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A SIMULATION TEST OF THE
EFFICIENT MARKETS MODEL

by

CONSTANTINE MARKOS KALOGERAS

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Abstract

A SIMULATION TEST of the EFFICIENT MARKETS MODEL

by

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Advisers: Professors Edward Wolf, John Zdanowicz and
Martin Zweig

The purpose of the thesis was to provide evidence either for or against the general random walk or efficient markets model. The methodology was as follows. 1) The warrant and random walk literatures were reviewed. Studies based upon insufficient sample size and warrants with special provisions typified the warrant literature. 2) The parabolic warrant function utilized in the literature was found to be theoretically invalid. A theoretical hyperbolic warrant function was derived for predicting mean warrant prices.

$$W = \sqrt{B * C^2 + 100^2} - 100$$

where:

W = warrant price as a percent of exercise price

C = common stock price as a percent of exercise price

B = a coefficient equal to one in this case

3) Two samples of weekly warrant and associated common stock prices were selected for a two-year test period from September, 1970 to September, 1972.

4) A computer program was written which computed statistics for the above curve; as well as for four other curves which were applied to the two warrant samples-- 27 short term warrants (three to five years to expiration) and 18 warrants with longer expiration periods. Of the five curves the the theoretical $B = 1$ hyperbola represented the best overall fit to the 3,852 data points.

5) With the hyperbolic warrant function above, all warrant prices were categorized into the following filter levels--1S, 1-1.25S, 1.25-1.5S, 1.5-1.75S, 1.75-2S, 2S+ away from the predicted mean warrant price--where S is the standard error.

6) A decision rule was devised for each filter level based on Cootner's reflecting barriers and professional versus non-professional investor theories. For example, a \$1,000 warrant investment would be made if the weekly warrant price was $-(1-1.25S)$ away from the predicted mean warrant price, and a \$1,000 disinvestment made if the warrant price was $+(1-1.25S)$ away.

7) With another computer program the decision rule above was applied to each filter level and, through simulation, the average weekly percentage returns were computed.

8) The mean return per filter was compared to a mean standard return via the Dunnett t test. The standard return, which represented the market's performance, was

obtained by buying each warrant in the first week, holding and selling it in the last week of the test period.

The findings of the thesis are as follows. The five filter-decision rule returns could not significantly outperform the buy and hold strategy--whether commissions were taken into account or not. Although Cootner's reflecting barriers and professional versus non-professional investor theories may be correct, it was not possible to make excess profits from the market imperfections. All exceptions to the findings were explained, and five areas for further research were suggested.

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CHAPTER I

REVIEW OF THE INSTITUTIONAL WARRANT LITERATURE

Definition. An American warrant is typically a long term option to purchase a stated number of shares of the associated common stock at a specified price (exercise price) at any time within a specific period of time--after which the warrant becomes worthless. (A European warrant can only be exercised on its expiration date.) When a warrant is exercised, the holder pays the issuing corporation an amount equivalent to the exercise price per share times the number of shares obtainable with each warrant. For example, a holder of the American Telephone & Telegraph (AT & T) warrant could have turned the warrant into AT & T with \$52 in cash--any time between April, 1970 and May 15, 1975--and AT & T would have issued him one share of common stock. Thus, in this example, the stated number of common shares that the warrant holder is entitled to is one for each warrant. The exercise price is \$52 per share, and the exercise period is from April, 1970 to May 15, 1975.

Types of Warrants. There are many variations in the terms and provisions contained in warrant agreements. In fact, after reading the warrant exceptions below, one will realize that there are very few "normal" or "typical" warrants. The

difficulties which these variations pose for the warrant researcher will become obvious in the next chapter.

1) Several warrants have conversion ratios greater or smaller than one. That is, one warrant may be exercisable into two shares of common stock, or 0.1421 shares, or some number of shares other than one.¹

2) Most warrants require a cash payment when exercised but some permit payment in the form of the issuing corporation's bonds² or preferred stock³. The bonds and preferred stock may be selling below par value but the issuing corporation will consider them as being worth par value or a high percentage of par value⁴. Thus, the warrant's effective exercise price is reduced and the value of the warrant increases. One writer refers to these warrants as "CD" warrants⁵--for "converting a corporation's debt to equity"--because exercising the warrants not only increases the amount of equity; it reduces the debt outstanding.

3) In quite a few warrants⁶ the exercise price changes to a different level at a future predetermined point (s) in time--which has the effect of changing the value of the warrant as that time approaches.

4) A number of warrants⁷ have a "flush-out" provision which gives the issuing corporation the right to temporarily reduce the exercise price under certain conditions. This action would force more investors to exercise the warrant when the company so desires. This possibility of having the exercise price reduced would increase the

value of the warrant but not those listed on the American Stock Exchange (AMEX). The AMEX will not list "flush-out" warrants unless the issuer agrees not to exercise the provision⁸.

5) In order to have better control over potential dilution resulting from the exercising of warrants, some issuing corporations⁹ have put call provisions in the warrant so that they are callable at specific prices¹⁰. This call provision reduces the warrants' value to the holder because of uncertainty with regard to when the warrant will expire.

6) Other warrants--called latent warrants¹¹--can only be obtained by purchasing the bond to which they are attached. The expiration date of the warrant is uncertain because the warrant expires when the bond is "called". Again, this uncertain expiration date would reduce the warrant's value.

7) One warrant¹² becomes void if the issuing corporation merges and it is not the surviving corporation. This provision would also reduce the value of the warrant to the holder.

8) Most warrants¹³ have one hundred percent dilution protection from stock dividends and splits, but others¹⁴ have no protection, and still others¹⁵ have fractional dilution protection. The more dilution protection which exists, the greater would be the value of the warrant to the holder.

9) A few warrants¹⁶ are not exercisable until after a

specific future date. The value of the warrant will be reduced until that date has passed.

10) Several warrants are sold in units--with bonds perhaps¹⁷. The manner in which the warrants are issued has no effect on the warrants' value unless the warrants are non-detachable (reduces its value), or if the exercise price is below the existing market price of the common stock (increases its value).

11) Some warrants are exercisable into instruments other than common stock--as well as into the common stock of other corporations¹⁸. This complexity probably has little effect on the warrant's value.

12) One warrant¹⁹ is not worthless after expiration. Obviously, this significantly increases the warrant's value.

13) A few warrants²⁰--called perpetual warrants--do not expire. The lack of an expiration date should increase the warrant's value because the possibility always exists that the common stock will eventually increase in price beyond the exercise price.

The terms on warrants may be unexpectedly altered to the advantage of the investor. For example, the August 6, 1973 issue of the Wall Street Journal reports that Mortgage Trust of America may extend the life of their warrants if the market price of their common stock continues to sell below the exercise price. The reason results from two tax rules. One rule states that a company must realize as ordinary income any windfall profit resulting from warrants

expiring without being exercised. The second rule is unique to real estate investment trusts. That is, if a trust receives such substantial ordinary income it would be disqualified as a trust, have to pay much higher corporate income taxes, and significantly reduce the amount of income available for distribution to the shareholders. Thus, holders of REIT warrants may find an unexpected bonanza at expiration time.

