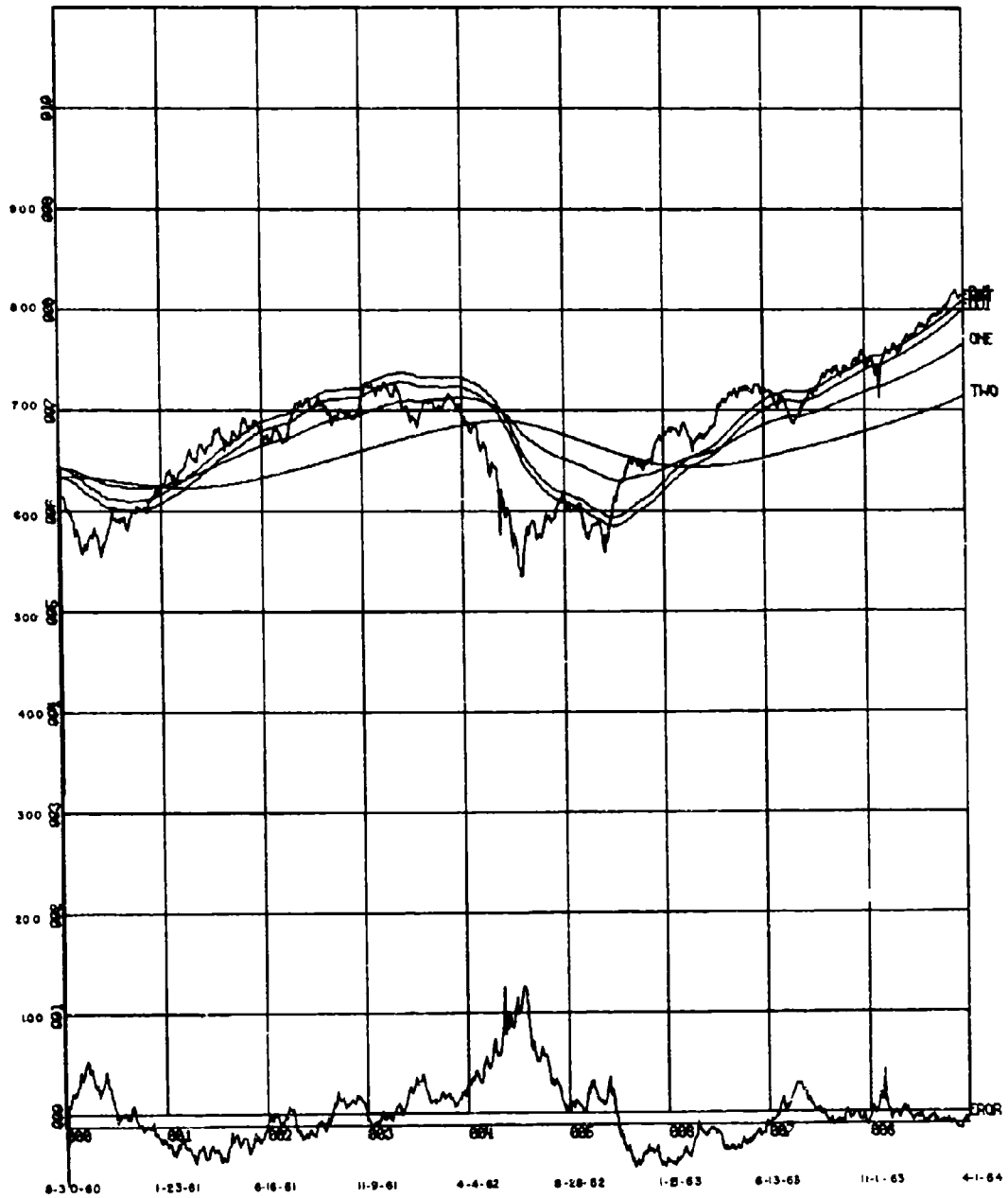
This preliminary model can readily be changed to produce a forecast with a longer lead time and to provide an automatic change in the smoothing constant when the system gets out of control, i.e. when the Dow-Jones varies more than a pre-determined value from the forecast.



X-SCALE = 1.00E+02 UNITS/INCH
Y-SCALE = 1.00E+02 UNITS/INCH

DUNHAM 237 DJI VS SINGLE AND DOUBLE EXPONENTIAL
SMOOTH CONSTANT .01 30 AUG.1960 THRU 31MAR.1964

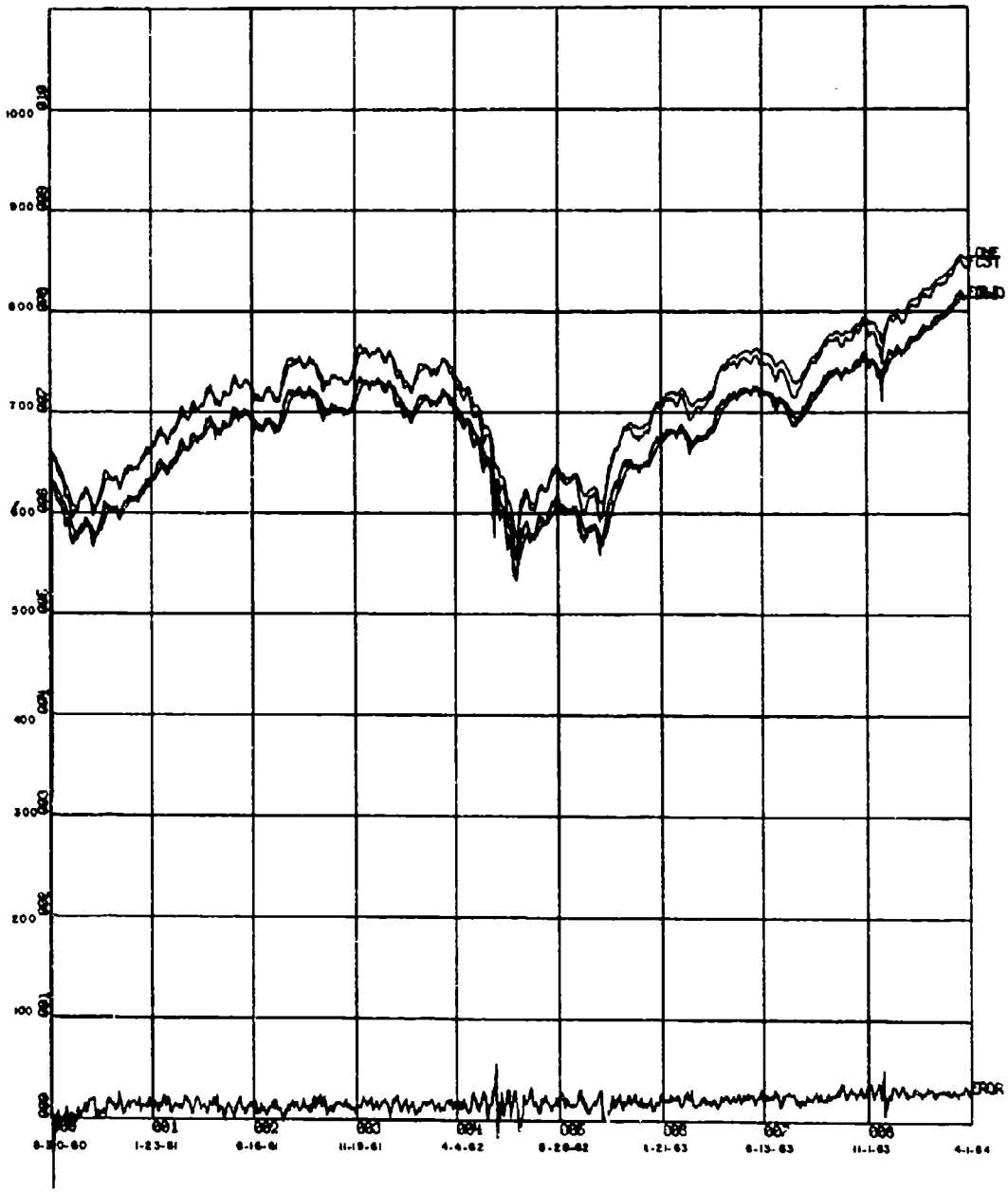
FIG. 8



X-SCALE = 1.00E+02 UNITS/INCH
Y-SCALE = 1.00E+02 UNITS/INCH

EXPECTEDDJI VS FCSTDJIVS SGL.VS DBL.EXPONENTAL
SMOOTH EDJIFCST .01 30 AUG.1960 THRU 31MAR.1964

FIG. 9



X-SCALE = 1.00E+02 UNITS/INCH
Y-SCALE = 1.00E+02 UNITS/INCH

EXPECTEDDJI VS FCSTDJIVS SGL.VS DBL.EXPONENTAL SMOOTH EDJIFCST .3 30 AUG.1960 THRU 31MAR.1964

FIG.10

CHAPTER VI

BARRON'S CONFIDENCE INDEX

The Confidence Index has been quoted weekly in Barron's since 1932. It has not been considered a market forecaster until relatively recently when it was popularized by Joseph E. Granville. The author first became aware of its use from Mr. Granville's article in the 7 September 1959 issue of Barron's, when he wrote, "Whatever the Confidence Index does not foresee is not important."

As its name suggests, the Index attempts to measure investor confidence. Specifically, it represents the ratio between the average yield of Barron's 10 highest-grade corporate bonds and that of Dow-Jones' 40 bonds. The ratio is high when investors demonstrate confidence by buying lower grade liens, low when they take refuge in top-grade issues. Correlated with the movements of the stock market, the Index becomes a highly sensitive forecasting instrument; predicting the extent, as well as the timing, of price advances and declines.

Generally speaking, changes in the Confidence Index precede those of the stock market by two to four months. Repetitive bottoms or tops in the Index usually signal very important near-term lows or highs in the Dow-Jones Industrial Average. Major tops for the market are signaled when it makes a sharp weekly upswing to a new high and then retreats immediately the following week. The low in the Index following an unbroken series of declines is often more significant than subsequent lows made after intermittent rebounds. According to Mr. Granville, the setting up of the next timing zone for market vulnerability is measured by

adding two to four months to the date of the previous Index high, regardless of an upturn in the Index at some time after that date. The maximum point of vulnerability is closer to the 60 day lead than to the 120 day lead.

The 40 bonds that are grouped in the Dow-Jones average are composed of 10 high grade rails, 10 second grade rails, 10 public utilities, and 10 industrials. Barron's 10 high grade corporate bonds list is comprised of 4 rails, 3 utilities, 2 oils, and U. S. Steel 4½'s 1986. The rises in the Confidence Index on 15 March 1963 and 7 February 1964 were due in large part to changes in the structure of the Index (see appendix H). On 15 March 1963 Chicago, Milwaukee, St. Paul & Pacific, 4's, 1994, and St. Louis, San Francisco, 4's, 1997, were substituted for Delaware, Hudson, 4's, 1963, and New York Lackawana & Western, 4½'s, 1973, in the Dow-Jones second grade rails; and U. S. Steel, 4½'s, 1986, was substituted for Texas Corp., 3's, 1965, in Barron's 10 High Grade Bonds. The reason for these changes, according to a telephone conversation with Barron's in New York, was due to the inactivity of the previous issues. The expiration of Delaware, Hudson, 4's, 1963, of course, necessitated replacement.

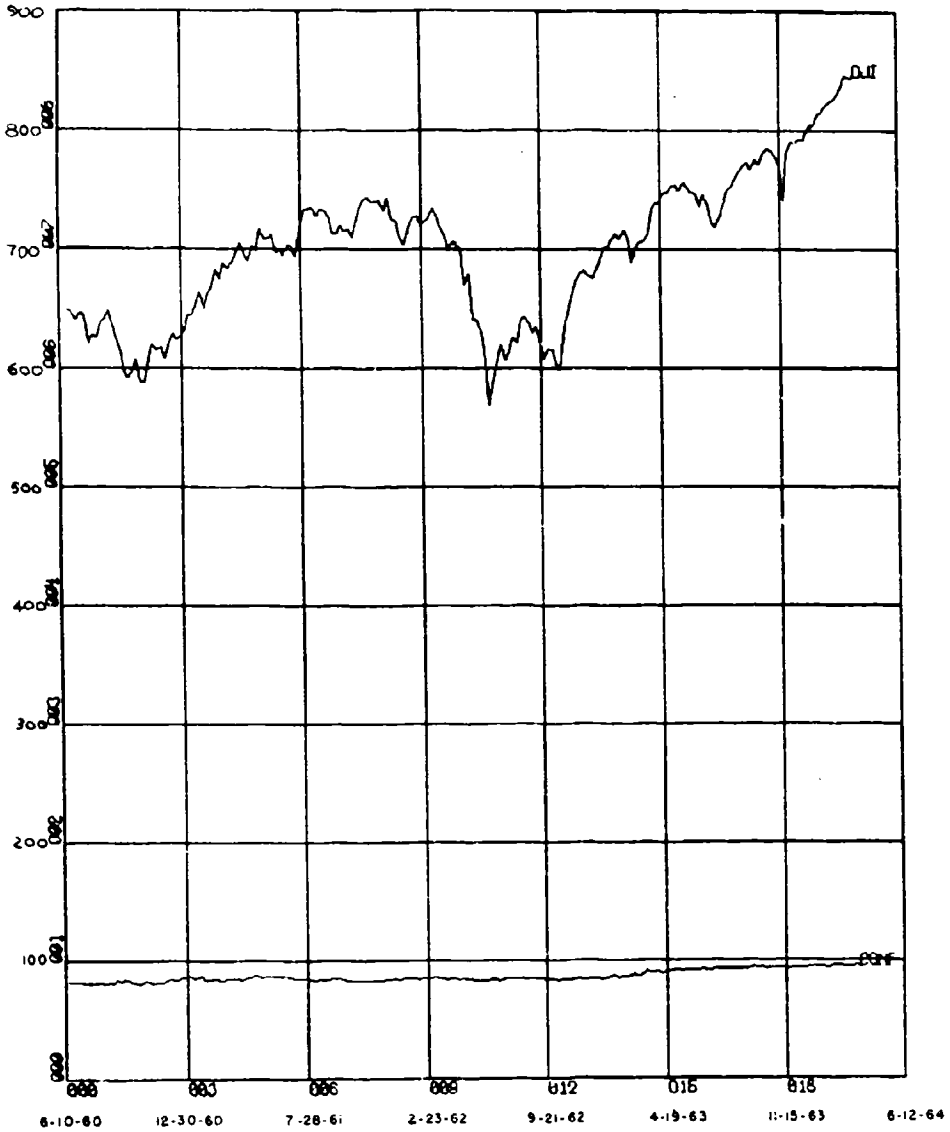
Correlations without logic are seldom reliable. The logic behind the Confidence Index is that it is simply pointing out the direction the smart money is moving. When the Index is going up, it means that the important money is moving away from the safest bonds toward more speculative bonds. When it declines, it means that the smart money is gravitating toward the safer issues and away from risk.

Smart money is that money which flows into equities before a rise

in the market. Conversely, if the market declines, the smart money is that money that jumps out of stocks first. The rationale is to see what the smart money is doing in the bond market, and the investor will know in advance what this money will do in the equity market; either come in or get out.

Figure 11 is a graph of the weekly Confidence Index (CONF) and the Dow Jones Industrial Average (DJI) weekly closing from 10 June 1960 through 26 March 1964. Since the Confidence Index varies only slightly in relation to the Dow-Jones, figure 12 was designed which subtracted 75 from the Index and multiplied the result by 20. This adjustment of the Index does not affect its relative merit if the difference in scale of figure 12 is acknowledged. The Index was also introduced into the Trendex model (TRDX) in figure 12 to determine if this model could be used as a predictive medium. The results were inconclusive. The data are included in appendix I for possible future evaluation.

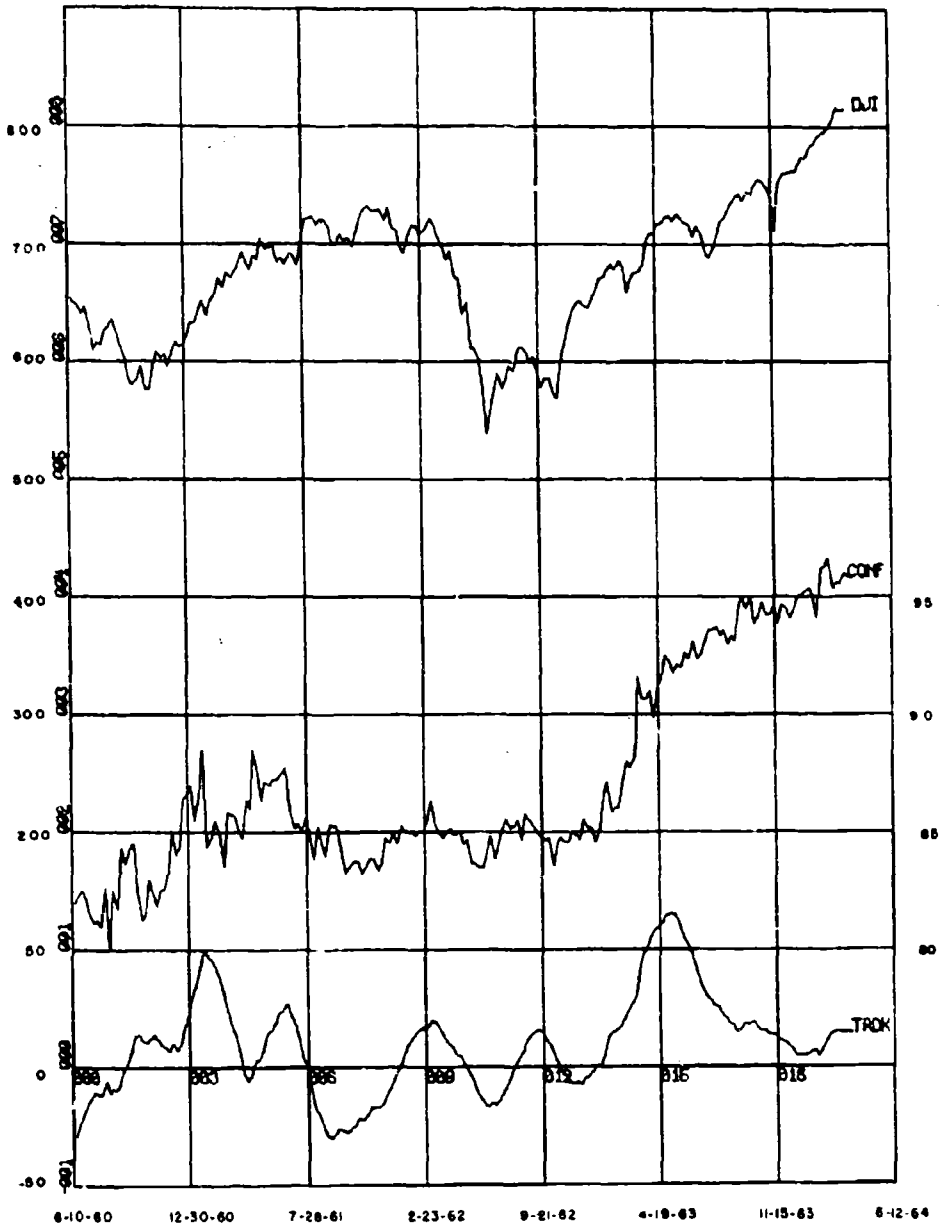
To emphasize the sensitiveness and accuracy of the Confidence Index in the broadest possible terms, the stock market has never continued to rise following a series of Index declines. In the positive sense, the market has always risen following a rising trend in the Index and has fallen following a declining trend. The lead time is generally two to four months.



X-SCALE = 3.00E+01 UNITS/INCH
Y-SCALE = 1.00E+02 UNITS/INCH

DUNHAM 237 BARRONS CONFIDENCE INDEX VS DJI
10 JUNE 1960 THRU 26 MAR.1964

FIG. 11



X-SCALE = 3.00E+01 UNITS/INCH
Y-SCALE = 1.00E+02 UNITS/INCH

DUNHAM 237 BARRONS CONFIDENCE INDEX VS TRENDEX CONFIDENCE INDEX VS DJI6/10/60-3/26/64 WEEKLY

FIG. 12

CHAPTER VII

CONCLUSION

Investors are constantly on the look-out for reliable means of forecasting stock market movements, particularly ones that signal not only major trends, but also intermediate swings and week to week changes. Scores of these techniques have emerged over the years, but only five or six are widely used. None of these tools is infallible.

Much more sophisticated models are now available as dynamic programming techniques have been developed and computer memory has been enlarged. Com-Stat, a division of Spear & Staff, Inc., Babson Park, Massachusetts, had a model developed which weighs the significance of many fundamental and technical factors that affect the market place. It purportedly employs dynamic programming of price, volume, rate of change, diffusion, momentum, psychology, accumulation, distribution, etc. The most probable trend is forecast based on these changes. By their technique, they claim to have established a $30,000 portfolio on 22 June 1962 composed of a maximum of 10 stocks each having approximately equal amounts of capital invested in it. On 16 August 1963, after 30 transactions (which included 8 short sales), the portfolio had increased to $52,783 for a gain of 75.9% in 14 months. This is merely one example of what can be done with an understanding of the stock market, computer programming and dynamic statistical models.

A new book, Granville's "New Key to Stock Market Profits," was received too late to be evaluated. However, this system readily lends itself to computer analysis. In general, he is dealing in the on-balance

volume, which is the difference between the cumulative upside volume and the cumulative downside volume. This can be graphed against the Dow-Jones Average, and it will generally precede the price action. A more sophisticated approach is to analyze the volume of each of the 30 Dow-Jones stocks and determine the upside and downside breakouts. This differential can be used as an indicator in conjunction with the on-balance volume.

The more indicators you watch the better equipped you will be to escape the delusions which attack those who are uninformed. When many indicators say one thing, and the market is seemingly doing the opposite, trust the indicators. That many indicators can't be wrong, because that many people can't be right.

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```
      PRCGRAM TRENCEX                                                   13WKPVAV
      DIMENSICN DJIA(900),DJIC(900),DJIC(900),IDATE(500),DJIB(900),DJIC(
     190C9,Y1(877),Y2(877),ITITLE(12),X(977),DJIW(900),Y3(900),Y4(500),
     1Y5(900),Z(900)
      EQUIVALENCE (Y1(1),DJIW(13)),(Y2(1),DJIC(24)),(Y3(1),DJIA(13)),(Y4
     1(1),DJIA(36)),(Y5(1),DJIW(24))
      DC 7 I=1,12
    7 ITITLE(I)=(8H        )
      ITITLE(1)=(8H DUNHAM )
      ITITLE(2)=(8H237 DJI )
      ITITLE(3)=(8HVS CJI 1)
      ITITLE(4)=(8H3 WEEK M)
      ITITLE(5)=(8HOVING AV)
      ITITLE(6)=(8HERAGE   )
      ITITLE(7)=(8H 1 APRIL)
      ITITLE(8)=(8H 1960 TH)
      ITITLE(9)=(8HRU 27 MA)
      ITITLE(10)=(8HR.1964  )
      PRINT 5
   5OFORMAT(1H1//////////////3CX7HTRENCEX6X4HVERY6X4HLONG6X4HTERM6X6HBLY1
     1NG6X5HGUIDE////2X2H 16X1H26X1H35X1H46X1H55X1H65X1H76X1H86X1H55X2H1
     205X2H115X2H125X2H135X2H145X2H154X2H164X2H174X2H18//)
      REAC1,N
    1 FORMAT(I3)
      REAC10,(IDATE(I),DJIA(I),I=1,N)
   10 FCRMAT(I6,F6.2)
      CO9 I=13,N
      DJIW(I)=(DJIA(I)+DJIA(I-1)+DJIA(I-2)+DJIA(I-3)+DJIA(I-4)+DJIA(I-5)
     1+DJIA(I-6)+DJIA(I-7)+CJIA(I-8)+CJIA(I-9)+DJIA(I-10)+DJIA(I-11)+DJI
     2A(I-12))/13.
    9 CONTINUE
      DO60 I=15,N
      K=I-14
      M=I-11
      DJIB(I)=(DJIW(I)-DJIW(K))*100./DJIW(K)
      DJIC(I)=(DJIW(I)-DJIW(M))*100./DJIW(M)
   60 DJIC(I)=DJIB(I)+DJIC(I)
      CO61 I=24,N
      K=I-14
      M=I-11
      DJIE=10.*DJIC(I)
      DJIF=9.*DJIC(I-1)
      DJIC=8.*DJIC(I-2)
      DJIH=7.*DJIC(I-3)
      DJII=6.*DJIC(I-4)
      CJIJ=5.*DJIC(I-5)
      DJIK=4.*DJIC(I-6)
      DJIL=3.*DJIC(I-7)
      DJIM=2.*DJIC(I-8)
      CJIN=CJIC(I-9)
      DJIC(I)=(DJIE+DJIF+DJIG+DJIH+DJII+DJIJ+CJIK+DJIL+DJIM+DJIN)/1C.
      IF(I-36)61,62,62
   62 IF(XMOCF(I,34)-21)50,49,SC
   49 PRINT 52
   52 FORMAT(1H1////////2X2H 16X1H26X1H35X1H46X1H55X1H65X1H76X1H86X1H55X
     12H1C5X2H115X2H125X2H135X2H145X2H154X2H164X2H174X2H18//)
   50CPRINT 51,IDATE(I),CJIW(I),CJIW(K),DJIB(I),CJIW(M),DJIC(I),DJIC(I),
     1CJIE,DJIF,CJIG,DJIH,DJII,CJIJ,DJIK,DJIL,CJIM,CJIN,DJIC(I)
   51 FORMAT(1H0,I6,2F7.2,F6.1,F7.2,2F6.1,8F7.1,2F6.1,F6.0)
   61 CONTINUE
      PRINT 52
      N23=N-35
      N12=N-12
      DO 88 I=1,N12
   88 X(I)=I
      LABEL=(4H13MA)
      CALL CRAW (N12,X,Y1,1,0,LABEL,ITITLE,3C.,1CC.,C,C,2,2,8,9,1,LAST)
      LABEL=(4H CJI)
      CALL CRAW (N12,X,Y3,3,0,LABEL,ITITLE,3C.,1CC.,C,C,2,2,8,9,1,LAST)
      DC 89 I=1,N23
   89 Z(I)=I
      ITITLE(6)=(8HERAGE VS)
      ITITLE(7)=(8H TRENCEX)
      ITITLE(8)=(8H 13 WEEK)
      ITITLE(9)=(8HMCVING A)
      ITITLE(10)=(8HVERAGE 9)
      ITITLE(11)=(8H/C9/60-3)
      ITITLE(12)=(8H/27/64  )
      LABEL=(4H13MA)
      CALL CRAW (N23,Z,Y5,1,0,LABEEL,ITITLE,3C.,1CC.,2,0,2,2,7,11,1,LAST)
      LABEL=(4HTNDX)
      CALL DRAW (N23,Z,Y2,2,C,LABEEL,ITITLE,3C.,1CC.,2,C,2,2,7,11,1,LAST)
      LABEL=(4H CJI)
      CALL DRAW (N23,Z,Y4,3,0,LABEEL,ITITLE,3C.,1CC.,2,0,2,2,7,11,1,LAST)
      ENC
      END
```

TRENDEX VERY LONG TERM BUYING GUIDE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
90960	629.86	618.43	1.8	626.74	.5	2.3	23.5	35.1	34.7	32.4	28.2	20.6	14.6	8.5	4.7	1.5	20.
91660	626.11	622.20	.6	628.69	-.4	.2	2.2	21.1	31.2	30.3	27.8	23.5	16.4	10.9	5.6	2.4	17.
92360	621.36	624.85	-.6	630.14	-1.4	-2.0	-19.5	2.0	18.8	27.3	26.0	23.2	18.8	12.3	7.3	2.8	12.
93060	616.65	626.74	-1.6	630.15	-2.1	-3.8	-37.5	-17.6	1.7	16.4	23.4	21.7	18.5	14.1	8.2	3.6	5.
100760	612.00	628.69	-2.7	629.65	-2.8	-5.5	-54.6	-33.8	-15.6	1.5	14.1	19.5	17.3	13.9	9.4	4.1	-2.
101460	609.40	630.14	-3.3	630.81	-3.4	-6.7	-66.8	-49.1	-30.0	-13.7	1.3	11.7	15.6	13.0	9.3	4.7	-10.
102160	606.92	630.15	-3.7	631.32	-3.9	-7.6	-75.5	-60.2	-43.7	-26.3	-11.7	1.1	9.4	11.7	8.7	4.6	-18.
102860	603.93	629.65	-4.1	632.10	-4.5	-8.5	-85.4	-68.0	-53.5	-38.2	-22.5	-9.8	.9	7.0	7.8	4.3	-26.
110460	602.53	630.81	-4.5	632.41	-4.7	-9.2	-92.1	-76.9	-60.4	-46.8	-32.7	-18.8	-7.8	.7	4.7	3.9	-33.
111160	601.18	631.32	-4.8	633.28	-5.1	-9.8	-98.4	-82.9	-68.3	-52.9	-40.1	-27.3	-15.0	-5.9	.4	2.3	-39.
111860	599.20	632.10	-5.2	632.99	-5.3	-10.5	-105.4	-88.6	-73.7	-59.8	-45.3	-33.4	-21.8	-11.3	-3.9	.2	-44.
112560	596.92	632.41	-5.6	629.86	-5.2	-10.8	-108.4	-94.9	-78.8	-64.5	-51.2	-37.8	-26.7	-16.4	-7.5	-2.0	-49.
120260	594.68	633.28	-6.1	626.11	-5.0	-11.1	-111.2	-97.6	-84.3	-68.9	-55.2	-42.7	-30.2	-20.1	-10.9	-3.8	-52.
120960	594.43	632.99	-6.1	621.36	-4.3	-10.4	-104.3	-100.1	-86.7	-73.8	-59.1	-46.0	-34.2	-22.7	-13.4	-5.5	-55.
121660	595.63	629.86	-5.4	616.65	-3.4	-8.8	-88.4	-93.8	-88.9	-75.9	-63.3	-49.2	-36.8	-25.6	-15.1	-6.7	-54.
122360	597.78	626.11	-4.5	612.00	-2.3	-6.8	-68.5	-79.6	-83.4	-77.8	-65.0	-52.7	-39.4	-27.6	-17.1	-7.6	-52.
123060	600.53	621.36	-3.4	609.40	-1.5	-4.8	-48.1	-61.6	-70.8	-73.0	-66.7	-54.2	-42.2	-29.5	-18.4	-8.5	-47.
10661	603.24	616.65	-2.2	606.92	-.6	-2.8	-27.8	-43.3	-54.8	-61.9	-62.6	-55.6	-43.4	-31.6	-19.7	-9.2	-41.
11361	606.10	612.00	-1.0	603.93	.4	-.6	-6.0	-25.0	-38.5	-47.9	-53.1	-52.1	-44.5	-32.5	-21.1	-9.8	-33.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12061	610.47	609.40	.2	602.53	1.3	1.5	14.9	-5.4	-22.2	-33.6	-41.1	-44.2	-41.7	-33.4	-21.7	-10.5	-24.
12761	615.52	606.92	1.4	601.18	2.4	3.8	38.0	13.4	-4.8	-19.5	-28.8	-34.2	-35.4	-31.3	-22.2	-10.8	-14.
20361	619.90	603.93	2.6	599.20	3.5	6.1	61.0	34.2	12.0	-4.2	-16.7	-24.0	-27.4	-26.5	-20.9	-11.1	-2.
21061	622.29	602.53	3.3	596.92	4.2	7.5	75.3	54.9	30.4	10.5	-3.6	-13.9	-19.2	-20.5	-17.7	-10.4	9.
21761	625.99	601.18	4.1	594.68	5.3	9.4	93.9	67.8	48.8	26.6	9.0	-3.0	-11.1	-14.4	-13.7	-8.8	19.
22461	629.77	599.20	5.1	594.43	5.9	11.0	110.5	84.5	60.2	42.7	22.8	7.5	-2.4	-8.3	-9.6	-6.8	30.
30361	635.58	596.92	6.5	595.63	6.7	13.2	131.8	99.4	75.1	52.7	36.6	19.0	6.0	-1.8	-5.6	-4.8	41.
31061	639.63	594.68	7.6	597.78	7.0	14.6	145.6	118.7	88.4	65.7	45.2	30.5	15.2	4.5	-1.2	-2.8	51.
31761	644.15	594.43	8.4	600.53	7.3	15.6	156.3	131.0	105.5	77.3	56.4	37.6	24.4	11.4	3.0	-.6	60.
32461	648.70	595.63	8.9	603.24	7.5	16.4	164.5	140.6	116.5	92.3	66.3	47.0	30.1	18.3	7.6	1.5	68.
33061	653.38	597.78	9.3	606.10	7.8	17.1	171.0	148.0	125.0	101.9	79.1	55.2	37.6	22.6	12.2	3.8	76.
40761	658.15	600.53	9.6	610.47	7.8	17.4	174.0	153.9	131.6	109.4	87.4	65.9	44.2	28.2	15.1	6.1	82.
41461	662.77	603.24	9.9	615.52	7.7	17.5	175.4	156.6	136.8	115.1	93.8	72.8	52.7	33.1	18.8	7.5	86.
42161	666.68	606.10	10.0	619.90	7.5	17.5	175.4	157.9	139.2	119.7	98.7	78.1	58.2	39.6	22.1	9.4	90.
42861	669.38	610.47	9.7	622.29	7.6	17.2	172.2	157.9	140.3	121.8	102.6	82.2	62.5	43.7	26.4	11.0	92.
50561	672.28	615.52	9.2	625.99	7.4	16.6	166.2	155.0	140.3	122.8	104.4	85.5	65.8	46.9	29.1	13.2	93.
51261	676.00	619.90	9.0	629.77	7.3	16.4	163.9	149.6	137.7	122.8	105.3	87.0	68.4	49.3	31.3	14.6	93.
51961	680.17	622.29	9.3	635.58	7.0	16.3	163.2	147.5	132.9	120.5	105.3	87.7	69.6	51.3	32.9	15.6	93.
52661	683.30	625.99	9.2	639.63	6.8	16.0	159.8	146.9	131.1	116.3	103.3	87.7	70.2	52.2	34.2	16.4	92.
60261	685.31	629.77	8.8	644.15	6.4	15.2	152.1	143.8	130.5	114.7	99.7	86.1	70.2	52.6	34.8	17.1	90.
60961	688.18	635.58	8.3	648.70	6.1	14.4	143.6	136.9	127.9	114.2	98.3	83.1	68.9	52.6	35.1	17.4	88.
61661	688.88	639.63	7.7	653.38	5.4	13.1	133.3	129.3	121.7	111.9	97.9	83.9	66.5	51.7	35.1	17.5	84.
62361	690.12	644.15	7.1	658.15	4.9	12.0	120.0	118.2	114.9	106.5	95.9	81.6	65.6	49.9	34.4	17.5	80.
63061	690.69	648.70	6.5	662.77	4.2	10.7	106.8	108.0	105.1	100.5	91.3	79.9	65.3	49.2	33.2	17.2	76.
70761	691.38	653.38	5.8	666.68	3.7	9.5	95.2	96.2	96.0	91.9	86.2	76.1	63.9	49.0	32.8	16.6	70.
71461	691.17	658.15	5.0	669.38	3.3	8.3	82.7	85.7	85.5	84.0	78.8	71.8	60.8	47.9	32.6	16.4	65.
72161	690.98	662.77	4.3	672.28	2.8	7.0	70.4	74.4	76.2	74.8	72.0	65.7	57.5	45.6	32.0	16.3	58.
72861	693.01	666.68	3.9	676.00	2.5	6.5	64.7	63.3	66.2	66.7	64.1	60.0	52.5	43.1	30.4	16.0	53.
80461	695.32	669.38	3.9	680.17	2.2	6.1	61.0	58.2	56.3	57.9	57.1	53.4	48.0	39.4	28.7	15.2	48.
81161	697.99	672.28	3.8	683.30	2.1	6.0	59.7	54.9	51.7	49.3	49.6	47.6	42.7	36.0	26.3	14.4	43.
81861	699.34	676.00	3.5	685.31	2.0	5.5	55.0	53.8	48.8	45.3	42.2	41.4	38.1	32.1	24.0	13.1	39.
82561	700.91	680.17	3.0	688.18	1.8	4.9	49.0	49.5	47.8	42.7	38.8	35.2	33.1	28.6	21.4	12.0	36.
90161	702.72	683.30	2.8	688.88	2.0	4.9	48.5	44.1	44.0	41.8	36.6	32.3	28.1	24.8	19.0	10.7	33.
90861	704.26	685.31	2.8	690.12	2.0	4.8	48.1	43.7	39.2	38.5	35.8	30.5	25.9	21.1	16.5	9.5	31.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
91561	706.63	688.18	2.7	690.65	2.3	5.0	49.9	43.3	38.8	34.3	33.0	29.9	24.4	19.4	14.1	8.3	30.
92261	707.62	688.88	2.7	691.38	2.3	5.1	50.7	44.9	38.5	34.0	29.4	27.5	23.9	18.3	12.9	7.0	29.
92961	708.95	690.12	2.7	691.17	2.6	5.3	53.0	45.6	39.9	33.7	29.1	24.5	22.0	17.9	12.2	6.5	28.
100661	710.14	690.69	2.8	690.98	2.8	5.6	55.9	47.7	40.6	34.9	28.9	24.3	19.6	16.5	11.9	6.1	29.
101361	711.09	691.38	2.9	693.01	2.6	5.5	54.6	50.3	42.4	35.5	29.9	24.1	19.4	14.7	11.0	6.0	29.
102061	712.85	691.17	3.1	695.32	2.5	5.7	56.6	49.1	44.7	37.1	30.4	24.9	19.3	14.6	9.8	5.5	29.
102761	712.36	690.98	3.1	697.99	2.1	5.2	51.5	50.9	43.7	39.1	31.8	25.4	20.0	14.4	9.7	4.9	29.
110361	711.48	693.01	2.7	699.34	1.7	4.4	44.0	46.4	45.3	38.2	33.5	26.5	20.3	15.0	9.6	4.9	28.
111061	711.65	695.32	2.3	700.91	1.5	3.9	38.8	39.6	41.2	39.6	32.8	28.0	21.2	15.2	10.0	4.8	27.
111761	712.11	697.99	2.0	702.72	1.3	3.4	33.6	34.9	35.2	36.1	33.9	27.3	22.4	15.9	10.1	5.0	25.
112461	713.33	699.34	2.0	704.26	1.3	3.3	32.9	30.2	31.0	30.8	30.9	28.3	21.8	16.8	10.6	5.1	24.
120161	713.92	700.91	1.9	706.63	1.0	2.9	28.9	29.6	26.9	27.2	26.4	25.8	22.6	16.4	11.2	5.3	22.
120861	714.48	702.72	1.7	707.62	1.0	2.6	26.4	26.0	26.3	23.5	23.3	22.0	20.6	17.0	10.9	5.6	20.
121561	715.49	704.26	1.6	708.95	.9	2.5	25.2	23.8	23.1	23.0	20.2	19.4	17.6	15.5	11.3	5.5	18.
122261	716.97	706.63	1.5	710.14	1.0	2.4	24.3	22.7	21.1	20.2	19.7	16.8	15.5	13.2	10.3	5.7	17.
122961	719.28	707.62	1.6	711.09	1.2	2.8	28.0	21.8	20.1	18.5	17.3	16.4	13.4	11.6	8.8	5.2	16.
10562	719.78	708.95	1.5	712.85	1.0	2.5	25.0	25.2	19.4	17.6	15.9	14.4	13.2	10.1	7.8	4.4	15.
11262	720.43	710.14	1.4	712.36	1.1	2.6	25.8	22.5	22.4	17.0	15.1	13.2	11.5	9.9	6.7	3.9	15.
11962	719.83	711.09	1.2	711.48	1.2	2.4	24.0	23.2	20.0	19.6	14.6	12.6	10.6	8.7	6.6	3.4	14.
12662	719.32	712.85	.9	711.65	1.1	2.0	19.9	21.6	20.7	17.5	16.8	12.1	10.1	7.9	5.8	3.3	14.
20262	719.11	712.36	.9	712.11	1.0	1.9	19.3	17.9	19.2	18.1	15.0	14.0	9.7	7.6	5.3	2.9	13.
20962	718.30	711.48	1.0	713.33	.7	1.7	16.6	17.4	15.9	16.8	15.5	12.5	11.2	7.3	5.0	2.6	12.
21662	717.30	711.65	.8	713.92	.5	1.3	12.7	14.9	15.5	13.9	14.4	12.9	10.0	8.4	4.9	2.5	11.
22362	715.52	712.11	.5	714.48	.1	.6	6.3	11.4	13.2	13.5	11.9	12.0	10.3	7.5	5.6	2.4	9.
30262	714.15	713.33	.1	715.49	-.2	-.1	-.7	5.6	10.1	11.6	11.6	9.9	9.6	7.7	5.0	2.8	7.
30962	713.09	713.92	-.1	716.97	-.5	-.7	-6.6	-.6	5.0	8.9	9.9	9.7	7.9	7.2	5.2	2.5	5.
31662	712.58	714.48	-.3	715.28	-.9	-1.2	-12.0	-5.9	-.6	4.4	7.6	8.3	7.7	6.0	4.8	2.6	2.
32362	712.24	715.49	-.5	719.78	-1.0	-1.5	-15.0	-10.8	-5.3	-.5	3.8	6.3	6.6	5.8	4.0	2.4	-.
33062	710.38	716.97	-.9	720.43	-1.4	-2.3	-23.1	-13.5	-9.6	-4.6	-.4	3.1	5.1	5.0	3.9	2.0	-3.
40662	709.21	719.28	-1.4	719.83	-1.5	-2.9	-28.7	-20.8	-12.0	-8.4	-3.9	-.4	2.5	3.8	3.3	1.9	-6.
41362	707.36	719.78	-1.7	719.32	-1.7	-3.4	-33.8	-25.9	-18.5	-10.5	-7.2	-3.3	-.3	1.9	2.5	1.7	-9.
41962	707.11	720.43	-1.8	719.11	-1.7	-3.5	-35.2	-30.5	-23.0	-16.2	-9.0	-6.0	-2.6	-.2	1.3	1.3	-12.
42762	705.57	719.83	-2.0	718.30	-1.8	-3.8	-37.5	-31.7	-27.1	-20.1	-13.9	-7.5	-4.8	-2.0	-.1	.6	-14.
50462	702.85	719.32	-2.3	717.30	-2.0	-4.3	-45.0	-33.8	-28.1	-23.7	-17.2	-11.6	-6.0	-3.6	-1.3	-.1	-17.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
51162	697.19	719.11	-3.0	715.52	-2.6	-5.6	-56.1	-38.7	-30.0	-24.6	-20.3	-14.4	-9.3	-4.5	-2.4	-.7	-20.
51862	692.13	718.30	-3.6	714.15	-3.1	-6.7	-67.3	-50.5	-34.4	-26.3	-21.1	-16.9	-11.5	-6.9	-3.0	-1.2	-24.
52562	684.62	713.30	-4.6	713.09	-4.0	-8.5	-85.5	-60.5	-44.9	-30.1	-22.5	-17.6	-13.5	-8.6	-4.6	-1.5	-29.
60162	676.93	715.52	-5.4	712.58	-5.0	-10.4	-104.0	-76.9	-53.8	-39.3	-25.8	-18.8	-14.1	-10.2	-5.7	-2.3	-35.
60862	668.25	714.15	-6.4	712.24	-6.2	-12.6	-126.0	-93.6	-68.4	-47.1	-33.7	-21.5	-15.0	-10.6	-6.8	-2.9	-43.
61562	657.13	713.09	-7.8	710.38	-7.5	-15.3	-153.5	-113.4	-83.2	-59.8	-40.4	-28.1	-17.2	-11.3	-7.0	-3.4	-52.
62262	643.49	712.58	-9.7	709.21	-9.3	-19.0	-189.6	-138.1	-100.8	-72.8	-51.3	-33.6	-22.4	-12.9	-7.5	-3.5	-63.
62962	632.28	712.24	-11.2	707.38	-10.6	-21.8	-218.4	-170.7	-122.8	-88.2	-62.4	-42.7	-26.9	-16.8	-8.6	-3.8	-76.
70662	622.79	710.38	-12.3	707.11	-11.9	-24.3	-242.6	-196.6	-151.7	-107.4	-75.6	-52.0	-34.2	-20.2	-11.2	-4.3	-90.
71362	615.27	709.21	-13.2	705.57	-12.8	-26.0	-260.4	-218.3	-174.7	-132.7	-92.1	-63.0	-41.6	-25.6	-13.5	-5.6	-103.
72062	606.27	707.38	-14.3	702.85	-13.7	-28.0	-280.4	-234.4	-194.0	-152.9	-113.8	-76.7	-50.4	-31.2	-17.1	-6.7	-116.
72762	599.56	707.11	-15.2	697.19	-14.0	-29.2	-292.1	-252.3	-208.4	-169.8	-131.1	-94.8	-61.4	-37.8	-20.8	-8.5	-128.
80362	593.80	705.57	-15.8	692.13	-14.2	-30.0	-300.5	-262.9	-224.3	-182.3	-145.5	-109.2	-75.9	-46.0	-25.2	-10.4	-138.
81062	590.09	702.85	-16.0	684.62	-13.8	-29.9	-298.5	-270.4	-233.7	-196.3	-156.3	-121.3	-87.4	-56.9	-30.7	-12.6	-146.
81762	586.96	697.19	-15.8	676.93	-13.3	-29.1	-291.0	-268.7	-240.4	-204.5	-168.2	-130.2	-97.0	-65.5	-37.9	-15.3	-152.
82462	587.10	692.13	-15.2	668.25	-12.1	-27.3	-273.2	-261.9	-238.8	-210.3	-175.3	-140.2	-104.2	-72.8	-43.7	-19.0	-154.
83162	586.96	684.62	-14.3	657.13	-10.7	-24.9	-249.4	-245.9	-232.8	-209.0	-180.3	-146.1	-112.1	-78.1	-48.5	-21.8	-152.
90762	586.90	676.93	-13.3	643.49	-8.8	-22.1	-220.9	-224.5	-218.5	-203.7	-179.1	-150.2	-116.9	-84.1	-52.1	-24.3	-147.
91462	589.03	668.25	-11.9	632.28	-6.8	-18.7	-187.0	-198.8	-199.5	-191.2	-174.6	-149.3	-120.2	-87.6	-56.1	-26.0	-139.
92162	593.07	657.13	-9.7	622.79	-4.8	-14.5	-145.2	-168.3	-176.8	-174.6	-163.9	-145.5	-119.4	-90.1	-58.4	-28.0	-127.
92862	594.37	643.49	-7.6	615.27	-3.4	-11.0	-110.3	-130.7	-149.6	-154.7	-149.7	-136.6	-116.4	-89.6	-60.1	-29.2	-113.
100562	595.17	632.28	-5.9	606.27	-1.8	-7.7	-77.0	-99.3	-116.2	-130.9	-132.6	-124.7	-109.3	-87.3	-59.7	-30.0	-97.
101262	594.89	622.79	-4.5	599.56	-.8	-5.3	-52.6	-69.3	-88.2	-101.6	-112.2	-110.5	-99.8	-82.0	-58.2	-29.9	-80.
101962	594.59	615.27	-3.4	593.80	.1	-3.2	-32.3	-47.3	-61.6	-77.2	-87.1	-93.5	-88.4	-74.8	-54.6	-29.1	-65.
102662	593.36	606.27	-2.1	590.09	.6	-1.6	-15.7	-29.1	-42.1	-53.9	-66.2	-72.6	-74.8	-66.3	-49.9	-27.3	-50.
110262	593.99	599.56	-.9	586.96	1.2	.3	2.7	-14.2	-25.8	-36.8	-46.2	-55.1	-58.1	-56.1	-44.2	-24.9	-36.
110962	595.82	593.80	.3	587.10	1.5	1.8	18.3	2.4	-12.6	-22.6	-31.6	-38.5	-44.1	-43.6	-37.4	-22.1	-23.
111662	597.41	590.09	1.2	586.96	1.8	3.0	30.2	16.4	2.2	-11.0	-19.4	-26.3	-30.8	-33.1	-29.0	-18.7	-12.
112362	599.80	586.96	2.2	586.90	2.2	4.4	43.9	27.2	14.6	1.9	-9.4	-16.1	-21.0	-23.1	-22.1	-14.5	-2.
113062	602.89	587.10	2.7	589.03	2.4	5.0	50.4	39.5	24.2	12.8	1.6	-7.9	-12.9	-15.8	-15.4	-11.0	7.
120762	606.83	586.96	3.4	593.07	2.3	5.7	57.0	45.4	35.1	21.1	11.0	1.3	-6.3	-9.7	-10.5	-7.7	14.
121462	610.08	586.90	3.9	594.37	2.6	6.6	65.9	51.3	40.3	30.7	18.1	9.1	1.1	-4.7	-6.5	-5.3	20.
122162	614.28	589.03	4.3	595.17	3.2	7.5	75.0	59.3	45.6	35.3	26.3	15.1	7.3	.8	-3.1	-3.2	26.
122862	619.91	593.07	4.5	594.85	4.2	8.7	87.3	67.5	52.7	39.9	30.2	21.9	12.1	5.5	.5	-1.6	32.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
10463	625.73	594.37	5.3	594.59	5.2	10.5	105.1	78.6	60.0	46.1	34.2	25.2	17.5	9.1	3.7	.3	38.
11163	632.28	595.17	6.2	593.36	6.6	12.8	127.9	94.6	69.9	52.5	39.5	28.5	20.2	13.2	6.0	1.8	45.
11863	639.91	594.89	7.6	593.99	7.7	15.3	153.0	115.1	84.1	61.1	45.0	33.0	22.8	15.1	8.8	3.0	54.
12563	648.43	594.59	9.1	595.82	8.8	17.9	178.8	137.7	102.4	73.6	52.4	37.5	26.4	17.1	10.1	4.4	64.
20163	654.48	593.36	10.3	597.41	9.6	19.9	198.5	161.0	122.4	89.6	63.1	43.7	30.0	19.8	11.4	5.0	74.
20863	659.38	593.99	11.0	599.80	9.9	20.9	209.4	178.7	143.1	107.1	76.8	52.6	34.9	22.5	13.2	5.7	84.
21563	663.65	595.82	11.4	602.85	10.1	21.5	214.6	188.5	158.8	125.2	91.8	64.0	42.1	26.2	15.0	6.6	93.
22163	666.48	597.41	11.6	606.83	9.8	21.4	213.9	193.2	167.5	139.0	107.3	76.5	51.2	31.5	17.5	7.5	101.
30163	667.28	599.80	11.3	610.08	9.4	20.6	206.3	192.5	171.7	146.6	119.1	89.4	61.2	38.4	21.0	8.7	105.
30863	668.84	602.89	10.9	614.28	8.9	19.8	198.2	185.6	171.1	150.2	125.7	99.3	71.5	45.9	25.6	10.5	108.
31563	671.02	606.83	10.6	619.91	8.2	18.8	188.2	178.4	165.0	149.7	128.8	104.7	79.4	53.7	30.6	12.8	109.
32263	673.43	610.08	10.4	625.73	7.6	18.0	180.1	169.4	158.6	144.4	128.4	107.3	83.8	59.6	35.8	15.3	108.
32963	675.82	614.28	10.0	632.28	6.9	16.9	169.1	162.1	150.6	138.8	123.8	107.0	85.8	62.8	39.7	17.9	106.
40563	678.92	619.91	9.5	639.91	6.1	15.6	156.1	152.1	144.1	131.7	118.9	103.1	85.6	64.4	41.9	19.9	102.
41163	681.75	625.73	9.0	648.43	5.1	14.1	140.9	140.5	135.2	126.1	112.9	99.1	82.5	64.2	42.9	20.9	97.
41963	684.76	632.28	8.3	654.48	4.6	12.9	129.3	126.8	124.9	118.3	108.0	94.1	79.3	61.9	42.8	21.5	91.
42663	687.64	639.91	7.5	659.38	4.3	11.7	117.4	116.4	112.7	109.3	101.4	90.0	75.3	59.5	41.3	21.4	84.
50363	690.33	648.43	6.5	663.65	4.0	10.5	104.8	105.7	103.4	98.6	93.7	84.5	72.0	56.5	39.6	20.6	78.
51063	693.66	654.48	6.0	666.48	4.1	10.1	100.7	94.3	94.0	90.5	84.5	78.1	67.6	54.0	37.6	19.8	72.
51763	696.64	659.38	5.7	667.28	4.4	10.1	100.5	90.6	83.9	82.2	77.6	70.5	62.5	50.7	36.0	18.8	67.
52463	699.64	663.65	5.4	668.84	4.6	10.0	100.3	90.5	80.5	73.4	70.5	64.6	56.4	46.8	33.8	18.0	63.
53163	704.81	666.48	5.8	671.02	5.0	10.8	107.9	90.2	80.4	70.5	62.9	58.7	51.7	42.3	31.2	16.9	61.
60763	708.65	667.28	6.2	673.43	5.2	11.4	114.3	97.1	80.2	70.4	60.4	52.4	47.0	38.8	28.2	15.6	60.
61563	711.87	668.84	6.4	675.82	5.3	11.8	117.7	102.9	86.3	70.2	60.3	50.3	41.9	35.2	25.9	14.1	60.
62163	714.84	671.02	6.5	678.92	5.3	11.8	118.2	105.9	91.4	75.5	60.2	50.3	40.3	31.4	23.5	12.9	61.
62863	716.71	673.43	6.4	681.75	5.1	11.6	115.5	106.4	94.1	80.0	64.7	50.1	40.2	30.2	21.0	11.7	61.
70563	717.79	675.02	6.2	684.76	4.8	11.0	110.3	104.0	94.6	82.4	68.6	53.9	40.1	30.2	20.1	10.5	61.
71263	717.73	678.92	5.7	687.64	4.4	10.1	100.9	99.3	92.4	82.7	70.6	57.2	43.1	30.1	20.1	10.1	61.
71963	716.36	681.75	5.1	690.33	3.8	8.8	88.5	90.8	88.3	80.9	70.9	58.8	45.7	32.4	20.1	10.1	59.
72663	714.22	684.76	4.3	693.66	3.0	7.3	72.7	79.6	80.7	77.2	69.3	59.1	47.1	34.3	21.6	10.0	55.
80263	712.67	687.64	3.6	696.64	2.3	5.9	59.4	65.4	70.8	70.6	66.2	57.8	47.3	35.3	22.9	10.8	51.
80963	711.52	690.33	3.1	699.64	1.7	4.8	47.7	53.4	58.1	61.9	60.6	55.2	46.2	35.5	23.5	11.4	45.
81663	711.10	693.66	2.5	704.81	.9	3.4	34.1	42.9	47.5	50.9	53.1	50.5	44.1	34.7	23.6	11.8	39.
82363	711.30	696.64	2.1	708.65	.4	2.5	24.8	30.6	38.1	41.6	43.6	44.2	40.4	33.1	23.1	11.8	33.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
83063	711.48	699.64	1.7	711.87	-.1	1.6	16.4	22.3	27.2	33.4	35.6	36.3	35.4	30.3	22.1	11.6	27.
90663	712.48	704.81	1.1	714.84	-.3	.8	7.6	14.7	19.8	23.8	28.6	29.7	29.1	26.5	20.2	11.0	21.
91363	714.16	708.65	.8	716.71	-.4	.4	4.2	6.8	13.1	17.3	20.4	23.8	23.8	21.8	17.7	10.1	16.
92063	716.26	711.87	.6	717.79	-.2	.4	4.0	3.8	6.1	11.5	14.9	17.0	19.1	17.8	14.5	8.8	12.
92763	718.65	714.84	.5	717.73	.1	.7	6.6	3.6	3.4	5.3	9.8	12.4	13.6	14.3	11.9	7.3	9.
100463	720.85	716.71	.6	716.36	.6	1.2	12.1	6.0	3.2	3.0	4.5	8.2	9.9	10.2	9.5	5.9	7.
101163	723.47	717.79	.8	714.22	1.3	2.1	20.9	10.9	5.3	2.8	2.5	3.8	6.5	7.4	6.8	4.8	7.
101863	727.84	717.73	1.4	712.67	2.1	3.5	35.4	18.8	9.6	4.6	2.4	2.1	3.0	4.9	5.0	3.4	9.
102563	732.93	716.36	2.3	711.52	3.0	5.3	53.2	31.8	16.7	8.4	4.0	2.0	1.7	2.3	3.3	2.5	13.
110163	737.23	714.22	3.2	711.10	3.7	6.9	69.0	47.9	28.3	14.6	7.2	3.3	1.6	1.3	1.5	1.6	18.
110863	740.49	712.67	3.9	711.30	4.1	8.0	80.1	62.1	42.6	24.8	12.5	6.0	2.7	1.2	.8	.8	23.
111563	742.09	711.52	4.3	711.48	4.3	8.6	86.0	72.1	55.2	37.3	21.2	10.4	4.8	2.0	.8	.4	29.
112263	741.19	711.10	4.2	712.48	4.0	8.3	82.6	77.4	64.1	48.3	31.9	17.7	8.3	3.6	1.3	.4	34.
112963	742.82	711.30	4.4	714.16	4.0	8.4	84.4	74.4	68.8	56.1	41.4	26.6	14.1	6.3	2.4	.7	38.
120663	744.73	711.48	4.7	716.26	4.0	8.6	86.5	76.0	66.1	60.2	48.1	34.5	21.3	10.6	4.2	1.2	41.
121363	746.28	712.48	4.7	718.65	3.8	8.6	85.9	77.8	67.6	57.8	51.6	40.0	27.6	16.0	7.1	2.1	43.
122063	747.70	714.16	4.7	720.85	3.7	8.4	84.2	77.3	69.2	59.1	49.6	43.0	32.0	20.7	10.6	3.5	45.
122763	749.62	716.26	4.7	723.47	3.6	8.3	82.7	75.8	68.7	60.5	50.7	41.3	34.4	24.0	13.8	5.3	46.
10364	751.36	718.65	4.6	727.84	3.2	7.8	77.8	74.4	67.4	60.1	51.9	42.2	33.0	25.8	16.0	6.9	46.
11064	753.86	720.85	4.6	732.93	2.9	7.4	74.3	70.0	66.2	58.9	51.5	43.2	33.8	24.8	17.2	8.0	45.
11764	755.79	723.47	4.5	737.23	2.5	7.0	69.8	66.9	62.3	57.9	50.5	42.9	34.6	25.3	16.5	8.6	44.
12464	757.90	727.84	4.1	740.49	2.4	6.5	64.8	62.9	59.5	54.5	49.6	42.1	34.3	25.9	16.9	8.3	42.
13164	760.33	732.93	3.7	742.09	2.5	6.2	62.0	58.3	55.9	52.0	46.7	41.4	33.7	25.8	17.3	8.4	40.
20764	763.47	737.23	3.6	741.19	3.0	6.6	65.7	55.8	51.9	48.9	44.6	38.9	33.1	25.3	17.2	8.6	39.
21464	767.67	740.49	3.7	742.82	3.3	7.0	70.1	59.1	49.6	45.4	41.9	37.2	31.1	24.8	16.8	8.6	38.
22064	774.25	742.09	4.3	744.73	4.0	8.3	83.0	63.1	52.5	43.4	38.9	34.9	29.7	23.3	16.5	8.4	39.
22764	777.82	741.19	4.9	746.28	4.2	9.2	91.7	74.7	56.1	46.0	37.2	32.4	27.9	22.3	15.6	8.3	41.
30664	781.35	742.82	5.2	747.70	4.5	9.7	96.9	82.5	66.4	49.1	39.4	31.0	25.9	21.0	14.9	7.8	43.
31364	785.66	744.73	5.5	749.62	4.8	10.3	103.0	87.2	73.4	58.1	42.1	32.8	24.8	19.4	14.0	7.4	46.
32064	789.72	746.28	5.8	751.36	5.1	10.9	109.3	92.7	77.5	64.2	49.8	35.1	26.3	18.6	13.0	7.0	49.
32664	793.80	747.70	6.2	753.86	5.3	11.5	114.6	98.4	82.4	67.8	55.0	41.5	28.1	19.7	12.4	6.5	53.