Sources of Interest in Warrants. The first warrant issue is reported to have occurred between 1906 and 1911²¹. The first warrant listed on the New York Stock Exchange (NYSE) was in 1919²². Debenture-warrant units were issued and became popular in the 1920's; of 450 warrants which reportedly existed between 1906 and 1943, 403 were offered between 1924 and 1931²³. Warrants got a bad reputation during the 1930's when most warrants issued in the bull market of the 1920's proved worthless. The American & Foreign Power Company warrant, for example, sold for \$175 in 1929 for a total value of \$1 billion. In the ensuing recapitalization which was not completed until 1952, the warrants were assigned no value²⁴. As a result of the 1930's the NYSE did not permit warrants to be listed on its exchange.

In 1936 the AMEX listed 24 plus warrants - and by 1951 they had slowly declined to four! The total number of warrants increased from about six during 1950 to approximately 300 in 1971 - of which only 180 were actively traded. The number of listed warrants increased from

eighteen in 1967 to eighty in 1972²⁵.

Interestingly, the number of articles written on warrant topics closely parallels the faddish popularity of the instrument. There are several reasons for the renewed popularity of warrants since 1967 and especially since April, 1970.

A. Three traditional sources of warrants have been: 1) Reorganizations; 2) underwriters who received warrants as part of their compensation for floating new issues and 3) debenture-warrant and stock issues where the warrants were utilized as "sweeteners" or "equity kickers" accompanying the debt and common stock so that lower coupon interest rates and higher stock offering prices, respectively, were possible²⁶.

B. The merger and acquisition movement of the mid-1960's was the big stimulus to interest in warrants. Conglomerateers were interested in this "funny money", "Chinese money" or "Castro pesos", as warrants were called then, because warrants enabled them to (1) conserve cash (no dividends are paid on warrants as is done with common stock), (2) offer a prospective acquiree less straight debt or convertible debt and at lower interest rates--as pointed out above--because of the "sweetener" or "equity kicker", (3) increase cash inflow (as compared to convertible securities) since the warrant holder has to pay the issuing corporation when he exercises the warrants, (4) reduce the tax burden on the acquiree because the use

of warrants can create a tax-free exchange--especially with the installment sale method of acquisition, and (5) postpone earnings per share dilution because warrants were not included in earnings per share figures then--although accounting principles were requiring that other convertible instruments be included in the earnings per share calculations²⁷. During 1967 and 1968 conglomerates made their biggest acquisitions with warrants²⁸.

C. During 1969-1970 the conglomerates fell out of favor because high interest rates and a falling stock market made new mergers prohibitive, and the conglomerateers were not strong enough to manage their hodge-podges which were supposed to contain that elusive "synergism". Some conglomerateers only knew how to manage the pooling of interests accounting. Fortunately for warrant researchers, "conservative" AT & T picked up the fumbled warrant "football" by coming out with a \$3 billion 8-3/4% debenture-warrant issue. In addition, the NYSE broke its decades old tradition and permitted the AT & T warrant to be listed. Today there are 12 warrants listed on the NYSE. Warrant trading volume for the 68 warrants listed on the AMEX in 1971 was 131.5 million shares--up over one hundred percent from the 58 million share figure of 1970²⁹. AT & T and the NYSE gave respectability to the warrant and increased interest in its use. In fact, during July, 1973, the NYSE eased its listing requirements for warrants. Perhaps to benefit the sagging commissions situation, it has permitted

the listing of only 700,000 warrants instead of 1,000,000 and reduce the required number of warrant round-lot holders from 2,000 to 1,000.

The main reason for AT & T issuing 31.3 million five-year warrants with its debentures in April, 1970 was record high interest rates³⁰. The AT & T "equity kicker" brought attention to warrants from the pension funds, personal trusts (perhaps for the first time), insurance companies and banks--as well as the public; saved AT & T about one-half percent interest or \$235 million over the thirty-year life of the debenture; and may result in \$1.6 billion in new money for AT & T when and if the warrants are exercised. If the warrants are not exercised before the option expires on May 15, 1975 because the stock price does not exceed the exercise price of \$52 per share, then AT & T will be ahead by the amount received for the warrants--for which it will have given nothing! However, if this occurs, enthusiasm for AT & T's next warrant issue may be somewhat reduced. Parenthetically, it has been estimated that eighty to ninety percent of all old warrant issues have expired worthless³¹.

Based on AT & T's success, other utilities³² have issued warrants with their debentures. Approximately seventy-five real estate investment trusts (REITS) have also recently utilized warrant financing³³. In addition to the use of warrants in private placements to the institutional buyers mentioned above, the mutual funds³⁴ also

started paying more attention to warrants.

D. Other uses have been made of warrants which have generated further interest in their use. For example, warrants have been given to stockholders in place of cash dividends (to conserve cash)³⁵. One company substituted a warrant plan that assigns a number of warrants over a period of years to its key executives--for the old restricted stock option plan. There are several advantages for the executives of having warrant options instead of stock options³⁶.

- 1) While the five percent stock ownership rule for qualified stock option plans imposes ordinary income treatment, this tax burden is partially offset by the large premiums on warrants.
- 2) For capital gains treatment, a qualified stock option plan's stock must be held for at least three years--while the warrants qualify for capital gains in six months.
- 3) The clumsy qualified stock option procedure of borrowing money to exercise the stock and then selling the stock to pay for the loan, etc. is avoided by just selling those warrant options which cannot be financed by the individual.

E. Other big contributors to interest in warrants are the legendary stories of extraordinary profit resulting from warrants. The favorite example is the Tri-continental

Corporation warrant that sold for three cents per share in 1942 because the common stock price was so hopelessly far away from the exercise price of \$22.25 per share. The warrant traded mostly for tax loss purposes, and Arthur Wiesenberger, who was bringing out the first edition of his reference book on closed-end funds, planned to utilize the low cost warrants of the Tri-continental closed-end fund as the end papers in his book. It is unfortunate that legal considerations prevented his utilizing the warrants in the book because the \$5 book would have been worth approximately \$7500 by 1969! Although a \$312 investment in the Tri-continental common stock at the 1942 low rose to a value of \$29,000 by 1969, the same investment in the warrants became worth \$703,000³⁷!

Another example is the RKO warrant which sold for 6.25¢ per warrant during 1942 because the \$2.50 per share common stock was selling far away from the exercise price of \$15 per share. In four years the common went to \$28 while the warrant moved to \$13 per share. A \$500 investment in the common increased to \$5,625 in four years, while the same investment in the warrants increased to \$104,000³⁸!

Other more recent examples are that of General Tire warrants, which rose from \$4.50 to \$200 per share (4,460% increase) during the 1956-1960 period while the common stock rose "only" 460%. The United Airlines warrant increased 28 times from 1962 to 1965, while the common stock "only" increased seven times. The National Realty warrant

rose from 68¢ to \$1.40 per share, and the TWA warrant from \$3.50 to \$83 per share, etc.³⁹. Of course, investors sometimes forget, or are unaware of, examples such as the previously mentioned American & Foreign Power Co. warrant, as well as the previously mentioned estimate that eighty to ninety percent of the old warrants expired worthless!

F. Some interest has been generated in warrants because of the trading possibilities.

- 1) Warrant leverage is defined as the percentage change in the warrant price during a specific time period, divided by the percentage change in the associated common stock price during the same time period. For example⁴⁰, when the TWA warrants rose 82% between 10/66 and 2/67 while the associated common stock rose "only" 53%, that was upward warrant leverage. And when the TWA warrants fell 61% between 6/66 and 10/66 while the associated common stock fell "only" 49%, that was the less often mentioned downward warrant leverage. The key to warrant leverage is the fixed exercise price and the fact that the common stock sells at a higher price than does the warrant. From mathematics one realizes that a one point price change in the common stock when it is above the exercise price will result in a larger percentage change when the percentage calculation is made with the

lower-priced warrant as the denominator than when the common is the denominator.

- 2) Defining arbitrage as trading the same or equivalent securities in two different markets, arbitrage transactions are typified by small profits per unit, large volume and negligible risk. For example⁴¹, one day in March, 1969 McCrory Corporation common stock sold for \$34.50 while the warrants--which give the holder the right to buy one common share at an exercise price of \$29--were selling at \$13.125. An arbitrageur could sell short 100 shares of McCrory common and receive \$3,408.75 after the broker's commission and state taxes were deducted. Instantaneously, he could buy 100 McCrory warrants for \$1,332.63 (includes the broker's commission). By putting up another \$2,000 (\$20 per share exercise price times 100 shares), he could receive 100 shares of McCrory common in return for his 100 McCrory warrants--at a total cost of \$3,332.63. The relatively riskless profit on this arbitrage transaction is \$3,408.75 from the sale of 100 McCrory common minus \$3,332.63 from the purchase of 100 McCrory common via the warrants, or \$76.12.
- 3) Defining hedging as limiting one's risk by offsetting one transaction with an opposite one

in a similar security, several hedging opportunities exist with warrants. For example, the AT & T warrant has sold for \$9 when the associated common stock sold for its exercise price of \$52 per share. Thus, warrant holders felt that the AT & T common would move to at least \$52 plus \$9 or \$61 per share before expiration. Other traders may have felt that this anticipated price move was unrealistically high for a large, regulated company like AT & T. If these doubters were hedgers, they would have purchased 100 shares of the high dividend paying AT & T common for \$5,200 while selling short \$5,200 worth of AT & T warrants. If, by May 15, 1975, the expiration date, their doubts were confirmed, they would profit from the faster falling warrant price--even if the common stock price increased beyond \$52 per share but not to \$61 per share! On the other hand, if the doubters were wrong and the AT & T common price increased beyond \$61 per share, their loss on the warrant short sale would be partially offset by the gain on the common stock. The reverse operation is called the convertible hedge--where the speculator shorts the common and goes long the warrants. The convertibility occurs because the speculator can avoid a short squeeze in the

common simply by exercising his warrants⁴².

- 4) Shorting warrants close to their expiration date on the possibility that they will expire worthless is another trading ploy which causes interest in warrants. That is, if the exercise price is not exceeded by the common stock price before the expiration date, the warrant will be worthless. In fact, this shorting of warrants was too popular and resulted in financial disaster for some speculators. They could not cover their shorts because the short position in the warrant was too large, and they had to "buy in" at high warrant prices which resulted in huge losses. As a result, the AMEX passed a rule which states that warrant short sales must cease when the total short interest represents twenty-five percent of the floating supply of the warrant⁴³.

For all of the above reasons, interest in warrants has been increasing. Below is a summary of the advantages and disadvantages of warrants for both the issuing corporation and the warrant holder.

SUMMARY OF THE PROS AND CONS OF WARRANTS

Pros For The Issuing Corporation.

- 1) The use of warrant "sweeteners" on new debt issues can broaden the market for the issue, attract large institutional investors, make the

"unsalable" bond issue salable, and permit the reduction of the bond's coupon interest rate without reducing its price--especially in periods of high interest rates.

- 2) The use of warrant "sweeteners" in new stock issues permits an increase in the offering price per share, the future sale of stock at predetermined prices, and partial compensation for the underwriters--especially in times of bull markets.
- 3) The use of warrants permits tax-free exchanges in installment sale-type purchases, and facilitates combinations by providing flexibility in the offering terms. To qualify as an installment sale, the acquiree's sale price must exceed \$1,000, and not more than thirty percent of the sale price must be received by the seller in the year of sale⁴⁴. The IRS considers the bond portion of the bond-warrant unit as payment received when the bond is disposed of, rather than in the year of sale⁴⁵. Thus, the seller will be able to postpone part of the tax on his capital gain as long as the market value of the warrant segment of the package does not exceed thirty percent⁴⁶.
- 4) The use of warrants with bonds, preferred or convertible securities in acquisitions results in giving the acquiree fewer of the non-warrant securities--and with lower coupon interest rates or conversion prices--mainly because of the large

premiums on warrants.

- 5) The issuance of warrants instead of stock can conserve cash because dividends are not paid on warrants. In fact, the use of warrants as dividends can also conserve cash--as well as bring in new cash when the warrants are exercised. The warrant dividend⁴⁷ does not dilute earnings per share as long as the exercise price is above the common stock market price, and the warrants trade at a premium. It does not lead to immediately larger cash requirements on a greater number of shares as does the stock dividend.
- 6) The sale of warrants results in the effective sale of stock at higher prices than currently exist--because of the premium. The money obtained from the sale of warrants can be utilized at no charge and no dilution for some time before the actual stock is issued. If the warrants are never exercised, the warrant money is "pure gravy".
- 7) Warrant-debt issues, and warrants which can be exercised by utilizing discount bonds both permit a more balanced capital structure.
- 8) Employee warrant plans can give more to the employee than do restricted stock option plans--and at no additional cost to the corporation.
- 9) Unlike convertible securities, the exercising of warrants actually brings new money into the

corporation.

- 10) Corporations treat the proceeds from the sale or issuance of warrants as an increase to paid-in capital⁴⁸. Therefore, the issuance of warrants in exchange for assets increases the total shareholder's equity--specifically, the book value of the common stock outstanding. This accounting gimmick reached its ultimate abuse when National General Corporation issued a large number of warrants during 1968 in a tender offer to holders of Great American Holding Corporation⁴⁹. Of the resulting \$38 per share increase in book value or stockholder's equity, \$2 came from retained earnings and \$36 came from the increase in paid-in capital resulting from the warrant issue⁵⁰.