```
      PROGRAM ONETWOCJ
      DIMENSION DJI(1500),DJTH(1500),ITITLE(12),X(1500),IDATE(1500),
     1Y1(1500),Y2(1500),Y3(1500),DJOH(1500)
      EQUIVALENCE (Y1(1),DJTH(1)),(Y2(1),DJI(200)),(Y3(1),DJOH(100))
      DO 1 I=1,12
    1 ITITLE(I)=(8H        )
      ITITLE(1)=(8H CUNHAM )
      ITITLE(2)=(8HBCX 237 )
      ITITLE(3)=(8HDJI VS 2)
      ITITLE(4)=(8H00 DAY V)
      ITITLE(5)=(8HS 100 DA)
      ITITLE(6)=(8HY MOVING)
      ITITLE(7)=(8H AVERAGE)
      ITITLE(8)=(8HS 14 OCT)
      ITITLE(9)=(8H.1960 TH)
      ITITLE(10)=(8HRU 26 MA)
      ITITLE(11)=(8HR.1964  )
      ITITLE(12)=(8H        )
      READ2,N
    2 FORMAT(I4)
      READ3,(IDATE(I),DJI(I),I=1,N)
    3 FORMAT(I6,F6.2)
      N99=N-99
      N199=N-199
      DO 88 I=1,N99
      DJTH(I)=0.
      DJOH(I)=0.
      I99=I+99
      DO 9 J=I,I99
    9 DJOH(I)=DJOH(I)+DJI(J)/100.
      I199=I+199
      DO 4 L=I,I199
    4 DJTH(I)=DJTH(I)+DJI(L)/200.
   88 CONTINUE
      DO 99 I=1,N199
      II=I-1
      IF(XMODF(II,34))51,49,51
   49 PRINT 52
   52 FORMAT(1H1////////43X,4HDATE,8X,3H200,9X,3H100,9X,3HDJI)
   51 PRINT 7,IDATE(I+199),DJTH(I),DJOH(I+100),DJI(I+199)
    7 FORMAT(1H0,4I7,I6,3F12.2)
   99 CONTINUE
      PRINT 52
      DO 8 I=1,N199
    8 X(I)=I
      LABEL=(4H 200)
      CALL DRAW (N199,X,Y1,1,C,LABEL,ITITLE,100.,100.,0,0,2,2,9,9,1,LAST
     1)
      LABEL=(4H DJI)
      CALL DRAW (N199,X,Y2,2,C,LABEL,ITITLE,100.,100.,0,0,2,2,9,9,1,LAST
     1)
      LABEL=(4H 100)
      CALL DRAW (N199,X,Y3,3,C,LABEL,ITITLE,100.,100.,0,0,2,2,9,9,1,LAST
     1)
      END
      END
```

DATE	20C	1C0	DJI
1C146C	622.70	619.6C	596.48
1C176C	622.27	615.32	593.34
1C186C	621.79	618.98	588.75
1C196C	621.31	618.6C	587.01
1C2C6C	620.83	618.17	582.65
1C216C	620.34	617.70	577.55
1C246C	619.87	617.14	571.93
1C256C	619.4C	616.51	566.05
1C266C	618.99	615.89	575.18
1C276C	618.59	615.25	580.95
1C286C	618.18	614.52	577.92
1C316C	617.81	613.76	580.36
11C16C	617.52	613.C7	585.24
11C26C	617.24	612.39	598.23
11C36C	616.97	611.75	590.82
11C46C	616.72	611.22	596.C7
11C76C	616.51	61C.71	597.63
11C96C	616.32	61C.22	602.25
111C6C	616.19	6C9.87	612.C1
11116C	616.09	6C9.51	608.61
11146C	616.CC	6C9.1C	604.8C
11156C	615.89	6C8.69	6C6.87
11166C	615.73	6C8.27	6C4.77
11176C	615.58	607.87	602.18
11186C	615.44	6C7.53	6C3.62
11216C	615.33	6C7.19	6C4.54
11226C	615.24	6C6.8C	601.1C
11236C	615.11	6C6.41	602.47
11256C	615.C3	6C6.C6	6C6.47
11286C	614.96	6C5.71	605.43
11296C	614.86	6C5.29	602.4C
113C6C	614.81	6C4.89	6C7.22
12C16C	614.73	6C4.43	594.56
12C26C	614.64	6C4.C5	596.0C

DATE	20C	1CC	DJI
120560	614.49	603.67	593.49
120660	614.34	603.32	597.11
120760	614.23	603.07	604.62
120860	614.14	602.86	605.17
120960	614.05	602.72	610.90
121260	613.95	602.60	611.94
121360	613.86	602.55	611.72
121460	613.79	602.58	612.68
121560	613.73	602.67	610.76
121660	613.76	602.78	617.78
121960	613.79	602.92	615.56
122060	613.84	603.01	614.82
122160	613.93	603.00	615.42
122260	613.96	602.95	613.31
122360	614.01	602.95	613.23
122760	614.05	602.99	613.38
122860	614.09	603.06	615.75
122960	614.11	603.08	616.19
123060	614.11	603.09	615.89
10361	614.09	603.03	610.25
10461	614.11	603.07	621.49
10561	614.14	603.07	622.67
10661	614.16	603.03	621.64
10961	614.17	603.03	624.42
11061	614.18	603.03	625.72
11161	614.20	603.04	627.21
11261	614.23	603.06	628.50
11361	614.30	603.11	633.65
11661	614.37	603.13	633.19
11761	614.43	603.04	628.96
11861	614.52	602.97	634.10
11961	614.59	602.92	632.39
12061	614.65	602.90	634.37
12361	614.71	602.95	639.82

DATE	2CC	1CC	DJI
12461	614.76	603.08	638.75
12561	614.80	603.19	637.72
12661	614.87	603.32	638.87
12761	614.96	603.51	643.55
12861	615.08	603.80	650.64
13161	615.17	604.16	648.20
20161	615.26	604.54	649.35
20261	615.40	604.94	653.62
20361	615.57	605.37	652.97
20661	615.70	605.71	645.65
20761	615.84	606.10	643.54
20861	616.03	606.56	648.85
20961	616.20	606.59	645.12
21061	616.35	607.52	639.67
21361	616.51	608.00	637.04
21461	616.72	608.49	642.91
21561	616.97	609.06	648.85
21661	617.19	609.72	651.86
21761	617.39	610.47	651.67
22061	617.62	611.26	653.65
22161	617.84	612.09	652.40
22361	618.08	612.93	654.42
22461	618.33	613.68	655.60
22761	618.60	614.51	660.44
22861	618.87	615.40	662.08
30161	619.11	616.24	663.03
30261	619.37	617.10	669.35
30361	619.61	617.95	671.57
30661	619.87	618.82	674.46
30761	620.08	619.60	667.14
30861	620.29	620.41	666.15
30961	620.49	621.13	663.33
31061	620.70	621.80	663.56
31361	620.91	622.51	664.44

DATE	200	100	CJI
31461	621.11	623.[illegible]	661.08
31561	621.30	623.59	662.88
31661	621.52	624.87	670.38
31761	621.78	625.86	676.48
32061	622.03	626.53	678.84
32161	622.28	628.05	678.73
32261	622.49	629.09	679.38
32361	622.64	630.04	675.45
32461	622.75	630.98	672.48
32761	622.83	631.89	671.03
32861	622.90	632.74	669.58
32961	623.00	633.62	676.41
33061	623.11	634.47	676.63
40361	623.25	635.29	677.59
40461	623.41	636.10	678.73
40561	623.54	636.85	677.32
40661	623.70	637.53	679.34
40761	623.89	638.28	683.68
41061	624.12	639.15	692.06
41161	624.36	640.02	694.11
41261	624.57	640.87	690.16
41361	624.82	641.77	692.02
41461	625.10	642.67	693.72
41761	625.39	643.60	696.72
41861	625.64	644.49	690.60
41961	625.87	645.33	686.21
42061	626.08	646.11	684.24
42161	626.31	646.90	685.26
42461	626.45	647.61	672.66
42561	626.63	648.37	683.09
42661	626.84	649.24	682.18
42761	627.06	650.08	679.54
42861	627.30	650.93	678.71
50161	627.53	651.73	677.05

DATE	2CC	1CC	DJI
5C261	627.79	652.51	682.34
5C361	628.10	653.34	688.90
5C461	628.44	654.16	692.25
5C561	628.77	654.94	690.67
5C861	629.13	655.72	689.06
5C961	629.52	656.46	686.52
51061	629.94	657.22	686.61
51161	630.34	657.91	686.49
51261	630.77	658.63	687.91
51561	631.21	659.40	692.37
51661	631.61	660.23	697.74
51761	632.05	661.15	705.52
51861	632.49	662.03	701.14
51961	632.97	662.95	705.96
52261	633.44	663.82	702.44
52361	633.87	664.67	700.59
52461	634.28	665.47	696.52
52561	634.65	666.27	690.16
52661	635.05	667.02	696.28
53161	635.42	667.76	696.72
60161	635.76	668.50	695.37
60261	636.13	669.23	697.70
60561	636.52	670.01	703.43
60661	636.91	670.77	703.79
60761	637.28	671.50	700.86
60861	637.64	672.18	701.65
60961	637.99	672.85	700.90
61261	638.29	673.53	696.76
61361	638.55	674.13	694.15
61461	638.84	674.77	695.81
61561	639.12	675.34	691.27
61661	639.37	675.79	685.50
61961	639.64	676.21	680.68
62061	639.95	676.71	687.87

DATE	200	100	DJI
62161	640.25	677.18	686.09
62261	640.56	677.60	685.62
62361	640.89	677.99	688.66
62661	641.24	678.31	681.16
62761	641.60	678.66	683.88
62861	641.95	678.97	684.59
62961	642.32	679.26	681.99
63061	642.68	679.64	683.96
70361	643.10	680.10	689.81
70561	643.55	680.54	692.77
70661	644.01	681.03	694.27
70761	644.54	681.56	692.73
71061	645.06	682.12	693.16
71161	645.56	682.64	694.47
71261	646.06	683.06	690.79
71361	646.56	683.40	685.90
71461	647.13	683.79	690.95
71761	647.68	684.10	684.59
71861	648.23	684.37	679.30
71961	648.79	684.65	682.74
72061	649.31	684.93	682.97
72161	649.83	685.15	682.81
72461	650.38	685.35	682.14
72561	650.91	685.58	686.37
72661	651.47	685.83	694.19
72761	652.05	686.14	702.80
72861	652.64	686.45	705.13
73161	653.22	686.83	705.37
80161	653.86	687.39	713.94
80261	654.45	687.78	710.46
80361	655.05	688.30	715.71
80461	655.69	688.87	720.69
80761	656.34	689.45	719.58
80861	657.01	690.03	720.22

DATE	200	100	DJI
80961	657.68	690.50	717.57
81061	658.40	690.54	720.49
81161	659.15	691.37	722.61
81461	659.91	691.78	718.53
81561	660.62	692.14	716.18
81661	661.31	692.57	718.20
81761	662.03	693.07	721.84
81861	662.74	693.59	723.54
82161	663.44	694.14	724.75
82261	664.13	694.64	725.76
82361	664.77	695.07	720.46
82461	665.36	695.44	714.03
82561	665.96	695.82	716.70
82661	666.53	696.21	716.01
82961	667.04	696.55	714.15
83061	667.58	696.83	716.90
90161	668.16	697.18	721.19
90561	668.72	697.42	718.72
90661	669.33	697.78	726.01
90761	669.95	698.13	726.53
90861	670.54	698.40	720.91
91161	671.09	698.58	714.36
91261	671.69	698.90	722.61
91361	672.29	699.26	722.20
91461	672.83	699.56	715.00
91561	673.39	699.87	716.30
91861	673.93	700.26	711.24
91961	674.41	700.45	702.54
92061	674.97	700.70	707.32
92161	675.52	700.97	706.31
92261	676.07	701.20	701.57
92561	676.54	701.35	691.86
92661	676.98	701.46	693.20
92761	677.46	701.58	701.13

DATE	200	100	DJI
92861	677.91	701.66	700.20
92961	678.36	701.77	701.21
100261	678.80	701.87	699.83
100361	679.23	701.99	698.30
100461	679.69	702.16	703.31
100561	680.14	702.38	708.45
100661	680.61	702.58	708.25
102361	681.03	702.65	698.98
100961	681.48	702.72	705.42
101061	681.94	702.74	706.67
101161	682.40	702.78	705.62
101261	682.87	702.78	705.50
101361	683.30	702.78	703.31
101661	683.74	702.81	703.15
101761	684.17	702.86	701.98
101861	684.64	703.01	704.20
101961	685.06	703.09	704.85
102061	685.47	703.18	705.62
102461	685.85	703.20	697.24
102561	686.23	703.23	700.72
102661	686.60	703.20	700.68
102761	686.96	703.15	698.74
103061	687.32	703.15	701.05
103161	687.68	703.18	703.92
110161	688.03	703.20	703.84
110261	688.42	703.31	706.83
110361	688.79	703.46	709.26
110661	689.21	703.64	714.60
110861	689.65	703.97	723.74
110961	690.06	704.34	722.28
111061	690.49	704.78	724.83
111361	690.95	705.18	728.43
111461	691.42	705.65	732.56
111561	691.87	706.14	734.34

DATE	200	100	DJI
111661	692.28	706.58	733.33
111761	692.69	707.07	729.53
112061	693.09	707.53	730.09
112161	693.47	707.98	729.32
112261	693.86	708.46	730.42
112461	694.29	708.95	732.60
112761	694.73	709.37	731.99
112861	695.13	709.72	728.07
112961	695.54	710.05	727.18
113061	695.95	710.34	721.60
120161	696.41	710.70	728.80
120461	696.85	711.06	731.22
120561	697.26	711.47	731.31
120661	697.65	711.91	730.09
120761	698.03	712.27	726.45
120861	698.40	712.70	728.23
121161	698.80	713.23	732.56
121261	699.20	713.75	734.02
121361	699.60	714.27	734.91
121461	699.95	714.75	730.94
121561	700.29	715.22	729.40
121861	700.61	715.63	727.71
121961	700.87	715.92	722.41
122061	701.13	716.11	722.57
122161	701.36	716.26	720.10
122261	701.63	716.42	720.87
122561	701.91	716.51	723.09
122761	702.25	716.72	731.43
122861	702.59	716.88	731.51
122961	702.92	716.98	731.14
10262	703.24	717.03	724.71
10362	703.56	717.09	726.01
10462	703.82	717.14	722.53
10562	704.01	717.08	714.84

DATE	2CO	1CC	DJI
10862	704.16	716.95	708.98
10962	704.31	716.84	707.64
11062	704.44	716.73	706.02
11162	704.62	716.66	710.67
11262	704.81	716.56	711.73
11362	705.00	716.42	709.54
11462	705.18	716.22	704.93
11562	705.30	715.97	700.84
11662	705.39	715.71	694.45
11762	705.49	715.55	697.77
11862	705.61	715.40	701.98
11962	705.72	715.23	698.54
12062	705.81	715.07	698.17
12162	705.87	714.86	696.52
12262	705.87	714.57	692.19
12362	705.85	714.28	689.92
12462	705.87	713.97	694.09
12562	705.91	713.70	700.00
12662	705.96	713.52	702.54
12762	706.01	713.44	706.55
12862	706.08	713.27	706.14
12962	706.21	713.16	710.35
20062	706.36	713.16	715.73
20162	706.52	713.17	716.82
20262	706.73	713.30	714.27
20362	706.89	713.32	714.92
20462	707.05	713.39	714.32
20562	707.22	713.47	713.67
20662	707.41	713.62	717.27
20762	707.61	713.87	716.46
20862	707.77	714.08	714.36
20962	707.90	714.22	715.55
21062	708.01	714.35	713.02
21162	708.10	714.43	709.54

DATE	200	100	DJI
22662	708.19	714.50	706.22
22762	708.28	714.57	706.22
22862	708.39	714.62	708.05
30162	708.52	714.66	711.81
30262	708.63	714.68	711.00
30562	708.72	714.79	709.99
30662	708.77	714.82	708.17
30762	708.78	714.82	706.63
30862	708.84	714.90	713.75
30962	708.88	714.99	714.44
31262	708.94	715.10	714.68
31362	709.02	715.24	716.58
31462	709.15	715.43	720.99
31562	709.31	715.62	723.54
31662	709.45	715.80	722.77
31962	709.56	715.95	720.38
32062	709.69	716.17	719.66
32162	709.78	716.33	716.62
32262	709.84	716.49	716.39
32362	709.91	716.67	716.46
32662	709.96	716.76	710.67
32762	709.99	716.80	707.28
32862	710.04	716.88	712.25
32962	710.12	716.94	713.34
33062	710.19	716.92	706.95
40262	710.24	716.83	705.42
40362	710.28	716.60	700.60
40462	710.34	716.34	696.88
40562	710.44	716.10	700.88
40662	710.50	715.82	699.63
40962	710.53	715.42	692.96
41062	710.58	715.03	695.46
41162	710.62	714.65	694.90
41262	710.64	714.21	685.67

DATE	200	100	CJI
41362	710.66	713.79	687.90
41662	710.66	713.33	684.06
41762	710.69	712.91	688.43
41862	710.72	712.50	691.01
41962	710.75	712.12	694.25
42362	710.75	711.79	694.61
42462	710.75	711.44	693.00
42562	710.70	711.07	683.69
42662	710.61	710.51	673.68
42762	710.49	709.92	672.20
43062	710.37	709.26	665.33
50162	710.29	708.68	671.24
50262	710.19	708.11	669.96
50362	710.14	707.58	675.49
50462	710.10	706.97	671.20
50762	710.04	706.34	670.99
50862	709.95	705.63	663.90
50962	709.81	704.87	654.70
51062	709.63	704.05	647.23
51162	709.40	703.17	640.63
51462	709.16	702.41	646.20
51562	708.93	701.74	655.36
51662	708.67	701.08	654.04
51762	708.39	700.37	649.79
51862	708.08	699.65	650.70
52162	707.77	698.82	648.59
52262	707.37	697.87	636.34
52362	706.90	696.82	626.52
52462	706.42	695.80	622.56
52562	705.87	694.66	611.88
52862	705.17	693.20	576.93
52962	704.59	692.09	603.96
53162	704.04	691.14	613.36
60162	703.50	690.17	611.05

DATE	200	100	DJI
60462	702.89	685.05	593.66
60562	702.27	687.89	594.96
60662	701.68	686.81	603.91
60762	701.08	685.74	602.20
60862	700.46	684.70	601.61
61162	699.81	683.65	595.17
61262	699.11	682.51	580.94
61362	698.41	681.27	574.04
61462	697.64	679.88	563.00
61562	696.95	678.68	578.18
61862	696.25	677.44	574.21
61962	695.53	676.19	571.61
62062	694.74	674.90	563.08
62162	693.90	673.51	550.49
62262	692.96	671.96	539.19
62562	692.01	670.33	536.77
62662	691.09	668.66	535.76
62762	690.20	666.96	536.58
62862	689.37	665.47	557.35
62962	688.57	663.98	561.28
70262	687.88	662.56	573.79
70362	687.18	661.19	579.48
70562	686.55	659.51	585.87
70662	685.92	658.52	576.17
70962	685.29	657.18	580.82
71062	684.69	655.51	586.01
71162	684.12	654.62	589.06
71262	683.62	653.36	590.27
71362	683.10	652.12	590.19
71662	682.54	650.85	588.10
71762	681.92	649.49	577.85
71862	681.27	648.11	571.24
71962	680.64	646.78	573.16
72062	680.03	645.49	577.18

DATE	2CC	1CC	DJI
72362	679.40	644.19	577.47
72462	678.73	642.81	574.12
72562	678.06	641.44	574.67
72662	677.47	640.14	579.61
72762	676.86	638.91	585.00
73062	676.29	637.76	591.44
73162	675.75	636.60	597.93
80162	675.18	635.37	591.36
80262	674.63	634.16	593.83
80362	674.10	632.96	596.38
80662	673.55	631.68	593.24
80762	672.98	630.23	588.35
80862	672.41	629.01	590.94
80962	671.83	627.72	591.15
81062	671.31	626.45	592.32
81362	670.78	625.23	595.29
81462	670.29	624.09	601.90
81562	669.83	622.99	606.76
81662	669.36	621.95	606.71
81762	668.89	620.98	610.02
82062	668.43	619.98	612.86
82162	667.94	618.94	608.64
82262	667.47	618.02	615.54
82362	666.98	617.13	616.00
82462	666.43	616.26	613.74
82762	665.88	615.42	612.57
82862	665.28	614.46	605.25
82962	664.66	613.50	603.45
83062	664.01	612.59	602.32
83162	663.38	611.73	609.18
90462	662.73	610.81	602.45
90562	662.07	609.94	599.14
90662	661.43	609.07	600.81
90762	660.79	608.24	600.86

DATE	200	100	DJI
91062	660.14	607.37	602.03
91162	659.50	606.50	603.99
91262	658.86	605.59	603.34
91362	658.24	604.69	603.99
91462	657.63	603.82	605.84
91762	657.06	603.06	607.63
91862	656.45	602.39	607.09
91962	655.83	601.74	607.09
92062	655.18	601.10	601.65
92162	654.49	600.31	591.78
92462	653.77	599.44	582.91
92562	653.07	598.56	588.22
92662	652.30	597.64	578.48
92762	651.50	596.67	574.12
92862	650.72	595.81	578.19
100162	649.93	594.98	571.95
100262	649.17	594.30	578.73
100362	648.43	593.68	578.52
100462	647.73	593.04	582.41
100562	647.05	592.35	586.59
100862	646.38	591.67	586.09
100962	645.71	591.05	587.18
101062	645.03	590.42	588.14
101162	644.31	589.80	586.47
101262	643.58	589.30	586.47
101562	642.88	588.93	589.69
101662	642.20	588.60	589.35
101762	641.51	588.36	587.68
101862	640.80	588.40	581.15
101962	640.09	588.09	573.25
102262	639.39	587.65	568.60
102362	638.64	587.12	558.06
102462	638.00	586.55	576.68
102562	637.30	586.71	570.86

DATE	2CC	1CC	CJI
1C2662	636.58	586.36	569.02
1C2962	635.93	586.13	579.35
1C3062	635.35	586.CC	588.98
1C3162	634.80	585.95	589.77
11C162	634.31	586.11	597.13
11C262	633.84	586.42	604.58
11C562	633.39	586.89	610.48
11C762	632.97	587.27	615.75
11C862	632.53	587.62	609.16
11C962	632.13	588.06	616.13
111262	631.79	588.67	624.41
111362	631.45	589.40	623.11
111462	631.14	590.31	630.48
111562	630.78	591.24	629.14
111662	630.42	592.18	630.60
111962	630.02	593.08	626.21
112062	629.65	593.83	632.94
112162	629.29	594.59	637.25
112362	628.93	595.30	644.87
112662	628.56	595.93	642.06
112762	628.23	596.55	648.08
112862	627.91	597.31	651.85
112962	627.61	598.03	652.61
113062	627.28	598.66	649.30
120362	626.93	599.23	646.41
120462	626.60	599.85	651.48
120562	626.30	600.48	653.99
120662	625.98	601.12	651.73
120762	625.68	601.86	652.10
121062	625.36	602.60	645.08
121162	625.05	603.32	645.16
121262	624.76	604.02	647.33
121362	624.44	604.70	645.20
121462	624.12	605.44	648.09

DATE	2CC	1CC	DJI
121762	623.80	606.15	645.45
121862	623.45	606.75	640.14
121962	623.14	607.37	647.00
122062	622.85	607.94	648.55
122162	622.51	608.43	646.41
122462	622.18	608.99	647.71
122662	621.86	609.57	651.64
122762	621.53	610.11	650.56
122862	621.19	610.69	651.43
123162	620.83	611.33	652.10
10263	620.45	611.89	646.79
10363	620.14	612.55	657.42
10463	619.85	613.25	662.23
10763	619.58	613.92	662.65
10863	619.35	614.60	669.88
10963	619.10	615.22	668.00
11063	618.90	615.84	669.51
11163	618.72	616.46	671.60
11463	618.54	617.09	675.74
11563	618.35	617.76	675.36
11663	618.16	618.29	669.00
11763	617.99	618.86	672.98
11863	617.85	619.45	672.52
12163	617.75	620.08	675.24
12263	617.62	620.78	675.53
12363	617.51	621.52	677.58
12463	617.44	622.30	679.55
12563	617.37	623.00	679.71
12863	617.31	623.81	682.89
12963	617.30	624.65	683.73
13063	617.25	625.43	678.58
13163	617.24	626.25	682.85
20163	617.22	627.06	683.19
20463	617.17	627.84	682.01

DATE	200	100	DJI
20563	617.11	628.62	681.30
20663	617.05	629.41	682.52
20763	616.98	630.14	679.09
20863	616.96	630.86	679.92
21163	616.96	631.54	674.74
21263	616.99	632.23	676.62
21363	617.07	633.03	681.72
21463	617.14	633.97	685.53
21563	617.22	635.00	686.07
21863	617.29	636.01	688.96
21963	617.37	637.09	686.83
22063	617.42	638.17	682.06
22163	617.51	639.21	681.64
22563	617.61	640.23	674.61
22663	617.75	641.20	675.28
22763	617.91	642.14	672.94
22863	618.04	643.05	672.94
30163	618.07	643.78	659.72
30463	618.13	644.59	667.04
30563	618.22	645.39	667.16
30663	618.31	646.19	668.08
30763	618.42	647.04	671.43
30863	618.60	647.90	672.43
31163	618.84	648.74	674.02
31263	619.10	649.60	675.20
31363	619.43	650.50	677.66
31463	619.91	651.43	673.73
31563	620.28	652.46	676.33
31863	620.58	653.51	673.56
31963	620.88	654.65	672.06
32063	621.30	655.65	677.12
32163	621.70	656.70	675.57
32263	622.07	657.79	677.83
32563	622.45	658.77	678.17

DATE	2CC	1CC	DJI
32663	622.84	659.69	690.38
32763	623.29	660.64	684.73
32863	623.80	661.50	682.95
32963	624.35	662.28	682.52
40163	624.96	663.03	685.86
40263	625.50	663.73	685.53
40363	626.08	664.54	690.51
40463	626.71	665.35	697.12
40563	627.40	666.13	702.43
40663	628.18	666.96	706.03
40963	629.01	667.71	706.03
41063	629.85	668.47	704.35
41163	630.72	669.25	708.45
41563	631.59	670.10	711.38
41663	632.36	670.88	710.92
41763	633.10	671.63	710.25
41863	633.77	672.24	708.16
41963	634.43	672.94	711.68
42263	635.06	673.57	711.01
42363	635.75	674.20	714.98
42463	636.44	674.85	717.74
42563	637.10	675.54	718.33
42663	637.74	676.25	717.16
42963	638.36	676.88	715.11
43063	639.00	677.52	717.70
50163	639.66	678.20	719.67
50263	640.35	678.89	721.09
50363	641.11	679.67	719.05
50663	641.81	680.30	713.77
50763	642.49	680.98	712.55
50863	643.19	681.65	718.54
50963	643.93	682.43	721.97
51063	644.68	683.21	723.30
51363	645.39	684.04	723.01

DATE	2CC	1CC	CJI
51463	646.07	684.76	719.84
51563	646.73	685.52	724.34
51663	647.36	686.29	722.84
51763	648.02	687.06	724.81
52063	648.66	687.74	720.18
52163	649.29	688.48	724.04
52263	649.94	689.19	722.84
52363	650.61	689.88	721.38
52463	651.26	690.62	720.53
52763	651.89	691.23	718.25
52863	652.52	691.79	717.95
52963	653.16	692.39	722.50
53163	653.78	692.96	726.56
60263	654.38	693.54	726.27
60463	654.98	694.11	726.49
60563	655.56	694.65	725.93
60663	656.13	695.16	726.87
60763	656.70	695.63	722.41
61063	657.20	696.11	716.49
61163	657.71	696.56	718.38
61263	658.26	697.07	723.36
61363	658.80	697.53	721.43
61463	659.39	698.00	722.03
61563	659.96	698.40	718.21
61763	660.54	698.79	718.90
61863	661.10	699.20	719.84
61963	661.69	699.57	720.78
62063	662.29	699.93	718.85
62163	662.87	700.30	716.32
62463	663.45	700.66	718.42
62563	664.03	700.99	716.32
62663	664.55	701.26	708.80
62763	665.06	701.50	706.03
62863	665.58	701.75	706.88

DATE	DCC	TCC	DCI
7C163	666.05	701.97	701.35
7C263	666.56	702.26	708.94
7C363	667.05	702.65	713.36
7C463	667.64	703.05	716.45
7C563	668.19	703.34	710.66
7C663	668.80	703.62	714.05
71C63	669.44	703.88	712.12
711C3	670.05	704.05	705.76
712C3	670.70	704.30	707.70
713C3	671.34	704.51	703.28
714C3	671.96	704.72	702.12
715C3	672.60	704.97	699.72
716C3	673.19	705.17	695.90
719C3	673.76	705.38	693.89
722C3	674.29	705.54	688.74
723C3	674.80	705.82	687.84
724C3	675.32	706.06	690.88
725C3	675.83	706.26	687.71
726C3	676.33	706.48	689.38
729C3	676.85	706.67	690.71
73C63	677.40	706.91	696.42
731C3	677.93	707.12	695.43
80163	678.46	707.32	694.87
80263	679.01	707.52	697.53
80363	679.62	707.81	702.55
80463	680.29	708.12	707.05
80763	680.96	708.41	703.18
80863	681.69	708.74	704.19
80963	682.35	709.05	708.39
81263	683.05	709.40	710.27
81363	683.76	709.73	711.13
81463	684.43	710.10	714.95
81563	685.08	710.48	718.55
81663	685.73	710.82	719.32

DATE	20C	1CC	FJ1
E1963	686.34	711.18	718.81
E2C63	686.9C	711.53	717.27
E2163	687.43	711.83	715.72
E2263	687.94	712.16	718.[illegible]
E2363	688.51	712.48	723.14
E2463	689.05	712.75	724.17
E2563	689.53	712.93	719.85
E2663	69C.C4	713.12	725.07
E2763	69C.52	713.32	726.4C
E2863	691.02	713.57	729.32
E2963	691.53	713.81	732.C2
9C463	692.C6	714.C2	732.92
9C563	692.59	714.29	737.98
9C663	693.C8	714.55	735.37
9C963	693.52	714.75	732.92
91C63	693.99	715.C5	737.43
91163	694.45	715.34	74C.34
91263	694.9C	715.6C	740.26
91363	695.33	715.82	74C.13
91663	695.78	716.C2	738.46
91763	696.25	716.25	74C.13
91863	696.68	716.49	737.86
91963	697.13	716.73	743.22
92C63	697.59	716.97	743.6C
92363	698.C3	717.17	74C.43
92463	698.53	717.45	745.96
92563	699.02	717.75	743.69
92663	699.47	717.99	736.95
92763	699.94	718.18	737.98
93C63	7CC.36	718.29	732.79
1CC163	7CC.82	718.44	736.33
1CC263	7C1.31	718.59	737.94
1CC363	7C1.6C	718.84	744.25
1CC463	7C2.28	719.C4	745.C6

DATE	2CC	1CC	DJI
1CC763	7C2.77	719.25	743.86
1CC863	7C3.25	719.44	743.90
1CC963	7C3.69	719.64	739.83
1C1063	7C4.14	719.81	74C.56
1C1163	7C4.59	719.99	741.76
1C1463	7C5.04	72C.2C	741.84
1C1563	7C5.52	72C.42	742.19
1C1663	7C5.97	72C.72	748.45
1C1763	7C6.42	721.C5	75C.77
1C1863	7C6.86	721.33	75C.6C
1C2163	7C7.27	721.58	752.31
C2263	7C7.66	721.79	747.21
C2363	7C8.C5	721.99	746.45
1C2463	7C8.45	722.29	751.8C
1C2563	7C8.85	722.54	755.61
1C2863	7C9.27	722.91	759.35
1C2963	7C9.73	723.35	76C.5C
1C3C63	710.14	723.71	755.19
1C3163	71C.55	724.C3	755.23
11C163	71C.94	724.36	753.73
11C463	711.31	724.63	749.22
11C663	711.65	724.89	744.C3
11C763	711.97	725.15	745.66
11C863	712.33	725.46	75C.81
111163	712.68	725.79	753.77
111263	713.C2	726.11	750.21
111363	713.38	726.45	751.11
111463	713.70	726.74	747.C4
111563	713.98	726.98	74C.CC
111863	714.25	727.24	734.85
111963	714.52	727.54	736.65
112C63	714.82	727.9C	742.06
112163	715.C9	728.21	732.65
112263	715.25	728.23	711.45

DATE	2CC	1CC	DJI
112663	715.59	728.54	743.52
112763	715.91	728.78	741.00
112963	716.26	729.18	750.52
12C263	716.59	729.56	751.91
12C363	716.92	729.96	751.82
12C463	717.25	73C.41	755.51
12C563	717.64	73C.97	763.86
12C663	718.03	731.54	76C.25
12C963	718.41	732.11	759.08
121C63	718.84	732.71	759.25
121163	719.25	733.32	757.21
121263	719.67	733.96	757.43
121363	72C.11	734.67	760.17
121663	72C.62	735.41	761.64
121763	721.11	736.17	766.38
121863	721.61	736.96	767.21
121963	722.09	737.7C	763.86
122C63	722.54	738.42	762.08
122363	722.97	739.04	758.3C
122463	723.39	739.65	756.86
122663	723.81	74C.21	76C.21
122763	724.24	74C.96	762.95
123C63	724.67	741.53	759.9C
1C264	725.12	742.12	766.08
1C364	725.59	742.76	767.68
1C664	726.08	743.42	769.51
1C764	726.55	744.05	771.73
1C864	727.04	744.69	774.46
1C964	727.54	745.35	776.55
11C64	728.02	745.94	774.33
11264	728.48	746.45	773.12
11464	728.93	747.04	774.49
11564	729.39	747.59	774.00
11664	729.85	748.18	776.13

DATE	200	100	DJI
11764	730.30	748.78	775.69
12064	730.74	749.22	773.03
12164	731.17	749.86	776.44
12264	731.59	750.43	781.31
12364	731.99	751.06	782.86
12464	732.38	751.64	783.04
12764	732.78	752.23	785.34
12864	733.19	752.81	787.78
12964	733.56	753.32	782.60
13064	733.92	753.82	783.44
13164	734.30	754.30	785.34
20364	734.67	754.75	784.72
20464	735.04	755.29	783.30
20564	735.40	755.75	783.04
20664	735.78	756.21	786.41
20764	736.16	756.72	791.59
21064	736.52	757.21	788.71
21164	736.88	757.75	792.16
21264	737.27	758.29	794.82
21364	737.67	758.86	794.42
21464	738.05	759.37	794.56
21764	738.44	759.90	796.15
21864	738.81	760.45	795.40
21964	739.19	760.94	794.91
22064	739.61	761.47	796.55
22464	740.03	762.07	797.12
22564	740.42	762.66	796.59
22664	740.81	763.33	799.38
22764	741.18	763.91	797.04
22864	741.56	764.53	800.14
30264	741.98	765.12	802.75
30364	742.38	765.73	805.72
30464	742.79	766.33	804.70
30564	743.19	766.93	803.77

DATE	2CC	1CC	DJI
30664	743.62	767.60	806.03
30964	744.03	768.26	807.18
31064	744.47	768.94	809.39
31164	744.93	769.66	813.87
31264	745.40	770.38	814.22
31364	745.89	771.06	816.22
31664	746.38	771.71	816.48
31764	746.86	772.39	818.16
31864	747.32	773.07	820.25
31964	747.79	773.79	819.36
32064	748.23	774.47	814.93
32364	748.67	775.09	813.40
32464	749.09	775.65	811.43
32564	749.55	776.19	813.16
32664	750.04	776.74	815.91
33064	750.53	777.34	815.29
33164	750.98	777.92	813.29

APPENDIX C

To set up the Trendex model enter the date in the first column. Column two is the value of the Index at the close of business of the corresponding month. Columns three and five are the values of the Index 14 months ago and 11 months ago respectively. Columns four and six are the percentage change in the Index over 14 month and 11 month periods. The total of columns four and six are entered in column 7. Column 18 is a 10 month weighted moving total of column 7. This is simplified by recording in column 8 the current combined percentage changes (column 7) by 10. Last month's combined change multiplied by 9 is recorded in column 8. The change before that is multiplied by 8 and entered in column 10, and so on. The sum of all 10 of these figures (columns 8 through 17) is divided by 10 to produce the 10 month weighted moving average (column 18).

A more precise notation for computing columns 9 through 17 is: Let $x_{i,j}$ = the element of the matrix formed by columns 9 through 17, where $i = 10,11,12,\ldots,n$; n = the number of months of data used; and $j = 9,10,11,\ldots,17$. It follows that:

$$x_{i,j} = (x_{i,7} - x_{i-\ell,7})(10-\ell) \qquad i-\ell > 0$$

$$x_{i,j} = 0 \qquad i-\ell < 0$$

where $\ell = 1,2,3,\ldots,9$; the number of months before the current value. The first nine values of column 7, therefore, have been suppressed in the Trendex models.