Pros for Warrant Holders.

- 1) Warrants require less capital investment than does an investment in an equivalent number of common shares.
- 2) Warrants typically have a longer life than do other options such puts, calls and rights. Thus, more opportunity for profit exists.
- 3) Warrants often have more leverage than does the associated common stock. Thus, more profit potential exists with warrants than with common stock.
- 4) For high tax bracket investors, the fact that dividends are not paid on warrants may be viewed

as an advantage. In addition, the sale of a warrant dividend--as opposed to a stock dividend received--results in no immediate reduction in ownership in the company⁵¹.

- 5) With debenture-warrant issues an investor can borrow a higher percentage on the debenture portion than is possible with common stock or even convertible securities. This security-splitting aspect of debenture-warrants is an advantage to the investor in terms of flexibility also--especially when compared to a convertible security.
- 6) Because of certain unique provisions, some warrants can become more profitable than originally expected--i.e., exercising with discount bonds, a flush-out provision, one hundred percent dilution protection, perpetual life, etc.
- 7) Under Section 305 of the Internal Revenue Code, warrants and other rights issued to the stockholder are non-taxable as long as the market value of the warrant is less than fifteen percent of the market value of the stock on the day of distribution--unless the stockholder elects to allocate the basis of his stock to the stock plus warrants in accordance with their relative values⁵². If the fifteen percent rule is not met, then allocation of the cost basis is mandatory. But if the

fifteen percent rule is met, the stock can be sold and the entire cost is allocated to it while the warrants are retained on a no cost basis⁵³. This feature can be utilized to convert short term gains into long term gains because warrants which are sold can be treated as though they were held from the date of the acquisition of the stock⁵⁴. Long term gains can be taken on the warrant--even if the warrant was held for only one day--as long as the stock was held for more than six months. Also, warrants without a tax basis may be shifted by gift to another family member who is in a lower tax bracket⁵⁵.

Cons For The Issuing Corporation.

- 1) Warrants can be exercised at any time by the investors. Thus, the issuing corporation has no control over the cash inflow and cannot plan on having the common stock money come in on a particular day. This significant disadvantage also occurs with debenture-warrants versus convertible bonds because of the former's security-splitting aspect which gives the warrant a life which is unrelated to the debenture maturing or getting called.
- 2) The lack of control over the transformation of warrants or debenture-warrants into new equity is

also a disadvantage with respect to a firm's ability to issue more debt. However, several new warrant terms are being utilized to eliminate these two disadvantages.

- (a) Warrants are being issued with call provisions which would give more control over the cash inflow from the exercising of warrants.
 - (b) Warrants are being issued with the provision (flush-out) that the exercise price can be temporarily reduced by say thirty percent, and at any time. By lowering the exercise price temporarily, conversion of the warrants is "forced"⁵⁶.
 - (c) The previously mentioned warrant provision whereby a holder could exercise with a discount debenture being considered as having par value would also help in balancing the capital structure so that further debt financing is possible.
- 3) Before May, 1969 and APB Opinion No. 15, an advantage of using warrants was the fact that warrants were not included in earnings per share calculations--and they still are not included if the common stock is selling for less than the exercise price⁵⁷. APB Opinion No. 15 not only states that fully diluted earnings must be shown;

it also considers warrants dilutive securities when the common stock price exceeds the exercise price⁵⁸. The amount of dilution is computed by utilizing the treasury stock method which computes earnings per share as if the warrants were exercised at the beginning of the period (or at the time of issuance, if later), and as if these funds were utilized to purchase common stock at the average market price during the period⁵⁹.

- 4) APB Opinion 10 requires that the portion of the proceeds from a bond-warrant or convertible bond issue which is attributable to the warrants or convertible feature must be accounted for as paid-in capital⁶⁰. If the remainder of the proceeds is less than the par value of the bond, the bond is considered as being sold at a discount which is amortized⁶¹. The annual amortization is tax deductible and those managers who consider anything which reduces earnings as a disadvantage will also consider this feature as a disadvantage⁶². It is interesting that APB Opinion No. 14 of March, 1969 requires that convertible debt has to be considered as debt only because the debt and conversion privilege are inseparable--and no part of the proceeds from a convertible bond issue can be accounted for as paid-in capital anymore⁶³. Thus, only debenture-warrant issues

have this "disadvantage".

- 5) It is possible that an outsider could obtain a significant position in a company's oversized warrant issue with a minimum amount of capital and thus, attempt to apply pressure on the management. One way for a cash-rich issuing firm to protect itself would be a warrant provision which gives the firm the right of first refusal for the warrants or stock offered for sale by the original holders⁶⁴.

Cons For Warrant Holders.

- 1) The warrant has no dividend, no voting rights, no ownership in the company and no claim on assets in liquidation⁶⁵.
- 2) The warrant--which typically sells at a large premium relative to the common stock and has a finite expiration period--places the odds against its holder. It has been estimated that eighty to ninety percent of all warrants expire worthless⁶⁶. Also, a study of the Danford-Epply Warrant Index indicates that warrants are not profitable in the long run⁶⁷.
- 3) Downward leverage is as much of a disadvantage as upward leverage is an advantage. Also, simply by glancing at the data base attached, it becomes obvious that in several instances the common stock increases in price by a greater percentage than

does the warrant--which puts a dent in the "truism" that the warrant always has greater leverage than does the common stock.

- 4) If the warrant holder is not aware of the special provisions contained in some warrants--i.e. increases in the exercise price, uncertain expiration because expiration may be tied to when the debenture is called, voidable in the event of a merger, no dilution protection, non-exercisable until a certain date or callability--then he runs the risk of unexpected loss.
- 5) In debenture-warrant issues, the IRS requires that the bondholders value the original discount minus the discount existent when it is sold or redeemed, spread out over the life of the bond, as ordinary income. This tax disadvantage is usually insignificant, however⁶⁸.

FOOTNOTES

¹Value Line Convertible Survey, (1970-72). The footnotes have several examples--i.e. LTV, Uris Buildings, Braniff Airways.

²Ibid.--i.e. TWA

³Ibid.--i.e. Atlas Corporation

⁴Ibid.--i.e. American Metal Climax

⁵K. L. Yeasting, "CD Warrants," Financial Analysts Journal, XXVII (March, 1970), 44-7.

⁶Value Line Convertible Survey, (1970-1972). The footnotes list several examples--i.e. Budget Industries, Fuqua Industries.

⁷Ibid.--i.e. Daylin, Incorporated, Fibreboard Corporation.

⁸K. L. Yeasting, loc. cit., p. 45 and 47.

⁹Value Line Convertible Survey, (1970-72). The footnotes illustrate this point with Daylin, Incorporated.

¹⁰K. L. Yeasting, loc. cit., p. 45.

¹¹Ed O. Thorp, and S. T. Kassouf, Beat The Market--A Scientific Stock Market System (New York: Random House, 1967), p. 155-6.

¹²Value Line Convertible Survey, (1970-1972). The footnotes list several examples--i.e. Bath Industries.

¹³Ibid.--i.e. Leasco, Itel.

¹⁴Ibid.--i.e. Tri-continental and Atlas Corporations.

¹⁵Ibid.--i.e. Gould (3%), Standard Prudential (5%).

¹⁶Ibid.--i.e. Flying Tiger

¹⁷Ibid.--i.e. Holiday Inn's debenture-warrants issued in units of eleven warrants and a 9.5% first mortgage bond due in 1995.

¹⁸Ibid.--i.e. Hilton Hotel warrant exercisable into two shares of Hilton Hotels common, 0.144375 shares of TWA common, and 0.2625 shares of TWA \$2 convertible preferred.

¹⁹Ibid.--i.e. MAPCO's warrant is exchangeable into 0.5 shares of common upon expiration.

²⁰Ibid.--i.e. Atlas, Tri-continental and Alleghany Corporations.

²¹R. A. Stevenson and J. Lavelly, "Why a Bond Warrant Issue?", Financial Executive, XXXVII (June, 1970), 17.

²²Ibid.

²³Ibid.

²⁴"Rebirth of The Warrant," Forbes, February 15, 1969, p. 26.

²⁵S. S. Anreder, "Not Just For Swingers: Warrants Lately Have Become Almost Respectable," Barrons, I (December 7, 1970), 5.

²⁶S. L. Hayes and H. B. Reiling, "Sophisticated Financing Tool: The Warrant," Harvard Business Review, XLVII (January, 1969), 138.

²⁷Ibid., p. 146.

²⁸"Rebirth of The Warrant," Forbes, February 15, 1969, p. 26-7. Several examples are given to illustrate this point. For example, Gulf and Western took over Brown Company and Consolidated Cigar, Leasco Data Processing acquired Reliance Insurance, Avco merged with Seaboard Finance, AMK took United Fruit away from Zapata-Norness with a ten year warrant package, Rapid-American obtained a majority in Glen Alden, National General won over the Great American Holding Corporation, and LTV made a multitude of acquisitions with warrants.

²⁹S. S. Anreder, loc. cit.

³⁰Ibid. Mack Financial debentures of 1990 took over two weeks to move from the dealers' shelves--despite a 9-5/8% yield. The 8-7/8% Chrysler debentures of 1995 took almost as long. An A T & T affiliate, the Chesapeake & Potomac Telephone Company of Virginia sold only 40% of its 8-3/4% debentures of 2010 when the syndicate broke up.

³¹Ibid., p. 5.

³²R. W. Melicher, "Financing Electric Utilities: The Value of Common Stock Warrants," Public Utilities, LXXXVI (July 16, 1970), 34. United Utilities, second largest independent telephone company, and Tampa Electric are both examples.

³³D. Turov, "Out of the Cellar--The Market Is Down On REIT Warrants," Barrons, LII (March 27, 1972), 10.

³⁴"Rebirth of The Warrant," Forbes, (February 15, 1969), 27. The Wellington and Putnam Funds are examples.

³⁵D. Turov, loc. cit. Fuqua Industries is an example.

³⁶S. L. Hayes and H. B. Reiling, loc. cit., p. 148. Gulf and Western Industries is an example.

³⁷"Rebirth of The Warrant," Forbes, (February 15, 1969), p. 26.

³⁸Jerome Cohen and Edward D. Zinbarg, Investment Analysis and Portfolio Management (Homewood: Richard D. Irwin, 1967), 587.

³⁹"Rebirth of the Warrant," loc. cit.

⁴⁰What Warrants Are Worth," Fortune, (March, 1967), 208.

⁴¹"Trading In Warrants: Pitfalls And Potentials," Magazine of Wall Street, (July 5, 1969), 26.

⁴²W. Schwartz, "Advantage Warrants Have--Leverage Prospects," Commercial and Financial Chronicle, CCXI (March 5, 1970), 623.

⁴³"Trading in Warrants: Pitfalls and Potentials,"
Magazine of Wall Street, (July 5, 1969), 28.

⁴⁴R. A. Stevenson and J. Lavelly, loc. cit. p. 19.

⁴⁵Ibid.

⁴⁶Ibid.

⁴⁷W. Schwartz, "Warrants: A Form of Equity
Capital," Financial Analysts Journal, XXVI (September,
1970), 97.

⁴⁸Ibid., p. 100-101.

⁴⁹Ibid.

⁵⁰Ibid.

⁵¹Ibid., p. 97.

⁵²Ibid., p. 98-99.

⁵³Ibid.

⁵⁴Ibid.

⁵⁵Ibid.

⁵⁶R. A. Stevenson and J. Lavelly, loc. cit., p. 19.
The LTV warrant is an example.

⁵⁷Ibid., p. 20.

⁵⁸Ibid.

⁵⁹Ibid.

⁶⁰Ibid.

⁶¹Ibid.

⁶²Ibid., p. 21.

⁶³Ibid.

⁶⁴Ibid.

⁶⁵S. L. Hayes and H. B. Reiling, loc. cit., p. 144.

⁶⁶S. S. Anreder, loc. cit., p. 5.

⁶⁷"What Warrants Are Worth," loc. cit., p. 208.

⁶⁸S. L. Hayes and H. B. Reiling, loc. cit., p. 145.

CHAPTER II

REVIEW OF THE THEORETICAL WARRANT LITERATURE

Didactic Theoretical Literature. Probably because of the only recent popularity of warrants, the most space devoted to warrants in any of the financial texts investigated was a meager six pages¹. In the six pages the warrant premium was defined as any price in excess of the theoretical value of the warrant. Unfortunately, when the theoretical value of the warrant is defined² in this way, it has a negative value (not feasible) when the common stock is selling for less than the exercise price of the warrant--which occurs frequently.

$$V_T = (C_p - E_p) * R_c$$

where:

V_T = theoretical value of the warrant

E_p = exercise price

C_p = common stock price

R_c = conversion ratio, typically equal to
one common share for each warrant

However, as long as a warrant has not expired, and the associated stock has a value greater than zero, the warrant has to have a positive value--for the following reasons.

- a. The common stock and warrant can only have a positive value. A negative value would indicate

that someone would pay the investors to take the instrument!

- b. The probability always exists that the common stock will increase beyond the exercise price--perhaps because new management will come in and "turn the company around", a large government contract, or an oil strike. The resulting expected increase in the common price would be positive.
- c. Since probabilities can only range between the values 0 and 1, it follows that the expected value--the product of two positive figures--has to be positive, or at least zero. Therefore, the warrant value which is tied to the expected value of the common stock must also be positive.

Realizing the limitation of the formula above for computing the theoretical value of the warrant, the financial text states that negative values computed by the formula should be assumed to be zero³. This zero assumption lessens the error but problems still remain--for the following reasons.