```
      PROGRAM TRENDEX                                                   DJI1-48364
      DIMENSION DJIA(900),DJIC(900),DJID(900),IDATE(900),DJIB(900),DJIC(
     1900),Y1(877),Y2(877),ITITLE(12),X(877)
      EQUIVALENCE (Y1(1),DJIA(24)),(Y2(1),DJID(24))
      DO 7 I=1,12
    7 ITITLE(I)=(8H        )
      ITITLE(1)=(8H CUNHAM )
      ITITLE(2)=(8HDOW JCNE)
      ITITLE(3)=(8HS INDUST)
      ITITLE(4)=(8HRIALS VS)
      ITITLE(5)=(8H TRENDEX)
      ITITLE(6)=(8H DJI    )
      ITITLE(7)=(8H 31 JAN.)
      ITITLE(8)=(8H1950 THR)
      ITITLE(9)=(8HU 30 APR)
      ITITLE(10)=(8H.1964 MO)
      ITITLE(11)=(8HNTHLY   )
      ITITLE(12)=(8H        )
      PRINT 5
   50 FORMAT(1H1/////////////3CX7HTRENCEX6X4HVERY6X4HLONG6X4HTERM6X6HBUYI
     1NG6X5HGUIDE////2X2H 16X1H26X1H35X1H46X1H55X1H65X1H76X1H86X1H95X2H1
     205X2H115X2H125X2H135X2H145X2H154X2H164X2H174X2H18//)
      READ1,N
    1 FORMAT(I3)
      READ10,(IDATE(I),DJIA(I),I=1,N)
   10 FORMAT(I4,F6.2)
      DO60 I=15,N
      K=I-14
      M=I-11
   11 DJIB(I)=(DJIA(I)-DJIA(K))*100./DJIA(K)
      DJIC(I)=(DJIA(I)-DJIA(M))*100./DJIA(M)
   60 DJID(I)=DJIB(I)+DJIC(I)
      DO61 I=24,N
      K=I-14
      M=I-11
      DJIE=10.*DJIC(I)
      DJIF=9.*DJID(I-1)
      DJIG=8.*DJID(I-2)
      DJIH=7.*DJID(I-3)
      DJII=6.*DJID(I-4)
      DJIJ=5.*DJID(I-5)
      DJIK=4.*DJID(I-6)
      DJIL=3.*DJID(I-7)
      DJIM=2.*DJID(I-8)
      DJIN=DJID(I-9)
      DJIC(I)=(DJIE+CJIF+DJIG+CJIH+DJII+DJIJ+CJIK+DJIL+DJIM+DJIN)/1C.
      IF(XMODF(I,34)-21)50,49,50
   49 PRINT 52
   52 FORMAT(1H1////////2X2H 16X1H26X1H35X1H46X1H55X1H65X1H76X1H86X1H95X
     12H105X2H115X2H125X2H135X2H145X2H154X2H164X2H174X2H18//)
  500 PRINT 51,IDATE(I),CJIA(I),CJIA(K),DJIB(I),DJIA(M),DJIC(I),DJID(I),
     1DJIE,DJIF,DJIG,DJIH,DJII,DJIJ,DJIK,DJIL,DJIM,DJIN,DJID(I)
   51 FORMAT(1H0,I6,2F7.2,F6.1,F7.2,2F6.2,6F7.1,2F6.1,F6.0)
   61 CONTINUE
      PRINT 52
      N23=N-23
      CO 88 I=1,172
   88 X(I)=I
      DO 8 I=24,N
    8 DJID(I)=DJID(I)/2.
      LABEL=(4H DJI)
      CALL CRAW (N23,X,Y1,1,0,LABEL,ITITLE,2C.,1CO.,1,C,2,2,9,10,1,LAST)
      LABEL=(4HTROX)
      CALL DRAW (N23,X,Y2,3,0,LABEL,ITITLE,2C.,1CO.,1,0,2,2,9,10,1,LAST)
      END
      END
```

TRENDEX VERY LONG TERM BUYING GUIDE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
13150	201.79	171.20	17.9	173.06	16.60	34.47	344.7	160.5	123.7	105.2	-15.5	-27.5	-43.8	-44.8	-32.3	-4.6	57.
22850	203.44	177.30	14.7	177.10	18.87	29.62	296.2	310.2	142.7	108.3	90.1	-12.9	-22.0	-32.9	-29.8	-16.1	83.
33150	206.05	179.12	15.0	174.16	18.31	33.35	333.5	266.5	275.8	124.8	92.8	75.1	-10.4	-16.5	-21.9	-14.9	110.
42950	214.33	173.06	23.8	168.36	27.30	51.15	511.5	300.1	236.9	241.3	107.0	77.3	60.1	-7.8	-11.0	-11.0	150.
53150	223.42	177.10	26.2	167.42	33.45	59.60	596.0	460.4	266.8	207.3	206.8	89.2	61.9	45.1	-5.2	-5.5	192.
63050	209.11	174.16	20.1	175.92	18.87	38.93	389.3	536.4	409.2	233.4	177.7	172.3	71.3	46.4	30.0	-2.6	206.
73150	209.40	168.36	24.4	178.66	17.21	41.58	415.8	350.4	476.8	358.1	200.1	148.1	137.9	53.5	30.9	15.0	219.
83150	216.87	167.42	29.5	182.51	18.83	48.36	483.6	374.2	311.5	417.2	306.9	166.7	118.5	103.4	35.7	15.5	233.
92950	226.36	175.92	28.7	189.54	19.43	48.10	481.0	435.3	332.7	272.5	357.6	255.8	133.4	88.8	68.9	17.8	244.
103150	225.01	178.66	25.9	191.55	17.47	43.41	434.1	432.9	386.9	291.1	233.6	298.0	204.6	100.0	59.2	34.5	247.
113050	227.60	182.51	24.7	200.13	13.73	38.43	384.3	390.7	384.8	338.5	249.5	194.7	238.4	153.5	66.7	29.6	243.
123050	235.41	189.54	24.2	201.79	16.66	40.86	408.6	345.9	347.3	336.7	290.2	207.9	155.7	178.8	102.3	33.3	241.
13151	248.83	191.55	29.9	203.44	22.31	52.21	522.1	367.8	307.5	303.9	288.6	241.8	166.3	116.8	119.2	51.2	249.
22851	252.05	200.13	25.9	206.05	22.32	48.27	482.7	469.9	326.9	269.0	260.5	240.5	193.5	124.7	77.9	59.6	251.
33151	247.94	201.79	22.9	214.33	15.68	38.55	385.5	434.4	417.7	286.0	230.6	217.1	192.4	145.1	83.2	38.9	243.
43051	259.13	203.44	27.4	223.42	15.98	43.36	433.6	347.0	386.1	365.5	245.2	192.2	173.6	144.3	96.7	41.6	243.
53151	249.65	206.05	21.2	209.11	19.39	40.55	405.5	390.2	308.4	337.9	313.3	204.3	153.7	130.2	96.2	48.4	239.
62951	242.64	214.33	13.2	209.40	15.87	29.08	290.8	364.9	346.9	269.9	289.6	261.1	163.4	115.3	86.8	48.1	224.
73151	257.86	223.42	15.4	216.87	18.90	34.32	343.2	261.7	324.4	303.5	231.3	241.3	208.9	122.6	76.9	43.4	216.
83151	270.25	209.11	29.2	226.36	19.39	48.63	486.3	308.8	232.7	283.8	260.1	192.8	193.1	156.6	81.7	38.4	223.
92851	271.16	209.40	29.5	225.01	20.51	50.00	500.0	437.6	274.5	203.6	243.3	216.8	154.2	144.8	104.4	40.9	232.
103151	262.35	216.87	21.0	227.60	15.27	36.24	362.4	450.0	389.0	240.2	174.5	202.7	173.4	115.7	96.5	52.2	226.
113051	261.27	226.36	15.4	235.41	10.99	26.41	264.1	326.2	400.0	340.4	205.9	145.4	162.2	130.1	77.1	48.3	210.
123151	269.23	225.01	19.7	248.83	8.20	27.85	278.5	237.7	289.9	350.0	291.8	171.6	116.3	121.6	86.7	38.6	198.
13152	270.69	227.60	18.9	252.05	7.40	26.33	263.3	250.7	211.3	253.7	300.0	243.1	137.3	87.2	81.1	43.4	187.
22952	260.08	235.41	10.5	247.94	4.90	15.38	153.8	236.9	222.8	184.9	217.4	250.0	194.5	102.9	58.2	40.5	166.
33152	269.46	248.83	8.3	255.13	3.99	12.28	122.8	138.4	210.6	195.0	158.4	181.2	200.0	145.9	68.6	29.1	145.
43052	257.63	252.05	2.2	249.65	3.20	5.41	54.1	110.5	123.0	184.3	167.1	132.0	145.0	150.0	97.3	34.3	120.
52952	262.94	247.94	6.0	242.64	8.37	14.42	144.2	48.7	98.2	107.6	158.0	139.3	105.6	108.7	100.0	48.6	106.
63052	274.26	259.13	5.8	257.86	6.36	12.20	122.0	129.7	43.3	85.9	92.3	131.6	111.4	79.2	72.5	50.0	92.
73152	279.96	249.65	12.1	270.25	3.59	15.73	157.3	109.8	115.3	37.9	73.7	76.9	105.3	83.6	52.8	36.2	85.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
82952	275.04	242.64	13.4	271.16	1.43	14.78	147.8	141.6	97.6	100.9	32.5	61.4	61.5	79.0	55.7	26.4	80.
93052	270.61	257.86	4.9	262.35	3.15	8.09	80.9	133.1	125.9	85.4	86.5	27.1	49.1	46.1	52.7	27.9	71.
103152	269.23	270.25	-.4	261.27	3.05	2.67	26.7	72.8	118.3	110.1	73.2	72.1	21.6	36.8	30.8	26.3	59.
112852	283.06	271.16	4.4	269.23	5.14	9.53	95.3	24.0	64.7	103.5	94.4	61.0	57.7	16.2	24.6	15.4	56.
123152	291.90	262.35	11.3	270.69	7.84	19.10	191.0	85.7	21.4	56.[illegible]	88.7	78.7	48.8	43.2	10.8	12.3	64.
13053	289.77	261.27	10.9	260.08	11.42	22.32	223.2	171.9	76.2	18.7	48.6	73.9	62.9	36.6	28.8	5.4	75.
22753	284.27	269.23	5.6	269.46	5.50	11.08	110.8	200.9	152.8	66.7	16.0	40.5	59.1	47.2	24.4	14.4	73.
33153	279.84	270.69	3.4	257.63	8.62	12.00	120.0	99.7	178.6	133.7	57.2	13.3	32.4	44.4	31.5	12.2	72.
43053	274.75	260.08	5.6	262.94	4.49	10.13	101.3	108.0	88.7	156.3	114.6	47.6	10.7	24.3	29.6	15.7	70.
52953	272.28	269.46	1.0	274.26	-.72	.32	3.2	91.2	96.0	77.6	133.9	95.5	38.1	8.0	16.2	14.8	57.
63053	268.26	257.63	4.1	279.96	-4.18	-.05	-.5	2.9	81.1	84.0	66.5	111.6	76.4	28.6	5.3	8.1	46.
73153	275.38	262.94	4.7	275.04	.12	4.85	48.5	-.5	2.6	70.9	72.0	55.4	89.3	57.3	19.1	2.7	42.
83153	251.22	274.26	-8.4	270.61	-7.17	-15.57	-155.7	43.7	-.4	2.3	60.8	60.0	44.3	67.0	38.2	9.5	17.
93053	264.04	279.96	-5.7	269.23	-1.93	-7.61	-76.1	-140.1	38.8	-.4	1.9	50.7	48.0	33.2	44.6	19.1	2.
103053	275.81	275.04	.3	283.06	-2.56	-2.28	-22.8	-68.5	-124.5	34.0	-.3	1.6	40.5	36.0	22.2	22.3	-6.
113053	281.37	270.61	4.0	291.90	-3.61	.37	3.7	-20.5	-60.9	-109.0	29.1	-.3	1.3	30.4	24.0	11.1	-9.
123153	280.90	269.23	4.3	289.77	-3.06	1.27	12.7	3.3	-18.3	-53.3	-93.4	24.3	-.2	1.0	20.3	12.0	-9.
12954	292.39	283.06	3.3	284.27	2.86	6.15	61.5	11.5	3.0	-16.0	-45.7	-77.8	19.4	-.2	.6	10.1	-3.
22654	294.54	291.90	.9	279.84	5.25	6.16	61.6	55.4	10.2	2.6	-13.7	-38.1	-62.3	14.6	-.1	.3	3.
33154	303.51	289.77	4.7	274.75	10.47	15.21	152.1	55.4	49.2	8.9	2.2	-11.4	-30.5	-46.7	9.7	-.1	19.
43054	319.33	284.27	12.3	272.28	17.28	29.61	296.1	136.9	49.3	43.1	7.6	1.8	-9.1	-22.8	-31.1	4.9	48.
52854	327.49	279.84	17.0	268.26	22.08	39.11	391.1	266.5	121.7	43.1	36.9	6.4	1.5	-6.8	-15.2	-15.6	83.
63054	333.53	274.75	21.4	275.38	21.12	42.51	425.1	352.0	236.9	106.5	36.9	30.8	5.1	1.1	-4.6	-7.6	118.
73054	347.92	272.28	27.8	251.22	38.49	66.27	662.7	382.6	312.9	207.3	91.3	30.8	24.6	3.8	.7	-2.3	171.
83154	335.80	268.26	25.2	264.04	27.18	52.35	523.5	596.5	340.1	273.7	177.7	76.0	24.6	18.5	2.5	.4	203.
93054	360.46	275.38	30.9	275.81	30.69	61.59	615.9	471.2	530.2	297.6	234.6	148.1	60.8	18.5	12.3	1.3	239.
102954	352.14	251.22	40.2	281.37	25.15	65.32	653.2	554.3	418.8	463.9	255.1	195.5	118.5	45.6	12.3	6.2	272.
113054	386.77	264.04	46.5	280.90	37.69	84.17	841.7	587.9	492.7	366.5	397.6	212.6	156.4	88.8	30.4	6.2	318.
123154	404.39	275.81	46.6	292.39	38.31	84.92	849.2	757.5	522.6	431.1	314.1	331.4	170.0	117.3	59.2	15.2	357.
13155	408.83	281.37	45.3	294.54	38.80	84.10	841.0	764.3	673.4	457.3	369.5	261.8	265.1	127.5	78.2	29.6	387.
22855	411.87	280.90	46.6	302.51	35.70	82.33	823.3	756.9	679.4	589.2	391.9	307.9	209.4	198.8	85.0	39.1	408.
33155	409.70	292.39	40.1	319.33	28.30	68.42	684.2	740.9	672.8	594.5	505.0	326.6	246.3	157.1	132.5	42.5	410.
42955	425.65	294.54	44.5	327.45	29.97	74.49	744.9	615.8	658.6	588.7	509.5	420.9	261.3	184.8	104.7	66.3	416.
53155	424.86	303.51	40.0	333.53	27.38	67.37	673.7	670.4	547.4	576.3	504.6	424.6	336.7	196.0	123.2	52.4	411.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
63055	451.38	319.33	41.4	347.92	29.74	71.09	710.9	606.3	595.9	478.9	494.0	420.5	339.7	252.5	130.6	61.6	409.
72955	465.85	327.49	42.2	335.80	38.73	80.98	809.8	639.8	538.9	521.4	410.5	411.6	336.4	254.8	168.3	65.3	416.
83155	468.18	333.53	40.4	360.46	29.88	70.26	702.6	728.8	568.7	471.6	446.9	342.1	329.3	252.3	169.8	84.2	410.
93055	466.62	347.92	34.1	352.14	32.51	66.63	666.3	632.3	647.8	497.6	404.2	372.4	273.7	247.0	168.2	84.9	399.
103155	454.87	335.80	35.5	386.77	17.61	53.07	530.7	599.6	562.0	566.8	426.5	336.8	297.9	205.3	164.7	84.1	377.
113055	483.26	360.46	34.1	404.39	19.50	53.57	535.7	477.6	533.0	491.8	485.9	355.4	269.5	223.5	136.8	82.3	359.
123055	488.40	352.14	38.7	406.83	19.46	58.16	581.6	482.1	424.5	466.4	421.5	404.9	284.4	202.1	149.0	68.4	348.
13156	470.74	386.77	21.7	411.87	14.29	36.00	360.0	523.4	428.6	371.5	399.8	351.3	323.9	213.3	134.7	74.5	318.
22956	483.65	404.39	19.6	409.70	18.05	37.65	376.5	324.0	465.3	375.0	318.4	333.1	281.0	242.9	142.2	67.4	293.
32956	511.79	408.83	25.2	425.65	20.24	45.42	454.2	338.8	288.0	407.1	321.4	265.3	266.5	210.8	162.0	71.1	279.
43056	516.12	411.87	25.3	424.86	21.48	46.79	467.9	408.8	301.2	252.0	348.9	267.9	212.3	199.9	140.5	81.0	268.
52956	477.68	409.70	16.6	451.38	5.83	22.42	224.2	421.1	363.4	263.5	216.0	290.8	214.3	159.2	133.3	70.3	236.
62956	492.78	425.65	15.8	455.85	5.79	21.55	215.5	201.8	374.3	317.9	225.9	180.0	232.6	160.7	106.1	66.6	208.
73156	517.81	424.86	21.9	468.18	10.60	32.48	324.8	194.0	179.4	327.5	272.5	188.2	144.0	174.5	107.1	53.1	197.
83156	502.04	451.38	11.2	466.62	7.59	18.81	188.1	292.3	172.4	156.9	280.7	227.1	150.6	108.0	116.3	53.6	175.
92856	475.25	465.85	2.0	454.87	4.48	6.50	65.0	169.3	259.8	150.9	134.5	234.0	181.7	112.9	72.0	58.2	144.
103156	479.85	468.18	2.5	483.26	-.71	1.79	17.9	58.5	150.5	227.3	129.3	112.1	187.2	136.3	75.3	36.0	113.
113056	472.78	466.62	1.3	488.40	-3.20	-1.88	-18.8	16.1	52.0	131.7	194.9	107.8	89.7	140.4	90.8	37.6	84.
123156	499.47	454.87	9.8	470.74	6.10	15.91	159.1	-16.9	14.3	45.5	112.9	162.4	86.2	67.3	93.6	45.4	77.
13157	479.16	483.26	-.8	483.65	-.93	-1.78	-17.8	143.2	-15.0	12.5	39.0	94.1	129.9	64.7	44.8	46.8	54.
22857	464.62	488.40	-4.9	511.79	-9.22	-14.09	-140.9	-16.0	127.3	-13.1	10.7	32.5	75.3	97.4	43.1	22.4	24.
32957	474.81	470.74	.9	516.12	-8.00	-7.14	-71.4	-126.8	-14.2	111.4	-11.3	8.9	26.0	56.4	65.0	21.6	7.
43057	494.36	483.65	2.2	477.68	3.49	5.71	57.1	-64.3	-112.7	-12.4	95.4	-9.4	7.1	19.5	37.6	32.5	5.
52950	502.18	511.79	-1.9	492.78	1.91	.03	.3	51.4	-57.1	-98.6	-10.7	79.5	-7.5	5.4	13.0	18.8	-1.
62857	503.29	516.12	-2.5	517.81	-2.80	-5.29	-52.9	.3	45.7	-50.0	-84.5	-8.9	63.6	-5.6	3.6	6.5	-8.
73157	508.52	477.68	6.5	502.04	1.29	7.75	77.5	-47.6	.2	39.9	-42.8	-70.4	-7.1	47.7	-3.8	1.8	-.
83057	484.35	492.78	-1.7	475.25	1.91	.20	2.0	69.7	-42.3	.2	34.2	-35.7	-56.3	-5.3	31.8	-1.9	-.
93057	456.30	517.81	-11.9	479.85	-4.91	-16.79	-167.9	1.8	62.0	-37.0	.2	28.5	-28.6	-42.3	-3.6	15.9	-17.
103157	441.04	502.04	-12.2	472.78	-6.71	-18.86	-188.6	-151.1	1.6	54.2	-31.7	.1	22.8	-21.4	-28.2	-1.8	-34.
112957	449.87	475.25	-5.3	495.47	-9.93	-15.27	-152.7	-169.8	-134.3	1.4	46.5	-26.4	.1	17.1	-14.3	-14.1	-45.
123157	435.69	479.85	-9.2	479.16	-9.07	-18.28	-182.8	-137.4	-150.9	-117.5	1.2	38.7	-21.2	.1	11.4	-7.1	-57.
13158	450.02	472.78	-4.8	464.62	-3.14	-7.96	-79.6	-164.5	-122.2	-132.0	-100.7	1.0	31.0	-15.9	.1	5.7	-58.
22858	439.92	499.47	-11.9	474.81	-7.35	-19.27	-192.7	-71.6	-146.2	-106.9	-113.2	-83.9	.8	23.2	-10.6	.0	-70.
33158	446.76	479.16	-6.8	494.36	-9.63	-16.39	-163.9	-173.4	-63.7	-127.9	-91.6	-94.3	-67.1	.6	15.5	-5.3	-77

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
43058	455.86	464.62	-1.9	502.18	-9.22	-11.11	-111.1	-147.5	-154.2	-55.7	-109.7	-76.4	-75.5	-50.4	.4	7.7	-77.
52958	462.70	474.81	-2.6	503.29	-8.06	-10.62	-106.2	-100.0	-131.1	-134.9	-47.7	-91.4	-61.1	-56.6	-33.6	.2	-76.
63058	478.18	494.36	-3.3	508.52	-5.97	-9.24	-92.4	-95.5	-88.9	-114.7	-115.6	-39.8	-73.1	-45.8	-37.7	-16.8	-72.
73158	502.99	502.18	.2	484.35	3.85	4.01	40.1	-83.2	-84.9	-77.8	-98.3	-96.4	-31.8	-54.8	-30.5	-18.9	-54.
82958	508.63	503.29	1.1	456.30	11.47	12.53	125.3	36.1	-73.9	-74.3	-66.7	-82.0	-77.1	-23.9	-36.6	-15.3	-29.
93058	532.00	508.52	4.6	441.04	20.62	25.24	252.4	112.8	32.1	-64.7	-63.7	-55.5	-65.6	-57.8	-15.9	-18.3	6.
103158	543.22	484.35	12.2	449.87	20.75	32.90	329.0	227.2	100.2	28.1	-55.4	-53.1	-44.4	-49.2	-38.5	-8.0	44.
112858	557.46	456.30	22.2	435.69	27.95	50.12	501.2	296.1	201.9	87.7	24.1	-46.2	-42.5	-33.3	-32.8	-19.3	94.
123158	583.65	441.04	32.3	450.02	29.69	62.03	620.3	451.1	263.2	176.7	75.2	20.0	-37.0	-31.8	-22.2	-16.4	150.
13059	593.96	449.87	32.0	439.92	35.02	67.04	670.4	558.3	400.9	230.3	151.4	62.6	16.0	-27.7	-21.2	-11.1	203.
22759	603.50	435.69	38.5	446.76	35.08	73.60	736.0	603.4	496.2	350.8	197.4	126.2	50.1	12.0	-18.5	-10.6	254.
33159	611.93	450.02	36.0	455.86	34.24	70.21	702.1	662.4	536.4	434.2	300.7	164.5	101.0	37.6	8.0	-9.2	294.
43059	623.75	439.92	41.8	462.70	34.81	76.59	765.9	631.9	588.8	469.3	372.2	250.6	131.6	75.7	25.1	4.0	332.
52959	643.79	446.76	44.1	478.18	34.63	78.74	787.4	689.3	561.7	515.2	402.3	310.1	200.5	98.7	50.5	12.5	363.
63059	643.60	455.86	41.2	502.95	27.95	69.14	691.4	708.6	612.7	491.5	441.6	335.2	248.1	150.4	65.8	25.2	377.
73159	674.88	462.70	45.9	508.63	32.69	78.54	785.4	622.2	629.9	536.2	421.3	368.0	268.2	186.1	100.2	32.9	395.
83159	652.18	478.18	36.4	532.00	22.59	58.98	589.8	706.9	553.1	551.1	459.6	351.1	294.4	201.1	124.1	50.1	388.
93059	631.68	502.99	25.6	543.22	16.28	41.87	418.7	530.8	628.3	484.0	472.4	383.0	280.9	220.8	134.1	62.0	361.
103059	646.60	508.63	27.1	557.46	15.99	43.12	431.2	376.8	471.8	549.8	414.8	393.7	306.4	210.6	147.2	67.0	337.
113059	659.18	532.00	23.9	583.65	12.94	36.85	368.5	388.0	335.0	412.8	471.3	345.7	314.9	229.8	140.4	73.6	308.
123159	679.36	543.22	25.1	593.96	14.38	39.44	394.4	331.6	344.9	293.1	353.9	392.7	276.6	236.2	153.2	70.2	285.
12960	622.62	557.46	11.7	603.50	3.17	14.86	148.6	355.0	294.8	301.8	251.2	294.9	314.2	207.4	157.5	76.6	240.
22960	630.12	583.65	8.0	611.93	2.97	10.93	109.3	133.7	315.5	257.9	258.7	209.3	235.9	235.6	138.3	78.7	197.
33060	619.94	593.96	4.4	623.75	-.61	3.76	37.6	98.4	118.9	276.1	221.1	215.6	167.5	176.9	157.1	69.1	154.
42960	601.70	603.50	-.3	643.75	-6.54	-6.84	-68.4	33.9	87.5	104.0	236.6	184.2	172.5	125.6	118.0	78.5	107.
53160	625.50	611.93	2.2	643.60	-2.81	-.59	-5.9	-61.5	30.1	76.5	89.1	197.2	147.4	129.3	83.7	59.0	74.
63060	640.62	623.75	2.7	674.88	-5.08	-2.37	-23.7	-5.4	-54.7	26.3	65.6	74.3	157.8	110.5	86.2	41.9	48.
72960	616.73	643.79	-4.2	652.18	-5.44	-9.64	-96.4	-21.3	-4.8	-47.9	22.6	54.7	59.4	118.3	73.7	43.1	20.
83160	625.99	643.60	-2.7	631.68	-.90	-3.64	-36.4	-86.7	-19.0	-4.2	-41.0	18.8	43.7	44.6	78.9	36.8	4.
93060	580.14	674.88	-14.0	646.60	-10.28	-24.32	-243.2	-32.7	-77.1	-16.6	-3.6	-34.2	15.1	32.8	29.7	39.4	-29.
103160	580.36	652.18	-11.0	659.18	-11.96	-22.97	-229.7	-218.8	-29.1	-67.5	-14.2	-3.0	-27.3	11.3	21.9	14.9	-54.
113060	597.22	631.68	-5.5	679.36	-12.09	-17.55	-175.5	-206.7	-194.5	-25.5	-57.8	-11.9	-2.4	-20.5	7.5	10.9	-68.
123060	615.89	646.60	-4.7	622.62	-1.08	-5.83	-58.3	-157.9	-183.8	-170.2	-21.8	-48.2	-9.5	-1.8	-13.7	3.8	-66.
13161	648.20	659.18	-1.7	630.12	2.87	1.20	12.0	-52.5	-140.4	-160.8	-145.9	-18.2	-38.6	-7.1	-1.2	-6.8	-56.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
22861	662.08	679.36	-2.5	619.94	6.80	4.25	42.5	10.8	-46.6	-122.8	-137.8	-121.6	-14.5	-28.9	-4.7	-.6	-42.
33061	676.63	622.62	8.7	601.70	12.45	21.13	211.3	38.3	9.6	-40.8	-105.3	-114.8	-97.3	-10.9	-19.3	-2.4	-13.
42861	678.71	630.12	7.7	625.50	8.51	16.22	162.2	190.1	34.0	8.4	-35.0	-87.7	-91.9	-72.9	-7.3	-9.6	9.
53161	696.72	619.94	12.4	640.62	8.76	21.14	211.4	146.0	169.0	29.8	7.2	-29.2	-70.2	-68.9	-48.6	-3.6	34.
63061	683.96	601.70	13.7	616.73	10.90	24.57	245.7	190.3	129.7	147.9	25.5	6.0	-23.3	-52.6	-45.9	-24.3	60.
73161	705.37	625.50	12.8	625.99	12.68	25.45	254.5	221.2	169.1	113.5	126.8	21.3	4.8	-17.5	-35.1	-23.0	84.
83161	719.94	640.62	12.4	580.14	24.10	36.48	364.8	229.0	196.6	148.0	97.3	105.6	17.0	3.6	-11.7	-17.5	113.
92961	701.21	616.73	13.7	580.36	20.82	34.52	345.2	328.3	203.6	172.0	126.9	81.1	84.5	12.8	2.4	-5.8	135.
103161	703.92	625.99	12.4	597.22	17.87	30.32	303.2	310.7	291.8	178.1	147.4	105.7	64.9	63.4	8.5	1.2	147.
113061	721.60	580.14	24.4	615.89	17.16	41.55	415.5	272.8	276.2	255.4	152.7	122.9	84.6	48.7	42.3	4.3	168.
122961	731.14	580.36	26.0	648.20	12.80	38.78	387.8	373.9	242.5	241.6	218.9	127.2	98.3	63.4	32.4	21.1	181.
13162	694.09	597.22	16.2	662.08	4.83	21.05	210.5	349.0	332.4	212.2	207.1	182.4	101.8	73.7	42.3	16.2	173.
22862	708.05	615.89	15.0	676.63	4.64	19.61	196.1	189.5	310.2	290.8	181.9	172.6	145.9	76.3	49.1	21.1	163.
33062	706.95	648.20	9.1	678.71	4.16	13.22	132.2	176.5	168.4	271.4	249.3	151.6	138.1	109.4	50.9	24.6	147.
43062	665.33	662.08	.5	696.72	-4.51	-4.01	-40.1	119.0	156.9	147.4	232.7	207.7	121.3	103.6	73.0	25.4	115.
53162	613.36	676.63	-9.4	683.96	-10.32	-19.67	-196.7	-36.1	105.8	137.3	126.3	193.9	166.2	90.9	69.0	36.5	69.
62862	561.28	678.71	-17.3	705.37	-20.43	-37.73	-377.3	-177.1	-32.1	92.6	117.6	105.3	155.1	124.6	60.6	34.5	10.
73162	597.93	696.72	-14.2	715.94	-16.95	-31.13	-311.3	-339.6	-157.4	-28.1	79.3	98.0	84.2	116.3	83.1	30.3	-34.
83162	609.18	683.96	-10.9	701.21	-13.12	-24.06	-240.6	-280.1	-301.8	-137.7	-24.1	66.1	78.4	63.2	77.6	41.5	-66.
92862	574.12	705.37	-18.6	703.92	-18.44	-37.05	-370.5	-216.5	-249.0	-264.1	-118.0	-20.1	52.9	58.8	42.1	38.8	-105.
103162	589.77	719.94	-18.1	721.60	-18.27	-36.35	-363.5	-333.4	-192.5	-217.9	-226.4	-98.4	-16.1	39.7	39.2	21.1	-135.
113062	649.30	701.21	-7.4	731.14	-11.19	-18.60	-186.0	-327.1	-296.4	-168.4	-186.8	-188.6	-78.7	-12.0	26.4	19.6	-140.
123162	652.10	703.92	-7.4	694.09	-6.05	-13.41	-134.1	-167.4	-290.8	-259.3	-144.3	-155.6	-150.9	-59.0	-8.0	13.2	-136.
13163	682.85	721.60	-5.4	708.05	-3.56	-8.93	-89.3	-120.7	-148.8	-254.4	-222.3	-120.3	-124.5	-113.2	-39.3	-4.0	-124.
22863	662.94	731.14	-9.3	706.95	-6.23	-15.55	-155.5	-80.4	-107.3	-130.2	-218.1	-185.2	-96.2	-93.4	-75.5	-19.7	-116.
32963	682.52	694.09	-1.7	665.33	2.58	.92	9.2	-140.0	-71.4	-93.9	-111.6	-181.7	-148.2	-72.2	-62.3	-37.7	-91.
43063	717.70	706.05	1.4	613.36	17.01	18.37	183.7	8.3	-124.4	-62.5	-80.5	-93.0	-145.4	-111.1	-48.1	-31.1	-50.
53163	726.96	706.95	2.8	561.28	29.52	32.35	323.5	165.4	7.3	-108.9	-53.6	-67.1	-74.4	-109.0	-74.1	-24.1	-1.
63063	706.88	665.33	6.2	597.93	18.22	24.47	244.7	291.1	147.0	6.4	-93.3	-44.6	-53.6	-55.8	-72.7	-37.0	33.
73163	695.43	613.36	13.4	609.18	14.16	27.54	275.4	220.2	258.8	128.6	5.5	-77.8	-35.7	-40.2	-37.2	-36.3	66.
83163	729.32	561.28	29.9	574.12	27.03	56.97	569.7	247.8	195.7	226.4	110.2	4.6	-62.2	-26.8	-26.8	-18.6	122.
93063	737.79	597.93	23.4	589.77	25.10	48.49	484.9	512.7	220.3	171.3	194.1	91.9	3.7	-46.7	-17.9	-13.4	160.
103163	755.23	609.18	24.0	609.30	16.31	40.29	402.9	436.4	455.8	152.8	146.8	161.7	73.5	2.8	-31.1	-8.9	183.
113063	750.52	574.12	30.7	652.10	15.09	45.82	458.2	362.6	387.9	398.8	165.2	122.3	129.4	55.1	1.8	-15.6	207.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
123163	762.95	589.77	29.4	682.85	11.73	41.09	410.9	412.4	322.3	339.4	341.8	137.7	97.9	97.0	36.7	.9	220.
13164	784.35	649.30	20.8	662.94	18.31	39.11	391.1	369.8	366.5	282.0	290.9	284.9	110.2	73.4	64.7	18.4	225.
22864	800.14	652.10	22.7	682.52	17.23	39.94	399.4	352.0	328.8	320.7	241.7	242.4	227.9	82.6	48.9	32.3	228.
33164	813.29	682.85	19.1	717.70	13.32	32.42	324.2	359.4	312.9	287.7	274.9	201.4	194.0	170.9	55.1	24.5	220.
43064	810.63	662.94	22.3	726.96	11.51	33.79	337.9	291.8	319.5	273.8	246.6	229.1	161.2	145.5	113.9	27.5	215.