- a. A percentage premium cannot be computed (division by zero) when the common stock sells for less than the exercise price.
- b. Hypothetically, if last week a warrant with a \$22 per share exercise price was selling for \$9

while its associated common stock sold at \$22 per share, the theoretical value of the warrant was zero and the premium was \$9, utilizing the formula. But if this week the hypothetical common stock fell to \$11 per share while the warrant price remained at \$9, utilizing the formula, the theoretical value of the warrant is assumed to be zero and the premium is still \$9. One realizes that the hypothetical warrant premium this week must be twice as great as it was last week--since the common stock dropped in half. This example illustrates that the formula is invalid for the entire range of common stock values between zero and the exercise price.

ACADEMIC THEORETICAL LITERATURE

Since the didactic literature is limited and contains some errors, academic articles on the subject were investigated--such as those of Samuelson⁴, Sprenkle⁵, Van Horne⁶, Ayres⁷ and Chen⁸. However, certain limitations exist with this literature also.

Data Problems.

1. Extremely small sample sizes characterize most of this literature. Samuelson did not mention any empirical tests of his "classic" warrant models⁹. Van Horne utilized three warrants and only 84 data points in the first part of his study¹⁰.

Chen worked with seven warrants¹¹; Sprenkle, fifteen warrants¹²; Van Horne, 21 warrants in his second cross-sectional study¹³; and Ayres, 24 warrants¹⁴. The small sample size relates back to the evolution of interest in warrants--explained in the previous chapter. These theoretical articles were written before late 1970.

2. Most of the studies were concerned with perpetual warrants. Samuelson's study dealt with only perpetual warrants¹⁵. In the first part of his study, Van Horne utilized perpetual warrants only¹⁶. Sprenkle utilized six perpetual warrants--forty percent of his small sample¹⁷. Chen's study was concerned with finite life warrants only¹⁸. Ayres' actual data was not published¹⁹.
3. Upon inspection of the finite warrants contained in Chen's and Van Horne's samples, some have special provisions--not mentioned in their articles--which would make those warrants significantly different from the typical finite warrant.

Of some 300 warrants in existence today, less than one percent are perpetual in nature, less than ten percent are callable, and less than twenty percent can be exercised with debt instead of cash²¹. Thus, most of the academic literature has generalized about pricing warrants--based on insufficient sample size and a large proportion of special

cases.

Future Stock Price Movement Assumptions. All of the literature concurs that the most important determinant of the warrant's value is the associated common stock price. Since these models are based on probabilistic present value--i.e., Ayres²², Samuelson²³, Van Horne²⁴, Chen²⁵, and Sprenkle²⁶--which requires some estimate of future common stock prices, a dilemma results because no one has been able to correctly predict stock prices on a consistent basis.

The dilemma is "resolved" by leaning on the work of random walk theorists who assume the log-normal distribution--Sprenkle, Ayres and Van Horne - or geometric Brownian motion - Samuelson and Chen--which approaches the log-normal distribution asymptotically. These distributions assume constant, increasing growth in the stock price--which contradicts reality.

1. Actual stock market investors--especially those of 1930-32, 1962, 1969-70 or holders of "blue chip" Penn Central stock--would disagree violently with this assumption. Even investors in U.S. Steel or AT & T since 1965 would disagree with that assumption--since those "blue chips" are selling far below their 1965 levels.
2. I also feel that this log-normal assumption is too strong. The assumption of steady growth in stock prices ignores both "turnaround" situ-

ations and significant long-lasting bad news for either the whole stock market or for individual stocks. This assumption contains overly optimistic premises concerning the stability of international and national politics, economic wisdom in Washington, favorable regulatory climates, the strength and aggressiveness of labor unions, domestic and foreign competition, and the quality of management.

3. Samuelson states, "Admittedly, our new (warrant) theory has arrived at the same paradoxical result as the special (warrant) case of the 1965 theory, namely that a perpetual warrant should sell for as much as the common stock itself."²⁷ Ayres states, "This model is appropriate to a stationary company with a fixed long-term growth rate. However, common sense suggests that there must be many stocks to which it is inappropriate. Companies which have current expectations of a dramatic, sudden change in their earning power will surely not be well described by this model."²⁸ Hence, there are significant limitations in utilizing the log-normal distribution as a forecaster of future stock prices.

OTHER THEORETICAL ARTICLES

Other non-academic articles on warrant theory found in less "sophisticated" journals have the same shortcomings as mentioned above except that they do not have the log-normal distribution assumption because the studies are more empirical in nature.

For example, Danforth-Epply of Massachusetts devised a warrant index and performed a study on the profitability of warrants--from 1961-1967. Their index only contained seven warrants²⁹. John Shelton developed a warrant pricing model in 1967 based on ninety-nine observations because "... the number of warrants available for which price quotations on the warrant and the stock could be readily obtained was less than forty"³⁰. Guynemer Giguère developed his model based on only three warrants. All were perpetual, and one warrant had the atypical provision which permits the utilization of the discount preferred stock at par instead of cash for exercise purposes³¹. Fred Pease utilized a sample of 32 warrants but only for one day's prices, so that his total data base is 32 points. In addition, some of Pease's warrants have atypical provisions³². Rather than dwell on the short-comings of the theoretical literature, the knowledge achieved by the warrant research will be summarized.

WARRANT RESEARCH FINDINGS

Theoretical Trading Range For Warrants.

1. As indicated previously, the major determinant of the warrant price is the common stock price, and neither the warrant nor the common stock can sell for less than zero³³. If the common stock were to sell for zero, the warrant would have to sell for at least zero.
2. Assuming a conversion ratio of one, the warrant can never sell at a higher price than that of the associated common stock³⁴. One would not pay more for an option to buy an asset than he would pay for the actual asset itself--unless he is caught in a short squeeze. No one will pay more for the warrant than for the common stock because he is assuming the expiration risk and reduced leverage, and possibly foregoing a common stock dividend.
3. In light of 1. and 2. above, if the common stock were selling at zero, the warrant would also have to be selling at zero.
4. The intrinsic value of a warrant with a conversion ratio of one is equal to the common stock price minus the exercise price when the warrant sells at a price which is greater than the exercise price. Because of arbitrage activity, a warrant will not

sell below its intrinsic value³⁵.

In light of the above, it can be stated that a function describing the value of a warrant (with a conversion ratio of one) commences at (0,0) and fluctuates between two parallel 45° lines which represent the minimum (intrinsic value) and maximum (common stock price) values for that warrant. The distance between the two parallel 45° lines is equal to the exercise price. Shelton feels that the two lines are not parallel, and that they converge³⁶. Although the other researchers would perhaps agree with Shelton, as an approximation based on the empirical data, this convergence is not possible from a theoretical point of view because, at some point, the maximum (common stock price) line would cross and be located below the minimum (intrinsic value) line. The trading range defined above is illustrated on page 39.

Shape Of The Warrant Function.

1. When the common stock rises to a very high level--relative to the exercise price--the importance of the expiration date, leverage, and common dividend foregone, becomes very much reduced, and the warrant asymptotically approaches its intrinsic value. In other words, the premium becomes negligible³⁷. Schwartz feels that the premium becomes negligible at three times the exercise price³⁸. Shelton feels that it occurs at four times the exercise price³⁹. Samuelson says that it occurs between three and four times the

exercise price⁴⁰. However, none of these authors defines "negligible premium".

2. The shape of the warrant function must be predominantly convex. Only a convex curve can commence at (0,0) and asymptotically approach the minimum (intrinsic value) line--without crossing it.
3. Although the warrant function could empirically have any number of concave and convex bends in it from the (0,0) point to the asymptote, the researchers have assumed that the warrant function is parabolic⁴¹. This parabolic assumption is incorrect--as will be proven later. For the sake of simplicity, a hyperbolic assumption is more theoretically valid. It is illustrated on the following page.

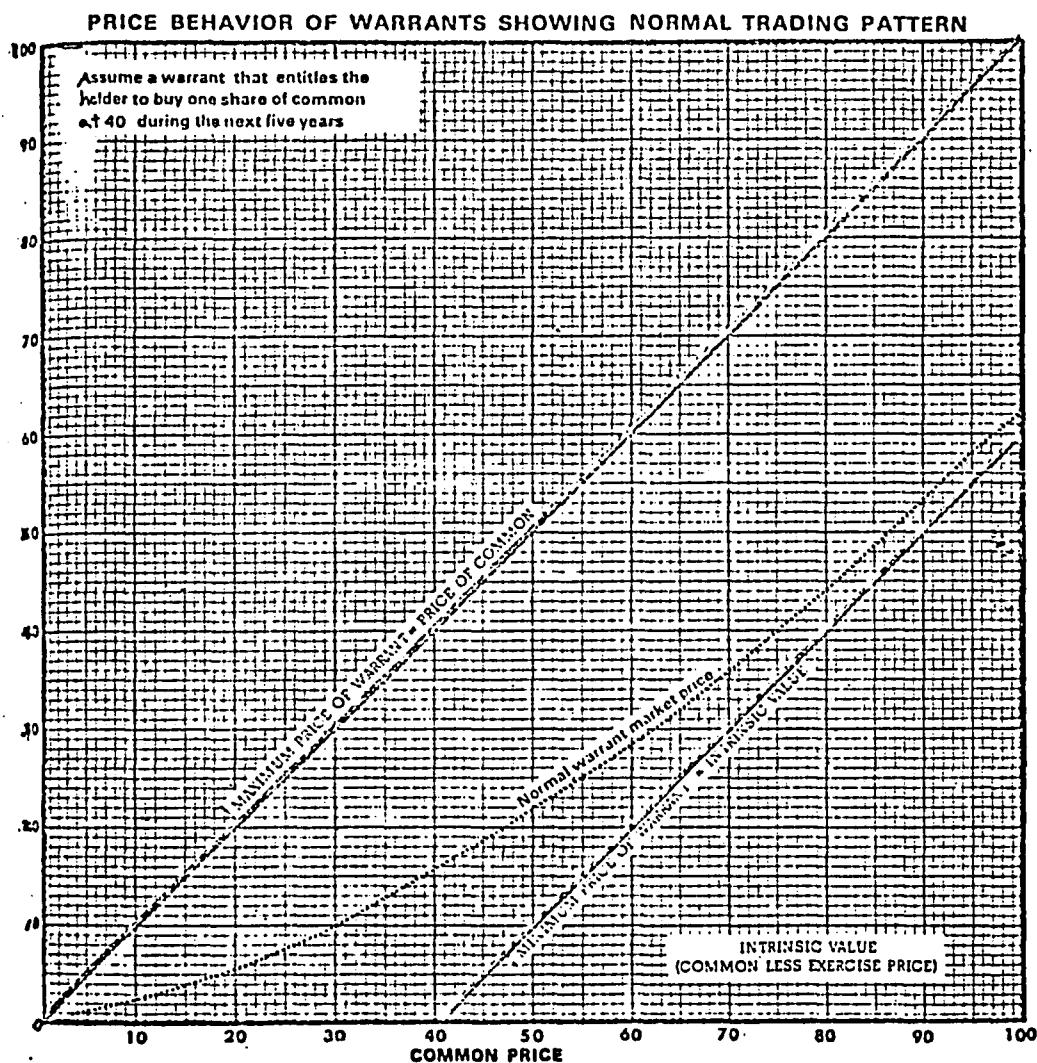
The Degree of Convexity in the Hyperbolic Warrant Function.

The various researchers have found that the following factors change the premium, and thus, the degree of convexity in the hyperbolic warrant function.

1. The closer that the warrant gets to the expiration date, the smaller the premium, the lower the entire warrant function, and thus, the greater the degree of convexity⁴². An Investment Bankers Association-sponsored study verifies that this warrant premium decline is slight until the last two years before expiration--at which

FIGURE 1

HYPERBOLIC WARRANT FUNCTION'S TRADING RANGE



Source: W. Schwartz, "Warrants: A Form of Equity Capital," Financial Analysts Journal, XXVI (September, 1970), 93.

time the premium value declines very rapidly⁴³.

Pease finds that the last year and a half is the period of the most rapid decline⁴⁴.

2. The greater the volatility of the common stock, the higher the premium, the higher the entire warrant function, and thus, the smaller the degree of convexity⁴⁵. However, Shelton found that the volatility of the common stock has a relatively insignificant effect on the warrant price⁴⁶.
3. The greater the common stock dividend, the smaller the premium, and the greater the degree of convexity⁴⁷. However, Van Horne found that the dividend foregone had a relatively insignificant effect on the warrant price⁴⁸. The common dividend paid on some stocks is so erratic that it is difficult to believe that it would be a consideration in purchasing either the stock or the warrants.
4. The greater the percentage dilution, the smaller the premium, and thus, the greater the degree of convexity⁴⁹. However, Shelton found that the percentage dilution had relatively little effect on the warrant price--perhaps because it was already reflected in the common price⁵⁰.
5. The possibility of an increase in the exercise price in the short run would increase the degree of convexity of the warrant function because the

minimum (intrinsic value) line would be moving farther away from the maximum line (common stock price)⁵¹.

6. The listing of a warrant on the AMEX or NYSE contributes to its premium and thus, reduces the degree of convexity of the warrant function⁵².
7. As the value of the additional funds needed to buy the higher priced common stock increases because of high interest rates, the premium on the warrant will increase while the degree of convexity decreases⁵³. Along these same lines, if the required return of the warrant speculator increases, the warrant premium will decline and the degree of convexity will increase⁵⁴.
8. From mathematics, the lower-priced warrant is supposed to always have greater leverage than has the associated common stock⁵⁵. However, this is often not the case because changing investor expectations can cause the warrant premiums to expand and contract in a manner contrary to the common stock movement.
9. The effect of the thirteen warrant variations on the premium was mentioned in Chapter I, and will not be repeated here, for the sake of brevity. The rule of thumb is that if the premium is increased by the warrant variation, the degree of convexity of the warrant function will decline.