```
      PROGRAM TRENDEX                                                   STDPRSGR
      DIMENSION DJIA(900),DJIB(900),DJIC(900),IDATE(900),DJIB(900),DJIC(
     1900),Y1(877),Y2(877),ITITLE(12),X(877),DJIP(900)
      EQUIVALENCE (Y1(1),DJIA(24)),(Y2(1),DJIP(24))
      DO 7 I=1,12
    7 ITITLE(I)=(8H        )
      ITITLE(1)=(8H DUNHAM )
      ITITLE(2)=(8HSTANDARD)
      ITITLE(3)=(8H ANC POC)
      ITITLE(4)=(8HR(500) V)
      ITITLE(5)=(8HS TRENDE)
      ITITLE(6)=(8HX       )
      ITITLE(7)=(8H STANDAR)
      ITITLE(8)=(8HD AND PD)
      ITITLE(9)=(8HOR 31 JA)
      ITITLE(10)=(8HN.1928 T)
      ITITLE(11)=(8HHRU 30 A)
      ITITLE(12)=(8HPR.1964 )
      PRINT 5
   5 FORMAT(1H1//////////////3CX7HTRENDEX6X4HVERY6X4HLONG6X4HTERM6X6HBUY1
     1NG6X5HGUIDE////2X2H 16X1H26X1H35X1H46X1H55X1H65X1H76X1H86X1H95X2H1
     205X2H115X2H125X2H135X2H145X2H154X2H164X2H174X2H18//)
      READ1,N
    1 FORMAT(I3)
      READ10,(IDATE(I),DJIA(I),I=1,N)
   10 FORMAT(I6,F6.2)
      DO60 I=15,N
      K=I-14
      M=I-11
   11 DJIB(I)=(DJIA(I)-DJIA(K))*100./DJIA(K)
      DJIC(I)=(DJIA(I)-DJIA(M))*100./DJIA(M)
   60 DJID(I)=DJIB(I)+DJIC(I)
      DO61 I=24,N
      K=I-14
      M=I-11
      DJIE=10.*DJIC(I)
      DJIF=9.*DJID(I-1)
      DJIG=8.*DJIC(I-2)
      DJIH=7.*DJID(I-3)
      DJII=6.*DJID(I-4)
      DJIJ=5.*DJID(I-5)
      DJIK=4.*DJID(I-6)
      DJIL=3.*DJID(I-7)
      DJIM=2.*DJID(I-8)
      DJIN=DJID(I-9)
      DJIO(I)=(DJIE+DJIF+DJIG+DJIH+DJII+DJIJ+DJIK+DJIL+DJIM+DJIN)/10.
      DJIP(I)=DJIO(I)/5.
      IF(XMODF(I,34)-21)50,49,50
   49 PRINT 52
   52 FORMAT(1H1////////2X2H 16X1H26X1H35X1H46X1H55X1H65X1H76X1H86X1H95X
     12H105X2H115X2H125X2H135X2H145X2H154X2H164X2H174X2H18//)
  500 PRINT 51,IDATE(I),DJIA(I),DJIA(K),DJIB(I),DJIA(M),DJIC(I),DJIC(I),
     1DJIE,DJIF,DJIG,DJIH,DJII,DJIJ,DJIK,DJIL,DJIM,DJIN,DJIO(I)
   51 FORMAT(1H0,I6,2F6.2,F6.1,F7.2,2F7.2,8F7.1,2F6.1,F6.0)
   61 CONTINUE
      PRINT 52
      N23=N-23
      DO 88 I=1,436
   88 X(I)=I
      DO8 I=24,N
    8 DJIA(I)=DJIA(I)*15.
      LABEL=(4HSTPR)
      CALL DRAW (N23,X,Y1,1,0,LABEL,ITITLE,50.,100.,2,0,2,2,9,15,1,LAST)
      LABEL=(4HTNDX)
      CALL DRAW (N23,X,Y2,3,0,LABEL,ITITLE,50.,100.,2,0,2,2,9,15,1,LAST)
      END
      END
```

TREAD: VERY LONG TERM BUYING GUIDE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
13128	17.57	13.27	32.4	13.84	26.95	59.35	593.5	627.7	462.4	323.4	390.7	279.9	213.1	122.1	102.3	36.3	315.
22928	17.26	13.49	27.9	13.93	23.91	51.85	518.5	534.2	557.9	404.6	277.2	325.6	223.9	159.8	81.4	51.1	313.
33128	19.13	13.21	44.8	14.17	35.00	79.82	798.2	466.7	474.8	488.2	346.8	231.0	260.5	167.9	106.5	40.7	328.
43028	19.75	13.84	42.7	14.91	32.46	75.16	751.6	718.4	414.8	415.5	418.5	289.0	184.8	195.4	111.9	53.3	355.
53128	20.00	13.93	43.6	14.77	35.41	78.58	789.8	676.5	638.5	363.0	356.1	348.7	231.2	138.6	130.2	56.0	373.
63028	19.19	14.17	35.4	15.73	22.00	57.42	574.2	710.9	601.3	558.7	311.1	296.8	279.0	173.4	92.4	65.1	366.
73128	19.43	14.91	30.3	16.43	18.26	48.57	485.7	516.8	631.9	526.1	478.9	259.3	237.4	209.2	115.6	46.2	351.
83128	20.87	14.77	41.3	17.14	21.76	63.06	630.6	437.2	459.4	552.9	451.0	399.1	207.4	178.1	139.5	57.8	351.
93028	21.37	15.73	35.9	16.23	31.67	67.52	675.2	567.6	388.6	402.0	473.9	375.8	319.3	155.6	118.7	69.7	355.
103128	21.68	16.43	32.0	17.33	25.10	57.05	570.5	607.7	504.5	340.0	344.5	394.9	300.7	239.5	103.7	59.4	347.
113028	24.28	17.14	41.7	17.66	37.49	79.14	791.4	513.5	540.2	441.4	291.4	287.1	315.9	225.5	159.6	51.9	362.
123128	24.35	16.23	50.0	17.57	38.59	88.62	886.2	712.3	456.4	472.7	378.4	242.9	229.7	237.0	150.3	79.8	385.
13129	25.74	17.33	48.5	17.26	49.13	97.66	976.6	797.6	633.1	399.4	405.1	315.3	194.3	172.3	158.0	75.2	413.
22829	25.59	17.66	44.9	19.13	33.77	78.67	786.7	878.9	709.0	554.0	342.3	337.6	252.2	145.7	114.8	79.0	420.
33129	25.53	17.57	45.3	19.75	29.27	74.57	745.7	708.1	781.3	620.3	474.9	285.3	270.1	189.2	97.1	57.4	423.
43029	25.94	17.26	50.3	20.00	29.70	79.99	799.9	671.1	629.4	683.6	531.7	395.7	228.2	202.6	126.1	48.6	432.
53129	24.83	19.13	29.8	19.19	29.39	59.19	591.9	719.9	596.6	550.7	586.0	443.1	316.6	171.2	135.0	63.1	417.
63029	27.62	19.75	39.8	19.43	42.15	82.00	820.0	532.7	639.9	522.0	472.0	488.3	354.5	237.4	114.1	67.5	425.
73129	28.88	20.00	44.4	20.87	38.38	82.78	827.8	738.0	473.5	559.9	447.4	393.4	390.6	265.9	158.3	57.1	421.
83129	31.71	19.19	65.2	21.37	48.39	113.63	1136.3	745.0	656.0	414.3	479.9	372.9	314.7	293.0	177.2	79.1	467.
93029	30.16	19.43	55.2	21.68	39.11	94.34	943.4	1022.7	662.2	574.0	355.1	399.9	298.3	236.0	195.3	88.6	478.
103129	24.15	20.87	15.7	24.28	-.54	15.18	151.8	849.0	909.0	579.5	492.0	295.9	320.0	223.7	157.3	97.7	408.
113029	20.92	21.37	-2.1	24.35	-14.09	-16.19	-161.9	136.6	754.7	795.4	496.7	430.0	236.7	240.0	149.1	78.7	314.
123129	21.45	21.68	-1.1	25.74	-16.67	-17.73	-177.3	-145.7	121.4	660.4	681.8	413.9	328.0	177.6	160.0	74.6	229.
13130	22.79	24.28	-[illegible].1	25.59	-10.94	-17.08	-170.8	-159.5	-129.5	106.3	566.0	568.1	331.1	246.0	118.4	80.0	156.
22830	23.28	24.35	-4.4	25.53	-8.81	-13.21	-132.1	-153.7	-141.8	-113.3	91.1	471.7	454.5	248.3	164.0	59.2	95.
33130	25.14	25.74	-2.3	25.94	-3.08	-5.42	-54.2	-118.9	-136.6	-124.1	-97.2	75.9	377.4	340.9	165.6	82.0	51.
43030	24.90	25.59	-2.7	24.83	.28	-2.41	-24.1	-48.7	-105.7	-119.5	-106.4	-81.0	60.7	283.0	227.3	82.8	17.
53130	24.49	25.53	-4.1	27.62	-11.33	-15.41	-154.1	-21.7	-43.3	-92.5	-102.5	-88.6	-64.8	45.5	188.7	113.6	-22.
63030	20.46	25.94	-21.1	28.88	-29.16	-50.28	-502.8	-138.7	-19.3	-37.9	-79.2	-85.4	-70.9	-48.6	30.4	94.3	-86.
73130	21.21	24.83	-14.6	31.71	-33.11	-47.69	-476.9	-452.5	-123.2	-16.9	-32.5	-66.0	-68.3	-53.2	-32.4	15.2	-131.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
83130	21.37	27.62	-22.6	30.16	-29.14	-51.77	-517.7	-429.2	-402.2	-107.8	-14.5	-27.1	-52.8	-51.2	-35.5	-16.2	-165.
93030	18.59	28.88	-35.6	24.15	-23.02	-58.65	-586.5	-466.0	-381.5	-352.0	92.4	-12.1	-21.7	-39.6	-34.2	-17.7	-200.
103130	16.94	31.71	-46.6	20.92	-19.02	-65.60	-656.0	-527.9	-414.2	-333.8	-301.7	-77.0	-9.7	-16.2	-26.4	-17.1	-238.
113030	16.57	30.16	-45.1	21.45	-22.75	-67.81	-678.1	-590.4	-469.2	-362.4	-286.2	-251.4	-61.6	-7.2	-10.8	-13.2	-273.
123130	15.34	24.15	-36.5	22.79	-32.69	-69.17	-691.7	-610.3	-524.8	-410.6	-310.6	-238.5	-201.1	-46.2	-4.8	-5.4	-304.
13131	16.09	20.92	-23.1	23.28	-30.88	-53.97	-539.7	-622.5	-542.5	-459.2	-351.9	-258.9	-190.8	-150.8	-30.8	-2.4	-315.
22831	17.93	21.45	-16.4	25.14	-28.68	-45.09	-450.9	-485.8	-553.4	-474.7	-393.6	-293.3	-207.1	-143.1	-100.6	-15.4	-312.
33131	16.69	22.79	-26.8	24.90	-32.97	-59.74	-597.4	-405.8	-431.8	-484.2	-406.9	-328.0	-234.6	-155.3	-95.4	-50.3	-319.
43031	15.09	23.28	-35.2	24.49	-38.38	-73.56	-735.6	-537.6	-360.7	-377.8	-415.0	-339.1	-262.4	-176.0	-103.5	-47.7	-336.
53131	13.02	25.14	-48.2	20.46	-36.36	-84.57	-845.7	-662.1	-477.9	-315.6	-323.8	-345.9	-271.2	-196.8	-117.3	-51.8	-361.
63031	14.83	24.90	-40.4	21.21	-30.08	-70.52	-705.2	-761.2	-588.5	-418.2	-270.5	-269.9	-276.7	-203.4	-131.2	-58.7	-368.
73131	13.73	24.49	-43.9	21.27	-35.75	-79.69	-796.9	-634.7	-676.6	-514.9	-358.4	-225.4	-215.9	-207.5	-135.6	-65.6	-383.
83131	13.86	20.46	-32.3	18.59	-25.44	-57.70	-577.0	-717.2	-564.2	-592.0	-441.4	-298.7	-180.4	-161.9	-138.3	-67.8	-374.
93031	9.71	21.21	-54.2	16.94	-42.68	-96.90	-969.0	-519.3	-637.5	-493.7	-507.4	-367.8	-239.0	-135.3	-107.9	-69.2	-405.
103131	10.53	21.37	-50.7	16.57	-36.45	-87.18	-871.8	-872.1	-461.6	-557.8	-423.1	-422.9	-294.3	-175.2	-90.2	-54.0	-423.
113031	9.50	18.59	-48.9	15.34	-38.07	-86.97	-869.7	-784.6	-775.2	-403.9	-478.1	-352.6	-338.3	-220.7	-119.5	-45.1	-439.
123131	8.12	16.94	-52.1	16.09	-49.53	-101.60	-1016.0	-782.7	-697.4	-678.3	-346.2	-398.4	-282.1	-253.7	-147.1	-59.7	-466.
13032	7.89	16.57	-52.4	17.93	-56.00	-108.38	-1083.8	-914.4	-695.7	-610.2	-581.4	-288.5	-318.7	-211.6	-169.1	-73.6	-495.
22832	8.29	15.34	-46.0	16.69	-50.33	-96.29	-962.9	-975.4	-812.8	-608.8	-523.1	-484.5	-230.8	-239.1	-141.0	-84.6	-506.
33132	7.31	16.09	-54.6	15.09	-51.56	-106.13	-1061.3	-866.6	-867.0	-711.2	-521.8	-435.9	-387.6	-173.1	-159.4	-70.5	-525.
43032	5.83	17.93	-67.5	13.02	-55.22	-122.71	-1227.1	-955.1	-770.3	-758.7	-609.6	-434.8	-348.7	-290.7	-115.4	-79.7	-559.
53132	4.47	16.69	-73.2	14.83	-69.86	-143.08	-1430.8	-1104.4	-849.0	-674.0	-650.3	-508.0	-347.9	-261.5	-193.8	-57.7	-608.
63032	4.43	15.09	-70.6	13.73	-67.73	-138.38	-1383.8	-1287.7	-981.7	-742.9	-577.7	-541.9	-406.4	-260.9	-174.4	-96.9	-645.
73032	6.10	13.02	-53.1	13.86	-55.99	-109.14	-1091.4	-1245.4	-1144.6	-859.0	-636.8	-481.4	-433.5	-304.8	-173.9	-87.2	-646.
83132	8.39	14.83	-43.4	9.71	-13.59	-57.02	-570.2	-982.2	-1107.0	-1001.5	-736.2	-530.6	-385.2	-325.1	-203.2	-87.0	-593.
93032	8.08	13.73	-41.2	10.53	-23.27	-64.42	-644.2	-513.2	-873.1	-968.6	-858.5	-613.5	-424.5	-288.9	-216.8	-101.6	-550.
103132	6.96	13.86	-49.8	9.50	-26.74	-76.52	-765.2	-579.8	-456.2	-764.0	-830.3	-715.4	-490.8	-318.4	-192.6	-108.4	-522.
113032	6.55	9.71	-32.5	8.12	-19.33	-51.88	-518.8	-688.7	-515.3	-399.1	-654.8	-691.9	-572.3	-368.1	-212.3	-96.3	-472.
123132	6.89	10.53	-34.6	7.89	-12.67	-47.24	-472.4	-466.9	-612.2	-450.9	-342.1	-545.7	-553.5	-429.2	-245.4	-106.1	-422.
13133	6.94	9.50	-26.9	8.29	-16.28	-43.23	-432.3	-425.2	-415.0	-535.6	-386.5	-285.1	-436.5	-415.1	-286.2	-122.7	-374.
22833	5.66	8.12	-30.3	7.31	-22.57	-52.87	-528.7	-389.1	-377.9	-363.2	-459.1	-322.1	-228.1	-327.4	-276.8	-143.1	-342.
33133	5.85	7.89	-25.9	5.83	.34	-25.51	-255.1	-475.8	-345.9	-330.7	-311.3	-382.6	-257.7	-171.1	-218.3	-138.4	-289.
43033	8.32	8.29	.4	4.47	86.13	86.49	864.9	-229.6	-422.9	-302.6	-283.5	-259.4	-306.1	-193.3	-114.0	-109.1	-136.
53133	9.64	7.31	31.9	4.43	117.61	149.48	1494.8	778.4	-204.1	-370.1	-259.4	-236.2	-207.5	-229.6	-128.8	-57.0	58.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
63033	10.91	5.83	87.1	6.10	78.85	165.99	1659.9	1345.3	691.9	-178.6	-317.2	-216.2	-189.0	-155.6	-153.0	-64.4	242.
73133	9.95	4.47	122.6	8.39	18.59	141.19	1411.9	1493.9	1195.9	605.4	-153.1	-264.3	-172.9	-141.7	-103.8	-76.5	379.
83133	11.09	4.43	150.3	8.08	37.25	187.59	1875.9	1270.7	1327.9	1046.4	518.9	-127.6	-211.5	-129.7	-94.5	-51.9	542.
93033	9.83	6.10	61.1	6.96	41.24	102.38	1023.8	1688.3	1129.5	1161.9	896.9	432.5	-102.0	-158.6	-86.5	-47.2	594.
103133	8.96	8.39	6.8	6.55	36.79	43.59	435.9	921.4	1500.7	988.3	995.9	747.4	346.0	-76.5	-105.7	-43.2	571.
113033	9.88	8.08	22.3	6.89	43.40	65.67	656.7	392.3	819.1	1313.1	847.1	829.9	597.9	259.5	-51.0	-52.9	561.
123133	10.10	6.96	45.1	6.94	45.53	90.65	906.5	591.1	348.7	716.7	1125.5	705.9	664.0	448.4	173.0	-25.5	565.
13134	11.17	6.55	70.5	5.66	97.35	167.88	1678.8	815.8	525.4	305.1	614.3	938.0	564.8	498.0	299.0	86.5	633.
22834	10.76	6.89	56.2	5.85	83.93	140.10	1401.0	1511.0	725.2	459.7	261.5	511.9	750.4	423.6	332.0	149.5	653.
33134	10.75	6.94	54.9	8.32	29.21	84.11	841.1	1260.9	1343.1	634.5	394.0	217.9	409.5	562.8	282.4	166.0	611.
43034	10.46	5.66	84.8	9.64	8.51	93.31	933.1	757.0	1120.8	1175.2	543.9	328.4	174.4	307.1	375.2	141.2	586.
53134	9.61	5.85	64.3	10.91	-11.92	52.36	523.6	839.8	672.8	980.7	1007.3	453.2	262.7	130.8	204.8	187.6	526.
63034	9.81	8.32	17.9	9.95	-1.41	16.50	165.0	471.2	746.5	588.7	840.6	839.4	362.6	197.0	87.2	102.4	440.
73134	8.68	9.64	-10.0	11.09	-21.73	-31.69	-316.9	148.5	418.9	653.2	504.6	700.5	671.5	271.9	131.3	43.6	323.
83134	9.15	10.91	-16.1	9.83	-6.92	-23.05	-230.5	-285.2	132.0	366.5	559.9	420.5	560.4	503.7	181.3	65.7	227.
93034	9.10	9.95	-8.5	8.96	1.56	-6.98	-69.8	-207.4	-253.5	115.5	314.1	466.6	336.4	420.3	335.8	90.6	155.
103134	8.81	11.09	-20.6	9.88	-10.83	-31.39	-313.9	-62.8	-184.4	-221.8	99.0	261.8	373.2	252.3	280.2	167.9	65.
113034	9.54	9.83	-3.0	10.10	-5.54	-8.49	-84.9	-282.5	-55.8	-161.3	-190.1	82.5	209.4	279.9	168.2	140.1	11.
123134	9.50	8.96	6.0	11.17	-14.95	-8.92	-89.2	-76.5	-251.1	-48.9	-138.3	-158.4	66.0	157.1	186.6	84.1	-27.
13135	9.10	9.88	-7.9	10.76	-15.43	-23.32	-233.2	-80.3	-68.0	-219.7	-41.9	-115.2	-126.9	[illegible]	[illegible]	93.3	-64.
22835	8.74	10.10	-13.5	10.75	-18.70	-32.16	-321.6	-209.9	-71.4	-59.5	-188.3	-34.9	[illegible]	[illegible]	[illegible]	[illegible]	-99.
33135	8.47	11.17	-24.2	10.46	-19.02	-43.20	-432.0	-289.5	-186.6	-62.5	-51.0	-156.9	[illegible]	[illegible]	[illegible]	[illegible]	32.
43035	9.28	10.76	-13.8	9.61	-3.43	-17.19	-171.9	-388.8	-257.3	-163.3	-53.5	-42.5	[illegible]				
53135	9.58	10.75	-10.9	9.81	-2.34	-13.23	-132.3	-154.7	-345.6	-225.1	-139.9	-44.6					
63035	10.23	10.46	-2.2	8.68	17.86	15.66	156.6	-119.1	-137.5	-302.4	-193.0	-116.6					
73135	11.08	9.61	15.3	9.15	21.09	36.39	363.9	140.9	-105.8	-120.3	-259.2	-160.8					
83135	11.32	9.81	15.4	9.10	24.40	39.79	397.9	327.5	125.3	-92.6	-103.1	-216.0					
93035	11.58	8.68	33.4	8.81	31.44	64.85	648.5	358.1	291.1	109.6	-79.4	-85.9					
103135	12.46	9.15	36.2	9.54	30.61	66.78	667.8	583.7	318.3	254.7	93.9	-66.1					
113035	12.95	9.10	42.3	9.50	36.32	78.62	786.2	601.0	518.8	278.5	218.3	78.3	-				
123135	13.43	8.81	52.4	9.10	47.58	100.02	1000.2	707.6	534.3	454.0	238.7	181.9	[illegible]				
13136	14.31	9.54	50.0	8.74	63.73	113.73	1137.3	900.2	629.0	467.5	389.1	198.9	145.[illegible]				
22836	14.55	9.50	53.2	8.47	71.78	124.94	1249.4	1023.6	800.2	550.4	400.7	324.3	159.2	10[illegible]			[illegible]
33136	14.92	9.10	64.0	9.28	60.78	124.73	1247.3	1124.5	909.8	700.2	471.7	333.9	259.4	119.4	[illegible]	[illegible]	525.

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
43036	13.77	8.74	57.6	9.58	43.74	101.29	1012.9	1122.6	999.5	796.1	600.1	393.1	267.1	194.6	79.6	36.4	550.
53136	14.40	8.47	70.0	10.23	40.76	110.77	1107.7	911.6	997.9	874.6	682.4	500.1	314.5	200.3	129.7	39.8	576.
63036	14.84	9.28	59.9	11.08	33.94	93.85	938.5	997.0	810.3	873.1	749.6	568.6	400.1	235.9	133.6	64.9	577.
73136	15.85	9.58	65.4	11.32	40.02	105.47	1054.7	844.6	886.2	709.0	748.4	624.7	454.9	300.1	157.2	66.8	585.
83136	15.99	10.23	56.3	11.58	38.08	94.39	943.9	949.2	750.8	775.4	607.7	623.7	499.8	341.2	200.0	78.6	577.
93036	16.01	11.08	44.5	12.46	28.49	72.99	729.9	849.5	843.7	656.9	664.6	506.4	498.9	374.8	227.5	100.0	545.
103136	17.21	11.32	52.0	12.95	32.90	84.93	849.3	656.9	755.1	738.3	563.1	553.9	405.2	374.2	249.9	113.7	526.
113036	17.28	11.58	49.2	13.43	28.67	77.89	778.9	764.3	583.9	660.7	632.8	469.2	443.1	303.9	249.5	124.9	501.
123136	17.18	12.46	37.9	14.31	20.06	57.94	579.4	701.0	679.4	510.9	566.3	527.3	375.4	332.3	202.6	124.7	460.
13137	17.83	12.95	37.7	14.55	22.54	60.23	602.3	521.4	623.1	594.5	437.9	471.9	421.9	281.5	221.5	101.3	428.
22837	18.09	13.43	34.7	14.92	21.25	55.95	559.5	542.0	463.5	545.2	509.6	364.9	377.6	316.4	187.7	110.8	398.
33137	17.92	14.31	25.2	13.77	30.14	55.37	553.7	503.5	481.8	405.6	467.3	424.6	291.9	283.2	210.9	93.8	372.
43037	16.43	14.55	12.9	14.40	14.10	27.02	270.2	498.3	447.6	421.6	347.6	389.4	339.7	219.0	188.8	105.5	323.
53137	16.26	14.92	9.0	14.84	9.57	18.55	185.5	243.2	442.9	391.6	361.4	289.7	311.6	254.8	146.0	94.4	272.
63037	15.40	13.77	11.8	15.85	-2.84	9.00	90.0	166.9	216.1	387.6	335.7	301.1	231.7	233.7	169.9	73.0	221.
73137	16.98	14.40	17.9	15.99	6.19	24.11	241.1	81.0	148.4	189.1	332.2	279.7	240.9	173.8	155.8	84.9	193.
83137	16.04	14.84	8.1	16.01	.19	8.27	82.7	217.0	72.0	129.8	162.1	276.8	223.8	180.7	115.9	77.9	154.
93037	13.76	15.85	-13.2	17.21	-20.05	-33.23	-332.3	74.5	192.9	63.0	111.3	135.1	221.5	167.8	120.5	57.9	81.
103137	12.36	15.99	-22.7	17.28	-28.47	-51.17	-511.7	-299.1	66.2	168.8	54.0	92.7	108.1	166.1	111.9	60.2	2.
113037	11.11	16.01	-30.6	17.18	-35.33	-65.94	-659.4	-460.6	-265.9	57.9	144.6	45.0	74.2	81.1	110.7	55.9	-82.
123137	10.55	17.21	-38.7	17.83	-40.83	-79.53	-795.3	-593.4	-409.4	-232.6	49.6	120.5	36.0	55.6	54.0	55.4	-166.
13138	10.69	17.28	-38.1	18.09	-40.91	-79.04	-790.4	-715.8	-527.5	-358.2	-199.4	41.4	96.4	27.0	37.1	27.0	-236.
22838	11.34	17.18	-34.0	17.92	-36.72	-70.71	-707.1	-711.4	-638.2	-461.6	-307.0	-166.2	33.1	72.3	18.0	18.5	-285.
33138	8.50	17.83	-52.3	16.43	-48.27	-100.59	-1005.9	-636.4	-632.3	-556.7	-395.6	-255.9	-132.9	24.8	48.2	9.0	-353.
43038	9.70	18.09	-46.4	16.26	-40.34	-86.72	-867.2	-905.3	-565.7	-553.3	-477.2	-329.7	-204.7	-99.7	16.5	24.1	-396.
53138	9.27	17.92	-48.3	15.40	-39.81	-88.08	-880.8	-780.5	-804.7	-495.0	-474.3	-397.6	-263.8	-153.5	-66.5	8.3	-431.
63038	11.56	16.43	-29.6	16.98	-31.92	-61.56	-615.6	-792.7	-693.8	-704.2	-424.3	-395.2	-318.1	-197.8	-102.3	-33.2	-428.
73138	12.40	16.26	-23.7	16.04	-22.69	-46.43	-464.3	-554.0	-704.6	-607.1	-603.6	-353.6	-316.2	-238.6	-131.9	-51.2	-402.
83138	12.06	15.40	-21.7	13.76	-12.35	-34.04	-340.4	-417.9	-492.5	-616.5	-520.3	-503.0	-282.8	-237.1	-159.1	-65.9	-364.
93038	12.24	16.98	-27.9	12.36	-.97	-28.89	-288.9	-306.4	-371.5	-430.9	-528.5	[illegible]	-402.4	-212.1	-158.1	-79.5	-321.
103138	13.17	16.04	-17.9	11.11	18.54	.65	6.5	-260.0	-272.3	-325.0	-369.4	-440.4	-346.9	-301.8	-141.4	-79.0	-253.
113038	12.73	13.76	-7.5	10.55	20.66	13.18	131.8	5.8	-231.1	-238.3	-278.6	-307.8	-352.3	-260.2	-201.2	-70.7	-180.
123138	13.21	12.36	6.9	10.69	23.57	30.45	304.5	118.6	5.2	-202.2	-204.3	-232.2	-246.2	-264.2	-173.4	-100.6	-99.
13139	12.30	11.11	10.7	11.34	8.47	19.18	191.8	274.1	105.4	4.5	-173.3	-170.2	-185.7	-184.7	-176.2	-86.7	-40.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
22839	12.70	10.55	20.4	8.50	49.41	69.79	697.9	172.6	243.6	92.2	3.9	-144.4	-136.2	-139.3	-123.1	-88.1	58.
33139	10.98	10.69	2.7	9.70	13.20	15.91	159.1	628.1	153.4	213.2	79.1	3.2	-115.5	-102.1	-92.9	-61.6	86.
43039	10.92	11.34	-3.7	9.27	17.80	14.10	141.0	143.2	558.3	134.2	182.7	65.9	2.6	-86.7	-68.1	-46.4	103.
53139	11.60	8.50	36.5	11.56	.35	36.82	368.2	126.9	127.3	488.5	115.1	152.3	52.7	1.9	-57.8	-34.0	134.
63039	10.86	9.70	12.0	12.40	-12.42	-.46	-4.6	331.3	112.8	111.4	418.7	95.9	121.8	39.5	1.3	-28.9	120.
73139	12.04	9.27	29.9	12.06	-.17	29.72	297.2	-4.1	294.5	58.7	95.5	349.0	76.7	91.4	26.4	.6	133.
83139	11.18	11.56	-3.3	12.24	-8.66	-11.95	-119.5	267.4	-3.7	257.7	84.6	79.5	279.2	57.5	60.9	13.2	98.
93039	13.02	12.40	5.0	13.17	-1.14	3.86	38.6	-107.5	237.7	-3.2	220.9	70.5	63.6	209.4	38.4	30.5	80.
103139	12.83	12.06	6.4	12.73	.79	7.17	71.7	34.7	-95.6	208.0	-2.8	184.1	56.4	47.7	139.6	19.2	66.
113039	12.20	12.24	-.3	13.21	-7.65	-7.97	-79.7	64.5	30.9	-83.6	178.3	-2.3	147.3	42.3	31.8	69.8	40.
123139	12.49	13.17	-5.2	12.30	1.54	-3.62	-36.2	-71.8	57.4	27.0	-71.7	148.6	-1.8	110.4	28.2	15.9	21.
13140	12.05	12.73	-5.3	12.70	-5.12	-10.46	-104.6	-32.6	-63.8	50.2	23.2	-59.7	118.9	-1.4	73.6	14.1	2.
22840	12.13	13.21	-8.2	10.98	10.47	2.30	23.0	-94.1	-28.9	-55.8	43.0	19.3	-47.8	89.1	-.9	36.8	-2.
33140	12.25	12.30	-.4	10.92	12.18	11.77	117.7	20.7	-83.7	-25.3	-47.8	35.9	15.4	-35.8	59.4	-.5	6.
43040	12.19	12.70	-4.0	11.60	5.09	1.07	10.7	106.0	18.4	-73.2	-21.7	-39.9	28.7	11.6	-23.9	29.7	5.
53140	9.27	10.98	-15.6	10.86	-14.64	-30.21	-302.1	9.6	94.2	16.1	-62.8	-18.1	-31.9	21.5	7.7	-11.9	-28.
63040	9.98	10.92	-8.6	12.04	-17.11	-25.72	-257.2	-271.9	8.6	82.4	13.8	-52.3	-14.5	-23.9	14.3	3.9	-50.
73140	10.29	11.60	-11.3	11.18	-7.96	-19.25	-192.5	-231.5	-241.7	7.5	70.6	11.5	-41.8	-10.9	-15.9	7.2	-64.
83140	10.56	10.86	-2.8	13.02	-18.89	-21.66	-216.6	-173.3	-205.7	-211.5	6.4	58.9	9.2	-31.4	-7.2	-8.0	-78.
93040	10.66	12.04	-11.5	12.83	-16.91	-28.38	-283.8	-194.9	-154.0	-180.0	-181.3	5.4	47.1	6.9	-20.9	-3.6	-96.
103140	11.08	11.18	-.9	12.20	-9.18	-10.07	-100.7	-255.4	-173.3	-134.8	-154.3	-151.1	4.3	35.3	4.6	-10.5	-94.
113040	10.61	13.02	-18.5	12.49	-15.05	-33.56	-335.6	-90.7	-227.0	-151.6	-115.5	-128.6	-120.9	3.2	23.5	2.3	-114.
123140	10.58	12.83	-17.5	12.05	-12.20	-29.74	-297.4	-302.1	-80.6	-158.6	-129.9	-96.3	-102.9	-90.6	2.1	11.8	-128.
13141	10.07	12.20	-17.5	12.13	-16.98	-34.44	-344.4	-267.6	-268.5	-70.5	-170.3	-108.3	-77.0	-77.2	-60.4	1.1	-144.
22841	9.92	12.49	-20.6	12.25	-19.02	-39.60	-396.0	-310.0	-237.9	-234.9	-60.4	-141.9	-86.6	-57.8	-51.4	-30.2	-161.
33141	9.96	12.05	-17.3	12.19	-18.29	-35.64	-356.4	-356.4	-275.5	-208.2	-201.4	-50.4	-113.5	-65.0	-38.5	-25.7	-169.
43041	9.31	12.13	-23.2	9.27	.43	-22.82	-228.2	-320.7	-316.8	-241.1	-178.4	-167.8	-40.3	-85.1	-43.3	-19.3	-164.
53141	9.35	12.25	-23.7	9.98	-6.31	-29.99	-299.9	-205.3	-285.1	-277.2	-206.7	-148.7	-134.2	-30.2	-56.8	-21.7	-167.
63041	9.85	12.19	-19.2	10.29	-4.28	-23.47	-234.7	-269.9	-182.5	-249.5	-237.6	-172.2	-118.9	-100.7	-20.1	-28.4	-161.
73141	10.39	9.27	12.1	10.56	-1.61	10.47	104.7	-211.2	-239.9	-159.7	-213.8	-198.0	-137.8	-89.2	-67.1	-10.1	-122.
83141	10.30	9.98	3.2	10.66	-3.38	-.17	-1.7	94.2	-187.8	-209.9	-136.9	-178.2	-158.4	-103.3	-59.5	-33.6	-97.
93041	10.20	10.29	-.9	11.08	-7.94	-8.82	-88.2	-1.5	83.8	-164.3	-179.9	-114.1	-142.6	-118.8	-68.9	-29.7	-82.
103141	9.50	10.56	-10.0	10.61	-10.46	-20.50	-205.0	-79.4	-1.4	73.3	-140.8	-149.9	-91.3	-106.9	-79.2	-34.4	-81.
113041	9.10	10.66	-14.6	10.58	-13.99	-28.62	-286.2	-184.5	-70.5	-1.2	62.8	-117.4	-119.9	-68.4	-71.3	-39.6	-90.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
123141	8.69	11.08	-21.6	10.07	-13.70	-35.27	-352.7	-257.6	-164.0	-61.7	-1.0	52.4	-93.9	-90.0	-45.6	-35.6	-105.
13142	8.81	10.61	-17.0	9.92	-11.19	-28.15	-281.5	-317.5	-229.0	-143.5	-52.9	-.9	41.9	-70.4	-60.0	-22.8	-114.
23942	9.69	10.58	-8.4	9.96	-2.71	-11.12	-111.2	-253.4	-282.2	-200.4	-123.0	-44.1	-.7	31.4	-46.9	-30.0	-106.
33142	8.01	10.07	-20.5	9.31	-13.96	-34.42	-344.2	-100.1	-225.2	-246.9	-171.7	-102.5	-35.3	-.5	20.9	-23.5	-123.
43042	7.66	9.92	-22.8	9.35	-18.07	-40.86	-408.6	-309.8	-89.0	-197.1	-211.6	-143.1	-82.0	-26.5	-.3	10.5	-146.
53142	8.15	9.96	-18.2	9.85	-17.26	-35.43	-354.3	-367.7	-275.4	-77.9	-168.9	-176.4	-114.5	-61.5	-17.6	-.2	-161.
63042	8.30	9.31	-10.8	10.39	-20.12	-30.96	-309.6	-318.9	-326.9	-240.9	-66.7	-140.8	-141.1	-85.9	-41.0	-8.8	-168.
73142	8.56	9.35	-8.4	10.30	-16.89	-25.34	-253.4	-278.7	-283.5	-286.0	-206.5	-55.6	-112.6	-105.8	-57.2	-20.5	-166.
83142	8.62	9.85	-12.5	10.20	-15.49	-27.98	-279.8	-228.1	-247.7	-248.0	-245.1	-172.1	-44.5	-84.5	-70.5	-28.6	-165.
93042	8.85	10.39	-14.8	9.50	-6.84	-21.66	-216.6	-251.8	-202.7	-216.7	-212.6	-204.3	-137.7	-33.4	-56.3	-35.3	-157.
93142	9.42	10.30	-8.5	9.10	3.52	-5.03	-50.3	-195.0	-223.8	-177.4	-185.8	-177.2	-163.4	-103.3	-22.2	-28.2	-133.
113042	9.29	10.2[illegible]	-8.9	8.69	6.90	-2.02	-20.2	-45.2	-173.3	-155.8	-152.1	-154.8	-141.7	-122.6	-68.8	-11.1	-109.
123142	9.77	9.50	2.8	8.81	10.90	13.74	137.4	-18.2	-40.2	-151.6	-167.9	-126.7	-123.9	-106.3	-81.7	-34.4	-71.
13143	10.44	9.10	14.7	9.69	7.74	22.47	224.7	123.6	-16.1	-35.2	-130.0	-139.9	-101.4	-92.9	-70.9	-40.9	-28.
22843	11.00	8.69	26.6	8.01	37.33	63.91	639.1	202.2	109.9	-14.1	-30.2	-108.3	-111.9	-76.0	-61.9	-35.4	51.
33143	11.58	8.81	31.4	7.66	51.17	82.62	826.2	575.2	179.7	96.2	-12.1	-25.1	-86.7	-83.9	-50.7	-31.0	139.
43043	11.59	9.69	19.6	8.15	42.21	61.82	618.2	743.5	511.3	157.3	82.4	-10.1	-20.1	-65.0	-56.0	-25.3	194.
53143	12.11	8.01	51.2	8.30	45.90	97.09	970.9	556.3	660.9	447.4	134.8	68.7	-8.1	-15.1	-43.3	-28.0	274.
63043	12.35	7.66	61.2	8.56	44.28	105.50	1055.0	873.8	494.5	578.3	383.5	112.3	55.0	-6.1	-10.1	-21.7	351.
73143	11.68	8.15	43.3	8.62	35.50	78.81	788.1	549.5	776.7	432.7	495.7	319.6	89.9	41.2	-4.0	-5.0	388.
83143	11.80	8.30	42.2	8.85	33.33	75.50	755.0	709.3	844.0	679.6	370.9	413.1	255.6	67.4	27.5	-2.0	412.
93043	12.08	8.56	41.1	9.42	28.24	69.36	693.6	679.5	630.5	738.5	582.5	309.1	330.5	191.7	44.9	13.7	421.
103143	11.92	8.62	38.3	9.29	28.31	66.59	665.9	624.2	604.0	551.7	633.0	485.4	247.3	247.8	127.8	22.5	421.
113043	11.02	8.85	24.5	9.77	12.79	37.31	373.1	599.3	554.9	528.5	472.9	527.5	388.4	185.4	165.2	63.9	386.
123143	11.67	9.42	23.9	10.44	11.78	35.67	356.7	335.8	532.7	485.5	453.0	394.1	422.0	291.3	123.6	82.6	348.
13144	11.85	9.29	27.6	11.00	7.73	35.28	352.8	321.0	298.5	466.2	416.2	377.5	315.2	316.5	194.2	61.8	312.
22844	11.82	9.77	21.0	11.58	2.07	23.06	230.6	317.6	285.3	261.2	399.6	346.8	302.0	236.4	211.0	97.1	269.
33144	12.02	10.44	15.1	11.59	3.71	18.84	188.4	207.5	282.3	249.7	223.9	333.0	277.4	226.5	157.6	105.5	225.
43044	11.87	11.00	7.9	12.11	-1.98	5.93	59.3	169.6	184.4	247.0	214.0	186.6	266.4	208.1	151.0	78.8	177.
53144	12.35	11.58	6.6	12.35	.00	6.65	66.5	53.3	150.8	161.4	211.7	178.3	149.3	199.8	138.7	75.5	139.
63044	12.98	11.59	12.0	11.68	11.13	23.12	231.2	59.8	47.4	131.9	138.3	176.4	142.7	111.9	133.2	69.4	124.
73144	12.71	12.11	5.0	11.80	7.71	12.67	126.7	208.1	53.2	41.5	113.1	115.3	141.1	107.0	74.6	66.6	105.
83144	12.82	12.35	3.8	12.08	6.13	9.93	99.3	114.0	185.0	46.5	35.6	94.2	92.2	105.9	71.3	37.3	88.
93044	12.78	11.68	9.4	11.92	7.21	16.63	166.3	89.4	101.3	161.9	39.9	29.6	75.4	69.2	70.6	35.7	84.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
103144	12.78	11.80	8.3	11.02	15.97	24.28	242.8	149.7	79.5	08.7	138.7	33.2	23.7	56.5	46.1	35.3	89.
113044	12.83	12.08	6.2	11.67	9.94	16.15	161.5	218.5	133.1	69.5	76.0	115.6	26.6	17.8	37.7	23.1	88.
123144	13.28	11.92	11.4	11.85	12.07	23.48	234.8	145.3	194.2	116.4	59.6	63.3	92.5	19.9	11.9	18.8	96.
13145	13.47	11.02	22.2	11.82	13.96	36.19	361.9	211.3	129.2	169.9	99.8	49.7	50.7	69.4	13.3	5.9	116.
22845	14.30	11.67	22.5	12.02	18.97	41.50	415.0	325.7	187.8	113.0	145.7	83.2	39.7	38.0	46.2	6.6	140.
33145	13.64	11.85	15.1	11.87	14.91	30.02	300.2	373.5	289.5	164.3	96.9	121.4	66.5	29.8	25.3	23.1	149.
43045	14.84	11.82	25.5	12.35	20.16	45.71	457.1	270.2	332.0	253.3	140.9	80.7	97.1	49.9	19.9	12.7	171.
53145	15.01	12.02	24.9	12.98	15.64	40.51	405.1	411.4	240.1	290.5	217.2	117.4	64.6	72.8	33.3	9.9	186.
63045	14.96	11.87	26.0	12.71	17.70	43.73	437.3	364.6	365.7	210.1	249.0	181.0	93.9	48.4	48.6	16.6	202.
73145	14.66	12.35	18.7	12.82	14.35	33.06	330.6	393.6	324.1	320.0	180.1	207.5	144.8	70.4	32.3	24.3	203.
83145	15.51	12.98	19.5	12.78	21.36	40.85	408.5	297.5	349.9	283.6	274.3	150.1	166.0	108.6	47.0	16.1	210.
93045	16.16	12.71	27.1	12.78	26.45	53.59	535.9	367.7	264.5	306.1	243.1	228.6	120.1	124.5	72.4	23.5	229.
103145	16.65	12.82	29.9	12.83	29.77	59.65	596.5	482.3	326.8	231.4	262.4	202.6	182.8	90.1	83.0	36.2	249.
113045	17.19	12.78	34.5	13.28	29.44	63.95	639.5	536.8	428.7	286.0	198.3	218.7	162.1	137.1	60.0	41.5	271.
123145	17.36	12.78	35.8	13.47	28.88	64.72	647.2	575.5	477.2	375.1	245.1	165.3	174.9	121.5	91.4	30.0	290.
13146	18.57	12.83	44.7	14.30	29.86	74.60	746.0	582.4	511.6	417.5	321.5	204.3	132.2	131.2	81.0	45.7	317.
22846	17.28	13.28	30.1	13.64	26.69	56.81	568.1	671.4	517.7	447.6	357.9	268.0	163.4	99.2	87.5	40.5	322.
33146	18.08	13.47	34.2	14.84	21.83	56.06	560.6	511.3	596.8	453.0	383.7	298.2	214.4	122.6	66.1	43.7	325.
43046	18.76	14.30	31.2	15.01	24.98	56.17	561.7	504.5	454.5	522.2	388.3	319.7	238.6	160.8	81.7	33.1	327.
53146	19.18	13.64	40.6	14.96	28.21	68.82	688.2	505.5	448.5	397.6	447.6	323.6	255.8	178.9	107.2	40.9	339.
63046	18.43	14.84	24.2	14.66	25.72	49.91	499.1	619.4	449.4	392.4	340.8	373.0	258.9	191.8	119.3	53.6	330.
73146	17.96	15.01	19.7	15.51	15.80	35.45	354.5	449.2	550.6	393.2	336.3	284.0	298.4	194.1	127.9	55.6	305.
83146	16.65	14.96	11.3	16.16	3.03	14.33	143.3	319.0	399.3	481.8	337.0	280.3	227.2	223.8	129.4	63.9	261.
93046	14.96	14.66	2.0	16.65	-10.15	-8.10	-81.0	129.0	283.6	349.4	412.9	280.9	224.2	170.4	149.2	64.7	198.
103146	14.84	15.51	-4.3	17.19	-13.67	-17.99	-179.9	-72.9	114.6	248.1	299.4	344.1	224.7	168.2	113.6	74.6	133.
113046	14.67	16.16	-9.2	17.36	-15.50	-24.72	-247.2	-161.9	-64.8	100.3	212.7	245.5	275.3	168.5	112.1	56.8	70.
123146	15.30	16.65	-8.1	18.57	-17.61	-25.72	-257.2	-222.4	-143.9	-56.7	86.0	177.2	199.6	206.5	112.3	56.1	16.
13147	15.66	17.19	-8.9	17.28	-9.37	-18.28	-182.8	-231.5	-197.7	-125.9	-48.6	71.6	141.8	149.7	137.6	56.2	-23.
22847	15.43	17.36	-11.1	18.08	-14.66	-25.77	-257.7	-164.5	-205.7	-173.0	-107.9	-40.5	57.3	106.3	99.8	68.8	-62.
33147	15.17	18.57	-18.3	18.76	-19.14	-37.45	-374.5	-232.0	-146.2	-180.0	-148.3	-90.0	-32.4	43.0	70.9	49.9	-104.
43047	14.58	17.28	-15.6	19.18	-23.98	-39.61	-396.1	-337.0	-206.2	-127.9	-154.3	-123.6	-72.0	-24.3	28.7	35.4	-138.
53147	14.45	18.08	-20.1	18.43	-21.60	-41.67	-416.7	-356.5	-299.6	-180.4	-109.7	-128.6	-98.9	-54.0	-16.2	14.3	-165.
63047	15.21	18.76	-18.9	17.96	-15.31	-34.24	-342.4	-375.1	-316.9	-262.1	-154.6	-91.4	-102.9	-74.1	-36.0	-8.1	-176.
73147	15.76	19.18	-17.8	16.65	-5.35	-23.18	-231.8	-308.1	-333.4	-277.3	-224.7	-128.9	-73.1	-77.2	-49.4	-18.0	-172.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
83147	15.32	18.43	-16.9	14.96	2.41	-14.47	-144.7	-208.6	-273.9	-291.7	-237.6	-187.2	-103.1	-54.8	-51.4	-24.7	-158.
93047	15.11	17.96	-15.9	14.84	1.82	-14.05	-140.5	-130.2	-185.4	-239.6	-250.0	-198.0	-149.8	-77.3	-36.6	-25.7	-143.
103147	15.43	16.65	-7.3	14.67	5.18	-2.15	-21.5	-126.4	-115.7	-162.2	-205.4	-208.4	-158.4	-112.3	-51.5	-18.3	-118.
113047	14.99	14.96	.2	15.30	-2.03	-1.83	-18.3	-19.3	-112.4	-101.3	-139.1	-171.2	-166.7	-118.8	-74.9	-25.8	-95.
123147	15.30	14.84	3.1	15.66	-2.30	.80	8.0	-16.4	-17.2	-98.3	-86.8	-115.9	-136.9	-125.0	-79.2	-37.4	-71.
13148	14.69	14.67	.1	15.43	-4.80	-4.66	-46.6	7.2	-14.6	-15.0	-84.3	-72.3	-92.7	-102.7	-83.3	-39.6	-54.
22848	14.00	15.30	-8.5	15.17	-7.71	-16.21	-162.1	-41.9	6.4	-12.8	-12.9	-70.2	-57.9	-69.5	-68.5	-41.7	-53.
33148	15.08	15.66	-3.7	14.58	3.43	-.27	-2.7	-145.9	-37.3	5.6	-11.0	-10.7	-56.2	-43.4	-46.4	-34.2	-38.
43048	15.48	15.43	.3	14.45	7.13	7.45	74.5	-2.5	-129.7	-32.6	4.8	-9.1	-8.6	-42.1	-28.9	-23.2	-20.
53148	16.69	15.17	10.0	15.21	9.73	19.75	197.5	67.1	-2.2	-113.5	-28.0	4.0	-7.3	-6.4	-28.1	-14.5	7.
63048	16.74	14.58	14.8	15.76	6.22	21.03	210.3	177.8	59.6	-1.9	-97.3	-23.3	3.2	-5.5	-4.3	-14.0	30.
73148	15.85	14.45	9.7	15.32	3.46	13.15	131.5	189.3	158.0	52.2	-1.6	-81.0	-18.6	2.4	-3.7	-2.1	43.
83148	15.97	15.21	5.0	15.11	5.69	10.69	106.9	118.3	168.3	138.3	44.7	-1.4	-64.8	-14.0	1.6	-1.8	50.
93048	15.49	15.76	-1.7	15.43	.39	-1.32	-13.2	96.2	105.2	147.2	118.5	37.3	-1.1	-48.6	-9.3	.8	43.
103148	16.54	15.32	8.0	14.99	10.34	18.30	183.0	-11.9	85.5	92.0	126.2	98.8	29.8	-.8	-32.4	-4.7	57.
113048	14.75	15.11	-2.4	15.30	-3.59	-5.98	-59.8	164.7	-10.6	74.8	78.9	105.2	79.0	22.4	-.5	-16.2	44.
123148	15.20	15.43	-1.5	14.69	3.47	1.98	19.8	-53.8	146.4	-9.3	64.1	65.7	84.1	59.3	14.9	-.3	35.
13149	15.22	14.99	1.5	14.00	8.71	10.25	102.5	17.8	-47.8	128.1	-7.9	53.4	52.6	63.1	39.5	7.5	41.
22849	14.62	15.30	-4.4	15.08	-3.05	-7.49	-74.9	92.2	15.8	-41.8	109.8	-6.6	42.8	39.4	42.1	19.8	24.
33149	15.06	14.69	2.5	15.48	-2.71	-.19	-1.9	-67.5	82.0	13.9	-35.9	91.5	-5.3	32.1	26.3	21.0	16.
43049	14.74	14.00	5.3	16.69	-11.68	-6.40	-64.0	-1.8	-60.0	71.7	11.9	-29.9	73.2	-4.0	21.4	13.1	3.
53149	14.19	15.08	-5.9	16.74	-15.23	-21.13	-211.3	-57.6	-1.6	-52.5	61.5	9.9	-23.9	54.9	-2.6	10.7	-21.
63049	14.16	15.48	-8.5	15.85	-10.66	-19.19	-191.9	-190.2	-51.2	-1.4	-45.0	51.2	7.9	-17.9	36.6	-1.3	-40.
73149	15.04	16.69	-9.9	15.97	-5.82	-15.71	-157.1	-172.7	-169.1	-44.8	-1.2	-37.5	41.0	5.9	-12.0	18.3	-53.
83149	15.22	16.74	-9.1	15.49	-1.74	-10.82	-108.2	-141.4	-153.5	-147.9	-38.4	-1.0	-30.0	30.7	4.0	-6.0	-59.
93049	15.58	15.85	-1.7	16.54	-5.80	-7.51	-75.1	-97.4	-125.7	-134.3	-126.8	-32.0	-.8	-22.5	20.5	2.0	-59.
103149	16.04	15.97	.4	14.75	8.75	9.18	91.8	-67.6	-86.6	-110.0	-115.1	-105.7	-25.6	-.6	-15.0	10.2	-42.
113049	16.06	15.49	3.7	15.20	5.66	9.34	93.4	82.7	-60.1	-75.8	-94.3	-95.9	-84.5	-19.2	-.4	-7.5	-26.
123149	16.76	16.54	1.3	15.22	10.12	11.45	114.5	84.0	73.5	-52.6	-64.9	-78.5	-76.8	-63.4	-12.8	-.2	-8.
13150	17.05	14.75	15.6	14.62	16.62	32.21	322.1	103.0	74.7	64.3	-45.0	-54.1	-62.8	-57.6	-42.3	-6.4	30.
22850	17.22	15.20	13.3	15.06	14.34	27.63	276.3	289.9	91.6	65.4	55.1	-37.5	-43.3	-47.1	-38.4	-21.1	59.
33150	17.29	15.22	13.6	14.74	17.30	30.90	309.0	248.7	257.7	80.1	56.0	45.9	-30.0	-32.5	-31.4	-19.2	88.
43050	18.07	14.62	23.6	14.19	27.34	50.94	509.4	278.1	221.1	225.5	68.7	46.7	36.7	-22.5	-21.6	-15.7	133.
53150	18.78	15.06	24.7	14.16	32.63	57.33	573.3	458.5	247.2	193.4	193.3	57.2	37.4	27.6	-15.0	-10.8	176.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
63050	17.69	14.74	20.0	15.04	17.62	37.63	376.3	516.0	407.5	216.3	165.8	161.1	45.8	28.0	18.4	-7.5	193.
73150	17.84	14.19	25.7	15.22	17.21	42.94	429.4	338.7	458.6	356.6	185.4	138.2	128.9	34.3	18.7	9.2	210.
83150	18.42	14.16	30.1	15.58	18.23	48.31	483.1	386.4	301.1	401.3	305.6	154.5	110.5	96.6	22.9	9.3	227.
93050	19.45	15.04	29.3	16.04	21.26	50.58	505.8	434.8	343.5	263.4	344.0	254.7	123.6	82.9	64.4	11.4	243.
103150	19.53	15.22	28.3	16.06	21.61	49.92	499.2	455.2	386.5	300.6	225.8	286.6	203.8	92.7	55.3	32.2	254.
113050	19.51	15.58	25.2	16.76	16.41	41.63	416.3	449.3	404.6	338.2	257.6	188.2	229.3	152.8	61.8	27.6	253.
123150	20.41	16.04	27.2	17.05	19.71	46.95	469.5	374.7	399.4	354.1	289.9	214.7	150.5	172.0	101.9	30.9	256.
13151	21.66	16.06	34.9	17.22	25.78	60.65	606.5	422.6	333.1	349.5	303.5	241.6	171.7	112.9	114.7	50.9	271.
22851	21.80	16.76	30.1	17.29	26.08	56.16	561.6	545.9	375.6	291.4	259.5	252.9	193.3	128.8	75.3	57.3	278.
33151	21.40	17.05	25.5	18.07	18.43	43.94	439.4	505.4	485.2	328.7	249.8	249.6	202.3	144.9	85.9	37.6	273.
43051	22.43	17.22	30.3	18.78	19.44	49.69	496.9	395.5	449.2	424.6	281.7	208.2	199.7	151.7	96.6	42.9	275.
53151	21.52	17.29	24.5	17.69	21.65	46.12	461.2	447.2	351.5	393.1	363.9	234.8	166.5	145.8	101.2	48.3	272.
63051	20.96	18.07	16.0	17.84	17.49	33.48	334.8	415.0	397.5	307.6	336.9	303.3	187.8	124.9	99.8	50.6	256.
73151	22.40	18.78	19.3	18.42	21.61	40.88	408.8	301.3	368.9	347.8	263.6	280.8	242.6	140.9	83.3	49.9	249.
83151	23.28	17.69	31.6	19.45	19.69	51.29	512.9	367.9	267.9	322.8	298.1	219.7	224.6	182.0	93.9	41.6	253.
93051	23.26	17.84	30.4	19.53	19.10	49.48	494.8	461.6	327.1	234.4	276.7	248.5	175.8	168.5	121.3	47.0	256.
103151	22.94	18.42	24.5	19.51	17.58	42.12	421.2	445.3	410.3	286.2	200.9	230.6	198.8	131.8	112.3	60.7	250.
113051	22.88	19.45	17.6	20.41	12.10	29.74	297.4	379.1	395.8	359.0	245.3	167.4	184.5	149.1	87.9	56.2	232.
123151	23.77	19.53	21.7	21.66	9.74	31.45	314.5	267.6	337.0	346.4	307.7	204.4	133.9	138.3	99.4	43.9	219.
13152	24.14	19.51	23.7	21.80	10.73	34.47	344.7	283.1	237.9	294.8	296.9	256.5	163.5	100.4	92.2	49.7	212.
22852	23.26	20.41	14.0	21.40	8.69	22.66	226.6	310.2	251.6	208.2	252.7	247.4	205.2	122.6	67.0	46.1	194.
33152	24.37	21.66	12.5	22.43	8.65	21.16	211.6	203.9	275.7	220.2	178.4	210.6	197.9	153.9	81.8	33.5	177.
43052	23.32	21.80	7.0	21.52	8.36	15.34	153.4	190.4	181.2	241.3	188.7	148.7	168.5	148.4	102.6	40.9	156.
53152	23.86	21.40	11.5	20.96	13.84	25.33	253.3	138.0	169.3	158.6	206.8	157.3	118.9	126.4	99.0	51.3	148.
63052	24.96	22.43	11.3	22.40	11.43	22.71	227.1	228.0	122.7	148.1	135.9	172.3	125.8	89.2	84.2	49.5	138.
73152	25.40	21.52	18.0	23.28	9.11	27.14	271.4	204.4	202.6	107.4	127.0	113.3	137.9	94.4	59.5	42.1	136.
83152	25.03	20.96	19.4	23.26	7.61	27.03	270.3	244.2	181.7	177.3	92.0	105.8	90.6	103.4	62.9	29.7	136.
93052	24.54	22.40	9.6	22.94	6.97	16.53	165.3	243.2	217.1	159.0	152.0	76.7	84.6	68.0	68.9	31.5	127.
103152	24.52	23.28	5.3	22.88	7.17	12.49	124.9	148.8	216.2	190.0	136.2	126.7	61.3	63.5	45.3	34.5	115.
113052	25.66	23.26	10.3	23.77	7.95	18.27	182.7	112.4	132.2	189.2	162.8	113.5	101.3	46.0	42.3	22.7	111.
123152	26.57	22.94	15.8	24.14	10.07	25.89	258.9	164.4	100.0	115.7	162.2	135.7	90.8	76.0	30.7	21.2	116.
13153	26.38	22.88	15.3	23.26	13.41	28.71	287.1	233.0	146.2	87.5	99.2	135.1	108.5	68.1	50.7	15.3	123.
22853	25.90	23.77	9.0	24.37	6.28	15.24	152.4	258.4	207.1	127.9	75.0	82.6	108.1	81.4	45.4	25.3	116.
33153	25.29	24.14	4.8	23.32	8.45	13.21	132.1	137.2	229.7	181.2	109.6	62.5	66.1	81.1	54.3	22.7	108.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
43053	24.62	23.26	5.8	23.86	3.19	9.03	90.3	118.9	121.9	201.0	155.3	91.3	50.0	49.6	54.1	27.1	96.
53153	24.54	24.37	.7	24.96	-1.68	-.99	-9.9	81.3	105.7	106.7	172.3	129.5	73.1	37.5	33.1	27.0	76.
63053	24.14	23.32	3.5	25.40	-4.96	-1.44	-14.4	-8.9	72.3	92.5	91.4	143.6	103.6	54.8	25.0	16.5	58.
73153	24.75	23.86	3.7	25.03	-1.12	2.61	26.1	-13.0	-7.9	63.2	79.3	76.2	114.8	77.7	36.5	12.5	47.
83153	23.32	24.96	-6.6	24.54	-4.97	-11.54	-115.4	23.5	-11.6	-6.9	54.2	66.1	61.0	86.1	51.8	18.3	23.
93053	23.35	25.40	-8.1	24.52	-4.77	-12.84	-128.4	-103.9	20.9	-10.1	-5.9	45.2	52.8	45.7	57.4	25.9	-.
103153	24.54	25.03	-2.0	25.66	-4.36	-6.32	-63.2	-115.6	-92.3	18.3	-8.7	-4.9	36.1	35.6	30.5	28.7	-13.
113053	24.76	24.54	.9	26.57	-6.81	-5.92	-59.2	-56.9	-102.7	-80.8	15.7	-7.2	-3.9	27.1	26.4	15.2	-23.
123153	24.81	24.52	1.2	26.38	-5.95	-4.77	-47.7	-53.2	-50.6	-89.9	-69.3	13.1	-5.8	-3.0	18.1	13.2	-28.
13154	26.08	25.66	1.6	25.90	.69	2.33	23.3	-42.9	-47.3	-44.3	-77.1	-57.7	10.4	-4.3	-2.0	5.0	-23.
22854	26.15	26.57	-1.6	25.29	3.40	1.82	18.2	21.0	-38.2	-41.4	-37.9	-64.2	-46.2	7.8	-2.9	-1.0	-18.
33154	26.94	26.38	2.1	24.62	9.42	11.55	115.5	16.4	18.7	-33.4	-55.5	-31.6	-51.4	-34.6	5.2	-1.4	-3.
43054	28.26	25.90	9.1	24.54	15.16	24.27	242.7	103.9	14.6	16.3	-28.6	-29.6	-25.3	-38.5	-23.1	2.6	24.
53154	29.19	25.29	15.4	24.14	20.92	36.34	363.4	218.4	92.4	12.7	14.0	-23.8	-23.7	-15.0	-25.7	-11.5	60.
63054	29.21	24.62	18.6	24.75	18.02	36.66	366.6	327.1	194.2	80.8	10.9	11.7	-19.1	-17.7	-12.6	-12.8	93.
73154	30.88	24.54	25.8	23.32	32.42	58.25	582.5	330.0	290.7	169.9	69.3	5.1	9.3	-14.3	-11.8	-6.3	143.
83154	29.83	24.14	23.6	23.35	27.75	51.32	513.2	524.3	293.3	254.4	145.6	57.7	7.3	7.0	-9.5	-5.9	179.
93054	32.31	24.75	30.5	24.54	31.66	62.21	622.1	461.9	466.0	256.6	218.0	121.4	46.2	5.5	4.7	-4.8	220.
103154	31.68	23.32	35.8	24.76	27.95	63.80	638.0	559.9	410.6	407.8	220.0	181.7	97.1	34.6	3.6	2.3	256.
113054	34.24	23.35	46.6	24.81	38.01	84.65	846.5	574.2	497.7	359.3	349.5	183.3	145.4	72.8	23.1	1.8	305.
123154	35.98	24.54	46.6	26.08	37.96	84.58	845.8	761.8	510.4	435.5	307.9	291.3	146.7	109.0	48.5	11.5	347.
13155	36.63	24.76	47.9	26.15	40.08	88.02	880.2	761.2	677.2	446.6	373.2	256.6	233.0	110.0	72.7	24.3	383.
22855	36.76	24.81	48.2	26.94	36.45	84.62	846.2	792.2	676.6	592.5	382.8	311.0	205.3	174.8	73.3	36.3	409.
33155	36.58	26.08	40.3	28.26	29.44	69.70	697.0	761.6	704.1	592.0	507.9	319.0	248.8	154.0	116.5	36.7	414.
43055	37.96	26.15	45.2	29.19	30.04	75.21	752.1	627.3	676.9	616.1	507.5	423.2	255.2	186.6	102.6	58.3	421.
53155	37.91	26.94	40.7	29.21	29.78	70.50	705.0	676.9	557.6	592.3	528.1	422.9	338.6	191.4	124.4	51.3	419.
63055	41.03	28.26	45.2	30.88	32.87	78.06	780.6	634.5	601.7	487.9	507.7	440.1	338.3	253.9	127.6	62.2	423.
73155	43.52	29.19	49.1	29.83	45.89	94.99	949.9	702.5	564.0	526.4	418.2	423.1	352.1	253.7	169.3	63.8	442.
83155	43.18	29.21	47.8	32.31	33.64	81.47	814.7	854.9	624.5	493.5	451.2	348.5	338.5	264.1	169.2	84.6	444.
93055	43.67	30.88	41.4	31.68	37.85	79.27	792.7	733.2	759.9	546.4	423.0	376.0	278.8	253.9	176.0	84.6	442.
103155	42.34	29.83	41.9	34.24	23.66	65.59	655.9	713.4	651.8	664.9	468.3	352.5	300.8	209.1	169.2	88.0	427.
113055	45.51	32.31	40.9	35.98	26.49	67.34	673.4	590.3	634.1	570.3	569.9	390.3	282.0	225.6	139.4	84.6	416.
123155	45.48	31.68	43.6	36.63	24.16	67.72	677.2	606.1	524.8	554.9	488.8	474.9	312.2	211.5	150.4	69.7	407.
13156	43.82	34.24	28.0	36.76	19.21	47.18	471.8	609.5	538.7	459.2	475.6	407.3	379.9	234.2	141.0	75.2	379.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
22856	45.34	35.98	26.0	36.58	23.95	49.96	499.6	424.7	541.8	471.4	393.6	296.3	325.9	285.0	156.1	70.5	356.
33156	48.48	36.63	32.4	37.56	27.71	60.06	600.6	449.7	377.5	474.0	404.0	328.0	317.1	244.4	190.0	78.1	346.
43056	48.38	36.76	31.6	37.91	27.62	59.23	592.3	540.6	399.7	330.3	406.3	336.7	262.4	237.8	162.9	95.0	336.
53156	45.20	36.58	23.6	41.03	10.16	33.73	337.3	533.1	480.5	349.7	283.1	338.6	269.4	196.8	158.5	81.5	302.
63056	46.97	37.96	23.7	43.52	7.93	31.66	316.6	303.6	473.8	420.4	299.8	235.9	270.9	202.0	131.2	79.3	273.
73156	49.39	37.91	30.3	43.18	14.38	44.66	446.6	285.0	269.8	414.6	360.4	249.8	188.7	203.2	134.7	65.6	262.
83156	47.51	41.03	15.8	43.67	8.79	24.59	245.9	402.0	253.3	236.1	355.4	300.3	199.8	141.6	135.4	67.3	234.
93056	45.35	43.52	4.2	42.34	7.11	11.31	113.1	221.3	357.3	221.6	202.4	296.1	240.3	149.9	94.4	67.7	196.
103156	45.58	43.18	5.6	45.51	.15	5.71	57.1	101.8	196.7	312.6	190.0	168.6	236.9	180.2	99.9	47.2	159.
113056	45.08	43.67	3.2	45.48	-.88	2.35	23.5	51.4	90.5	172.1	268.0	158.3	134.9	177.7	120.1	50.0	125.
123156	46.67	42.34	10.2	43.82	6.50	16.73	167.3	21.1	45.7	79.2	147.5	223.3	126.7	101.2	118.5	60.1	109.
13157	44.72	45.51	-1.7	45.34	-1.37	-3.10	-31.0	150.6	18.8	40.0	67.9	122.9	178.7	95.0	67.5	59.2	77.
22857	43.26	45.48	-4.9	48.48	-10.77	-15.65	-156.5	-27.9	133.8	16.4	34.3	56.6	98.3	134.0	63.3	33.7	39.
33157	44.11	43.82	.7	48.38	-8.83	-8.16	-81.6	-140.8	-24.8	117.1	14.1	28.6	45.3	73.8	89.3	31.7	15.
43057	45.74	45.34	.9	45.20	1.19	2.08	20.8	-73.5	-125.2	-21.7	100.4	11.7	22.8	33.9	49.2	44.7	6.
53157	47.43	48.48	-2.2	46.97	.98	-1.19	-11.9	18.7	-65.3	-109.5	-19.6	83.7	9.4	17.1	22.6	24.6	-3.
63057	47.37	48.38	-2.1	49.39	-4.09	-6.18	-61.8	-10.7	16.6	-57.1	-93.9	-15.5	66.9	7.0	11.4	11.3	-13.
73157	47.91	45.20	6.0	47.51	.84	6.84	68.4	-55.6	-9.5	14.5	-49.0	-78.2	-12.4	50.2	4.7	5.7	-6.
83157	45.22	46.97	-3.7	45.35	-.29	-4.01	-40.1	61.5	-49.4	-8.3	12.5	-40.8	-62.6	-9.3	33.5	2.3	-10.
93057	42.42	49.39	-14.3	45.58	-6.93	-21.05	-210.5	-36.1	54.7	-43.2	-7.1	10.4	-33.7	-46.9	-6.2	16.7	-30.
103157	41.06	47.51	-13.6	45.08	-8.92	-22.49	-224.9	-189.4	-32.1	47.9	-37.1	-5.9	8.3	-24.5	-31.3	-3.1	-49.
113057	41.72	45.35	-8.0	46.67	-10.61	-18.61	-186.1	-202.4	-168.4	-28.1	41.0	-30.9	-4.7	6.2	-16.3	-15.6	-61.
123157	39.99	45.58	-12.3	44.72	-10.58	-22.84	-228.4	-167.5	-179.9	-147.3	-24.1	34.2	-24.7	-3.6	4.2	-8.2	-75.
13158	41.70	45.08	-7.5	43.26	-3.61	-11.10	-111.0	-205.6	-148.9	-157.5	-126.3	-20.1	27.4	-18.5	-2.4	2.1	-76.
22858	40.84	46.67	-12.5	44.11	-7.41	-19.91	-199.1	-99.9	-182.7	-130.3	-135.0	-105.2	-16.0	20.5	-12.4	-1.2	-86.
33158	42.10	44.72	-5.9	45.74	-7.96	-13.82	-138.2	-179.1	-88.8	-159.9	-111.7	-112.5	-84.2	-12.0	13.7	-6.2	-88.
43058	43.44	43.26	.4	47.43	-8.41	-8.00	-80.0	-124.4	-159.2	-77.7	-137.0	-93.1	-90.0	-63.1	-8.0	6.8	-83.
53158	44.09	44.11	-.0	47.37	-6.92	-6.97	-69.7	-72.0	-110.5	-139.3	-66.6	-114.2	-74.4	-67.5	-42.1	-4.0	-76.
63058	45.24	45.74	-1.1	47.91	-5.57	-6.67	-66.7	-62.7	-64.0	-56.7	-119.4	-55.5	-91.4	-55.8	-45.0	-21.0	-68.
73158	47.19	47.43	-.5	45.22	4.36	3.85	38.5	-60.0	-55.8	-56.0	-82.9	-99.5	-44.4	-68.5	-37.2	-22.5	-49.
83158	47.75	47.37	.8	42.42	12.56	13.37	133.7	34.7	-53.3	-46.8	-48.0	-69.1	-79.6	-33.3	-45.7	-18.6	-23.
93058	50.06	47.91	4.5	41.06	21.92	26.41	264.1	120.3	30.8	-46.7	-41.8	-40.0	-55.3	-59.7	-22.2	-22.8	13.
103158	51.33	45.22	13.5	41.72	23.03	36.55	365.5	237.7	106.9	27.0	-40.0	-34.8	-32.0	-41.5	-39.8	-11.1	54.
113058	52.48	42.42	23.7	39.99	31.23	54.95	549.5	328.9	211.3	93.6	23.1	-33.3	-27.9	-24.0	-27.6	-15.9	107.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
123158	55.21	41.06	34.5	41.70	32.40	66.86	668.6	494.5	292.4	184.8	80.2	19.3	-26.7	-20.9	-16.0	-13.8	166.
13159	55.42	41.72	32.8	40.84	35.70	68.54	685.4	601.7	439.6	255.8	158.4	66.8	15.4	-20.0	-13.9	-8.0	218.
22859	55.41	39.99	38.6	42.10	31.62	70.17	701.7	616.8	534.9	384.6	219.3	132.0	53.5	11.6	-13.3	-7.0	263.
33159	55.44	41.70	32.9	43.44	27.62	60.57	605.7	631.6	548.3	468.0	329.7	182.7	105.6	40.1	7.7	-6.7	291.
43059	57.59	40.84	41.0	44.09	30.62	71.63	716.3	545.2	561.4	479.8	401.2	274.7	146.2	79.2	26.7	3.9	323.
53159	58.68	42.10	39.4	45.24	25.71	69.09	690.9	644.7	484.6	451.2	411.2	334.3	219.8	105.6	52.8	13.4	345.
63059	58.47	43.44	34.6	47.19	23.90	58.50	585.0	621.8	573.1	424.0	421.0	342.7	267.4	164.8	73.1	26.4	350.
73159	60.51	44.09	37.2	47.75	26.72	63.96	639.6	526.5	552.7	501.4	363.4	350.9	274.2	200.6	109.9	36.5	356.
83159	59.60	45.24	31.7	50.06	19.06	50.80	508.0	575.7	468.0	483.6	429.8	302.9	280.7	205.6	133.7	54.9	344.
93059	56.88	47.19	20.5	51.32	10.81	31.35	313.5	457.2	511.7	409.5	414.5	358.2	242.3	210.5	137.1	66.9	312.
103159	57.52	47.75	20.5	52.48	9.60	30.06	300.6	282.1	406.4	447.8	351.0	345.5	286.5	181.7	140.3	68.5	281.
113059	58.28	50.06	16.4	55.21	5.56	21.98	219.8	270.6	250.8	355.6	383.8	292.5	276.4	214.9	121.1	70.2	246.
123159	59.89	51.33	16.7	55.42	8.07	24.74	247.4	197.8	240.5	219.4	304.8	319.8	234.0	207.3	143.3	60.6	217.
13160	55.61	52.48	6.0	55.41	.36	6.33	63.3	222.7	175.8	210.5	188.1	254.0	255.9	175.5	138.2	71.6	176.
22860	56.12	55.21	1.6	55.44	1.23	2.87	28.7	56.9	197.9	153.9	180.4	156.7	203.2	191.9	117.0	69.1	136.
33160	55.34	55.42	-.1	57.59	-3.91	-4.05	-40.5	25.9	50.6	173.2	131.9	150.3	125.4	152.4	127.9	58.5	56.
43060	54.37	55.41	-1.9	58.68	-7.34	-9.22	-92.2	-36.5	23.0	44.3	148.5	109.9	120.3	94.0	101.6	64.0	58.
53160	55.83	55.44	.7	58.47	-4.52	-3.81	-38.1	-83.0	-32.4	20.1	38.0	123.7	87.9	90.2	62.7	50.8	32.
63060	56.92	57.59	-1.2	60.51	-5.93	-7.10	-71.0	-34.3	-73.8	-28.4	17.2	31.6	99.0	65.9	60.1	31.3	10.
73160	55.51	58.68	-5.4	59.60	-6.86	-12.26	-122.6	-63.9	-30.5	-64.6	-24.3	14.4	25.3	74.2	44.0	30.1	-12.
83160	56.96	58.47	-2.6	56.88	.14	-2.44	-24.4	-110.4	-56.8	-26.7	-55.3	-20.3	11.5	19.0	49.5	22.0	-19.
93060	53.52	60.51	-11.6	57.52	-6.95	-18.51	-185.1	-22.0	-98.1	-49.7	-22.9	-46.1	-16.2	8.6	12.7	24.7	-35.
103160	53.39	59.60	-10.4	58.28	-8.39	-18.81	-188.1	-166.6	-19.5	-85.9	-42.6	-19.1	-36.9	-12.2	5.7	6.3	-56.
113060	55.54	56.88	-2.4	59.89	-7.26	-9.62	-96.2	-169.3	-148.0	-17.1	-73.6	-35.5	-15.2	-27.7	-8.1	2.9	-59.
123160	58.11	57.52	1.0	55.61	4.50	5.52	55.2	-86.6	-150.5	-129.5	-14.7	-61.3	-28.4	-11.4	-18.4	-4.1	-45.
13161	61.78	58.28	6.0	56.12	10.09	16.09	160.9	49.7	-77.0	-131.7	-111.0	-12.2	-49.1	-21.3	-7.6	-5.2	-21.
22861	63.44	59.89	5.9	55.34	14.64	20.56	205.6	144.8	44.2	-67.3	-112.9	-92.5	-9.8	-36.8	-14.2	-3.8	6.
33161	65.06	55.61	17.0	54.37	19.66	36.65	366.5	185.1	128.7	38.6	-57.7	-94.0	-74.0	-7.3	-24.5	-7.1	45.
43061	65.31	56.12	16.4	55.83	16.98	33.36	333.6	329.9	164.5	112.6	33.1	-48.1	-75.2	-55.5	-4.9	-12.3	78.
53161	66.56	55.34	20.3	56.92	16.94	37.21	372.1	300.2	293.2	144.0	96.5	27.6	-38.5	-56.4	-37.0	-2.4	110.
63061	64.64	54.37	18.9	55.51	16.45	35.34	353.4	334.9	266.8	256.6	123.4	80.5	22.1	-28.9	-37.6	-18.5	135.
73161	66.76	55.83	19.6	56.96	17.21	36.78	367.8	318.0	297.7	233.5	219.9	102.8	64.4	16.6	-19.2	-18.8	158.
83161	68.07	56.92	19.6	53.52	27.19	46.77	467.7	331.0	282.7	260.5	200.1	183.3	82.3	48.3	11.0	-9.6	186.
93061	66.73	55.51	20.2	53.39	24.99	45.20	452.0	421.0	294.3	247.4	223.3	166.8	146.6	61.7	32.2	5.5	205.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
103161	68.62	56.96	20.5	55.54	23.55	44.02	440.2	406.8	374.2	257.5	212.0	186.1	133.4	110.0	41.1	16.1	218.
113061	71.32	53.52	33.3	58.11	22.73	55.99	559.9	355.2	361.6	327.4	220.7	176.7	148.8	100.1	73.3	20.6	239.
123161	71.55	53.39	34.0	61.78	15.81	49.83	498.3	503.9	352.2	316.4	280.6	183.9	141.3	111.6	66.7	36.7	249.
13162	68.84	53.54	23.9	63.44	8.51	32.46	324.6	448.5	447.9	308.1	271.2	233.9	167.1	106.0	74.4	33.4	240.
22862	69.96	58.11	20.4	65.06	7.53	27.92	279.2	292.1	398.6	351.9	264.1	226.0	187.1	110.3	70.7	37.2	226.
33162	69.55	61.78	12.6	65.31	6.49	19.07	190.7	251.3	259.7	348.8	335.9	220.1	180.8	140.3	73.6	35.3	204.
43062	65.24	63.44	2.8	66.56	-1.98	.85	8.5	171.6	223.4	227.2	299.0	280.0	176.1	135.6	93.5	36.8	165.
53162	59.63	65.06	-8.3	64.64	-7.75	-16.10	-161.0	7.7	152.6	195.5	194.8	249.1	224.0	132.1	90.4	46.8	113.
63062	54.75	65.31	-16.2	66.76	-17.99	-34.16	-341.6	-144.9	6.8	133.5	167.5	162.3	193.3	168.0	88.0	45.2	48.
73162	58.23	66.56	-12.5	68.07	-14.46	-26.97	-269.7	-307.4	-128.8	6.0	114.4	139.6	129.8	149.5	112.0	44.0	-1.
83162	59.12	64.64	-8.5	66.73	-11.40	-19.94	-199.4	-242.7	-273.3	-112.7	5.1	95.3	111.7	97.4	99.7	56.0	-36.
93062	56.27	66.76	-15.7	68.62	-18.00	-33.71	-337.1	-179.5	-215.8	-239.1	-96.6	4.3	76.3	83.8	64.9	45.8	-79.
103162	56.52	68.07	-17.0	71.32	-20.75	-37.72	-377.2	-303.4	-159.6	-188.8	-205.0	-80.5	3.4	57.2	55.8	32.5	-117.
113062	62.26	66.73	-6.7	71.55	-12.98	-19.68	-196.8	-339.5	-269.7	-139.6	-161.8	-170.8	-64.4	2.6	38.1	27.9	-127.
123162	63.10	68.62	-8.0	68.84	-8.34	-16.38	-163.8	-177.1	-301.8	-236.0	-119.7	-134.9	-136.6	-48.3	1.7	19.1	-130.
13163	66.20	71.32	-7.2	69.96	-5.37	-12.55	-125.5	-147.4	-157.5	-264.0	-202.3	-99.7	-107.9	-102.5	-32.2	.9	-124.
22863	64.29	71.55	-10.1	69.55	-7.56	-17.71	-177.1	-113.0	-131.1	-137.8	-226.3	-168.6	-79.8	-80.9	-68.3	-16.1	-120.
33163	66.57	68.84	-3.3	65.24	2.04	-1.26	-12.6	-159.4	-100.4	-114.7	-118.1	-188.6	-134.8	-59.8	-53.9	-34.2	-58.
43063	69.80	69.96	-.2	59.63	17.06	16.83	168.3	-11.3	-141.7	-87.9	-98.3	-98.4	-150.9	-101.1	-39.9	-27.0	-59.
53163	70.80	69.55	1.8	54.75	29.32	31.11	311.1	151.4	-10.1	-124.0	-75.3	-81.9	-78.7	-113.2	-67.4	-19.9	-11.
63063	69.37	65.24	6.3	58.23	19.13	25.46	254.6	280.0	134.6	-8.8	-106.3	-62.8	-65.5	-59.0	-75.4	-33.7	26.
73163	69.13	59.63	15.9	59.12	16.93	32.86	328.6	229.2	248.9	117.8	-7.6	-88.5	-50.2	-45.1	-39.4	-37.7	65.
83163	72.50	54.75	32.4	56.27	28.84	61.26	612.6	295.8	203.7	217.8	101.0	-6.3	-70.8	-37.7	-32.8	-19.7	126.
93063	71.70	58.23	23.1	56.52	26.86	49.99	499.9	551.4	262.9	178.2	186.7	84.1	-5.0	-53.1	-25.1	-16.4	166.
103163	74.01	59.12	25.2	62.26	18.87	44.06	440.6	449.9	490.1	230.0	152.8	155.6	67.3	-3.8	-35.4	-12.6	193.
113063	73.23	56.27	30.1	63.10	16.05	46.19	461.9	396.5	399.9	428.8	197.2	127.3	124.4	50.5	-2.5	-17.7	217.
123163	75.02	56.52	32.7	66.20	13.32	46.06	460.6	415.7	352.5	349.9	367.6	164.3	101.8	93.3	33.7	-1.3	234.
13164	77.04	62.26	23.7	64.29	19.83	43.57	435.7	414.5	369.6	308.4	299.9	306.3	131.5	76.4	62.2	16.8	242.
22864	77.80	63.10	23.3	66.57	16.87	40.17	401.7	392.1	368.4	323.4	264.4	250.0	245.1	98.6	50.9	31.1	243.
33164	79.98	66.20	20.8	69.80	14.58	35.40	354.0	361.5	348.6	322.4	277.2	220.3	200.0	183.8	65.7	25.5	236.
43064	79.46	64.29	23.6	70.80	12.23	35.83	358.3	318.6	321.3	305.0	276.3	231.0	176.2	150.0	122.5	32.9	229.

```
      PROGRAM DSPRTYCX                                                  MODJSPDX
      DIMENSION IDATE(900),DJI(900),STPR(900),ITITLE(12),SP10(900),DISP(
     1900),DISP2(900),X(900),Y1(900),Y2(900),Y3(900)
      EQUIVALENCE (Y1(1),DJI(1)),(Y2(1),SP10(1)),(Y3(1),DISP2(1))
      DO 4 I=1,12
    4 ITITLE(I)=(8H        )
      ITITLE(1)=(8H CUNHAM )
      ITITLE(2)=(8H237 DJI )
      ITITLE(3)=(8HVS STAND)
      ITITLE(4)=(8HARD AND )
      ITITLE(5)=(8HPCORS 50)
      ITITLE(6)=(8HO VS    )
      ITITLE(7)=(8H DISPARI)
      ITITLE(8)=(8HTY INDEX)
      ITITLE(9)=(8H 31 JAN.)
      ITITLE(10)=(8H1948 THR)
      ITITLE(11)=(8HU 30 APR)
      ITITLE(12)=(8H.1964   )
      READ99,N
   99 FORMAT(I3)
      READ1,(IDATE(I),DJI(I),I=1,N)
    1 FORMAT(I6,F6.2)
      N386=N+196
      READ2,(STPR(I),I=197,N386)
    2 FORMAT(6X,F6.2)
      PRINT 52
      DO 25 I=1,196
      SP10(I)=STPR(I+196)*10.
      DISP(I)=DJI(I)-SP10(I)
      DISP2(I)=DISP(I)*2.
      IF(XMODF(I,34))3,49,3
   49 PRINT 52
   52 FORMAT(1H1/////41X4HDATE8X3HDJI9X4HSTPR8X4HDSPX/)
    3 PRINT33,IDATE(I),DJI(I),STPR(I+196),DISP(I)
   33 FORMAT(1H0,39X,I6,3F12.2)
   25 CONTINUE
      PRINT 52
      DO 5 I=1,196
    5 X(I)=I
      LABEL=(4H DJI)
      CALL DRAW (196,X,Y1,1,0,LABEL,ITITLE,30.,100.,1,0,2,2,7,10,1,LAST)
      LABEL=(4HSTPR)
      CALL DRAW (196,X,Y2,2,0,LABEL,ITITLE,30.,100.,1,0,2,2,7,10,1,LAST)
      LABEL=(4HDSPX)
      CALL DRAW (196,X,Y3,3,0,LABEL,ITITLE,30.,100.,1,0,2,2,7,10,1,LAST)
      END
      END
```

DATE	CJI	STPR	CSPX
13148	175.05	14.69	28.15
22848	167.30	14.00	27.30
33148	177.20	15.08	26.40
43048	180.51	15.48	25.71
52848	190.74	16.69	23.84
63048	189.46	16.74	22.06
73048	181.33	15.85	22.83
83148	181.71	15.97	22.01
93048	178.30	15.49	23.40
103048	188.62	16.54	23.22
113048	171.20	14.75	23.70
123148	177.30	15.20	25.30
13149	179.12	15.22	26.92
22849	173.06	14.62	26.86
33149	177.10	15.06	26.50
43049	174.16	14.74	26.76
53149	168.36	14.19	26.46
63049	167.42	14.16	25.82
72949	175.92	15.04	25.52
83149	178.66	15.22	26.46
93049	182.51	15.58	26.71
103149	189.54	16.04	29.14
113049	191.55	16.06	30.95
123149	200.13	16.76	32.53
13150	201.79	17.05	31.29
22850	203.44	17.22	31.24
33150	206.05	17.29	33.15
42950	214.33	18.07	33.63
53150	223.42	18.78	35.62
63050	209.11	17.69	32.21
73150	209.40	17.84	31.00
83150	216.87	18.42	32.67
92950	226.36	19.45	31.86

DATE	DJI	STPR	DSPX
103150	225.01	19.53	29.71
113050	227.60	19.51	32.50
123050	235.41	20.41	31.31
13151	248.83	21.66	32.23
22851	252.05	21.80	34.05
33151	247.94	21.40	33.94
43051	259.13	22.43	34.83
53151	249.65	21.52	34.45
62951	242.64	20.96	33.04
73151	257.86	22.40	33.86
83151	270.25	23.28	37.45
92851	271.16	23.26	38.56
103151	262.35	22.94	32.95
113051	261.27	22.88	32.47
123151	269.23	23.77	31.53
13152	270.69	24.14	29.29
22952	260.08	23.26	27.48
33152	269.46	24.37	25.76
43052	257.63	23.32	24.43
52952	262.94	23.86	24.34
63052	274.26	24.96	24.66
73152	279.96	25.40	25.96
82952	275.04	25.03	24.74
93052	270.61	24.54	25.21
103152	269.23	24.52	24.03
112852	283.06	25.66	26.46
123152	291.90	26.57	26.20
13053	289.77	26.38	25.97
22753	284.27	25.90	25.27
33153	279.84	25.29	26.94
43053	274.75	24.62	28.55
52953	272.28	24.54	26.88
63053	268.26	24.14	26.86
73153	275.38	24.75	27.88

DATE	CJI	STPR	CSPX
83153	251.22	23.32	18.02
93053	264.04	23.35	30.54
103053	275.81	24.54	30.41
113053	281.37	24.76	33.77
123153	280.90	24.81	32.80
12954	292.39	26.08	31.59
22654	294.54	26.15	33.04
33154	303.51	26.94	34.11
43054	315.33	28.26	36.73
52854	327.49	29.19	35.59
63054	333.53	29.21	41.43
73054	347.92	30.88	39.12
83154	335.80	29.83	37.50
93054	360.46	32.31	37.36
102954	352.14	31.68	35.34
113054	386.77	34.24	44.37
123154	404.39	35.98	44.59
13155	408.83	36.63	42.53
22855	411.87	36.76	44.27
33155	409.70	36.58	43.90
42955	425.65	37.96	46.05
53155	424.86	37.91	45.76
63055	451.38	41.03	41.08
72955	465.85	43.52	30.65
83155	468.18	43.18	36.38
93055	466.62	43.67	29.92
103155	454.87	42.34	31.47
113055	483.26	45.51	28.16
123055	488.40	45.48	33.60
13156	470.74	43.82	32.54
22956	483.65	45.34	30.25
32956	511.79	48.48	26.99
43056	516.12	48.38	32.32
52956	477.68	45.20	25.68

DATE	DJI	STPR	DSPX
62956	492.78	46.97	23.08
73156	517.81	49.39	23.91
83156	502.04	47.51	26.94
92856	475.25	45.35	21.75
103156	479.85	45.58	24.05
113056	472.78	45.08	21.98
123156	499.47	46.67	30.77
13157	479.16	44.72	31.96
22857	464.62	43.26	32.02
32957	474.81	44.11	33.71
43057	494.36	45.74	36.96
52957	502.18	47.43	27.88
62857	503.29	47.37	29.59
73157	508.52	47.91	29.42
93057	484.35	45.22	32.15
93057	456.30	42.42	32.10
103157	441.04	41.06	30.44
112957	449.87	41.72	32.67
123157	435.69	39.99	35.79
13158	450.02	41.70	33.02
22858	439.92	40.84	31.52
33158	446.76	42.10	25.76
43058	455.86	43.44	21.46
52958	462.70	44.09	21.80
63058	478.18	45.24	25.78
73158	502.99	47.19	31.09
82958	508.63	47.75	31.13
93058	532.00	50.06	31.40
103158	543.22	51.33	29.92
112858	557.46	52.48	32.66
123158	583.65	55.21	31.55
13059	593.96	55.42	39.76
22759	603.50	55.41	49.40
33159	611.93	55.44	57.53

DATE	CJI	STPR	CSPX
43059	623.75	57.59	47.85
52959	643.79	58.68	56.99
63059	643.60	58.47	58.90
73159	674.88	60.51	69.79
83159	652.18	59.60	56.18
93059	631.68	56.88	62.88
103059	646.60	57.52	71.40
113059	659.18	58.28	76.38
123159	679.36	59.89	80.46
12960	622.62	55.61	66.52
22960	630.12	56.12	68.92
33060	619.94	55.34	66.54
42960	601.70	54.37	58.00
53160	625.50	55.83	67.20
63060	640.62	56.92	71.42
72960	616.73	55.51	61.63
83160	625.99	56.56	56.39
93060	580.14	53.52	44.94
103160	580.36	53.39	46.46
113060	597.22	55.54	41.82
123060	615.89	58.11	34.79
13161	648.20	61.78	30.40
22861	662.08	63.44	27.68
33061	676.63	65.06	26.03
42861	678.71	65.31	25.61
53161	696.72	66.56	31.12
63061	683.96	64.64	37.56
73161	705.37	66.76	37.77
83161	719.94	68.07	39.24
92961	701.21	66.73	33.91
103161	703.92	68.62	17.72
113061	721.60	71.32	8.40
122961	731.14	71.55	15.64
13162	694.09	68.84	5.69

DATE	DJI	STPR	DSPX
22862	708.05	69.96	8.45
33062	706.95	69.55	11.45
43062	665.33	65.24	12.93
53162	613.36	59.63	17.06
62862	561.28	54.75	13.78
73162	597.93	58.23	15.63
83162	609.18	59.12	17.98
92862	574.12	56.27	11.42
103162	589.77	56.52	24.57
113062	649.30	62.26	26.70
123162	652.10	63.10	21.10
13163	682.85	66.20	20.85
22863	662.94	64.29	20.04
32963	582.52	66.57	16.82
43063	717.70	69.80	19.70
53163	726.96	70.80	18.96
63063	706.88	69.37	13.18
73163	695.43	69.13	4.13
83163	729.32	72.50	4.32
93063	737.79	71.70	20.79
103163	755.23	74.01	15.13
113063	750.52	73.23	18.22
123163	762.95	75.02	12.75
13164	784.35	77.04	13.95
22864	800.14	77.80	22.14
33164	813.29	79.98	13.49
43064	810.63	79.46	16.03

```
      PROGRAM DBLEXPSM                                                  DBLALPH
      DIMENSION IDATE(900),DJI(900),AVG(900),ITITLE(12),X(900),ADJI(900)
     1,Y1(900),Y2(900),Y3(900),DDJI(900),DAVG(900)
      EQUIVALENCE (Y1(1),DJI(1)),(Y2(1),AVG(1)),(Y3(1),DAVG(1))
      DO 1 I=1,12
    1 ITITLE(I)=(8H        )
      ITITLE(1)=(8H DUNHAM )
      ITITLE(2)=(8H237 DJI )
      ITITLE(3)=(8HVS SINGL)
      ITITLE(4)=(8HE AND DO)
      ITITLE(5)=(8HUBLE EXP)
      ITITLE(6)=(8HONENTIAL)
      ITITLE(7)=(8H SMOOTH )
      ITITLE(8)=(8HCONSTANT)
      ITITLE(9)=(8H .01 30 )
      ITITLE(10)=(8HAUG.1960)
      ITITLE(11)=(8H THRU 31)
      ITITLE(12)=(8HMAR.1964)
      READ 2,N,ALPHA
    2 FORMAT(I4,F3.2)
      READ 3,(IDATE(I),DJI(I),I=1,N)
    3 FORMAT(I6,F6.2)
      AVG(1)=DJI(1)
      DAVG(1)=AVG(1)
      PRINT 49
      DO 4 I=2,N
      ALPCMP=1.-ALPHA
      AVG(I)=ALPHA*(DJI(I)-AVG(I-1))+AVG(I-1)
      DAVG(I)=ALPHA*(AVG(I)-DAVG(I-1))+DAVG(I-1)
      IF(XMODF(I,34))50,51,50
   51 PRINT 49
   49 FORMAT(1H1//////////////1X,4HDATE,7X,6HSGLEXP,7X,3HDJI,8X,6HDBLEXP)
   50 PRINT 7,IDATE(I),AVG(I),DJI(I),DAVG(I)
    7 FORMAT(1H0,39X,I6,3F12.2)
    4 CONTINUE
      PRINT 49
      DO 5 I=1,N
    5 X(I)=I
      LABEL=(4H DJI)
      CALL DRAW (N,X,Y1,1,0,LABEL,ITITLE,100.,100.,0,0,2,2,9,9,1,LAST)
      LABEL=(4H TWO)
      CALL DRAW (N,X,Y3,2,0,LABEL,ITITLE,100.,100.,0,0,2,2,9,9,1,LAST)
      LABEL=(4H ONE)
      CALL DRAW (N,X,Y2,3,0,LABEL,ITITLE,100.,100.,0,0,2,2,9,9,1,LAST)
      END
      END
```

DATE	SGLEXP	DJI	DBLEXP
83060	634.38	626.40	634.46
83160	634.30	625.99	634.46
90160	634.21	626.10	634.46
90260	634.12	625.22	634.45
90660	633.99	620.85	634.45
90760	633.77	612.27	634.44
90860	633.55	611.42	634.43
90960	633.36	614.12	634.42
91260	633.12	609.35	634.41
91360	632.90	611.79	634.39
91460	632.63	605.69	634.38
91560	632.33	602.69	634.35
91660	632.03	602.18	634.33
91960	631.58	586.76	634.30
92060	631.14	588.20	634.27
92160	630.77	594.26	634.24
92260	630.39	592.15	634.20
92360	629.94	585.20	634.16
92660	629.41	577.14	634.11
92760	628.86	574.81	634.06
92860	628.26	569.08	634.00
92960	627.69	570.59	633.94
93060	627.21	580.14	633.87
100360	626.72	577.81	633.80
100460	626.18	573.15	633.72
100560	625.71	578.88	633.64
100660	625.29	583.69	633.56
100760	624.90	586.42	633.47
101060	624.52	587.31	633.38
101160	624.17	588.77	633.29
101260	623.78	585.83	633.19
101360	623.46	591.49	633.10

DATE	SGLEXP	DJI	DBLEXP
101460	623.19	596.48	633.00
101760	622.89	593.34	632.90
101860	622.55	588.75	632.79
101960	622.20	587.01	632.69
102060	621.80	582.69	632.58
102160	621.36	577.55	632.47
102460	620.86	571.93	632.35
102560	620.32	566.05	632.23
102660	619.86	575.18	632.11
102760	619.48	580.95	631.98
102860	619.06	577.92	631.85
103160	618.67	580.36	631.72
110160	618.34	585.24	631.58
110260	618.04	588.23	631.45
110360	617.76	590.82	631.31
110460	617.55	596.07	631.17
110760	617.35	597.63	631.04
110960	617.20	602.25	630.90
111060	617.15	612.01	630.76
111160	617.06	608.61	630.62
111460	616.94	604.80	630.49
111560	616.84	606.87	630.35
111660	616.72	604.77	630.21
111760	616.57	602.18	630.08
111860	616.44	603.62	629.94
112160	616.32	604.54	629.80
112260	616.17	601.10	629.67
112360	616.03	602.47	629.53
112560	615.94	606.47	629.40
112860	615.83	605.43	629.26
112960	615.70	602.40	629.12
113060	615.61	607.22	628.99
120160	615.40	594.56	628.85
120260	615.21	596.00	628.72

DATE	SGLEXP	DJI	DBLEXP
120560	614.99	593.49	628.58
120660	614.81	597.11	628.44
120760	614.71	604.62	628.31
120860	614.62	605.17	628.17
120960	614.58	610.90	628.03
121260	614.55	611.94	627.90
121360	614.52	611.72	627.76
121460	614.51	612.68	627.63
121560	614.47	610.76	627.50
121660	614.50	617.78	627.37
121960	614.51	615.56	627.24
122060	614.51	614.82	627.11
122160	614.52	615.42	626.99
122260	614.51	613.31	626.86
122360	614.50	613.23	626.74
122760	614.49	613.38	626.62
122860	614.50	615.75	626.50
122960	614.52	616.19	626.38
123060	614.53	615.89	626.26
10361	614.49	610.25	626.14
10461	614.56	621.49	626.02
10561	614.64	622.67	625.91
10661	614.71	621.64	625.80
10961	614.81	624.42	625.69
11061	614.92	625.72	625.58
11161	615.04	627.21	625.48
11261	615.17	628.50	625.37
11361	615.36	633.65	625.27
11661	615.54	633.19	625.17
11761	615.67	628.96	625.08
11861	615.85	634.10	624.99
11961	616.02	632.39	624.90
12061	616.20	634.37	624.81
12361	616.44	639.82	624.73

DATE	SGLEXP	DJI	DBLEXP
12461	616.66	638.79	624.65
12561	616.87	637.72	624.57
12661	617.09	638.87	624.49
12761	617.36	643.59	624.42
13061	617.69	650.64	624.36
13161	618.00	648.20	624.29
20161	618.31	649.39	624.23
20261	618.66	653.62	624.18
20361	619.01	652.97	624.12
20661	619.27	645.65	624.08
20761	619.52	643.94	624.03
20861	619.81	648.85	623.99
20961	620.07	645.12	623.95
21061	620.26	639.67	623.91
21361	620.43	637.04	623.88
21461	620.65	642.91	623.85
21561	620.94	648.89	623.82
21661	621.25	651.86	623.79
21761	621.55	651.67	623.77
22061	621.87	653.65	623.75
22161	622.18	652.40	623.73
22361	622.50	654.42	623.72
22461	622.83	655.60	623.71
22761	623.21	660.44	623.71
22861	623.60	662.08	623.71
30161	623.99	663.03	623.71
30261	624.44	669.39	623.72
30361	624.91	671.57	623.73
30661	625.41	674.46	623.74
30761	625.83	667.14	623.77
30861	626.23	666.15	623.79
30961	626.60	663.33	623.82
31061	626.97	663.56	623.85
31361	627.35	664.44	623.88

DATE	SGLEXP	DJI	DBLEXP
31461	627.68	661.08	623.92
31561	628.04	662.88	623.96
31661	628.46	670.38	624.01
31761	628.94	676.48	624.06
32061	629.44	678.84	624.11
32161	629.93	678.73	624.17
32261	630.43	679.38	624.23
32361	630.88	675.45	624.30
32461	631.29	672.48	624.37
32761	631.69	671.03	624.44
32861	632.07	669.58	624.52
32961	632.51	676.41	624.60
33061	632.95	676.63	624.68
40361	633.40	677.59	624.77
40461	633.85	678.73	624.86
40561	634.29	677.32	624.95
40661	634.74	679.34	625.05
40761	635.23	683.68	625.15
41061	635.80	692.06	625.26
41161	636.38	694.11	625.37
41261	636.92	690.16	625.49
41361	637.47	692.02	625.61
41461	638.03	693.72	625.73
41761	638.62	696.72	625.86
41861	639.14	690.60	625.99
41961	639.61	686.21	626.13
42061	640.05	684.24	626.27
42161	640.51	685.26	626.41
42461	640.83	672.66	626.55
42561	641.25	683.09	626.70
42661	641.66	682.18	626.85
42761	642.04	679.54	627.00
42861	642.40	678.71	627.16
50161	642.75	677.05	627.31

DATE	SGLEXP	DJI	DBLEXP
50261	643.15	682.34	627.47
50361	643.60	688.90	627.63
50461	644.09	692.25	627.80
50561	644.56	690.67	627.96
50861	645.00	689.06	628.14
50961	645.42	686.92	628.31
51061	645.83	686.61	628.48
51161	646.24	686.49	628.66
51261	646.66	687.91	628.84
51561	647.11	692.37	629.02
51661	647.62	697.74	629.21
51761	648.20	705.52	629.40
51861	648.73	701.14	629.59
51961	649.30	705.96	629.79
52261	649.83	702.44	629.99
52361	650.34	700.59	630.19
52461	650.80	696.52	630.40
52561	651.19	690.16	630.61
52661	651.65	696.28	630.82
53161	652.10	696.72	631.03
60161	652.53	695.37	631.25
60261	652.98	697.70	631.46
60561	653.49	703.43	631.68
60661	653.99	703.79	631.91
60761	654.46	700.86	632.13
60861	654.93	701.69	632.36
60961	655.39	700.90	632.59
61261	655.80	696.76	632.82
61361	656.19	694.15	633.06
61461	656.58	695.81	633.29
61561	656.93	691.27	633.53
61661	657.22	685.50	633.76
61961	657.45	680.68	634.00
62061	657.75	687.87	634.24

DATE	SGLEXP	DJI	DBLEXP
62161	658.04	686.09	634.48
62261	658.31	685.62	634.72
62361	658.62	688.66	634.95
62661	658.84	681.16	635.19
62761	659.09	683.88	635.43
62861	659.35	684.59	635.67
62961	659.57	681.95	635.91
63061	659.82	683.96	636.15
70361	660.12	689.81	636.39
70561	660.44	692.77	636.63
70661	660.78	694.27	636.87
70761	661.10	692.73	637.11
71061	661.42	693.16	637.36
71161	661.75	694.47	637.60
71261	662.04	690.79	637.84
71361	662.28	685.90	638.09
71461	662.57	690.95	638.33
71761	662.79	684.59	638.58
71861	662.95	679.30	638.82
71961	663.15	682.74	639.07
72061	663.35	682.97	639.31
72161	663.54	682.81	639.55
72461	663.73	682.14	639.79
72561	663.96	686.37	640.03
72661	664.26	694.19	640.28
72761	664.64	702.80	640.52
72861	665.05	705.13	640.77
73161	665.45	705.37	641.01
80161	665.94	713.94	641.26
80261	666.38	710.46	641.51
80361	666.88	715.71	641.77
80461	667.41	720.69	642.02
80761	667.94	719.58	642.28
80861	668.46	720.22	642.54

DATE	SGLEXP	DJI	DBLEXP
80961	668.95	717.57	642.81
81061	669.46	720.49	643.07
81161	670.00	722.61	643.34
81461	670.49	718.93	643.61
81561	670.94	716.18	643.89
81661	671.42	718.20	644.16
81761	671.92	721.84	644.44
81861	672.44	723.54	644.72
82161	672.96	724.75	645.00
82261	673.49	725.76	645.29
82361	673.96	720.46	645.57
82461	674.36	714.03	645.86
82561	674.78	716.70	646.15
82861	675.19	716.01	646.44
82961	675.58	714.15	646.73
83061	676.00	716.90	647.03
90161	676.45	721.19	647.32
90561	676.87	718.72	647.62
90661	677.36	726.01	647.91
90761	677.85	726.53	648.21
90861	678.28	720.91	648.51
91161	678.64	714.36	648.81
91261	679.08	722.61	649.12
91361	679.52	722.20	649.42
91461	679.87	715.00	649.73
91561	680.23	716.30	650.03
91861	680.54	711.24	650.34
91961	680.76	702.54	650.64
92061	681.03	707.32	650.94
92161	681.28	706.31	651.25
92261	681.49	701.57	651.55
92561	681.59	691.86	651.85
92661	681.71	693.20	652.15
92761	681.90	701.13	652.45

DATE	SGLEXP	DJI	DBLEXP
92861	682.08	700.28	652.74
92961	682.28	701.21	653.04
100261	682.45	699.83	653.33
100361	682.61	698.66	653.63
100461	682.82	703.31	653.92
100561	683.08	708.49	654.21
100661	683.33	708.25	654.50
100961	683.55	705.42	654.79
101061	683.78	706.67	655.08
101161	684.00	705.62	655.37
101261	684.21	705.50	655.66
101361	684.40	703.31	655.95
101661	684.59	703.15	656.23
101761	684.77	701.98	656.52
101861	684.96	704.20	656.80
101961	685.16	704.85	657.09
102061	685.36	705.62	657.37
102361	685.50	698.98	657.65
102461	685.62	697.24	657.93
102561	685.77	700.72	658.21
102661	685.92	700.68	658.48
102761	686.05	698.74	658.76
103061	686.20	701.09	659.03
103161	686.37	703.92	659.31
110161	686.55	703.84	659.58
110261	686.75	706.83	659.85
110361	686.98	709.26	660.12
110661	687.25	714.60	660.39
110861	687.62	723.74	660.67
110961	687.96	722.28	660.94
111C61	688.33	724.83	661.21
111361	688.73	728.43	661.49
111461	689.17	732.56	661.77
111561	689.62	734.34	662.04

DATE	SGLEXP	DJI	DBLEXP
111661	690.06	733.33	662.32
111761	690.46	729.53	662.61
112061	690.85	730.09	662.89
112161	691.24	729.32	663.17
112261	691.63	730.42	663.46
112461	692.04	732.60	663.74
112761	692.44	731.99	664.03
112861	692.79	728.07	664.32
112961	693.14	727.18	664.60
113061	693.42	721.60	664.89
120161	693.78	728.80	665.18
120461	694.15	731.22	665.47
120561	694.52	731.31	665.76
120661	694.88	730.09	666.05
120761	695.19	726.45	666.34
120861	695.52	728.23	666.64
121161	695.89	732.56	666.93
121261	696.28	734.02	667.22
121361	696.66	734.91	667.52
121461	697.00	730.94	667.81
121561	697.33	729.40	668.11
121861	697.63	727.71	668.40
121961	697.88	722.41	668.70
122061	698.13	722.57	668.99
122161	698.35	720.10	669.28
122261	698.57	720.87	669.58
122661	698.82	723.09	669.87
122761	699.14	731.43	670.16
122861	699.47	731.51	670.46
122961	699.78	731.14	670.75
10262	700.03	724.71	671.04
10362	700.29	726.01	671.33
10462	700.51	722.53	671.63
10562	700.66	714.84	671.92

DATE	SGLEXP	DJI	DBLEXP
10862	700.74	708.98	672.20
10962	700.81	707.64	672.49
11062	700.86	706.02	672.77
11162	700.96	710.67	673.06
11262	701.07	711.73	673.34
11562	701.15	709.54	673.61
11662	701.19	704.93	673.89
11762	701.19	700.84	674.16
11862	701.12	694.49	674.43
11962	701.09	697.77	674.70
12262	701.10	701.98	674.96
12362	701.07	698.54	675.22
12462	701.04	698.17	675.48
12562	701.00	696.52	675.74
12662	700.91	692.19	675.99
12962	700.80	689.92	676.24
13062	700.73	694.09	676.48
13162	700.72	700.00	676.73
20162	700.74	702.54	676.97
20262	700.80	706.55	677.20
20562	700.85	706.14	677.44
20662	700.95	710.39	677.68
20762	701.10	715.73	677.91
20862	701.25	716.82	678.14
20962	701.38	714.27	678.38
21262	701.52	714.92	678.61
21362	701.65	714.32	678.84
21462	701.77	713.67	679.07
21562	701.92	717.27	679.29
21662	702.07	716.46	679.52
21962	702.19	714.36	679.75
22062	702.32	715.55	679.98
22162	702.43	713.02	680.20
22362	702.50	709.54	680.42

DATE	SGLEXP	DJI	DBLEXP
22662	702.54	706.22	680.64
22762	702.58	706.22	680.86
22862	702.63	708.05	681.08
30162	702.72	711.81	681.30
30262	702.81	711.00	681.51
30562	702.88	709.99	681.73
30662	702.93	708.17	681.94
30762	702.97	706.63	682.15
30862	703.08	713.75	682.36
30962	703.19	714.44	682.57
31262	703.30	714.68	682.77
31362	703.44	716.58	682.98
31462	703.61	720.95	683.19
31562	703.81	723.54	683.39
31662	704.00	722.77	683.60
31962	704.16	720.38	683.80
32062	704.32	719.66	684.01
32162	704.44	716.62	684.21
32262	704.56	716.39	684.42
32362	704.68	716.46	684.62
32662	704.74	710.67	684.82
32762	704.77	707.28	685.02
32862	704.84	712.25	685.22
32962	704.93	713.34	685.42
33062	704.95	706.95	685.61
40262	704.95	705.42	685.80
40362	704.91	700.60	686.00
40462	704.83	696.88	686.18
40562	704.79	700.88	686.37
40662	704.74	699.63	686.55
40962	704.62	692.96	686.73
41062	704.53	695.46	686.91
41162	704.43	694.90	687.09
41262	704.24	685.67	687.26

DATE	SGLEXP	DJI	DBLEXP
41362	704.08	687.90	687.43
41662	703.88	684.06	687.59
41762	703.72	688.43	687.75
41862	703.60	691.01	687.91
41962	703.50	694.25	688.07
42362	703.42	694.61	688.22
42462	703.31	693.00	688.37
42562	703.11	683.69	688.52
42662	702.82	673.68	688.66
42762	702.51	672.20	688.80
43062	702.14	665.33	688.93
50162	701.83	671.24	689.06
50262	701.51	669.96	689.19
50362	701.25	675.49	689.31
50462	700.95	671.20	689.42
50762	700.65	670.99	689.54
50862	700.29	663.90	689.64
50962	699.83	654.70	689.75
51062	699.30	647.23	689.84
51162	698.72	640.63	689.93
51462	698.19	646.20	690.01
51562	697.76	655.36	690.09
51662	697.33	654.04	690.16
51762	696.85	649.79	690.23
51862	696.39	650.70	690.29
52162	695.91	648.59	690.35
52262	695.32	636.34	690.40
52362	694.63	626.52	690.44
52562	693.80	611.88	690.47
52862	692.63	576.93	690.50
52462	691.93	622.56	690.51
52962	691.05	603.96	690.51
53162	690.28	613.36	690.51
60162	689.48	611.05	690.50

DATE	SGLEXP	DJI	DBLEXP
60462	688.52	593.68	690.43
60562	687.59	594.96	690.45
60662	686.75	603.91	690.42
60762	685.91	602.20	690.37
60862	685.06	601.61	690.32
61162	684.16	595.17	690.26
61262	683.13	580.94	690.19
61362	682.04	574.04	690.10
61462	680.85	563.00	690.01
61562	679.82	578.18	689.91
61862	678.77	574.21	689.80
61962	677.70	571.61	689.68
62062	676.55	563.08	689.55
62162	675.29	550.45	689.40
62262	673.93	539.19	689.25
62562	672.56	536.77	689.08
62662	671.19	535.76	688.90
62762	669.85	536.98	688.71
62862	668.72	557.35	688.51
62962	667.65	561.28	688.30
70262	666.71	573.75	688.09
70362	665.84	579.48	687.87
70562	665.04	585.87	687.64
70662	664.15	576.17	687.40
70962	663.32	580.82	687.16
71062	662.54	586.01	686.92
71162	661.81	589.06	686.66
71262	661.09	590.27	686.41
71362	660.38	590.19	686.15
71662	659.66	588.10	685.88
71762	658.84	577.85	685.61
71862	657.97	571.24	685.34
71962	657.12	573.16	685.05
72062	656.32	577.18	684.77

DATE	SGLEXP	DJI	DBLEXP
72362	655.53	577.47	684.47
72462	654.72	574.12	684.18
72562	653.92	574.67	683.87
72662	653.17	579.61	683.57
72762	652.49	585.CC	683.26
73C62	651.88	591.44	682.94
73162	651.34	597.93	682.63
80162	650.74	591.36	682.31
80262	650.17	593.83	681.99
80362	649.63	596.38	681.66
80662	649.07	593.24	681.34
80762	648.46	588.35	681.01
80862	647.89	590.94	680.68
80962	647.32	591.19	680.34
81062	646.77	592.32	680.01
81362	646.26	595.29	679.67
81462	645.81	601.90	679.33
81562	645.42	606.76	678.99
81662	645.03	606.71	678.65
81762	644.68	610.C2	678.31
82062	644.37	612.86	677.97
82162	644.01	608.64	677.63
82262	643.72	615.54	677.29
82362	643.45	616.CC	676.96
82462	643.15	613.74	676.62
82762	642.84	612.57	676.28
82862	642.47	605.25	675.94
82962	642.08	603.49	675.60
83C62	641.68	602.32	675.26
83162	641.36	609.18	674.93
90462	640.97	602.45	674.59
90562	640.55	599.14	674.25
90662	640.15	600.81	673.90
90762	639.76	600.86	673.56

DATE	SGLEXP	DJI	DBLEXP
91062	639.38	602.03	673.22
91162	639.03	603.99	672.88
91262	638.67	603.34	672.54
91362	638.32	603.99	672.20
91462	638.00	605.84	671.85
91762	637.69	607.63	671.51
91862	637.39	607.09	671.17
91962	637.09	607.09	670.83
92062	636.73	601.65	670.49
92162	636.28	591.78	670.15
92462	635.75	582.91	669.80
92562	635.27	588.22	669.46
92662	634.70	578.48	669.11
92762	634.10	574.12	668.76
92862	633.54	578.19	668.41
100162	632.92	571.95	668.05
100262	632.38	578.73	667.70
100362	631.84	578.52	667.34
100462	631.35	582.41	666.98
100562	630.90	586.59	666.62
100862	630.45	586.09	666.26
100962	630.02	587.18	665.89
101062	629.60	588.14	665.53
101162	629.17	586.47	665.17
101262	628.74	586.47	664.80
101562	628.35	589.69	664.44
101662	627.96	589.35	664.07
101762	627.56	587.68	663.71
101862	627.10	581.15	663.34
101962	626.56	573.29	662.97
102262	625.98	568.60	662.60
102362	625.30	558.06	662.23
102462	624.81	576.68	661.86
102562	624.27	570.86	661.48

DATE	SGLEXP	DJI	DBLEXP
102662	623.72	569.02	661.10
102962	623.28	579.35	660.72
103062	622.93	588.98	660.35
103162	622.60	589.77	659.97
110162	622.35	597.13	659.59
110262	622.17	604.58	659.22
110562	622.05	610.48	658.85
110762	621.99	615.75	658.48
110862	621.86	609.16	658.11
110962	621.80	616.13	657.75
111262	621.83	624.41	657.39
111362	621.84	623.11	657.03
111462	621.93	630.48	656.68
111562	622.00	629.14	656.34
111662	622.09	630.60	655.99
111962	622.13	626.21	655.66
112062	622.24	632.94	655.32
112162	622.[illegible]9	637.25	654.99
112362	622.61	644.87	654.67
112662	622.81	642.06	654.35
112762	623.06	648.08	654.04
112862	623.35	651.85	653.73
112962	623.64	652.61	653.43
113062	623.90	649.30	653.13
120362	624.12	646.41	652.84
120462	624.40	651.48	652.56
120562	624.69	653.99	652.28
120662	624.96	651.73	652.01
120762	625.23	652.10	651.74
121062	625.43	645.08	651.48
121162	625.63	645.16	651.22
121262	625.85	647.33	650.96
121362	626.04	645.20	650.72
121462	626.26	648.09	650.47

DATE	SGLEXP	DJI	DBLEXP
121762	626.45	645.49	650.23
121862	626.59	640.14	649.99
121962	626.79	647.00	649.76
122062	627.01	648.55	649.53
122162	627.20	646.41	649.31
122462	627.41	647.71	649.09
122662	627.65	651.64	648.88
122762	627.88	650.56	648.67
122862	628.12	651.43	648.46
123162	628.36	652.10	648.26
10263	628.54	646.79	648.06
10363	628.83	657.42	647.87
10463	629.16	662.23	647.68
10763	629.50	662.65	647.50
10863	629.90	669.88	647.33
10963	630.28	668.00	647.16
11063	630.68	669.51	646.99
11163	631.08	671.60	646.83
11463	631.53	675.74	646.68
11563	631.97	675.36	646.53
11663	632.34	669.00	646.39
11763	632.75	672.98	646.25
11863	633.14	672.52	646.12
12163	633.57	675.24	646.00
12263	633.98	675.53	645.88
12363	634.42	677.58	645.76
12463	634.88	679.99	645.65
12563	635.32	679.71	645.55
12863	635.80	682.89	645.45
12963	636.28	683.73	645.36
13063	636.70	678.58	645.27
13163	637.16	682.85	645.19
20163	637.62	683.19	645.12
20463	638.07	682.01	645.05

DATE	SGLEXP	DJI	DBLEXP
20563	638.50	681.30	644.98
20663	638.94	682.52	644.92
20763	639.34	679.09	644.87
20863	639.[illegible]5	679.92	644.81
21163	640.10	674.74	644.77
21263	640.46	676.62	644.72
21363	640.88	681.72	644.69
21463	641.32	685.53	644.65
21563	641.77	686.07	644.62
21863	642.24	688.96	644.60
21963	642.69	686.83	[illegible]
22063	643.08	682.06	[illegible]
22163	643.47	681.64	[illegible]
22563	643.78	674.61	[illegible].55
22663	644.09	675.28	644.54
22763	644.38	672.94	644.54
22863	644.67	672.94	644.54
30163	644.82	659.72	644.54
30463	645.04	667.04	644.55
30563	645.26	667.16	644.56
30663	645.49	668.08	644.57
30763	645.75	671.43	644.58
30863	646.02	672.43	644.59
31163	646.30	674.02	644.61
31263	646.58	675.20	644.63
31363	646.90	677.66	644.65
31463	647.16	673.73	644.68
31563	647.46	676.33	644.70
31863	647.72	673.56	644.73
31963	647.96	672.06	644.77
32063	648.25	677.12	644.80
32163	648.52	675.57	644.84
32263	648.82	677.83	644.88
32563	649.11	678.17	644.92

DATE	SGLEXP	DJI	DBLEXP
32663	649.42	680.38	644.97
32763	649.78	684.73	645.01
32863	650.11	682.98	645.07
32963	650.43	682.52	645.12
40163	650.79	685.86	645.18
40263	651.13	685.53	645.24
40363	651.53	690.51	645.30
40463	651.98	697.12	645.36
40563	652.49	702.43	645.44
40863	653.02	706.03	645.51
40963	653.55	706.03	645.59
41063	654.06	704.35	645.68
41163	654.61	708.45	645.77
41563	655.17	711.38	645.86
41663	655.73	710.92	645.96
41763	656.28	710.25	646.06
41863	656.80	708.16	646.17
41963	657.34	711.68	646.28
42263	657.88	711.01	646.40
42363	658.45	714.98	646.52
42463	659.04	717.74	646.64
42563	659.64	718.33	646.77
42663	660.21	717.16	646.91
42963	660.76	715.11	647.05
43063	661.33	717.70	647.19
50163	661.91	719.67	647.34
50263	662.51	721.09	647.49
50363	663.06	718.08	647.64
50663	663.57	713.77	647.80
50763	664.06	712.55	647.97
50863	664.60	718.54	648.13
50963	665.18	721.97	648.30
51063	665.76	723.30	648.48
51363	666.33	723.01	648.66

DATE	SGLEXP	DJI	DBLEXP
51463	666.87	719.84	648.84
51563	667.44	724.34	649.02
51663	668.00	722.84	649.21
51763	668.56	724.81	649.41
52063	669.08	720.18	649.60
52163	669.63	724.04	649.80
52263	670.16	722.84	650.01
52363	670.67	721.38	650.21
52463	671.17	720.53	650.42
52763	671.64	718.25	650.64
52863	672.11	717.95	650.85
52963	672.61	722.50	651.07
53163	673.15	726.96	651.29
60363	673.68	726.27	651.51
60463	674.21	726.49	651.74
60563	674.73	725.93	651.97
60663	675.25	726.87	652.20
60763	675.72	722.41	652.44
61063	676.13	716.49	652.67
61163	676.55	718.38	652.91
61263	677.02	723.36	653.15
61363	677.46	721.43	653.40
61463	677.91	722.03	653.64
61563	678.31	718.21	653.89
61763	678.72	718.90	654.14
61863	679.13	719.84	654.39
61963	679.55	720.78	654.64
62063	679.94	718.85	654.89
62163	680.30	716.32	655.15
62463	680.69	718.42	655.40
62563	681.04	716.32	655.66
62663	681.32	708.80	655.91
62763	681.57	706.03	656.17
62863	681.82	706.88	656.43

DATE	SGLEXP	DJI	DBLEXP
70163	682.01	701.35	656.68
70263	682.28	708.94	656.94
70363	682.59	713.36	657.20
70563	682.93	716.45	657.45
70863	683.21	710.66	657.71
70963	683.52	714.09	657.97
71063	683.81	712.12	658.23
71163	684.06	709.76	658.49
71263	684.30	707.70	658.74
71563	684.49	703.28	659.00
71663	684.67	702.12	659.26
71763	684.82	699.72	659.51
71863	684.93	695.90	659.77
71963	685.02	693.89	660.02
72263	685.06	688.74	660.27
72363	685.08	687.84	660.52
72463	685.14	690.88	660.77
72563	685.17	687.71	661.01
72663	685.21	689.38	661.25
72963	685.26	690.71	661.49
73063	685.38	696.42	661.73
73163	685.48	695.43	661.97
80163	685.57	694.87	662.20
80263	685.69	697.83	662.44
80563	685.86	702.55	662.67
80663	686.07	707.06	662.91
80763	686.24	703.18	663.14
80863	686.42	704.18	663.37
80963	686.64	708.39	663.61
81263	686.88	710.27	663.84
81363	687.12	711.13	664.07
81463	687.40	714.90	664.30
81563	687.71	718.55	664.54
81663	688.03	719.32	664.77

DATE	SGLEXP	DJI	DBLEXP
81963	688.34	718.81	665.01
82063	688.62	717.27	665.25
82163	688.90	715.72	665.48
82263	689.19	718.47	665.72
82363	689.53	723.14	665.96
82663	689.88	724.17	666.20
82763	690.18	719.88	666.44
82863	690.53	725.07	666.68
82963	690.88	726.40	666.92
83063	691.27	729.32	667.16
90363	691.68	732.02	667.41
90463	692.09	732.92	667.65
90563	692.55	737.98	667.90
90663	692.98	735.37	668.15
90963	693.38	732.92	668.41
91063	693.82	737.43	668.66
91163	694.28	740.34	668.92
91263	694.74	740.26	669.17
91363	695.20	740.13	669.44
91663	695.63	738.46	669.70
91763	696.07	740.13	669.96
91863	696.49	737.86	670.23
91963	696.96	743.22	670.49
92063	697.42	743.60	670.76
92363	697.85	740.43	671.03
92463	698.34	745.96	671.31
92563	698.79	743.69	671.58
92663	699.17	736.95	671.86
92763	699.56	737.98	672.13
93063	699.89	732.79	672.41
100163	700.28	738.33	672.69
100263	700.65	737.94	672.97
100363	701.09	744.25	673.25
100463	701.53	745.06	673.53

DATE	SGLEXP	DJI	CBLEXP
100763	701.95	743.86	673.82
100863	702.37	743.90	674.10
100963	702.75	739.83	674.39
101063	703.12	740.56	674.68
101163	703.51	741.76	674.97
101463	703.89	741.84	675.26
101563	704.28	742.19	675.55
101663	704.72	748.45	675.84
101763	705.18	750.77	676.13
101863	705.63	750.60	676.43
102163	706.10	752.31	676.72
102263	706.51	747.21	677.02
102363	706.91	746.48	677.32
102463	707.36	751.80	677.62
102563	707.84	755.61	677.92
102863	708.36	759.39	678.23
102963	708.80	760.50	678.53
1[illegible]	709.34	755.19	678.84
1[illegible]	709.80	755.23	679.15
110163	710.24	753.73	679.46
110463	710.63	749.22	679.77
110663	710.96	744.03	680.08
110763	711.31	745.66	680.40
110863	711.71	750.81	680.71
111163	712.13	753.77	681.02
111263	712.51	750.21	681.34
111363	712.89	751.11	681.65
111463	713.23	747.04	681.97
111563	713.50	740.00	682.29
111863	713.72	734.85	682.60
111963	713.94	736.65	682.91
112063	714.23	742.06	683.23
112163	714.41	732.65	683.54
112263	714.38	711.49	683.85

DATE	SGLEXP	DJI	DBLEXP
112663	714.67	743.52	684.16
112763	714.94	741.00	684.46
112963	715.29	750.52	684.77
120263	715.66	751.91	685.08
120363	716.02	751.82	685.39
120463	716.41	755.51	685.70
120563	716.89	763.86	686.01
120663	717.32	760.25	686.32
120963	717.74	759.08	686.64
121063	718.16	759.25	686.95
121163	718.55	757.21	687.27
121263	718.93	757.43	687.59
121363	719.35	760.17	687.90
121663	719.77	761.64	688.22
121763	720.24	766.38	688.54
121863	720.71	767.21	688.86
121963	721.14	763.86	689.19
122063	721.55	762.08	689.51
122363	721.91	758.30	689.84
122463	722.26	756.86	690.16
122663	722.64	760.21	690.48
122763	723.05	762.95	690.81
123063	723.41	759.90	691.14
10264	723.84	766.08	691.46
10364	724.28	767.68	691.79
10664	724.73	769.51	692.12
10764	725.20	771.73	692.45
10864	725.69	774.46	692.78
10964	726.20	776.55	693.12
11064	726.68	774.33	693.45
11364	727.15	773.12	693.79
11464	727.62	774.49	694.13
11564	728.09	774.00	694.47
11664	728.57	776.13	694.81

DATE	SGLEXP	DJI	DHLEXP
11764	729.04	775.69	695.15
12064	729.48	773.03	695.49
12164	729.95	776.44	695.84
12264	730.46	781.31	696.19
12364	730.98	782.86	696.53
12464	731.51	783.04	696.88
12764	732.04	785.34	697.23
12864	732.60	787.78	697.59
12964	733.10	782.60	697.94
13064	733.60	783.44	698.30
13164	734.12	785.34	698.66
20364	734.63	784.72	699.02
20464	735.11	783.30	699.38
20564	735.59	783.04	699.74
20664	736.10	786.41	700.10
20764	736.66	791.59	700.47
21064	737.18	788.71	700.84
21164	737.73	792.16	701.21
21264	738.30	794.82	701.58
21364	738.86	794.42	701.95
21464	739.42	794.56	702.32
21764	739.98	796.19	702.70
21864	740.54	795.40	703.08
21964	741.08	794.91	703.46
22064	741.64	796.99	703.84
22464	742.20	797.12	704.23
22564	742.74	796.55	704.61
22664	743.31	799.38	705.00
22764	743.84	797.04	705.39
22864	744.41	800.14	705.78
30264	744.99	802.75	706.17
30364	745.60	805.72	706.56
30464	746.19	804.70	706.96
30564	746.76	803.77	707.36

DATE	SGLEXP	DJI	DBLEXP
30664	747.36	806.03	707.76
30964	747.95	807.18	708.16
31064	748.57	809.39	708.56
31164	749.22	813.87	708.97
31264	749.87	814.22	709.38
31364	750.54	816.22	709.79
31664	751.20	816.48	710.20
31764	751.86	818.16	710.62
31864	752.55	820.25	711.04
31964	753.22	819.36	711.46
32064	753.83	814.93	711.89
32364	754.43	813.60	712.31
32464	755.00	811.43	712.74
32564	755.58	813.16	713.17
32664	756.19	815.91	713.60
33064	756.78	815.29	714.03
33164	757.34	813.29	714.46

APPENDIX G

An attempt was made to forecast the Dow-Jones Industrial Average one day in advance. The expected Dow-Jones Industrial Average, in a statistical sense, is equal to twice the first order exponential average less the second order exponential average:

$$E(DJI) = 2(Sgl) - Dbl$$

The trend is $\frac{\alpha}{1-\alpha}$ times the difference in the first and second order exponential averages:

$$TREND = \frac{\alpha}{1-\alpha}(Sgl - Dbl)$$

The forecast is the algebraic sum of the expected DJI and the trend.

$$FCST = E(DJI) + TREND$$

The last column is the forecast from the previous data less the current Dow-Jones.

$$ERROR(I) = FCST(I-1) - DJI(I)$$

```
      PROGRAM DBLEXPSM                                                  FCSTEXP
      DIMENSION IDATE(900),DJI(900),AVG(900),ITITLE(12),X(900),ADJI(900)
     1,Y1(900),Y2(900),Y3(900),DDJI(900),DAVG(900),Y4(900),Y5(900),Y6(90
     20),EDJI(900),TREND(900),FCST(900),ERROR(900)
      EQUIVALENCE (Y1(1),DJI(1)),(Y2(1),AVG(1)),(Y3(1),DAVG(1)),(Y4(1),E
     1DJI(1)),(Y5(1),ERROR(1)),(Y6(1),FCST(1))
      DO 1 I=1,12
    1 ITITLE(I)=(8H        )
      ITITLE(1)=(8H CUNHAM )
      ITITLE(2)=(8H237 DJI )
      ITITLE(3)=(8HVS SINGL)
      ITITLE(4)=(8HE AND DO)
      ITITLE(5)=(8HUBLE EXP)
      ITITLE(6)=(8HONENTIAL)
      ITITLE(7)=(8H SMOOTH )
      ITITLE(8)=(8HECDJIFCST)
      ITITLE(9)=(8H .  30 )
      ITITLE(10)=(8HAUG.1960)
      ITITLE(11)=(8H THRU 31)
      ITITLE(12)=(8HMAR.1964)
      READ 2,N,ALPHA
    2 FORMAT(I4,F3.2)
      READ 3,(IDATE(I),DJI(I),I=1,N)
    3 FORMAT(I6,F6.2)
      AVG(1)=DJI(1)
      DAVG(1)=AVG(1)
      PRINT 49
      DO 4 I=2,N
      TRALPH=0.
      ALPCMP=1.-ALPHA
      TRALPH=ALPHA/(1.-ALPHA)
      AVG(I)=ALPHA*(DJI(I)-AVG(I-1))+AVG(I-1)
      DAVG(I)=ALPHA*(AVG(I)-DAVG(I-1))+DAVG(I-1)
      EDJI(I)=2.*AVG(I)-DAVG(I)
      TREND(I)=TRALPH*(AVG(I)-DAVG(I))
      FCST(I)=EDJI(I)+TREND(I)
      ERROR(I)=FCST(I-1)-DJI(I)
      IF(XMODF(I,34))50,51,50
   51 PRINT 49
   49 FORMAT(1H1//////////21X,4HDATE,7X,6HSGLEXP,7X,3HDJI,8X,6HDBLEXP,
     16X,6HEDJI),7X,5HTREND,6X,4HFCST,,10X,5HERROR)
   50 PRINT 7,IDATE(I),AVG(I),DJI(I),DAVG(I),EDJI(I),TREND(I),FCST(I)
     1,ERROR(I)
    7 FORMAT(1H0,19X,I6,7F12.2)
    4 CONTINUE
      PRINT 49
      DO 5 I=1,N
    5 X(I)=I
      LABEL=(4H DJI)
      CALL DRAW (N,X,Y1,1,0,LABEL,ITITLE,100.,100.,0,0,2,2,9,11,1,LAST)
      LABEL=(4H TWO)
      CALL DRAW (N,X,Y3,2,0,LABEL,ITITLE,100.,100.,0,0,2,2,9,11,1,LAST)
      LABEL=(4HEDJI)
      CALL DRAW (N,X,Y4,2,0,LABEL,ITITLE,100.,100.,1,0,2,2,9,10,1,LAST)
      LABEL=(4HERGR)
      CALL DRAW (N,X,Y5,2,0,LABEL,ITITLE,100.,100.,1,0,2,2,9,10,1,LAST)
      LABEL=(4HFCST)
      CALL DRAW (N,X,Y6,2,0,LABEL,ITITLE,100.,100.,1,0,2,2,9,10,1,LAST)
      LABEL=(4H ONE)
      CALL DRAW (N,X,Y2,3,0,LABEL,ITITLE,100.,100.,1,0,2,2,9,10,1,LAST)
      END
      END
```

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TRENC	FCST	ERROR
83060	632.04	626.40	633.73	630.5[illegible]	-.73	629.62	-626.40
83160	630.23	625.99	632.68	627.77	-1.05	626.72	3.63
90160	628.99	626.10	631.57	626.40	-1.11	625.29	.62
90260	627.86	625.22	630.46	625.26	-1.11	624.14	.07
90660	625.76	620.85	629.05	622.46	-1.41	621.05	3.29
90760	621.71	612.27	626.85	616.57	-2.20	614.37	8.78
90860	618.62	611.42	624.38	612.87	-2.47	610.40	2.95
90960	617.27	614.12	622.25	612.30	-2.13	610.16	-3.72
91260	614.90	609.35	620.04	609.75	-2.21	607.54	.81
91360	613.96	611.79	618.22	609.71	-1.82	607.89	-4.25
91460	611.48	605.69	616.20	606.77	-2.02	604.74	2.20
91560	608.84	602.69	613.99	603.70	-2.21	601.49	2.05
91660	606.84	602.18	611.85	601.84	-2.14	599.70	-.69
91960	600.82	586.76	608.54	593.10	-3.31	589.79	12.94
92060	597.03	588.20	605.09	588.98	-3.45	585.53	1.59
92160	596.20	594.26	602.42	589.98	-2.67	587.32	-0.73
92260	594.99	592.15	600.19	589.78	-2.23	587.55	-4.83
92360	592.05	585.20	597.75	586.35	-2.44	583.91	2.35
92660	587.58	577.14	594.70	580.46	-3.05	577.41	6.77
92760	583.75	574.81	591.41	576.08	-3.29	572.80	2.60
92860	579.35	569.08	587.79	570.90	-3.62	567.28	3.72
92960	576.72	570.59	584.47	568.97	-3.32	565.65	-3.31
93060	577.75	580.14	582.45	573.04	-2.02	571.02	-14.49
100360	577.77	577.81	581.05	574.48	-1.41	573.08	-6.79
100460	576.38	573.15	579.65	573.11	-1.40	571.71	-.07
100560	577.13	578.88	578.89	575.37	-.75	574.61	-7.17
100660	579.10	583.69	578.95	579.24	.06	579.30	-9.08
100760	581.29	586.42	579.66	582.93	.70	583.64	-7.12
101060	583.10	587.31	580.69	585.51	1.03	586.54	-3.67
101160	584.80	588.77	581.92	587.68	1.23	588.91	-2.23
101260	585.11	585.83	582.88	587.34	.96	588.30	3.08
101360	587.02	591.49	584.12	589.93	1.24	591.17	-3.19

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TREND	FCST	ERROR
101460	589.86	596.48	585.84	593.88	1.72	595.60	-5.31
101760	590.90	593.34	587.36	594.45	1.52	595.97	2.26
101860	590.26	588.75	588.23	592.29	.87	593.15	7.22
101960	589.28	587.01	588.55	590.02	.32	590.34	6.14
102060	587.31	582.69	588.17	586.44	-.37	586.06	7.69
102160	584.38	577.55	587.04	581.72	-1.14	580.58	6.51
102460	580.64	571.93	585.12	576.17	-1.92	574.25	8.65
102560	576.27	566.05	582.46	570.07	-2.66	567.41	8.20
102660	575.94	575.18	580.51	571.37	-1.96	569.42	-7.77
102760	577.44	580.95	579.59	575.30	-.92	574.38	-11.53
102860	577.59	577.92	578.99	576.19	-.60	575.59	-3.54
103160	578.42	580.36	578.82	578.02	-.17	577.85	-4.77
110160	580.46	585.24	579.31	581.62	.49	582.11	-7.39
110260	582.79	588.23	580.36	585.23	1.05	586.28	-6.12
110360	585.20	590.82	581.81	588.59	1.45	590.05	-4.54
110460	588.46	596.07	583.81	593.12	2.00	595.12	-6.02
110760	591.21	597.63	586.03	596.40	2.22	598.62	-2.51
110960	594.52	602.25	588.58	600.47	2.55	603.02	-3.63
111060	599.77	612.01	591.93	607.60	3.36	610.96	-8.99
111160	602.42	608.61	595.08	609.76	3.15	612.91	2.35
111460	603.14	604.80	597.50	608.77	2.42	611.19	8.11
111560	604.26	606.87	599.52	608.99	2.03	611.01	4.32
111660	604.41	604.77	600.99	607.83	1.47	609.30	6.24
111760	603.74	602.18	601.82	605.67	.83	606.49	7.12
111860	603.70	603.62	602.38	605.03	.57	605.59	2.87
112160	603.96	604.54	602.85	605.06	.47	605.53	1.05
112260	603.10	601.10	602.93	603.27	.07	603.34	4.43
112360	602.91	602.47	602.92	602.90	-.01	602.89	.87
112560	603.96	606.47	603.24	604.72	.32	605.03	-3.58
112860	604.41	605.43	603.59	605.24	.35	605.59	-.40
112960	603.81	602.40	603.66	603.96	.07	604.03	3.19
113060	604.83	607.22	604.01	605.66	.35	606.01	-3.19
120160	601.75	594.56	603.33	600.17	-.68	599.49	11.45
120260	600.03	596.00	602.34	597.71	-.99	596.72	3.49

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TREND	FCST	ERROR
120560	598.06	593.49	601.06	595.07	-1.28	593.79	3.23
120660	597.78	597.11	600.07	595.48	-.98	594.50	-3.32
120760	599.83	604.62	600.00	599.66	-.07	599.59	-10.12
120860	601.43	605.17	600.43	602.43	.43	602.86	-5.58
120960	604.27	610.90	601.58	606.96	1.15	608.12	-8.04
121260	606.57	611.94	603.08	610.07	1.50	611.56	-3.82
121360	608.12	611.72	604.59	611.64	1.51	613.15	-.16
121460	609.49	612.68	606.06	612.91	1.47	614.38	.47
121560	609.87	610.76	607.20	612.53	1.14	613.68	3.62
121660	612.24	617.78	608.71	615.77	1.51	617.28	-4.10
121960	613.24	615.56	610.07	616.40	1.36	617.76	1.72
122060	613.71	614.82	611.16	616.24	1.09	617.35	2.94
122160	614.22	615.42	612.08	616.37	.92	617.29	1.93
122260	613.95	613.31	612.64	615.26	.56	615.82	3.98
122360	613.73	613.23	612.97	614.50	.33	614.83	2.59
122760	613.63	613.38	613.17	614.09	.20	614.29	1.45
122860	614.26	615.75	613.50	615.03	.33	615.36	-1.46
122960	614.84	616.19	613.90	615.78	.40	616.19	-.83
123060	615.16	615.89	614.28	616.04	.38	616.41	.30
10361	613.68	610.25	614.10	613.27	-.18	613.09	6.16
10461	616.03	621.49	614.68	617.38	.58	617.95	-8.40
10561	618.02	622.67	615.68	620.36	1.00	621.36	-4.72
10661	619.11	621.64	616.71	621.50	1.03	622.53	-.28
10961	620.70	624.42	617.91	623.49	1.20	624.69	-1.89
11061	622.21	625.72	619.20	625.22	1.29	626.51	-1.03
11161	623.71	627.21	620.55	626.87	1.35	628.22	-.70
11261	625.14	628.50	621.93	628.36	1.38	629.74	-.28
11361	627.70	633.65	623.66	631.73	1.73	633.47	-3.91
11661	629.34	633.19	625.36	633.32	1.71	635.03	28
11761	629.23	628.96	626.52	631.93	1.16	633.09	
11861	630.69	634.10	627.77	633.61	1.25	634.86	
11961	631.20	632.39	628.80	633.60	1.03	634.63	[illegible]
12061	632.15	634.37	629.81	634.50	1.00	635.50	
12361	634.45	639.82	631.20	637.70	1.39	639.10	[illegible]

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TRENC	FCST	ERROR
12461	635.75	638.79	632.57	638.94	1.37	640.31	.31
12561	636.34	637.72	633.70	633.99	1.13	640.12	2.59
12661	637.10	638.87	634.72	639.48	1.02	640.50	1.25
12761	639.05	643.59	636.02	642.08	1.30	643.38	-3.09
13061	642.53	650.64	637.97	647.08	1.95	649.03	-7.26
13161	644.23	648.20	639.85	648.61	1.88	650.49	.83
20161	645.78	649.39	641.53	649.93	1.78	651.71	1.10
20261	648.13	653.62	643.58	652.68	1.95	654.63	-1.91
20361	649.58	652.97	645.38	653.78	1.80	655.59	1.66
20661	648.40	645.65	646.29	650.52	.91	651.43	9.94
20761	647.06	643.94	646.52	647.61	.23	647.84	7.49
20861	647.60	648.85	646.84	648.36	.32	648.68	-1.01
20961	646.86	645.12	646.85	646.86	.00	646.87	3.56
21061	644.70	639.67	646.20	643.20	-.64	642.55	7.20
21361	642.40	637.04	645.06	639.74	-1.14	638.60	5.51
21461	642.55	642.91	644.31	640.80	-.75	640.05	-4.31
21561	644.46	648.83	644.35	644.56	.04	644.60	-8.84
21661	646.68	651.86	645.05	648.30	.70	649.00	-7.26
21761	648.17	651.67	645.99	650.36	.94	651.30	-2.67
22061	649.82	653.65	647.14	652.50	1.15	653.65	-2.35
22161	650.59	652.40	648.17	653.01	1.04	654.05	1.25
22361	651.74	654.42	649.24	654.24	1.07	655.31	-.37
22461	652.90	655.60	650.34	655.46	1.10	656.55	-.29
22761	655.16	660.44	651.79	658.54	1.45	659.98	-3.89
22861	657.24	662.08	653.42	661.05	1.64	662.69	-2.10
30161	658.97	663.03	655.09	662.86	1.67	664.53	-.34
30261	662.10	669.39	657.19	667.01	2.10	669.11	-4.86
30361	664.94	671.57	659.52	670.37	2.32	672.69	-2.46
30661	667.80	674.46	662.00	673.59	2.48	676.08	-1.77
30761	667.60	667.14	663.68	671.52	1.68	673.20	8.94
30861	667.16	666.15	664.73	669.60	1.05	670.65	7.05
30961	666.01	663.33	665.11	666.92	.39	667.30	7.32
31061	665.28	663.56	665.16	665.39	.05	665.44	3.74
31361	665.03	664.44	665.12	664.93	-.04	664.89	1.00

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TRENC	FCST	ERROR
31461	663.84	661.08	664.74	662.95	-.38	662.56	3.81
31561	663.55	662.88	664.38	662.73	-.36	662.37	-.32
31661	665.60	670.38	664.75	666.46	.37	666.82	-8.01
31761	668.87	676.48	665.98	671.75	1.24	672.98	-9.66
32061	671.86	678.84	667.75	675.97	1.76	677.73	-5.86
32161	673.92	678.73	669.66	678.24	1.85	680.09	-1.00
32261	675.56	679.38	671.39	679.73	1.79	681.52	.71
32361	675.53	675.45	672.63	678.42	1.24	679.66	6.07
32461	674.61	672.48	673.22	676.00	.60	676.60	7.18
32761	673.34	671.03	673.32	673.76	.09	673.85	5.57
32861	672.35	669.58	673.03	671.67	-.29	671.38	4.27
32961	673.57	676.41	673.19	673.95	.16	674.11	-5.03
33061	674.49	676.63	673.58	675.39	.39	675.78	-2.52
40361	675.42	677.59	674.13	676.71	.55	677.26	-1.81
40461	676.41	678.73	674.81	678.01	.68	678.69	-1.47
40561	676.68	677.32	675.38	677.99	.56	678.55	1.37
40661	677.48	679.34	676.01	678.95	.63	679.59	-.79
40761	679.34	683.68	677.01	681.67	1.00	682.67	-4.09
41061	683.16	692.06	678.85	687.46	1.84	689.31	-9.39
41161	686.44	694.11	681.13	691.76	2.28	694.03	-4.80
41261	687.56	690.16	683.06	692.06	1.93	693.99	3.87
41361	688.90	692.02	684.81	692.98	1.75	694.74	1.97
41461	690.34	693.72	686.47	694.22	1.66	695.88	1.02
41761	692.26	696.72	688.21	696.31	1.74	698.04	-.84
41861	691.76	690.60	689.27	694.25	1.07	695.31	7.44
41961	690.09	686.21	689.52	690.67	.25	690.92	9.10
42061	688.34	684.24	689.16	687.51	-.35	687.16	6.68
42161	687.41	685.26	688.64	686.19	-.52	685.67	1.90
42461	682.99	672.66	686.94	679.03	-1.70	677.34	13.01
42561	683.02	683.09	685.77	680.27	-1.18	679.09	-5.75
42661	682.77	682.18	684.87	680.67	-.90	679.77	-3.09
42761	681.80	679.54	683.95	679.65	-.92	678.73	.23
42861	680.87	678.71	683.02	678.72	-.92	677.80	.02
50161	679.73	677.05	682.03	677.42	-.99	676.43	.75

DATE	SGLEXP	CJI	DBLEXP	E(CJI)	TREND	FCST	ERROR
50261	680.51	682.34	681.58	679.44	-.46	678.99	-5.91
50361	683.03	688.90	682.01	684.04	.43	684.48	-9.91
50461	685.79	692.25	683.15	688.44	1.13	689.58	-7.77
50561	687.26	690.67	684.38	690.13	1.23	691.37	-1.09
50861	687.80	689.06	685.41	690.19	1.03	691.22	2.31
50961	687.53	686.92	686.04	689.02	.64	689.66	4.30
51061	687.26	686.61	686.41	688.11	.36	688.47	3.05
51161	687.03	686.49	686.59	687.46	.19	687.65	1.98
51261	687.29	687.91	686.80	687.78	.21	687.99	-.26
51561	688.82	692.37	687.41	690.22	.60	690.83	-4.38
51661	691.49	697.74	688.63	694.35	1.23	695.58	-6.91
51761	695.70	705.52	690.75	700.65	2.12	702.77	-9.94
51861	697.33	701.14	692.73	701.94	1.97	703.91	1.63
51961	699.92	705.96	694.89	704.96	2.16	707.11	-2.05
52261	700.68	702.44	696.62	704.73	1.74	706.47	4.67
52361	700.65	700.59	697.83	703.47	1.21	704.68	5.88
52461	699.41	696.52	698.31	700.52	.47	700.99	8.16
52561	696.64	690.16	697.80	695.47	-.50	694.97	10.83
52661	696.53	696.28	697.42	695.64	-.38	695.25	-1.31
53161	696.59	696.72	697.17	696.00	-.25	695.75	-1.47
60161	696.22	695.37	696.89	695.56	-.28	695.27	.38
60261	696.61	697.70	696.82	696.51	-.07	696.44	-2.43
60561	698.69	703.43	697.38	700.01	.56	700.57	-6.99
60661	700.22	703.79	698.23	702.21	.85	703.06	-3.22
60761	700.41	700.86	698.89	701.94	.65	702.59	2.20
60861	700.80	701.69	699.46	702.13	.57	702.71	.90
60961	700.83	700.90	699.87	701.78	.41	702.19	1.81
61261	699.61	696.76	699.79	699.42	-.08	699.34	5.43
61361	697.97	694.15	699.25	696.70	-.55	696.15	5.19
61461	697.32	695.81	698.67	695.98	-.58	695.40	.34
61561	695.51	691.27	697.72	693.29	-.95	692.34	4.13
61661	692.50	685.50	696.16	688.85	-1.56	687.29	6.84
61961	688.96	680.68	694.00	683.92	-2.16	681.76	6.61
62061	688.63	687.87	692.39	684.88	-1.61	683.27	-6.11

DATE	SGLEXP	OJI	DBLEXP	E(OJI)	TRENC	FCST	ERRCR
62161	687.87	686.09	691.03	684.71	-1.36	683.35	-2.82
62261	687.19	685.62	689.89	684.51	-1.15	683.36	-2.27
62361	687.63	688.66	689.21	686.06	-.67	685.39	-5.30
62661	685.69	661.16	688.15	683.23	-1.05	682.18	4.23
62761	685.15	683.86	687.25	683.05	-.90	682.14	-1.70
62861	684.98	684.59	686.57	683.39	-.68	682.71	-2.45
62961	684.07	681.95	685.82	682.32	-.75	681.57	.76
63061	684.04	683.96	685.29	682.79	-.53	682.26	-2.39
70361	685.77	689.81	685.43	686.11	.15	686.25	-7.55
70561	687.87	692.77	686.16	689.58	.73	690.31	-6.52
70661	689.79	694.27	687.25	692.33	1.09	693.42	-3.96
70761	690.67	692.73	688.28	693.07	1.03	694.09	.69
71061	691.42	693.16	689.22	693.62	.94	694.56	.93
71161	692.33	694.47	690.15	694.51	.93	695.45	.09
71261	691.87	690.79	690.67	693.07	.52	693.59	4.66
71361	690.08	685.90	690.49	689.67	-.18	689.49	7.69
71461	690.34	690.95	690.45	690.23	-.05	690.19	-1.46
71761	688.62	684.59	689.90	687.33	-.55	686.78	5.60
71861	685.82	679.30	688.67	682.97	-1.22	681.74	7.48
71961	684.90	682.74	687.54	682.25	-1.13	681.12	-1.00
72061	684.32	682.97	686.57	682.06	-.97	681.10	-1.85
72161	683.87	682.81	685.76	681.97	-.81	681.16	-1.71
72461	683.35	682.14	685.04	681.66	-.72	680.93	-.98
72561	684.25	686.37	684.80	683.71	-.23	683.47	-5.44
72661	687.24	694.19	685.53	688.94	.73	689.67	-10.72
72761	691.90	702.80	687.44	696.37	1.91	698.28	-13.13
72861	695.87	705.13	689.97	701.77	2.53	704.30	-6.85
73161	698.72	705.37	692.60	704.85	2.62	707.47	-1.07
80161	703.29	713.94	695.80	710.77	3.21	713.98	-6.47
80261	705.44	710.46	698.69	712.18	2.89	715.07	3.52
80361	708.52	715.71	701.64	715.40	2.95	718.35	-.64
80461	712.17	720.69	704.80	719.54	3.16	722.70	-2.34
80761	714.39	719.58	707.68	721.11	2.88	723.99	3.12
80861	716.14	720.22	710.22	722.07	2.54	724.60	3.77

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TRENC	FCST	ERROR
80961	716.57	717.57	712.12	721.02	1.91	722.92	7.03
81061	717.75	720.49	713.81	721.68	1.69	723.37	2.43
81161	719.21	722.61	715.43	722.98	1.62	724.60	.76
81461	719.12	718.93	716.54	721.71	1.11	722.82	5.67
81561	718.24	716.18	717.05	719.43	.51	719.94	6.64
81661	718.23	718.20	717.40	719.05	.35	719.41	1.74
81761	719.31	721.84	717.97	720.65	.57	721.22	-2.43
81861	720.58	723.54	718.76	722.40	.78	723.19	-2.32
82161	721.83	724.75	719.68	723.98	.92	724.91	-1.56
82261	723.01	725.76	720.68	725.34	1.00	726.34	-.85
82361	722.24	720.46	721.15	723.34	.47	723.81	5.88
82461	719.78	714.03	720.74	718.82	-.41	718.41	9.78
82561	718.86	716.70	720.[illegible]7	717.54	-.56	716.97	1.71
82861	718.00	716.01	719.52	716.48	-.65	715.83	.96
82961	716.85	714.15	718.72	714.97	-.80	714.17	1.68
83061	716.86	716.90	718.16	715.56	-.56	715.01	-2.73
90161	718.16	721.19	718.16	718.16	-.00	718.16	-6.18
90561	718.33	718.72	718.21	718.45	.05	718.50	-.56
90661	720.63	726.01	718.94	722.33	.73	723.05	-7.51
90761	722.40	726.53	719.98	724.03	1.04	725.87	-3.48
90861	721.95	720.91	720.57	723.34	.59	723.93	4.96
91161	719.68	714.36	720.30	719.05	-.27	718.78	9.57
91261	720.56	722.61	720.38	720.73	.08	720.81	-3.83
91361	721.05	722.20	720.58	721.52	.20	721.72	-1.39
91461	719.23	715.00	720.18	718.29	-.40	717.89	6.72
91561	718.35	716.30	719.63	717.08	-.55	716.53	1.59
91861	716.22	711.24	718.61	713.83	-1.02	712.81	5.29
91961	712.12	702.54	716.66	707.57	-1.95	705.63	10.27
92061	710.68	707.32	714.86	706.49	-1.79	704.69	-1.69
92161	709.37	706.31	713.22	705.52	-1.65	703.87	-1.62
92261	707.03	701.57	711.36	702.70	-1.86	700.84	2.30
92561	702.48	691.86	708.69	696.26	-2.66	693.60	8.96
92661	659.69	693.20	705.99	693.39	-2.70	690.69	.40
92761	700.12	701.13	704.23	696.02	-1.76	694.26	-10.44

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TREND	FCST	ERROR
92861	700.17	700.28	703.02	697.33	-1.22	696.11	-6.02
92961	700.48	701.21	702.26	698.71	-.76	697.95	-5.10
100261	700.29	699.83	701.66	698.91	-.59	698.32	-1.86
100361	699.80	698.66	701.11	698.49	-.56	697.93	-.34
100461	700.85	703.31	701.03	700.68	-.08	700.60	-5.38
100561	703.14	708.49	701.66	704.62	.63	705.26	-7.89
100661	704.68	708.25	702.57	706.78	.90	707.69	-2.99
100961	704.90	705.42	703.27	706.53	.70	707.23	2.27
101061	705.43	706.67	703.92	706.94	.65	707.59	.56
101161	705.49	705.62	704.39	706.59	.47	707.06	1.97
101261	705.49	705.50	704.72	706.26	.33	706.59	1.56
101361	704.84	703.31	704.75	704.92	.04	704.96	3.28
101661	704.33	703.15	704.63	704.03	-.13	703.91	1.81
101761	703.63	701.98	704.33	702.92	-.30	702.62	1.93
101861	703.80	704.20	704.17	703.43	-.16	703.27	-1.58
101961	704.11	704.85	704.15	704.08	-.02	704.06	-1.58
102061	704.57	705.62	704.28	704.86	.12	704.98	-1.56
102361	702.89	698.98	703.86	701.92	-.42	701.50	6.00
102461	701.19	697.24	703.06	699.33	-.80	698.53	4.26
102561	701.05	700.72	702.46	699.65	-.60	699.04	-2.19
102661	700.94	700.68	702.00	699.88	-.46	699.42	-1.64
102761	700.28	698.74	701.49	699.07	-.52	698.56	.68
103061	700.52	701.09	701.20	699.85	-.29	699.56	-2.53
103161	701.54	703.92	701.30	701.78	.10	701.89	-4.36
110161	702.23	703.84	701.58	702.88	.28	703.16	-1.95
110261	703.61	706.83	702.19	705.03	.61	705.64	-3.67
110361	705.31	709.26	703.12	707.49	.93	708.42	-3.62
110661	708.09	714.60	704.62	711.57	1.49	713.06	-6.18
110861	712.79	723.74	707.07	718.51	2.45	720.96	-10.68
110961	715.64	722.28	709.64	721.63	2.57	724.20	-1.92
111061	718.39	724.83	712.26	724.52	2.63	727.15	-.63
111361	721.40	728.43	715.01	727.80	2.74	730.54	-1.28
111461	724.75	732.56	717.93	731.57	2.92	734.50	-2.02
111561	727.63	734.34	720.84	734.42	2.91	737.33	.16

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TRENC	FCST	ERROR
111661	729.34	733.33	723.39	735.29	2.55	737.84	4.00
111761	729.40	729.53	725.19	733.60	1.80	735.40	8.31
112061	729.60	730.09	726.52	732.69	1.32	734.02	3.31
112161	729.52	729.32	727.42	731.62	.90	732.52	4.70
112261	729.79	730.42	728.13	731.45	.71	732.16	2.10
112461	730.63	732.60	728.88	732.39	.75	733.14	-.44
112761	731.04	731.99	729.53	732.55	.65	733.20	1.15
112861	730.15	728.07	729.71	730.58	.19	730.77	5.13
112961	729.26	727.18	729.58	728.94	-.14	728.80	3.59
113061	726.96	721.60	728.79	725.13	-.78	724.34	7.20
120161	727.51	728.80	728.41	726.62	-.38	726.23	-4.46
120461	728.62	731.22	728.47	728.78	.06	728.84	-4.99
120561	729.43	731.31	728.76	730.10	.29	730.39	-2.47
120661	729.63	730.09	729.02	730.24	.26	730.50	.30
120761	728.67	726.45	728.92	728.43	-.10	728.33	4.05
120861	728.54	728.23	728.80	728.28	-.11	728.17	.10
121161	729.75	732.56	729.09	730.41	.28	730.69	-4.39
121261	731.03	734.02	729.67	732.39	.58	732.97	-3.33
121361	732.19	734.91	730.43	733.96	.76	734.72	-1.94
121461	731.82	730.94	730.84	732.79	.42	733.21	3.78
121561	731.09	729.40	730.92	731.27	.07	731.34	3.81
121861	730.08	727.71	730.67	729.49	-.25	729.24	3.63
121961	727.78	722.41	729.80	725.76	-.87	724.89	6.83
122061	726.22	722.57	728.72	723.71	-1.08	722.63	2.32
122161	724.38	720.10	727.42	721.34	-1.30	720.04	2.53
122261	723.33	720.87	726.19	720.46	-1.23	719.23	-.83
122661	723.26	723.09	725.31	721.20	-.88	720.32	-3.86
122761	725.71	731.43	725.43	725.99	.12	726.10	-11.11
122861	727.45	731.51	726.04	728.86	.61	729.47	-5.41
122961	728.56	731.14	726.79	730.32	.76	731.08	-1.67
10262	727.40	724.71	726.98	727.83	.18	728.01	6.37
10362	726.98	726.01	726.98	726.99	.00	726.99	2.00
10462	725.65	722.53	726.58	724.72	-.40	724.32	4.46
10562	722.41	714.84	725.33	719.48	-1.25	718.23	9.48

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TREND	FCST	ERROR
10862	718.38	708.98	723.24	713.51	-2.08	711.43	9.25
10962	715.16	707.64	720.82	709.50	-2.43	707.07	3.79
11062	712.42	706.02	718.30	706.53	-2.52	704.01	1.05
11162	711.89	710.67	716.38	707.41	-1.92	705.49	-6.66
11262	711.84	711.73	715.02	708.67	-1.36	707.31	-6.24
11562	711.15	709.51	713.86	708.45	-1.16	707.29	-2.23
11662	709.29	704.93	712.49	706.09	-1.37	704.71	2.36
11762	706.75	700.84	710.77	702.74	-1.72	701.02	3.87
11862	703.07	694.49	708.46	697.69	-2.31	695.38	6.53
11962	701.48	697.77	706.37	696.60	-2.09	694.51	-2.39
12262	701.63	701.98	704.95	698.32	-1.42	696.90	-7.47
12362	700.70	698.54	703.67	697.74	-1.27	696.46	-1.64
12462	699.94	698.17	702.55	697.33	-1.12	696.22	-1.71
12562	698.92	696.52	701.46	696.37	-1.09	695.28	-.30
12662	696.90	692.19	700.09	693.70	-1.37	692.33	3.09
12962	694.81	689.92	698.51	691.10	-1.59	689.52	2.41
13062	694.59	694.09	697.33	691.85	-1.17	690.67	-4.57
13162	696.21	700.00	697.00	695.43	-.34	695.09	-9.33
20162	698.11	702.54	697.33	698.89	.33	699.23	-7.45
20262	700.64	706.55	698.32	702.96	.99	703.95	-7.32
20562	702.29	706.14	699.51	705.07	1.19	706.26	-2.19
20662	704.72	710.39	701.08	708.37	1.56	709.93	-4.13
20762	708.02	715.73	703.16	712.89	2.08	714.97	-5.80
20862	710.66	716.82	705.41	715.91	2.25	718.16	-1.85
20962	711.74	714.27	707.31	716.18	1.90	718.08	3.89
21262	712.70	714.92	708.93	716.47	1.62	718.08	3.16
21362	713.18	714.32	710.20	716.16	1.28	717.44	3.76
21462	713.33	713.67	711.14	715.52	.94	716.46	3.77
21562	714.51	717.27	712.15	716.87	1.01	717.88	-.81
21662	715.10	716.46	713.04	717.16	.88	718.04	1.42
21962	714.88	714.36	713.59	716.16	.55	716.71	3.68
22062	715.08	715.55	714.03	716.12	.45	716.57	1.16
22162	714.46	713.02	714.16	714.76	.13	714.89	3.55
22362	712.98	709.54	713.81	712.16	-.35	711.81	5.35

DATE	SCLEXP	DJI	DBLEXP	E(DJI)	TREND	FCST	ERROR
22662	710.96	706.22	712.95	708.96	-.86	708.10	5.59
22762	709.53	706.22	711.93	707.14	-1.03	706.12	1.88
22862	709.09	708.05	711.08	707.10	-.85	706.25	-1.93
30162	709.91	711.81	710.72	709.09	-.35	708.73	-5.56
30262	710.23	711.00	710.58	709.89	-.15	709.74	-2.27
30562	710.16	709.99	710.45	709.87	-.13	709.74	-.25
30662	709.56	708.17	710.19	708.94	-.27	708.67	1.57
30762	708.68	706.63	709.74	707.63	-.45	707.18	2.04
30862	710.20	713.75	709.88	710.53	.14	710.67	-6.57
30962	711.47	714.44	710.36	712.59	.48	713.07	-3.77
31262	712.44	714.68	710.98	713.89	.62	714.52	-1.61
31362	713.68	716.58	711.79	715.57	.81	716.38	-2.06
31462	715.86	720.95	713.01	718.71	1.22	719.93	-4.57
31562	718.16	723.54	714.56	721.77	1.55	723.32	-3.61
31662	719.55	722.77	716.05	723.04	1.50	724.54	.55
31962	719.80	720.38	717.18	722.42	1.12	723.54	4.16
32062	719.76	719.66	717.95	721.56	.77	722.33	3.88
32162	718.81	716.62	718.21	719.42	.26	719.68	5.71
32262	718.09	716.39	718.17	718.00	-.04	717.97	3.29
32362	717.60	716.46	718.00	717.20	-.17	717.03	1.51
32662	715.52	710.67	717.26	713.78	-.74	713.04	6.36
32762	713.05	707.28	715.99	710.10	-1.26	708.84	5.76
32862	712.81	712.25	715.04	710.58	-.96	709.62	-3.41
32962	712.97	713.34	714.42	711.52	-.62	710.90	-3.72
33062	711.16	706.95	713.44	708.86	-.98	707.91	3.95
40262	709.44	705.42	712.24	706.64	-1.20	705.44	2.49
40362	706.79	700.60	710.60	702.97	-1.64	701.34	4.84
40462	703.92	696.88	708.57	695.06	-2.04	697.03	4.46
40562	702.93	700.88	706.88	696.99	-1.69	697.30	-3.85
40662	701.94	699.63	705.40	698.49	-1.48	697.01	-2.33
40962	699.25	692.96	703.55	694.94	-1.84	693.10	4.05
41062	698.11	695.46	701.92	694.30	-1.63	692.67	-2.36
41162	697.15	694.90	700.49	693.81	-1.43	692.38	-2.23
41262	693.70	685.67	698.45	688.96	-2.04	686.92	6.71

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TRENC	FCST	ERROR
41362	691.96	687.90	696.51	687.42	-1.95	685.47	-.98
41662	689.59	684.06	694.43	684.75	-2.07	682.68	1.41
41762	689.24	688.43	692.88	685.61	-1.56	684.05	-5.75
41862	689.77	691.01	691.95	687.60	-.93	686.67	-6.96
41962	691.12	694.25	691.70	690.54	-.25	690.29	-7.58
42362	692.16	694.61	691.94	692.49	.14	692.63	-4.32
42462	692.42	693.00	692.01	692.82	.17	692.99	-.37
42562	689.80	683.69	691.35	688.25	-.66	687.58	9.30
42662	684.96	673.68	689.43	680.49	-1.92	678.58	13.90
42762	681.33	672.20	686.94	675.33	-2.49	672.84	6.38
43062	676.39	665.33	683.78	669.01	-3.16	665.84	7.51
50162	674.85	671.24	681.10	668.60	-2.68	665.92	-5.40
50262	673.38	669.96	678.78	667.98	-2.32	665.66	-4.04
50362	674.01	675.49	677.35	670.67	-1.43	669.24	-9.83
50462	673.17	671.20	676.10	670.24	-1.25	668.99	-1.96
50762	672.52	670.99	675.02	670.01	-1.07	668.93	-2.00
50862	669.93	663.90	673.50	666.37	-1.53	664.84	5.03
50962	665.36	654.70	671.06	659.67	-2.44	657.23	10.14
51062	659.52	647.23	667.72	652.13	-3.34	648.79	10.00
51162	654.13	640.63	663.64	644.63	-4.07	640.55	8.16
51462	651.75	646.20	660.07	643.43	-3.57	639.87	-5.65
51562	652.84	655.36	657.90	647.77	-2.17	645.60	-15.49
51662	653.20	654.04	656.49	649.90	-1.41	648.49	-8.44
51762	652.17	649.79	655.20	649.15	-1.29	647.86	-1.30
51862	651.73	650.70	654.16	649.31	-1.04	648.27	-2.84
52162	650.79	648.59	653.15	648.43	-1.01	647.42	-.32
52262	646.45	636.34	651.14	641.77	-2.01	639.76	11.08
52362	640.47	626.52	647.94	633.01	-3.20	629.81	13.24
52562	631.50	611.88	643.15	620.67	-4.81	615.85	17.93
52862	615.41	576.93	634.31	596.00	-8.32	587.69	38.92
52462	617.55	622.56	629.63	605.47	-5.18	600.29	-34.87
52962	613.47	603.96	624.79	602.16	-4.85	597.32	-3.67
53162	613.44	613.36	621.39	605.50	-3.40	602.09	-16.04
60162	612.72	611.05	618.79	606.66	-2.60	604.06	-8.96

DATE	SCLEXP	DJI	DBLEXP	E(DJI)	TREND	FCST	ERRCR
60462	607.01	593.68	615.25	598.77	-3.53	595.24	10.38
60562	603.40	594.96	611.70	595.10	-3.56	591.54	.28
60662	603.55	603.91	609.25	597.85	-2.44	595.40	-12.37
60762	603.14	602.20	607.42	598.87	-1.83	597.04	-6.80
60862	602.68	601.61	606.00	599.37	-1.42	597.95	-4.57
61162	600.43	595.17	604.33	596.53	-1.67	594.86	2.78
61262	594.58	580.94	601.40	587.76	-2.92	584.84	13.92
61362	588.42	574.04	597.51	579.33	-3.90	575.44	10.80
61462	580.79	563.00	592.49	569.09	-5.01	564.08	12.44
61562	580.01	578.18	588.75	571.27	-3.75	567.52	-14.10
61862	578.27	574.21	585.61	570.97	-3.14	567.79	-6.69
61962	576.27	571.61	582.81	569.[illegible]	-2.80	566.94	-3.82
62062	572.31	563.08	579.66	564.97	-3.15	561.82	3.86
62162	565.77	550.49	575.49	556.04	-4.17	551.88	11.33
62262	557.79	539.19	570.18	545.41	-5.31	540.10	12.69
62562	551.49	536.77	564.57	538.40	-5.61	532.79	3.33
62662	546.77	535.76	559.23	534.31	-5.34	528.96	-2.97
62762	543.83	536.98	554.61	533.05	-4.62	528.43	-8.02
62862	547.89	557.35	552.59	543.18	-2.02	541.16	-28.92
62962	551.91	561.28	552.39	551.42	-.21	551.22	-20.12
70262	558.46	573.75	554.21	562.71	1.82	564.53	-22.53
70362	564.77	579.48	557.38	572.15	3.17	575.32	-14.95
70562	571.10	585.87	561.49	580.70	4.12	584.82	-10.55
70662	572.62	576.17	564.83	580.41	3.34	583.75	8.65
70962	575.08	580.82	567.90	582.25	3.07	585.33	2.93
71062	578.36	586.01	571.04	585.68	3.14	588.81	-.68
71162	581.57	589.06	574.20	588.94	3.16	592.10	-.25
71262	584.18	590.27	577.19	591.17	2.99	594.16	1.83
71362	585.98	590.19	579.83	592.13	2.64	594.77	3.97
71662	586.62	588.10	581.87	591.37	2.04	593.41	6.67
71762	583.99	577.85	582.50	585.47	.64	586.11	15.56
71862	580.16	571.24	581.80	578.53	-.70	577.82	14.87
71962	578.06	573.16	580.68	575.45	-1.12	574.32	4.66
72062	577.60	577.18	579.81	575.78	-.86	574.92	-2.86

DATE	SCLEXP	CJI	DHLEXP	E(CJI)	TREND	FCST	ERROR
72362	577.70	577.47	579.18	576.22	-.63	575.58	-2.55
72462	576.63	574.12	578.41	574.84	-.77	574.07	1.46
72562	576.04	574.67	577.70	574.38	-.71	573.66	-.60
72662	577.11	579.61	577.52	576.70	-.18	576.52	-5.95
72762	579.48	585.00	578.11	580.84	.59	581.43	-6.48
73062	583.07	591.44	579.60	586.54	1.49	588.02	-10.01
73162	587.53	597.93	581.59	593.08	2.38	595.45	-9.91
80162	588.68	591.36	583.99	593.37	2.01	595.38	4.09
80262	590.22	593.83	585.86	594.59	1.87	596.46	1.55
80362	592.07	596.38	587.72	596.42	1.86	598.28	.08
80662	592.42	593.24	589.13	595.71	1.41	597.12	5.04
80762	591.20	588.35	589.75	592.65	.62	593.27	8.77
80862	591.12	590.94	590.16	592.08	.41	592.49	2.33
80962	591.14	591.19	590.46	591.83	.29	592.12	1.30
81062	591.50	592.32	590.77	592.22	.31	592.53	-.20
81362	592.63	595.29	591.33	593.94	.56	594.50	-2.76
81462	595.41	601.90	592.55	598.27	1.23	599.50	-7.40
81562	598.82	606.76	594.43	603.20	1.88	605.08	-7.26
81662	601.19	606.71	596.46	605.91	2.03	607.94	-1.63
81762	603.84	610.02	598.67	609.00	2.21	611.21	-2.08
82062	606.54	612.86	601.03	612.05	2.36	614.41	-1.65
82162	607.17	608.64	602.87	611.47	1.84	613.31	5.77
82262	609.68	615.54	604.92	614.45	2.04	616.49	-2.23
82362	611.58	616.00	606.92	616.24	2.00	618.24	.49
82462	612.23	613.74	608.51	615.94	1.59	617.54	4.50
82762	612.33	612.57	609.65	615.00	1.15	616.15	4.97
82862	610.21	605.25	609.82	610.59	.17	610.76	10.90
82962	608.19	603.49	609.33	607.05	-.49	606.56	7.27
83062	606.43	602.32	608.46	604.40	-.87	603.53	4.24
83162	607.25	609.19	608.10	606.41	-.36	606.05	-5.65
90462	605.81	602.45	607.41	604.21	-.69	603.53	3.60
90562	603.81	599.14	606.33	601.29	-1.08	600.21	4.39
90662	602.91	600.81	605.31	600.52	-1.03	599.49	-.60
90762	602.30	600.86	604.40	600.19	-.90	599.29	-1.37

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TREND	FCST	ERROR
91062	602.22	602.03	603.75	600.69	-.66	600.03	-2.74
91162	602.75	603.99	603.45	602.05	-.30	601.75	-3.96
91262	602.93	603.34	603.29	602.56	-.16	602.40	-1.59
91362	603.25	603.99	603.28	603.21	-.01	603.20	-1.59
91462	604.02	605.84	603.50	604.55	.22	604.77	-2.64
91762	605.11	607.63	603.98	606.23	.48	606.71	-2.86
91862	605.70	607.09	604.50	607.[illegible].90	.52	607.42	-.38
91962	606.12	607.09	604.98	607.25	.49	607.74	.33
92062	604.78	601.65	604.92	604.63	-.06	604.57	6.09
92162	600.88	591.78	603.71	598.05	-1.21	596.83	12.79
92462	595.49	582.91	601.24	589.73	-2.47	587.27	13.92
92562	593.31	588.22	598.86	587.75	-2.38	585.37	-.95
92662	588.86	578.48	595.86	581.86	-3.00	578.86	6.89
92762	584.44	574.12	592.43	576.44	-3.43	573.01	4.74
92862	582.56	578.19	589.47	575.65	-2.96	572.69	-5.18
100162	579.38	571.95	586.44	572.31	-3.03	569.29	.74
100262	579.18	578.73	584.27	574.10	-2.18	571.92	-9.44
100362	578.99	578.52	582.68	575.29	-1.58	573.70	-6.60
100462	580.01	582.41	581.88	578.14	-.80	577.34	-8.71
100562	581.99	586.59	581.91	582.06	.03	582.09	-9.25
100862	583.22	586.09	582.30	584.13	.39	584.52	-4.00
100962	584.41	587.18	582.93	585.88	.63	586.51	-2.66
101062	585.53	588.14	583.71	587.34	.78	588.12	-1.63
101162	585.81	586.47	584.34	587.28	.63	587.91	1.65
101262	586.01	586.47	584.84	587.17	.50	587.67	1.44
101562	587.11	589.69	585.52	588.70	.68	589.38	-2.02
101662	587.78	589.35	586.20	589.37	.68	590.04	.03
101762	587.75	587.68	586.67	588.84	.47	589.30	2.36
101862	585.77	581.15	586.40	585.15	-.27	584.88	8.15
101962	582.03	573.29	585.09	578.97	-1.31	577.66	11.59
102262	578.00	568.60	582.96	573.04	-2.13	570.91	9.06
102362	572.02	558.06	579.68	564.36	-3.28	561.07	12.85
102462	573.42	576.68	577.80	565.03	-1.88	567.15	-15.61
102562	572.65	570.86	576.25	565.04	-1.54	567.50	-3.71

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TREND	FCST	ERROR
102662	571.56	565.02	574.85	568.27	-1.41	566.07	-1.52
102962	573.90	579.35	574.56	573.23	-.28	572.95	-12.48
103062	578.42	588.98	575.72	581.12	1.16	582.28	-16.03
103162	581.83	589.77	577.55	586.10	1.83	587.93	-7.49
110162	586.42	597.13	580.21	592.62	2.66	595.28	-9.20
110262	59[illegible].87	604.58	583.71	600.02	3.50	603.52	-9.30
110562	597.45	610.48	587.83	607.07	4.12	611.19	-6.96
110762	602.94	613.75	592.36	613.52	4.53	618.05	-4.56
110862	604.81	609.16	596.10	613.52	3.73	617.25	8.89
110962	608.20	616.13	599.73	616.68	3.63	620.31	1.13
111262	613.07	624.41	603.73	622.40	4.00	626.40	-4.10
111362	616.08	623.11	607.43	624.72	3.70	628.43	3.29
111462	620.40	630.48	611.32	629.47	3.89	633.36	-2.05
111562	623.02	629.14	614.83	631.21	3.51	634.72	4.22
111662	625.29	630.60	617.97	632.62	3.14	635.76	4.12
111962	625.57	626.21	620.25	630.89	2.28	633.17	9.55
112062	627.78	632.94	622.51	633.05	2.26	635.31	.23
112162	630.62	637.25	624.94	636.30	2.43	638.73	-1.94
112362	634.90	644.87	627.93	641.86	2.99	644.85	-6.14
112662	637.05	642.06	630.66	643.43	2.73	646.16	2.79
112762	640.36	648.08	633.57	647.14	2.91	650.05	-1.92
112862	643.80	651.85	636.64	650.97	3.07	654.04	-1.80
112962	646.45	652.61	639.58	653.31	2.94	656.25	1.43
113062	647.30	649.30	641.90	652.71	2.32	655.02	6.95
120362	647.03	646.41	643.44	650.63	1.54	652.17	8.61
120462	648.37	651.48	644.92	651.82	1.48	653.30	.69
120562	650.05	653.99	646.46	653.65	1.54	655.19	-.69
120662	650.56	651.73	647.69	653.43	1.23	654.66	3.46
120762	651.02	652.10	648.69	653.35	1.00	654.35	2.56
121062	649.24	645.08	648.85	649.62	.17	649.79	9.27
121162	648.01	645.16	648.60	647.43	-.25	647.18	4.63
121262	647.81	647.33	648.36	647.25	-.24	647.02	-.15
121362	647.03	645.20	647.96	646.09	-.40	645.69	1.82
121462	647.35	648.09	647.78	646.91	-.19	646.73	-2.40

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TREND	FCST	ERROR
121762	646.79	645.49	647.48	646.10	-.30	645.80	1.24
121862	644.79	640.14	646.67	642.91	-.81	642.11	5.66
121962	645.46	647.00	646.31	644.60	-.37	644.24	-4.89
122062	646.38	648.55	646.33	646.44	.02	646.46	-4.31
122162	646.39	646.41	646.35	646.43	.02	646.45	.05
122462	646.79	647.71	646.48	647.09	.13	647.22	-1.26
122662	648.24	651.64	647.01	649.48	.53	650.01	-4.42
122762	648.94	650.56	647.59	650.29	.58	650.87	-.55
122862	649.69	651.43	648.22	651.15	.63	651.78	-.56
123162	650.41	652.10	648.88	651.94	.66	652.60	-.32
10263	649.32	646.79	649.01	645.64	.13	649.77	5.81
10363	651.75	657.42	649.83	653.67	.82	654.50	-7.65
10463	654.90	662.23	651.35	658.44	1.52	659.96	-7.73
10763	657.22	662.65	653.11	661.33	1.76	663.09	-2.69
10863	661.02	669.88	655.48	666.55	2.37	668.93	-6.79
10963	663.11	668.00	657.77	668.45	2.29	670.74	.93
11063	665.03	669.51	659.95	670.11	2.18	672.29	1.23
11163	667.00	671.60	662.07	671.94	2.12	674.05	.69
11463	669.62	675.74	664.33	674.91	2.27	677.18	-1.69
11563	671.34	675.36	666.44	676.25	2.10	678.36	1.82
11663	670.64	669.00	667.70	673.58	1.26	674.85	9.36
11763	671.34	672.98	668.79	673.89	1.09	674.99	1.87
11863	671.70	672.52	669.66	673.73	.87	674.60	2.47
12163	672.76	675.24	670.59	674.93	.93	675.86	-.64
12263	673.59	675.53	671.49	675.69	.90	676.59	.33
12363	674.79	677.58	672.48	677.09	.99	678.08	-.99
12463	676.35	679.99	673.64	679.06	1.16	680.22	-1.91
12563	677.36	679.71	674.76	679.96	1.11	681.07	.51
12863	679.02	682.89	676.03	682.00	1.28	683.28	-1.82
12963	680.43	683.73	677.35	683.51	1.32	684.83	-.45
13063	679.88	678.58	678.11	681.64	.76	682.40	6.25
13163	680.77	682.85	678.91	682.63	.80	683.43	-.45
20163	681.49	683.19	679.68	683.31	.78	684.08	.24
20463	681.65	682.01	680.27	683.03	.59	683.61	2.07

DATE	SGLEXP	CJI	DBLEXP	E(CJI)	TREND	FCST	ERROR
20563	681.54	681.30	680.65	682.43	.38	682.82	2.31
20663	681.84	682.52	681.01	682.66	.35	683.02	.30
20763	681.01	679.09	681.01	681.02	.00	681.02	2.93
20863	680.69	679.92	680.91	680.46	-.10	680.36	1.10
21163	678.90	674.74	680.31	677.49	-.60	676.89	5.62
21263	678.22	676.62	679.68	676.75	-.63	676.12	.27
21363	679.27	681.72	679.56	678.98	-.12	678.85	-5.60
21463	681.15	685.53	680.03	682.26	.48	682.74	-6.68
21563	682.62	686.07	680.81	684.44	.78	685.21	-3.33
21863	684.52	688.96	681.93	687.12	1.11	688.24	-3.75
21963	685.22	686.83	682.91	687.52	.99	688.51	1.41
22063	684.27	682.06	683.32	685.22	.41	685.63	6.45
22163	683.48	681.64	683.37	683.59	.05	683.64	3.99
22563	680.82	674.61	682.60	679.04	-.76	678.27	9.03
22663	679.16	675.28	681.57	676.75	-1.03	675.71	2.99
22763	677.29	672.94	680.29	674.30	-1.28	673.02	2.77
22863	675.99	672.94	679.00	672.98	-1.29	671.69	.08
30163	671.11	659.72	676.63	665.50	-2.37	663.22	11.97
30463	669.89	667.04	674.61	665.17	-2.02	663.14	-3.82
30563	669.07	667.16	672.95	665.19	-1.66	663.53	-4.02
30663	668.77	668.08	671.69	665.85	-1.25	664.60	-4.55
30763	669.57	671.43	671.06	668.08	-.64	667.45	-6.83
30863	670.43	672.43	670.87	669.99	-.19	669.80	-4.98
31163	671.51	674.02	671.06	671.95	.19	672.14	-4.22
31263	672.61	675.20	671.53	673.70	.47	674.17	-3.06
31363	674.13	677.66	672.31	675.95	.78	676.73	-3.49
31463	674.01	673.73	672.82	675.20	.51	675.71	3.00
31563	674.70	676.33	673.38	676.03	.57	676.59	-.62
31863	674.36	673.56	673.68	675.05	.29	675.34	3.03
31963	673.67	672.06	673.67	673.67	-.00	673.67	3.28
32063	674.71	677.12	673.98	675.43	.31	675.74	-3.45
32163	674.96	675.57	674.28	675.65	.29	675.95	.17
32263	675.82	677.83	674.74	676.91	.46	677.37	-1.88
32563	676.53	678.17	675.28	677.78	.54	678.31	-.80

DATE	SCLEXP	DJI	DELEXP	E(DJI)	TREND	FCST	ERROR
32663	677.58	680.38	676.00	679.37	.72	680.09	-2.07
32763	679.80	684.73	677.14	682.46	1.14	683.60	-4.64
32863	680.75	682.98	678.22	683.28	1.08	684.37	.62
32963	681.28	682.52	679.14	683.42	.92	684.34	1.85
40163	682.66	685.86	680.20	685.12	1.05	686.17	-1.52
40263	683.52	685.53	681.19	685.84	1.00	686.84	.64
40363	685.62	690.51	682.52	688.71	1.33	690.04	-3.67
40463	689.07	697.12	684.40	693.65	1.96	695.61	-7.08
40563	693.08	702.43	687.06	699.09	2.58	701.67	-6.82
40863	696.96	706.03	690.03	703.99	2.97	706.86	-4.36
40963	699.68	706.03	692.93	706.44	2.90	709.33	.83
41063	701.08	704.35	695.37	706.79	2.45	709.24	4.98
41163	703.29	708.45	697.75	708.84	2.38	711.21	.79
41563	705.72	711.38	700.14	711.30	2.39	713.69	-.17
41663	707.28	710.92	702.28	712.28	2.14	714.42	2.77
41763	708.17	710.25	704.05	712.29	1.77	714.06	4.17
41863	708.17	708.16	705.28	711.05	1.24	712.29	5.90
41963	709.22	711.68	706.47	711.98	1.18	713.16	.61
42263	709.76	711.01	707.45	712.06	.99	713.05	2.15
42363	711.32	714.98	708.61	714.03	1.16	715.20	-1.93
42463	713.25	717.74	710.00	716.49	1.39	717.88	-2.54
42563	714.77	718.33	711.44	718.11	1.43	719.54	-.45
42663	715.49	717.16	712.65	718.33	1.22	719.54	2.38
42963	715.38	715.11	713.47	717.28	.82	718.10	4.43
43063	716.07	717.70	714.25	717.90	.76	718.68	.40
50163	717.15	719.67	715.12	719.18	.87	720.05	-.99
50263	718.33	721.09	716.08	720.58	.96	721.55	-1.04
50363	718.26	718.08	716.74	719.78	.65	720.43	3.47
50663	716.91	713.77	716.79	717.03	.05	717.09	6.66
50763	715.60	712.55	716.43	714.77	-.36	714.42	4.54
50863	716.48	718.54	716.45	716.52	.02	716.53	-4.12
50963	718.13	721.97	716.95	719.31	.50	719.81	-5.44
51063	719.68	723.30	717.77	721.59	.82	722.41	-3.49
51363	720.68	723.01	718.64	722.72	.87	723.59	-.60

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TREND	FCST	ERROR
51463	720.43	719.84	719.18	721.68	.54	722.21	3.75
51563	721.60	724.34	719.91	723.30	.73	724.02	-2.13
51663	721.97	722.84	720.53	723.42	.62	724.04	1.18
51763	722.82	724.81	721.22	724.43	.69	725.12	-.77
52063	722.03	720.18	721.46	722.60	.24	722.85	4.94
52163	722.63	724.04	721.81	723.46	.35	723.81	-1.19
52263	722.70	722.84	722.08	723.3[illegible]	.27	723.58	.97
52363	722.30	721.38	722.14	722.46	.07	722.52	2.20
52463	721.77	720.53	722.03	721.51	-.11	721.39	1.99
52763	720.71	718.25	721.64	719.79	-.40	719.40	3.14
52863	719.88	717.95	721.11	718.66	-.53	718.13	1.45
52963	720.67	722.50	720.98	720.36	-.13	720.23	-4.37
53163	722.56	726.96	721.45	723.66	.47	724.13	-6.73
60363	723.67	726.27	722.12	725.22	.67	725.89	-2.14
60463	724.52	726.49	722.84	726.20	.72	726.92	-.60
60563	724.94	725.93	723.47	726.41	.63	727.04	.99
60663	725.52	726.87	724.08	726.96	.62	727.57	.17
60763	724.59	722.41	724.25	724.94	.15	725.09	5.16
61063	722.16	716.49	723.61	720.70	-.62	720.08	8.60
61163	721.02	718.38	722.84	719.21	-.78	718.44	1.70
61263	721.73	723.36	722.50	720.95	-.33	720.61	-4.92
61363	721.64	721.43	722.24	721.03	-.26	720.77	-.82
61463	721.75	722.03	722.10	721.41	-.15	721.27	-1.26
61563	720.69	718.21	721.67	719.71	-.42	719.29	3.06
61763	720.15	718.90	721.22	719.09	-.46	718.63	.39
61863	720.06	719.84	720.87	719.25	-.35	718.90	-1.21
61963	720.28	720.78	720.69	719.86	-.18	719.68	-1.88
62063	719.85	718.85	720.44	719.26	-.25	719.00	.83
62163	718.79	716.32	719.94	717.64	-.49	717.14	2.68
62463	718.68	718.42	719.56	717.79	-.38	717.41	-1.28
62563	717.97	716.32	719.09	716.86	-.48	716.38	1.09
62663	715.22	708.80	717.93	712.51	-1.16	711.35	7.58
62763	712.46	706.03	716.29	708.64	-1.64	707.00	5.32
62863	710.79	706.88	714.64	706.94	-1.65	705.29	.12

DATE	SGLEXP	OJI	DBLEXP	E(OJI)	TRENL	FCST	ERROR
70163	707.96	701.35	712.63	703.28	-2.00	701.28	3.94
70263	708.25	708.94	711.32	705.15	-1.31	703.87	-7.66
70363	709.78	713.36	710.96	708.71	-.46	708.25	-9.49
70563	711.79	716.45	711.14	712.43	.28	712.71	-8.26
70863	711.45	710.66	711.23	711.66	.09	711.76	2.05
70963	712.24	714.09	711.53	712.95	.30	713.25	-2.33
71063	712.20	712.12	711.73	712.67	.20	712.58	1.13
71163	711.47	709.76	711.65	711.29	-.08	711.21	3.12
71263	710.34	707.70	711.26	709.42	-.39	709.02	3.51
71563	708.22	703.28	710.35	706.09	-.91	705.18	5.74
71663	706.39	702.12	709.16	703.62	-1.19	702.43	3.06
71763	704.39	699.72	707.73	701.05	-1.43	699.62	2.71
71863	701.84	695.90	705.96	697.72	-1.77	695.96	3.72
71963	699.46	693.89	704.01	694.90	-1.95	692.95	2.07
72263	696.24	688.74	701.68	690.80	-2.33	688.47	4.21
72363	693.72	687.84	699.29	688.15	-2.39	685.76	.63
72463	692.87	690.88	697.37	688.37	-1.93	686.44	-5.12
72563	691.32	687.71	695.55	687.09	-1.81	685.28	-1.27
72663	690.74	689.38	694.11	687.37	-1.44	685.93	-4.10
72963	690.73	690.71	693.09	688.37	-1.01	687.35	-4.78
73063	692.44	696.42	692.90	691.98	-.20	691.78	-9.07
73163	693.34	695.43	693.03	693.64	.13	693.77	-3.65
80163	693.80	694.87	693.26	694.33	.23	694.56	-1.10
80263	695.01	697.83	693.78	696.23	.52	696.75	-3.27
80563	697.27	702.55	694.83	699.71	1.05	700.76	-5.80
80663	700.21	707.06	696.44	703.97	1.61	705.58	-6.30
80763	701.10	703.18	697.84	704.36	1.40	705.75	2.40
80863	702.02	704.18	699.09	704.55	1.26	706.21	1.57
80963	703.93	708.39	700.55	707.32	1.45	708.77	-2.18
81263	705.83	710.27	702.13	709.54	1.59	711.12	-1.50
81363	707.42	711.13	703.72	711.13	1.59	712.71	-.01
81463	709.67	714.90	705.50	713.83	1.78	715.61	-2.19
81563	712.33	718.55	707.55	717.11	2.05	719.16	-2.94
81663	714.43	719.32	709.61	719.24	2.06	721.30	-.16

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TREND	FCST	ERROR
81963	715.74	718.81	711.45	720.03	1.84	721.87	2.49
82063	716.20	717.27	712.88	719.52	1.42	720.95	4.60
82163	716.06	715.72	713.83	718.28	.95	719.24	5.23
82263	716.78	718.47	714.72	718.85	.88	719.73	.77
82363	718.69	723.14	715.91	721.47	1.19	722.66	-3.41
82663	720.33	724.17	717.24	723.43	1.33	724.76	-1.51
82763	720.20	719.88	718.12	722.27	.89	723.16	4.88
82863	721.66	725.07	719.18	724.13	1.06	725.19	-1.91
82963	723.08	726.40	720.35	725.81	1.17	726.98	-1.21
83063	724.95	729.32	721.73	728.17	1.38	729.55	-2.34
90363	727.07	732.02	723.34	730.81	1.60	732.41	-2.47
90463	728.83	732.92	724.98	732.67	1.65	734.32	-.51
90563	731.57	737.98	726.96	736.19	1.98	738.16	-3.66
90663	732.71	735.37	728.69	736.74	1.73	738.46	2.79
90963	732.77	732.92	729.91	735.64	1.23	736.86	5.54
91063	734.17	737.43	731.19	737.15	1.28	738.43	-.57
91163	736.02	740.34	732.64	739.40	1.45	740.85	-1.91
91263	737.29	740.26	734.04	740.55	1.40	741.95	.59
91363	738.14	740.13	735.27	741.02	1.23	742.25	1.82
91663	738.24	738.46	736.16	740.32	.89	741.21	3.79
91763	738.81	740.13	736.95	740.66	.79	741.45	1.08
91863	738.52	737.86	737.42	739.62	.47	740.09	3.59
91963	739.93	743.22	738.18	741.69	.75	742.44	-3.13
92063	741.03	743.60	739.03	743.03	.86	743.89	-1.16
92363	740.85	740.43	739.58	742.12	.55	742.67	3.46
92463	742.38	745.96	740.42	744.35	.84	745.19	-3.29
92503	742.78	743.69	741.13	744.42	.71	745.13	1.50
92663	741.03	736.95	741.10	740.96	-.03	740.93	8.18
92763	740.11	737.98	740.80	739.43	-.30	739.13	2.95
93063	737.92	732.79	739.94	735.90	-.87	735.03	6.34
100163	738.04	738.33	739.37	736.71	-.57	736.14	-3.30
100263	738.01	737.94	738.96	737.06	-.41	736.65	-1.80
100363	739.88	744.25	739.24	740.53	.28	740.80	-7.60
100463	741.44	745.06	739.90	742.97	.66	743.63	-4.26

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TRENC	FCST	ERROR
100763	742.16	743.86	740.58	743.75	.68	744.43	-.23
100863	742.68	743.90	741.21	744.16	.63	744.79	.53
100963	741.83	739.83	741.39	742.26	.19	742.45	4.96
101063	741.45	740.56	741.41	741.48	.02	741.50	1.89
101163	741.54	741.76	741.45	741.63	.04	741.67	-.26
101463	741.63	741.84	741.50	741.76	.05	741.81	-.17
101563	741.80	742.19	741.59	742.00	.09	742.09	-.38
101663	743.79	748.45	742.25	745.34	.66	746.00	-6.36
101763	745.89	750.77	743.34	748.43	1.09	749.52	-4.77
101863	747.30	750.60	744.53	750.07	1.19	751.26	-1.08
102163	748.80	752.31	745.81	751.79	1.28	753.08	-1.05
102263	748.33	747.21	746.57	750.08	.75	750.84	5.87
102363	747.77	748.48	746.93	748.62	.36	748.98	4.36
102463	748.98	751.80	747.54	750.42	.62	751.03	-2.82
102563	750.97	755.61	748.57	753.37	1.03	754.39	-4.58
102863	753.50	759.39	750.05	756.94	1.48	758.42	-5.00
102963	755.60	760.50	751.71	759.48	1.66	761.15	-2.08
103063	755.47	755.19	752.84	758.11	1.13	759.24	5.96
103163	755.40	755.23	753.61	757.19	.77	757.96	4.01
110163	754.90	753.73	754.00	755.80	.39	756.19	4.23
110463	753.20	749.22	753.76	752.64	-.24	752.40	6.97
110663	750.45	744.03	752.76	748.15	-.99	747.14	8.37
110763	749.01	745.66	751.64	746.38	-1.13	745.26	1.48
110863	749.55	750.81	751.01	748.09	-.63	747.46	-5.55
111163	750.82	753.77	750.95	750.68	-.06	750.62	-6.31
111263	750.63	750.21	750.86	750.41	-.10	750.32	.41
111363	750.78	751.11	750.83	750.72	-.02	750.70	-.79
111463	749.65	747.04	750.48	748.83	-.35	748.48	3.66
111563	746.76	740.00	749.36	744.15	-1.12	743.04	8.48
111863	743.19	734.85	747.51	738.86	-1.85	737.01	8.19
111963	741.23	736.65	745.63	736.83	-1.89	734.94	.36
112063	741.48	742.05	744.38	738.57	-1.24	737.33	-7.12
112163	738.83	732.65	742.71	734.94	-1.67	733.28	4.68
112263	730.63	711.49	739.09	722.17	-3.63	718.54	21.79

DATE	SGLEXP	CJI	DBLEXP	E(CJI)	TREND	FCST	ERROR
112663	734.49	743.52	737.71	731.28	-1.38	729.90	-24.98
112763	736.45	741.00	737.33	735.56	-.38	735.18	-11.10
112963	740.67	750.52	738.33	743.00	1.00	744.01	-15.34
120263	744.04	751.91	740.04	748.04	1.71	749.75	-7.90
120363	746.37	751.82	741.94	750.81	1.90	752.70	-2.07
120463	749.12	755.51	744.10	754.14	2.15	756.29	-2.81
120563	753.54	763.8[illegible]	746.93	760.15	2.83	762.98	-7.57
120663	755.55	760.2[illegible]	749.52	761.59	2.59	764.18	2.73
120963	756.61	759.08	751.64	761.58	2.13	763.71	5.10
121063	757.40	759.25	753.37	761.43	1.73	763.16	4.46
121163	757.34	757.21	754.56	760.13	1.19	761.32	5.95
121263	757.37	757.43	755.41	759.34	.84	760.18	3.89
121363	758.21	760.17	756.25	760.17	.84	761.01	.01
121663	759.24	761.64	757.14	761.33	.90	762.23	-.63
121763	761.38	766.38	758.42	764.35	1.27	765.62	-4.15
121863	763.13	767.21	759.83	766.43	1.41	767.84	-1.59
121963	763.35	763.86	760.89	765.81	1.06	766.87	3.98
122063	762.97	762.08	761.51	764.43	.62	765.05	4.79
122363	761.57	758.30	761.53	761.61	.02	761.63	6.75
122463	760.16	756.86	761.12	759.19	-.41	758.78	4.77
122663	760.17	760.21	760.83	759.51	-.28	759.23	-1.43
122763	761.01	762.95	760.88	761.13	.05	761.18	-3.72
123063	760.67	759.90	760.82	760.53	-.06	760.46	1.28
10264	762.30	766.09	761.26	763.33	.44	763.77	-5.62
10364	763.91	767.68	762.06	765.76	.79	766.56	-3.91
10664	765.59	769.51	763.12	768.06	1.06	769.12	-2.95
10764	767.43	771.73	764.41	770.45	1.29	771.75	-2.61
10864	769.54	774.46	765.95	773.13	1.54	774.67	-2.71
10964	771.64	776.55	767.66	775.63	1.71	777.34	-1.88
11064	772.45	774.33	769.10	775.80	1.44	777.24	3.01
11364	772.65	773.12	770.16	775.14	1.07	776.21	4.12
11464	773.20	774.49	771.07	775.33	.91	776.24	1.72
11564	773.44	774.00	771.78	775.10	.71	775.81	2.24
11664	774.25	776.13	772.52	775.97	.74	776.71	-.32

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TREND	FCST	ERROR
11764	774.68	775.69	773.17	776.13	.65	776.84	1.02
12064	774.19	773.03	773.48	774.90	.30	775.20	3.81
12164	774.86	776.44	773.89	775.83	.42	776.25	-1.24
12264	776.80	781.31	774.76	778.83	.87	779.70	-5.06
12364	778.62	782.86	775.92	781.31	1.16	782.47	-3.16
12464	779.94	783.04	777.13	782.76	1.21	783.97	-.57
12764	781.56	785.34	776.46	784.67	1.33	786.00	-1.37
12864	783.43	787.78	779.95	786.91	1.49	788.40	-1.78
12964	783.18	782.60	780.92	785.44	.97	786.41	5.80
13064	783.26	783.44	781.62	784.90	.70	785.60	2.97
15164	783.88	785.34	782.30	785.47	.68	786.15	.26
20364	784.13	784.72	782.85	785.42	.55	785.97	1.43
20464	783.88	783.30	783.16	784.61	.31	784.92	2.67
20564	783.63	783.04	783.30	783.96	.14	784.10	1.88
20664	784.46	786.41	783.65	785.28	.35	785.63	-2.31
20764	786.60	791.59	784.54	788.67	.89	789.55	-5.96
21064	787.23	788.71	785.35	789.12	.81	789.93	.84
21164	788.71	792.16	786.36	791.07	1.01	792.08	-2.23
21264	790.54	794.62	787.61	793.48	1.26	794.73	-2.74
21364	791.71	794.42	788.84	794.57	1.23	795.80	.31
21464	792.56	794.56	789.96	795.17	1.12	796.29	1.24
21764	793.65	796.19	791.07	796.24	1.11	797.34	.10
21864	794.18	795.40	792.00	796.35	.93	797.29	1.94
21964	794.40	794.91	792.72	796.07	.72	796.79	2.38
22064	795.17	796.95	793.45	796.89	.74	797.63	-.20
22464	795.76	797.12	794.15	797.37	.69	798.06	.51
22564	796.01	796.59	794.70	797.31	.56	797.87	1.47
22664	797.02	799.38	795.40	798.64	.69	799.33	-1.51
22764	797.03	797.04	795.89	798.16	.49	798.65	2.29
22864	797.96	800.14	796.51	799.41	.62	800.03	-1.49
30264	799.40	802.75	797.38	801.42	.87	802.29	-2.72
30364	801.29	805.72	798.55	804.04	1.18	805.21	-3.43
30464	802.32	804.70	799.68	804.95	1.13	806.08	.51
30564	802.75	803.77	800.60	804.90	.92	805.82	2.31

DATE	SGLEXP	DJI	DBLEXP	E(DJI)	TRENC	FCST	ERROR
30664	803.74	806.03	801.54	805.93	.94	806.87	-.21
30964	804.77	807.18	802.51	807.03	.97	808.00	-.31
31064	806.16	809.39	803.60	808.71	1.09	809.80	-1.39
31164	808.47	813.87	805.06	811.88	1.46	813.34	-4.07
31264	810.19	814.22	806.60	813.79	1.54	815.33	-.88
31364	812.00	816.22	808.22	815.78	1.62	817.40	-.89
31664	813.35	816.48	809.76	816.93	1.54	818.47	.92
31764	814.79	818.16	811.27	818.31	1.51	819.82	.31
31864	816.43	820.25	812.82	820.04	1.55	821.59	-.43
31964	817.31	819.36	814.16	820.45	1.35	821.80	2.23
32064	816.59	814.93	814.89	818.30	.73	819.02	6.87
32364	815.70	813.60	815.13	816.26	.24	816.50	5.42
32464	814.42	811.43	814.92	813.91	-.22	813.70	5.07
32564	814.04	813.16	814.65	813.42	-.26	813.16	.54
32664	814.60	815.91	814.64	814.56	-.02	814.55	-2.75
33064	814.81	815.29	814.69	814.93	.05	814.98	-.74
33164	814.35	813.29	814.59	814.12	-.10	814.02	1.69

DATE	CJI	INDEX
122859	669.77	84.70
10860	675.73	85.70
11560	659.68	85.10
12260	645.85	86.00
12960	622.62	86.10
20560	626.77	85.70
21260	622.23	85.00
21960	628.45	84.70
22660	632.00	84.40
30460	609.79	84.20
31160	605.83	83.00
31860	616.42	83.50
32560	622.47	83.00
40160	615.98	83.00
40860	628.10	82.80
41460	630.12	82.80
42260	616.32	81.50
42960	601.70	79.90
50660	607.62	82.70
51360	616.03	82.60
52060	625.24	82.70
52760	624.78	82.60
60360	628.98	82.70
61060	654.88	82.00
61760	650.89	82.30
62460	647.01	82.60
70160	641.30	82.20
70860	646.91	81.60
71560	630.24	81.20
72260	609.87	81.30
72960	615.73	81.00
80560	614.29	82.70
81260	626.18	80.00

DATE	CJI	INDEX
81560	629.27	82.60
82660	636.13	81.80
90260	625.22	84.40
90960	614.12	83.70
91660	602.18	84.40
92360	585.20	84.60
93060	580.14	82.60
100760	586.42	81.30
101460	596.48	81.50
102160	577.55	83.00
102860	577.92	82.40
110460	596.07	81.90
111160	608.61	82.50
111860	603.62	82.70
112560	606.47	83.40
120260	596.00	85.10
120960	610.90	84.10
121660	617.78	84.40
122360	613.23	86.40
123060	615.89	86.70
10661	621.64	87.00
11361	633.65	85.50
12061	634.37	86.50
12761	643.59	88.50
20361	652.97	84.40
21061	639.67	84.80
21761	651.67	85.50
22461	655.60	85.00
30361	671.57	83.60
31061	663.56	85.90
31761	676.48	85.80
32461	672.48	85.70
33061	676.63	85.00
40761	683.68	84.80

DATE	DJI	INDEX
41461	693.72	86.40
42161	685.26	86.00
42861	678.71	88.50
50561	690.67	87.60
51261	687.91	86.40
51961	705.96	87.20
52661	696.28	87.00
60261	697.70	87.30
60961	700.90	87.30
61661	685.50	87.50
62361	688.66	87.80
63061	683.96	86.00
70761	692.73	85.20
71461	690.95	85.40
72161	682.81	85.10
72861	705.13	85.70
80461	720.69	84.80
81161	722.61	83.90
81861	723.54	85.30
82561	716.70	84.60
90161	721.19	84.00
90861	720.91	85.40
91561	716.30	85.30
92261	701.57	85.30
92961	701.21	84.00
100661	708.25	83.30
101361	703.31	83.50
102061	705.62	83.80
102761	698.74	83.80
110361	709.26	83.30
111061	724.83	83.60
111761	729.53	83.90
112461	732.60	83.90
120161	728.80	83.40

DATE	DJI	INDEX
120861	728.23	83.80
121561	729.40	84.80
122261	720.87	84.60
122961	731.14	85.00
10562	714.84	84.50
11262	711.73	85.30
11962	697.77	85.10
12662	652.19	85.00
20262	706.55	85.10
20962	714.27	84.90
21662	716.46	85.10
22362	709.54	85.10
30262	711.00	85.60
30962	714.44	86.40
31662	722.77	85.30
32362	716.46	85.00
33062	706.95	84.80
40662	699.63	85.10
41362	687.90	85.20
41962	694.25	84.90
42762	672.20	85.10
50462	671.20	84.50
51162	640.63	84.70
51862	650.70	83.70
52562	611.88	83.70
60162	611.05	83.50
60862	601.61	83.50
61562	578.18	84.20
62262	539.19	84.90
62962	561.28	83.90
70662	576.17	84.50
71362	550.19	85.10
72062	577.18	85.60
72762	585.00	85.20

DATE	DJI	INDEX
80362	596.38	85.30
81062	592.32	85.50
81762	610.02	84.70
82462	613.74	85.80
83162	609.18	85.50
90762	600.86	85.30
91462	605.84	85.10
92162	591.78	84.80
92862	578.19	84.70
100562	586.59	84.80
101262	586.47	83.60
101962	573.29	84.50
102662	569.02	84.80
110262	604.58	84.60
110962	616.13	84.60
111662	630.60	85.10
112362	644.87	84.90
113062	645.30	84.70
120762	652.10	85.60
121462	648.09	85.20
122162	646.41	85.20
122862	651.43	84.60
10463	662.23	85.20
11163	671.60	86.50
11863	672.52	87.20
12563	675.71	85.90
20163	683.19	86.00
20863	679.92	86.10
21563	666.07	87.30
22163	681.64	88.00
30163	659.72	87.80
30863	672.43	88.20
31563	676.33	91.60
32263	677.83	90.70

DATE	DJI	INDEX
32563	682.52	90.70
40563	702.43	91.00
41163	708.45	89.90
41963	711.68	91.20
42663	717.16	91.50
50363	718.08	92.50
51063	723.30	92.30
51763	724.81	91.80
52463	720.55	92.10
53163	726.96	92.00
60763	722.41	92.70
61563	718.21	92.40
62163	716.32	93.10
62863	706.88	92.40
70563	716.45	92.50
71263	707.70	93.20
71963	693.89	93.60
72663	689.38	93.60
80263	697.83	93.80
80963	708.39	93.90
81663	719.32	93.60
82363	723.14	93.00
83063	729.32	93.40
90663	735.37	93.20
91363	740.13	94.70
92063	743.60	95.00
92763	737.98	94.50
100463	745.06	95.00
101163	741.76	93.90
101863	750.60	94.10
102563	755.61	94.80
110163	753.73	94.30
110863	750.81	94.30
111563	740.00	94.60

DATE	DJI	INDEX
112263	711.49	93.90
112963	750.52	94.70
120663	760.25	94.50
121363	760.17	94.10
122063	762.08	94.40
122763	762.95	95.00
10364	767.68	95.10
11064	774.33	95.30
11764	775.69	95.40
12464	783.04	95.00
13164	785.34	94.10
20764	791.59	96.30
21464	794.56	96.30
22064	796.99	96.70
22864	800.14	95.40
30664	806.03	95.60
31364	816.22	95.60
32064	814.93	96.00
32664	815.91	95.90

```
C     ASSIGNS INSTEA                                                    BARRCNS
      DIMENSION CJIA(900),CJIC(900),(CJIC(900),IDATE(900),CJIB(900),CJIC(
     190C),Y1(977),Y2(977),ITITLE(12),X(977),CONFINC(900),Y3(900)
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    7 ITITLE(I)=(8H          )
      ITITLE(1)=(8H CLAPHAM )
      ITITLE(2)=(8H237 BARR)
      ITITLE(3)=(8HCNS CONF)
      ITITLE(4)=(8HIDENCE I)
      ITITLE(5)=(8HNDEX VS )
      ITITLE(6)=(8HDJI     )
      ITITLE(7)=(8H 10 JUNE)
      ITITLE(8)=(8H 1960 TH)
      ITITLE(9)=(8HRL 26 MA)
      ITITLE(10)=(8H4 WEEKLY)
      ITITLE(10)=(8HR.1964  )
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     1NG6X5HGUIDE////2X2H 16X1H26X1H35X1H46X1H55X1H65X1H76X1H86X1H95X2H1
     205X2H115X2H125X2H135X2H145X2H154X2H164X2H174X2H18//)
      READ1,N
    1 FORMAT(I3)
      READ10,(CJIA(I),I=1,N)
   10 FORMAT(6X,F6.2)
      N337=N+222
      READ55,(IDATE(I),CONFINC(I),I=223,N337)
   55 FORMAT(I6,F6.2)
      DO60 I=15,N
      K=I-14
      M=I-11
   11 CJIB(I)=(CJIA(I)-CJIA(K))*100./CJIA(K)
      CJIC(I)=(CJIA(I)-CJIA(M))*100./CJIA(M)
   60 CJIC(I)=CJIB(I)+CJIC(I)
      DO61 I=24,N
      K=I-14
      M=I-11
      CJIE=10.*CJIC(I)
      CJIF=9.*CJIC(I-1)
      CJIG=8.*CJIC(I-2)
      CJIH=7.*CJIC(I-3)
      CJII=6.*CJIC(I-4)
      CJIJ=5.*CJIC(I-5)
      CJIK=4.*CJIC(I-6)
      CJIL=3.*CJIC(I-7)
      CJIM=2.*CJIC(I-8)
      CJIN=CJIC(I-9)
      CJIC(I)=(CJIE+CJIF+CJIG+CJIH+CJII+CJIJ+CJIK+CJIL+CJIM+CJIN)/10.
      IF(XMOD(I,34)-2)50,49,50
   49 PRINT 52
   52 FORMAT(1H1//////////2X2H 16X1H26X1H35X1H46X1H55X1H65X1H76X1H86X1H95X
     12H105X2H115X2H125X2H135X2H145X2H154X2H164X2H174X2H18//)
  500PRINT 51,IDATE(I+222),CJIA(I),CJIB(I),CJIC(I),CJIC
     1(I),CJIE,CJIF,CJIG,CJIH,CJII,CJIJ,CJIK,CJIL,CJIM,CJIN,CJIC(I)
   51 FORMAT(1H0,I6,2F7.2,F6.1,F7.2,2F6.2,8F7.1,2F6.1,F6.0)
   61 CONTINUE
      PRINT 97
      DO 96 I=1,N
      IF(XMOD(I,34))99,99,99
   99 PRINT 97
   97 FORMAT(1H1////41X,4HDATE,8X,3HDJI,9X,5HINDEX//)
   98 PRINT 80,IDATE(I+222),CONFINC(I+222),CJIA(I)
   80 FORMAT(1H0,39X,I6,2F12.2)
   96 CONTINUE
      PRINT 97
      N23=N-23
      DO 88 I=1,N
   88 X(I)=I
      DO8 I=1,N23
      Y2(I)=CJIC(I+23)*2.
      Y1(I)=(CJIA(I+23)-75.)*20.
    8 Y3(I)=CONFINC(I+245)
      LABEL=(4HCONF)
      CALL DRAW (N23,X,CJIA(23),1,C,LABEL,ITITLE,30.,100.,0,0,2,2,7,9,1,
     1LAST)
      LABEL=(4HDJI )
      CALL DRAW (N23,X,CONFINC(245),3,C,LABEL,ITITLE,30.,100.,C,C,2,2,7,
     10,1,LAST)
      ITITLE(2)=(8H237 BARR)
      ITITLE(3)=(8HCNS CONF)
      ITITLE(4)=(8HIDENCE I)
      ITITLE(5)=(8HNDEX VS )
      ITITLE(6)=(8HTRENDEX )
      ITITLE(7)=(8H CONFIDE)
      ITITLE(8)=(8HNCE INDE)
      ITITLE(9)=(8HX VS DJI)
      ITITLE(10)=(8H6/10/60-)
      ITITLE(11)=(8H3/26/64 )
      ITITLE(12)=(8HWEEKLY  )
      LABEL=(4HCONF)
      CALL DRAW (N23,X,Y1,1,C,LABEL,ITITLE,30.,100.,1,0,2,2,7,10,1,LAST)
      LABEL=(4HTREX)
      CALL DRAW (N23,X,Y2,2,C,LABEL,ITITLE,30.,100.,1,C,2,2,7,10,1,LAST)
      LABEL=(4H DJI)
      CALL DRAW (N23,X,Y3,3,C,LABEL,ITITLE,30.,100.,1,C,2,2,7,10,1,LAST)
      END
      END
```

TRENDEX VERY LONG TERM BUYING CLICE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
61060	82.00	84.20	-2.6	83.00	-1.20	-3.82	-38.2	-26.8	-23.7	-31.4	-34.5	-31.6	-52.4	-27.4	-14.4	-6.0	-29.
61760	82.30	83.00	-.8	83.00	-.84	-1.69	-16.9	-34.4	-23.8	-20.7	-26.0	-28.7	-25.2	-39.3	-18.3	-7.2	-24.
62460	82.60	83.50	-1.1	82.80	-.24	-1.32	-13.2	-15.2	-30.5	-20.8	-17.8	-22.4	-23.0	-18.9	-26.2	-9.1	-20.
70160	82.20	83.00	-1.0	82.80	-.72	-1.69	-16.9	-11.9	-13.5	-26.7	-17.8	-14.8	-17.9	-17.2	-12.6	-13.1	-16.
70860	81.60	83.00	-1.7	81.50	.12	-1.56	-15.6	-15.2	-10.6	-11.8	-22.9	-14.9	-11.8	-13.5	-11.5	-6.3	-13.
71560	81.20	82.80	-1.9	79.90	1.63	-.31	-3.1	-14.1	-13.5	-9.2	-10.1	-19.1	-11.9	-8.9	-9.0	-5.7	-10.
72260	81.30	82.80	-1.8	82.70	-1.69	-3.50	-35.0	-2.7	-12.5	-11.8	-7.9	-8.4	-15.3	-8.9	-5.9	-4.5	-11.
72960	81.00	81.50	-.6	82.60	-1.94	-2.55	-25.5	-31.5	-2.4	-10.9	-10.1	-6.6	-6.7	-11.5	-5.9	-3.0	-11.
80560	82.70	79.90	3.5	82.70	.00	3.50	35.0	-23.0	-28.0	-2.1	-9.4	-8.4	-5.3	-5.1	-7.6	-3.0	-6.
81260	80.00	82.70	-3.3	82.60	-3.15	-6.41	-64.1	31.5	-20.4	-24.5	-1.8	-7.8	-6.8	-4.0	-3.4	-3.8	-11.
81960	82.60	82.60	.0	82.70	-.12	-.12	-1.2	-57.7	28.0	-17.9	-21.0	-1.5	-6.3	-9.1	-2.6	-1.7	-9.
82660	81.80	82.70	-1.1	82.00	-.24	-1.33	-13.3	-1.1	-51.3	24.5	-15.3	-17.5	-1.2	-4.7	-3.4	-1.3	-8.
90260	84.40	82.60	2.2	82.30	2.55	4.73	47.3	-12.0	-1.0	-44.9	21.0	-12.8	-14.0	-.9	-3.1	-1.7	-2.
90960	83.70	82.70	1.2	82.60	1.33	2.54	25.4	42.6	-10.7	-.8	-38.5	17.5	-10.2	-10.5	-.6	-1.6	1.
91660	84.40	82.00	2.9	82.20	2.68	5.60	56.0	22.9	37.8	-9.3	-.7	-32.1	14.0	-7.7	-7.0	-.3	7.
92360	84.60	82.30	2.8	81.60	3.68	6.47	64.7	50.4	20.3	33.1	-8.0	-.6	-25.7	10.5	-5.1	-3.5	14.
93060	82.60	82.60	.0	81.20	1.72	1.72	17.2	58.2	44.8	17.8	28.4	-6.7	-.5	-19.2	7.0	-2.6	14.
100760	81.30	82.20	-1.1	81.30	.00	-1.09	-10.9	15.5	51.8	39.2	15.2	23.7	-5.3	-.4	-12.8	3.5	12.
101460	81.50	81.60	-.1	81.00	.62	.49	4.9	-9.9	13.8	45.3	33.6	12.7	18.9	-4.0	-.2	-6.4	11.
102160	83.00	81.20	2.2	82.70	.36	2.58	25.8	4.5	-8.8	12.1	38.8	28.0	10.2	14.2	-2.7	-.1	12.
102860	82.40	81.30	1.4	80.00	3.00	4.35	43.5	23.2	4.0	-7.7	10.3	32.4	22.4	7.6	9.5	-1.3	14.
110460	81.90	81.00	1.1	82.60	-.85	.26	2.6	39.2	20.6	3.5	-6.6	8.6	25.9	16.8	5.1	4.7	12.
111160	82.50	82.70	-.2	81.80	.86	.61	6.1	2.4	34.8	18.1	3.0	-5.5	6.9	15.4	11.2	2.5	10.
111860	82.70	80.00	3.4	84.40	-2.01	1.36	13.6	5.5	2.1	30.5	15.5	2.5	-4.4	5.2	12.9	5.6	9.
356060	83.40	82.60	1.0	83.70	-.36	.61	6.1	12.2	4.9	1.8	26.1	12.9	2.0	-3.3	3.4	6.5	7.
120260	85.10	81.80	4.0	84.40	.83	4.86	48.6	5.5	10.9	4.3	1.6	21.8	10.3	1.5	-2.2	1.7	10.
120960	84.10	84.40	-.4	84.60	-.59	-.95	-9.5	43.8	4.9	9.5	3.7	1.3	17.4	7.7	1.0	-1.1	8.
121660	84.40	83.70	.8	82.60	2.18	3.02	30.2	-8.5	38.9	4.3	8.2	3.1	1.1	13.1	5.2	.5	10.
122360	86.40	84.40	2.4	81.30	6.27	8.64	86.4	27.1	-7.6	34.0	3.7	6.8	2.5	.8	8.7	2.6	17.
123060	86.70	84.60	2.5	81.50	6.38	8.86	88.6	77.8	24.1	-6.6	29.2	3.1	5.4	1.8	.5	4.4	23.
10661	87.00	82.60	5.3	83.00	4.82	10.15	101.5	79.8	69.1	21.1	-5.7	24.3	2.4	4.1	1.2	.3	30.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
11361	85.50	81.30	5.2	82.40	3.76	8.93	89.3	91.3	70.9	60.5	18.1	-4.[illegible]	19.5	1.8	2.7	.[illegible]	35.
12061	86.50	81.50	6.1	81.90	5.62	11.75	117.5	80.4	81.[illegible]	62.0	51.9	15.1	-3.8	14.6	1.2	1.[illegible]	42.
12761	88.50	83.00	6.6	82.50	7.27	13.90	139.0	105.8	71.4	71.0	53.2	4[illegible].2	12.1	-2.8	9.7	.6	50.
20361	84.40	82.40	2.4	82.70	2.06	4.48	44.8	125.1	94.0	62.5	60.9	44.3	34.6	5.0	-1.9	4.9	48.
21061	84.80	81.90	3.5	83.40	1.68	5.22	52.2	40.3	111.2	82.3	53.6	50.7	35.5	25.9	6.0	-.9	46.
21761	85.50	82.50	3.6	85.10	.47	4.11	41.1	47.0	3[illegible].9	57.3	70.5	44.6	40.6	26.6	17.3	.0	42.
22461	85.00	82.70	2.8	84.10	1.07	3.85	38.5	37.0	41.8	31.4	83.4	58.8	35.7	30.4	17.7	3.6	38.
30361	83.60	83.40	.2	84.40	-.95	-.71	-7.1	34.7	32.9	36.5	26.9	69.5	47.0	26.8	20.3	8.9	30.
31061	85.90	85.10	.9	86.40	-.58	.36	3.6	-6.4	30.8	28.7	31.3	22.4	55.6	35.3	17.9	10.1	23.
31761	85.80	84.10	2.0	86.70	-1.04	.98	9.8	3.3	-5.7	27.0	24.6	26.1	17.9	41.7	23.5	8.9	18.
32461	85.70	84.40	1.5	87.00	-1.49	.05	.5	8.9	2.9	-5.0	23.1	20.5	20.9	13.4	27.8	11.8	12.
33061	85.00	86.40	-1.6	85.50	-.58	-2.21	-22.1	.4	7.9	2.5	-4.2	19.3	16.4	15.7	9.0	13.9	6.
40761	84.80	86.70	-2.2	86.50	-1.97	-4.16	-41.6	-19.8	.4	6.9	2.2	-3.5	15.4	12.3	10.4	4.5	-1.
41461	86.40	87.00	-.7	88.50	-2.37	-3.06	-30.6	-37.4	-17.6	.3	5.9	1.8	-2.8	11.6	8.2	5.2	-6.
42161	86.00	85.50	.6	84.40	1.90	2.48	24.8	-27.6	-33.3	-15.4	.3	4.9	1.4	-2.1	7.7	4.1	-4.
42861	88.50	86.50	2.3	84.80	4.36	6.68	66.8	22.3	-24.5	-29.1	-13.2	.2	3.9	1.1	-1.4	3.9	3.
50561	87.60	88.50	-1.0	85.50	2.46	1.44	14.4	60.1	19.8	-21.4	-24.9	-11.0	.2	3.0	.7	-.7	4.
51261	86.40	84.40	2.4	85.00	1.65	4.02	40.2	13.0	53.4	17.4	-18.4	-20.8	-8.8	.1	2.0	.4	8.
51961	87.20	84.80	2.8	83.60	4.31	7.14	71.4	3[illegible].2	11.5	46.7	14.9	-15.3	-16.6	-6.6	.1	1.0	14.
52661	87.00	85.50	1.8	85.90	1.28	3.03	30.3	[illegible]4.2	32.1	10.1	40.1	12.4	-12.3	-12.5	-4.4	.0	16.
60261	87.30	85.00	2.7	85.80	1.75	4.45	44.5	27.3	57.1	28.1	8.6	33.4	9.9	-9.2	-8.3	-2.2	19.
60961	87.30	83.60	4.4	85.70	1.87	6.29	62.9	40.1	24.3	50.0	24.1	7.2	26.7	7.4	-6.1	-4.2	23.
61661	87.50	85.50	1.9	85.00	2.94	4.80	48.0	56.6	35.6	21.2	42.8	20.1	5.8	20.0	5.0	-3.1	25.
62361	87.80	85.30	2.3	84.80	3.54	5.87	58.7	43.2	50.3	31.2	18.2	35.7	16.1	4.3	13.4	2.5	27.
63061	86.00	85.70	.4	86.40	-.46	-.11	-1.1	52.8	38.4	44.0	26.7	15.2	28.5	12.1	2.9	1.7	23.
70761	85.20	85.00	.2	86.00	-.93	-.69	-6.[illegible]	-1.0	46.9	33.6	37.8	22.3	12.1	21.4	8.0	1.4	18.
71461	85.40	84.80	.7	88.50	-3.50	-2.80	-28.0	-6.3	-.[illegible]	41.1	28.8	31.5	17.8	9.1	14.3	4.0	11.
72161	85.10	86.40	-1.5	87.60	-2.85	-4.36	-43.6	-25.2	-5.6	-.8	35.2	24.0	25.2	13.4	6.1	7.1	4.
72861	85.70	86.00	-.3	86.40	-.81	-1.16	-1[illegible].6	-39.2	-22.4	-4.9	-.7	29.3	19.2	18.9	8.9	3.0	.
80461	84.80	88.50	-4.2	87.20	-2.75	-6.93	-69.3	-10.4	-34.9	-19.6	-4.2	-.6	23.5	1[illegible].4	12.6	4.5	-8.
81161	83.90	87.60	-4.2	87.00	-3.56	-7.79	-77.9	-62.4	-9.3	-30.5	-16.8	-3.5	-.5	17.6	9.0	6.3	-17.
81861	85.30	86.40	-1.3	87.30	-2.29	-3.56	-35.6	-70.1	-55.5	-8.1	-26.2	-14.0	-2.8	-.3	11.7	4.8	-20.
82561	84.60	87.20	-3.0	87.30	-3.09	-6.07	-60.7	-32.1	-62.3	-48.5	-7.0	-21.8	-11.2	-2.1	-.2	5.9	-24.
90161	84.00	87.00	-3.4	87.50	-4.00	-7.45	-74.5	-54.7	-28.5	-54.5	-41.6	-5.8	-17.4	-8.4	-1.4	-.1	-29.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
90861	85.40	87.20	-2.2	87.80	-2.73	-4.91	-49.1	-67.0	-48.6	-24.9	-46.7	-34.7	-4.6	-13.1	-5.6	-.7	-30.
91561	85.30	87.30	-2.3	86.00	-.81	-3.10	-31.0	-44.2	-59.6	-42.5	-21.4	-38.5	-27.7	-3.5	-8.7	-2.8	-28.
92261	85.30	87.50	-2.5	85.20	.12	-2.40	-24.0	-27.9	-39.3	-52.1	-36.4	-17.8	-31.1	-20.8	-2.3	-4.4	-26.
92961	84.00	87.80	-4.3	85.40	-1.64	-5.97	-59.7	-21.6	-24.8	-34.4	-44.7	-30.4	-14.3	-23.4	-13.9	-4.2	-27.
100661	83.30	86.00	-3.1	85.10	-2.12	-5.25	-52.5	-53.7	-19.2	-21.7	-29.5	-37.2	-24.3	-10.7	-15.6	-6.5	-27.
101361	83.50	85.20	-2.0	85.70	-2.57	-4.56	-45.6	-47.3	-47.7	-18.8	-18.6	-24.5	-29.8	-18.2	-7.1	-7.8	-26.
102061	83.80	85.40	-1.9	84.80	-1.18	-3.05	-30.5	-41.1	-42.0	-41.8	-14.4	-15.5	-19.6	-22.3	-12.1	-3.6	-24.
102761	83.80	85.10	-1.5	83.90	-.12	-1.65	-16.5	-27.5	-36.5	-36.8	-35.8	-12.0	-12.4	-14.7	-14.9	-6.1	-21.
110361	83.30	85.70	-2.8	85.30	-2.34	-5.15	-51.5	-14.8	-24.4	-31.9	-31.5	-29.8	-9.6	-9.3	-9.8	-7.4	-22.
111061	83.60	84.80	-1.4	84.60	-1.18	-2.60	-26.0	-46.3	-13.2	-21.4	-27.4	-26.3	-23.9	-7.2	-6.2	-4.9	-20.
111761	83.90	83.90	.0	84.00	-.12	-.12	-1.2	-23.4	-41.2	-11.5	-18.3	-22.8	-21.0	-17.9	-4.8	-3.1	-17.
112461	83.90	85.30	-1.6	85.40	-1.76	-3.40	-34.0	-1.1	-20.8	-36.0	-9.9	-15.3	-18.2	-15.8	-11.9	-2.4	-17.
201617	83.40	84.60	-1.4	85.30	-2.23	-3.65	-36.5	-30.6	-1.0	-18.2	-30.9	-8.2	-12.2	-13.7	-10.5	-6.0	-17.
120861	83.80	84.00	-.2	85.30	-1.76	-2.00	-20.0	-32.8	-27.2	-.8	-15.6	-25.7	-6.6	-9.2	-9.1	-5.3	-15.
121561	84.80	85.40	-.7	84.00	.95	.25	2.5	-18.0	-29.2	-23.8	-.7	-13.0	-20.6	-4.9	-6.1	-4.6	-12.
122261	84.60	85.30	-.8	83.30	1.56	.74	7.4	2.2	-16.0	-25.5	-20.4	-.6	-10.4	-15.4	-3.3	-3.1	-8.
122961	85.00	85.30	-.4	83.50	1.80	1.44	14.4	6.7	2.0	-14.0	-21.9	-17.0	-.5	-7.8	-10.3	-1.6	-5.
10562	84.50	84.00	.6	83.80	.84	1.43	14.3	13.0	5.9	1.7	-12.0	-18.2	-13.6	-.4	-5.2	-5.1	-2.
11262	85.30	83.30	2.4	83.80	1.75	4.19	41.9	12.9	11.6	5.2	1.5	-10.0	-14.6	-10.2	-.2	-2.6	4.
11962	85.10	83.50	1.9	83.30	2.16	4.08	40.8	37.7	11.4	10.1	4.4	1.2	-8.0	-10.9	-6.8	-.1	8.
12662	85.00	83.80	1.4	83.60	1.67	3.11	31.1	36.7	33.5	10.0	8.7	3.7	1.0	-6.0	-7.3	-3.4	11.
20262	85.10	83.80	1.6	83.90	1.43	2.98	29.8	28.0	32.6	29.3	8.6	7.2	3.0	.7	-4.0	-3.6	13.
20962	84.90	83.30	1.9	83.90	1.19	3.11	31.1	26.8	24.9	28.5	25.1	7.2	5.8	2.2	.5	-2.0	15.
21662	85.10	83.60	1.8	83.40	2.04	3.83	38.3	28.0	23.9	21.7	24.5	21.0	5.7	4.3	1.5	.2	17
22362	85.10	83.90	1.4	83.80	1.55	2.98	29.8	34.5	24.9	20.9	18.6	20.4	16.8	4.3	2.9	.7	17.
30262	85.60	83.90	2.0	84.80	.94	2.97	29.7	26.8	30.7	21.8	17.9	15.5	16.3	12.6	2.9	1.4	18.
30962	86.40	83.40	3.6	84.60	2.13	5.72	57.2	26.7	23.9	26.8	18.7	14.9	12.4	12.2	8.4	1.4	20.
31662	85.30	83.80	1.8	85.00	.35	2.14	21.4	51.5	23.8	20.9	23.0	15.6	11.9	9.3	8.2	4.2	19.
32362	85.00	84.80	.2	84.50	.59	.83	8.3	19.3	45.8	20.8	17.9	19.2	12.5	8.9	6.2	4.1	16.
[illegible]	84.80	84.60	.2	85.30	-.59	-.35	-3.5	7.4	17.1	40.1	17.8	14.9	15.3	9.3	6.0	3.1	13.
40662	85.10	85.00	.1	85.10	.00	.12	1.2	-3.1	6.6	15.0	34.3	14.8	11.9	11.5	6.2	3.0	10.
41362	85.20	84.50	.8	85.00	.24	1.06	10.6	1.1	-2.8	5.8	12.9	28.6	11.9	8.9	7.7	3.1	9.
41962	84.90	85.30	-.5	85.10	-.24	-.70	-7.0	9.6	.9	-2.4	5.0	10.7	22.9	8.9	6.0	3.8	6.
42762	85.10	85.10	.0	84.90	.24	.24	2.4	-6.3	8.5	.8	-2.1	4.1	8.6	17.2	5.9	3.0	4.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
50462	84.50	85.00	-.6	85.10	-.71	-1.29	-12.9	2.1	-5.6	7.4	.7	-1.7	3.3	6.4	11.4	3.0	1.
51162	84.70	85.10	-.5	85.10	-.47	-.94	-9.4	-11.6	1.9	-4.9	6.4	.6	-1.4	2.5	4.3	5.7	-1.
51862	83.70	84.90	-1.4	85.60	-2.22	-3.63	-36.3	-8.5	-10.3	1.6	-4.2	5.3	.5	-1.0	1.7	2.1	-5.
52562	83.70	85.10	-1.6	86.40	-3.12	-4.77	-47.7	-32.7	-7.5	-9.1	1.4	-3.5	4.3	.4	-.7	.8	-9.
60162	83.50	85.10	-1.9	85.30	-2.11	-3.99	-39.9	-42.9	-29.1	-6.6	-7.8	1.2	-2.8	3.2	.2	-.3	-12.
60862	83.50	85.60	-2.5	85.00	-1.76	-4.22	-42.2	-35.9	-38.2	-25.4	-5.6	-6.5	.9	-2.1	2.1	.1	-15.
61562	84.20	86.40	-2.5	84.80	-.71	-3.25	-32.5	-38.0	-31.9	-33.4	-21.8	-4.7	-5.2	.7	-1.4	1.1	-17.
62262	84.90	85.30	-.5	85.10	-.24	-.70	-7.0	-29.3	-33.7	-27.9	-28.6	-18.2	-3.8	-3.9	.5	-.7	-15.
62962	83.90	85.00	-1.3	85.20	-1.53	-2.82	-28.2	-6.3	-26.0	-29.5	-23.9	-23.9	-14.5	-2.8	-2.6	.2	-16.
70662	84.50	84.80	-.4	84.90	-.47	-.82	-8.2	-25.4	-5.6	-22.8	-25.3	-20.0	-19.1	-10.9	-1.9	-1.3	-14.
71362	85.10	85.10	.0	85.10	.00	.00	.0	-7.4	-22.6	-4.9	-19.5	-21.1	-16.0	-14.3	-7.3	-.9	-11.
72062	85.60	85.20	.5	84.50	1.30	1.77	17.7	.0	-6.6	-19.7	-4.2	-16.3	-16.9	-12.0	-9.5	-3.6	-7.
72762	85.20	84.90	.4	84.70	.59	.94	9.4	15.9	.0	-5.8	-16.9	-3.5	-13.0	-12.7	-8.0	-4.8	-4.
80362	85.30	85.10	.2	83.70	1.91	2.15	21.5	8.5	14.2	.0	-4.9	-14.1	-2.8	-5.8	-8.4	-4.0	.
81062	85.50	84.50	1.2	83.70	2.15	3.33	33.3	19.3	7.5	12.4	.0	-4.1	-11.3	-2.1	-6.5	-4.2	4.
81762	84.70	84.70	.0	83.50	1.44	1.44	14.4	30.0	17.2	6.6	10.6	.0	-3.3	-8.5	-1.4	-3.3	6.
82462	85.80	83.70	2.5	83.50	2.75	5.26	52.6	12.9	26.7	15.0	5.7	8.9	.0	-2.5	-5.6	-.7	11.
83162	85.50	83.70	2.2	84.20	1.54	3.69	36.9	47.4	11.5	23.3	12.9	4.7	7.1	.0	-1.6	-2.8	14.
90762	85.30	83.50	2.2	84.90	.47	2.63	26.3	33.3	42.1	10.1	20.0	10.7	3.8	5.3	.0	-.8	15.
91462	85.10	83.50	1.9	83.90	1.43	3.35	33.5	23.6	29.6	36.8	8.6	16.7	8.6	2.8	3.5	.0	16.
92162	84.80	84.20	.7	84.50	.36	1.07	10.7	30.1	21.0	25.9	31.6	7.2	13.3	6.4	1.9	1.8	15.
92862	84.70	84.90	-.2	85.10	-.47	-.71	-7.1	9.6	26.8	18.4	22.2	26.3	5.7	10.0	4.3	.9	12.
100562	84.80	83.90	1.1	85.60	-.93	.14	1.4	-6.4	8.5	23.4	15.8	18.5	21.1	4.3	6.7	2.1	10.
101262	83.60	84.50	-1.1	85.20	-1.88	-2.94	-29.4	1.2	-5.6	7.5	20.1	13.1	14.8	15.8	2.9	3.3	4.
101962	84.50	85.10	-.7	85.30	-.94	-1.64	-16.4	-26.5	1.1	-4.9	6.4	16.7	10.5	11.1	10.5	1.4	1.
102662	84.80	85.60	-.9	85.50	-.82	-1.75	-17.5	-14.8	-23.5	1.0	-4.2	5.3	13.4	7.9	7.4	5.3	-2.
110262	84.60	85.20	-.7	84.70	-.12	-.82	-8.2	-15.8	-13.1	-20.6	.8	-3.5	4.3	10.0	5.3	3.7	-4.
110962	84.60	85.30	-.8	85.80	-1.40	-2.22	-22.2	-7.4	-14.0	-11.5	-17.7	.7	-2.8	3.2	6.7	2.6	-6.
111662	85.10	85.50	-.5	85.50	-.47	-.94	-9.4	-20.0	-6.6	-12.3	-9.9	-14.7	.6	-2.1	2.1	3.3	-7.
112362	84.90	84.70	.2	85.30	-.47	-.23	-2.3	-8.4	-17.8	-5.8	-10.5	-8.2	-11.8	.4	-1.4	1.1	-6.
113062	84.70	85.80	-1.3	85.10	-.47	-1.75	-17.5	-2.1	-7.5	-15.5	-4.9	-8.8	-6.6	-8.8	.3	-.7	-7.
120762	85.60	85.50	.1	84.80	.94	1.06	10.6	-15.8	-1.9	-6.5	-13.3	-4.1	-7.0	-4.9	-5.9	.1	-5.
121462	85.20	85.30	-.1	84.70	.59	.47	4.7	9.5	-14.0	-1.6	-5.6	-11.1	-3.3	-5.3	-3.3	-2.9	-3.
122162	85.20	85.10	.1	84.80	.47	.59	5.9	4.3	8.5	-12.3	-1.4	-4.7	-8.9	-2.5	-3.5	-1.6	-2.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
122862	84.60	84.80	-.2	83.60	1.20	.96	9.6	5.3	3.8	7.4	-10.5	-1.2	-3.7	-6.7	-1.6	-1.8	.
10463	85.20	84.70	.6	84.50	.83	1.42	14.2	8.6	4.7	3.3	6.4	-8.8	-.9	-2.8	-4.4	-.8	2.
11163	86.50	84.80	2.0	84.80	2.00	4.01	40.1	12.8	7.7	4.1	2.8	5.3	-7.0	-.7	-1.9	-2.2	6.
11863	87.20	83.60	4.3	84.60	3.07	7.38	73.8	36.1	11.3	6.7	3.5	2.4	4.2	-5.3	-.5	-.9	13.
12563	85.90	84.50	1.7	84.60	1.54	3.19	31.9	66.4	32.1	9.9	5.8	2.9	1.9	3.2	-3.5	-.2	15.
20163	86.00	84.80	1.4	85.10	1.06	2.47	24.7	28.7	59.0	28.1	8.5	4.8	2.4	1.4	2.1	-1.8	16.
20863	86.10	84.60	1.8	84.90	1.41	3.19	31.9	22.3	25.5	51.7	24.1	7.1	3.8	1.8	.9	1.1	17.
21563	87.30	84.60	3.2	84.70	3.07	6.26	62.6	28.7	19.8	22.4	44.3	20.0	5.7	2.9	1.2	.5	21.
22163	88.00	85.10	3.4	85.60	2.80	6.21	62.1	56.4	25.5	17.3	19.2	36.9	16.0	4.3	1.9	.6	24.
30163	87.80	84.90	3.4	85.20	3.05	6.47	64.7	55.9	50.1	22.3	14.8	16.0	29.5	12.0	2.8	1.0	27.
30863	88.20	84.70	4.1	85.20	3.52	7.65	76.5	58.2	49.7	43.8	19.1	12.4	12.8	22.1	8.0	1.4	30.
31563	91.60	85.60	7.0	84.60	8.27	15.28	152.8	68.9	51.7	43.5	37.6	15.9	9.9	9.6	14.8	4.0	41.
32263	90.70	85.20	6.5	85.20	6.46	12.91	129.1	137.6	61.2	45.3	37.3	31.3	12.7	7.4	6.4	7.4	48.
32963	90.70	85.20	6.5	86.50	4.86	11.31	113.1	116.2	122.3	53.6	38.8	31.1	25.0	5.6	4.9	3.2	52.
40563	91.00	84.60	7.6	87.20	4.36	11.92	119.2	101.8	103.3	107.0	45.9	32.3	24.8	18.8	6.4	2.5	56.
41163	89.90	85.20	5.5	85.90	4.66	10.17	101.7	107.3	90.5	90.4	91.7	38.3	25.9	18.6	12.5	3.2	58.
41963	91.20	86.50	5.4	86.00	6.05	11.48	114.8	91.6	95.4	79.2	77.5	76.4	30.6	15.4	12.4	6.3	60.
42663	91.50	87.20	4.9	86.10	6.27	11.20	112.0	103.3	81.4	83.5	67.9	64.6	61.1	23.0	12.9	6.2	62.
50363	92.50	85.90	7.7	87.30	5.96	13.64	136.4	100.8	91.8	71.2	71.5	56.6	51.6	45.9	15.3	6.5	65.
51063	92.30	86.00	7.3	88.00	4.89	12.21	122.1	122.8	89.6	80.4	61.0	59.6	45.2	38.7	30.6	7.7	66.
51763	91.80	86.10	6.6	87.80	4.56	11.18	111.8	109.9	109.1	78.4	68.9	50.9	47.7	33.9	25.8	15.3	65.
52463	92.10	87.30	5.5	88.20	4.42	9.92	99.2	100.6	97.7	95.5	67.2	57.4	40.7	35.8	22.6	12.9	63.
53163	92.00	88.00	4.5	91.60	.44	4.98	49.8	89.3	89.4	85.5	81.8	56.0	45.9	30.5	23.8	11.3	56.
60763	92.70	87.80	5.6	90.70	2.21	7.79	77.9	44.8	79.4	78.2	73.3	68.2	44.8	34.4	20.3	11.9	53.
61563	92.40	88.20	4.8	90.70	1.87	6.64	66.4	70.1	39.9	69.4	67.1	61.1	54.6	33.6	23.0	10.2	50.
62163	93.10	91.60	1.6	91.00	2.31	3.95	39.5	59.7	62.3	34.9	59.5	55.9	48.8	40.9	22.4	11.5	44.
62863	92.40	90.70	1.9	89.90	2.78	4.66	46.6	35.5	53.1	54.5	29.9	49.6	44.7	36.6	27.3	11.2	39.
70563	92.50	90.70	2.0	91.20	1.43	3.41	34.1	41.9	31.6	46.5	46.7	24.9	39.7	33.5	24.4	13.6	34.
71263	93.20	91.00	2.4	91.50	1.86	4.28	42.8	30.7	37.2	27.6	39.8	38.9	19.9	29.8	22.4	12.2	30.
71963	93.60	89.90	4.1	92.50	1.19	5.30	53.0	38.5	27.3	32.6	23.7	33.2	31.1	14.9	19.8	11.2	29.
72663	93.60	91.20	2.6	92.30	1.41	4.04	40.4	47.7	34.2	23.9	27.9	19.7	26.5	23.4	10.0	9.9	26.
80263	93.80	91.50	2.5	91.80	2.18	4.69	46.9	36.4	42.4	29.9	20.5	23.3	15.8	19.9	15.6	5.0	26.
80963	93.40	92.50	1.0	92.10	1.41	2.38	23.8	42.2	32.3	37.1	25.7	17.1	18.6	11.8	13.3	7.8	23.
81663	93.60	92.30	1.4	92.00	1.74	3.15	31.5	21.5	37.5	28.3	31.8	21.4	13.6	14.0	7.9	6.6	21.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
82363	93.00	91.80	1.3	92.70	.32	1.63	16.3	28.3	19.1	32.8	24.2	26.5	17.1	10.2	9.3	3.9	19.
83063	93.40	92.10	1.4	92.40	1.08	2.49	24.9	14.7	25.2	16.7	28.2	20.2	21.2	12.8	6.8	4.7	18.
90663	93.20	92.00	1.3	92.10	.11	1.41	14.1	22.4	13.0	22.0	14.3	23.5	16.2	15.9	8.6	3.4	15.
91363	94.70	92.70	2.2	92.40	2.49	4.65	46.5	12.7	20.0	11.4	18.9	11.9	18.8	12.1	10.6	4.3	17.
92063	95.00	92.40	2.8	92.50	2.70	5.52	55.2	41.8	11.3	17.5	9.8	15.7	9.5	14.1	8.1	5.3	19.
92763	94.50	93.10	1.5	93.20	1.39	2.90	29.0	49.6	37.2	9.9	15.0	8.2	12.6	7.2	9.4	4.0	18.
100463	95.00	92.40	2.8	93.60	1.50	4.31	43.1	26.1	44.1	32.5	8.5	12.5	6.5	5.4	4.8	4.7	19.
101163	93.90	92.50	1.5	93.60	.32	1.83	18.3	38.8	23.2	38.6	27.9	7.1	10.0	4.9	6.3	2.4	18.
101863	94.10	93.20	1.0	93.80	.22	1.29	12.9	16.5	34.5	20.3	33.1	23.2	5.6	7.5	3.3	3.1	16.
102563	94.80	93.60	1.3	93.40	1.50	2.78	27.8	11.6	14.7	30.2	17.4	27.6	18.6	4.2	5.0	1.6	16.
110163	94.30	93.60	.7	93.60	.75	1.50	15.0	25.0	10.3	12.8	25.9	14.5	22.1	13.9	2.8	2.5	14.
110863	94.30	93.80	.5	93.00	1.40	1.93	19.3	13.5	22.2	9.0	11.0	21.5	11.6	16.5	9.3	1.4	14.
111563	94.60	93.40	1.3	93.40	1.28	2.57	25.7	17.4	12.0	19.5	7.7	9.2	17.2	8.7	11.0	4.6	12.
112263	93.90	93.60	.3	93.20	.75	1.07	10.7	23.1	15.4	10.5	16.7	6.4	7.3	12.9	5.8	5.5	11.
112963	94.70	93.00	1.8	94.70	.00	1.83	18.3	9.6	20.6	13.5	9.0	13.9	5.1	5.5	8.6	2.9	11.
120663	94.50	93.40	1.2	95.00	-.53	.65	6.5	16.5	8.6	10.0	11.6	7.5	11.1	3.9	3.7	4.3	9.
121363	94.10	93.20	1.0	94.50	-.42	.54	5.4	5.9	14.6	7.5	15.4	9.7	6.0	8.3	2.6	1.8	8.
122063	94.40	94.70	-.3	95.00	-.63	-.95	-9.5	4.9	5.2	12.8	6.4	12.8	7.7	4.5	5.6	1.3	5.
122763	95.00	95.00	.0	93.90	1.17	1.17	11.7	-8.5	4.3	4.6	11.0	5.4	10.3	5.8	3.0	2.8	5.
10364	95.10	94.50	.6	94.10	1.06	1.70	17.0	10.5	-7.6	3.8	3.9	5.1	4.3	7.7	3.9	1.5	5.
11064	95.30	95.00	.3	94.80	.53	.84	8.4	15.3	9.4	-6.6	3.3	3.3	7.3	3.2	5.1	1.9	5.
11764	95.40	93.90	1.6	94.30	1.17	2.76	27.6	7.6	13.6	8.2	-5.7	2.7	2.6	5.5	2.1	2.6	7.
12464	95.00	94.10	1.0	94.30	.74	1.70	17.0	24.9	6.7	11.9	7.0	-4.7	2.2	2.0	3.7	1.1	7.
13164	94.10	94.80	-.7	94.60	-.53	-1.27	-12.7	15.3	22.1	5.9	10.2	5.9	-3.8	1.6	1.3	1.8	5.
20764	96.30	94.30	2.1	93.90	2.56	4.68	46.8	-11.4	13.6	19.3	5.1	8.5	4.7	-2.8	1.1	.7	9.
21464	96.30	94.30	2.1	94.70	1.69	3.81	38.1	42.1	-10.1	11.9	16.6	4.2	6.8	3.5	-1.9	.5	11.
22064	96.70	94.60	2.2	94.50	2.33	4.55	45.5	34.3	37.4	-8.9	10.2	13.8	3.4	5.1	2.3	-.9	14.
22864	95.40	93.90	1.6	94.10	1.38	2.98	29.8	40.9	30.5	32.7	-7.6	8.5	11.1	2.5	3.4	1.2	15.
30664	95.60	94.30	1.0	94.40	1.27	2.22	22.2	26.8	36.4	26.7	28.1	-6.3	6.8	8.3	1.7	1.7	15.
31364	95.60	94.50	1.2	95.00	.63	1.80	18.0	20.0	23.8	31.8	22.9	23.4	-5.1	5.1	5.5	.8	15.
64814	96.00	94.10	2.0	95.10	.95	2.97	29.7	16.2	17.8	20.9	27.3	19.1	18.7	-3.8	3.4	2.8	15.
32664	95.90	94.40	1.6	95.30	.63	2.22	22.2	26.7	14.4	15.6	17.9	22.7	15.2	14.0	-2.5	1.7	15.