In other words, the premium change and the degree of convexity change are inversely related-- as illustrated on the following page.

WARRANT PREMIUM

A better definition for a warrant premium than those found in the financial texts is the following. The warrant premium is the percentage increase in the common stock price required to make the warrant worth its current price⁵⁶.

$$P = ((W/R_c) + E_p - C_p) * 100 / C_p$$

where:

P = warrant premium percentage

W = warrant price

C_p = common stock price

R_c = conversion ratio

E_p = exercise price

The resulting premium curve, illustrated on page 44 is a convex hyperbola which commences asymptotically on the y axis, declines, and asymptotically approaches the x axis. Note that this type of function means that the more that the common stock price increases in value, the smaller the premium becomes. On the other hand, as the common stock price decreases, the larger the premium becomes.

FIGURE 2

PREMIUMS AND THE DEGREE OF CONVEXITY

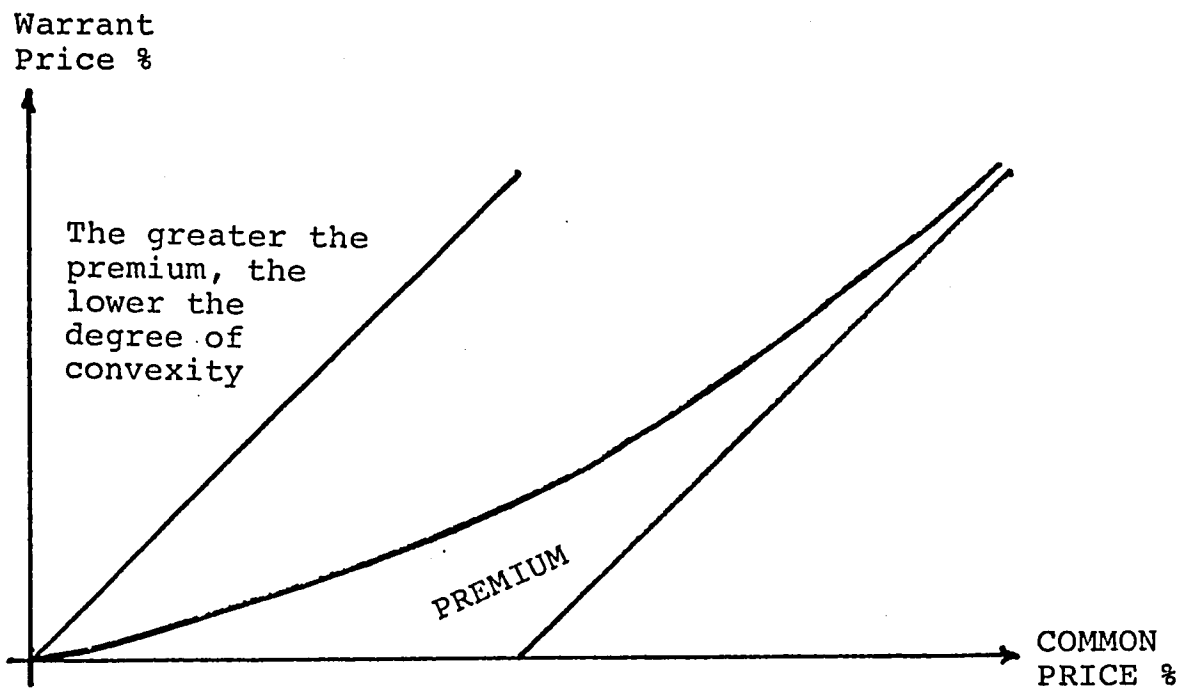
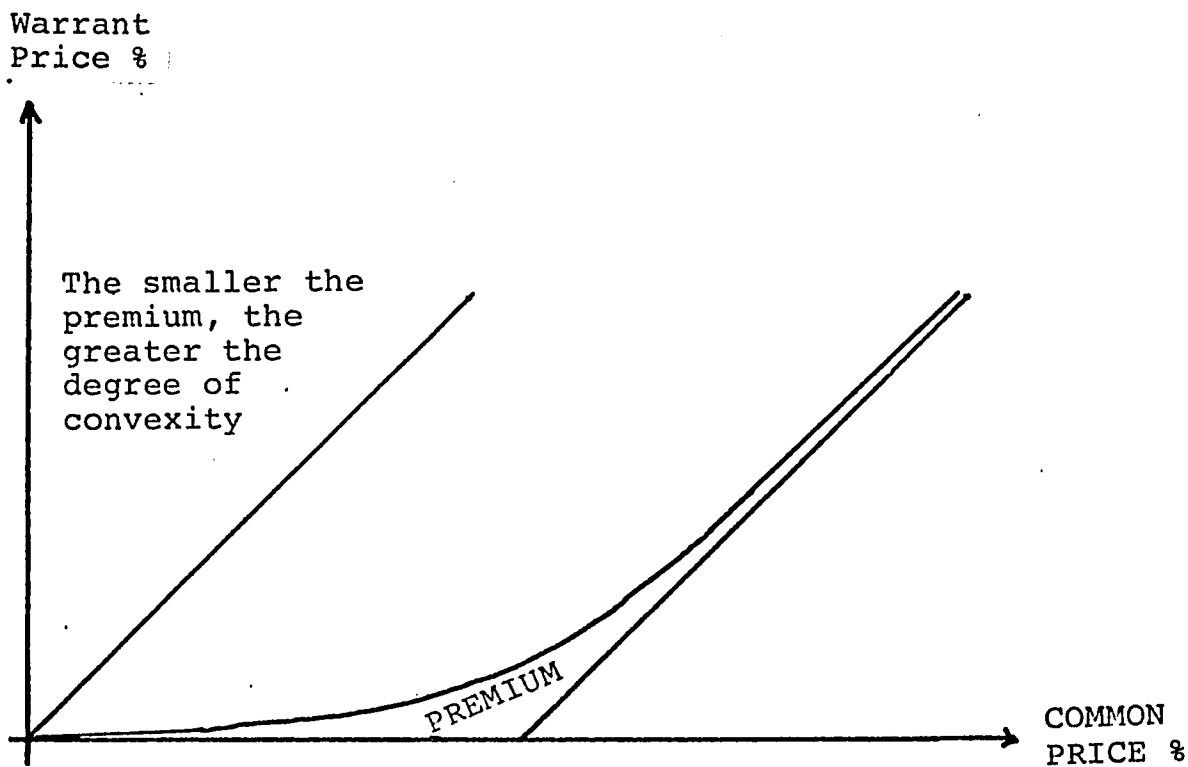
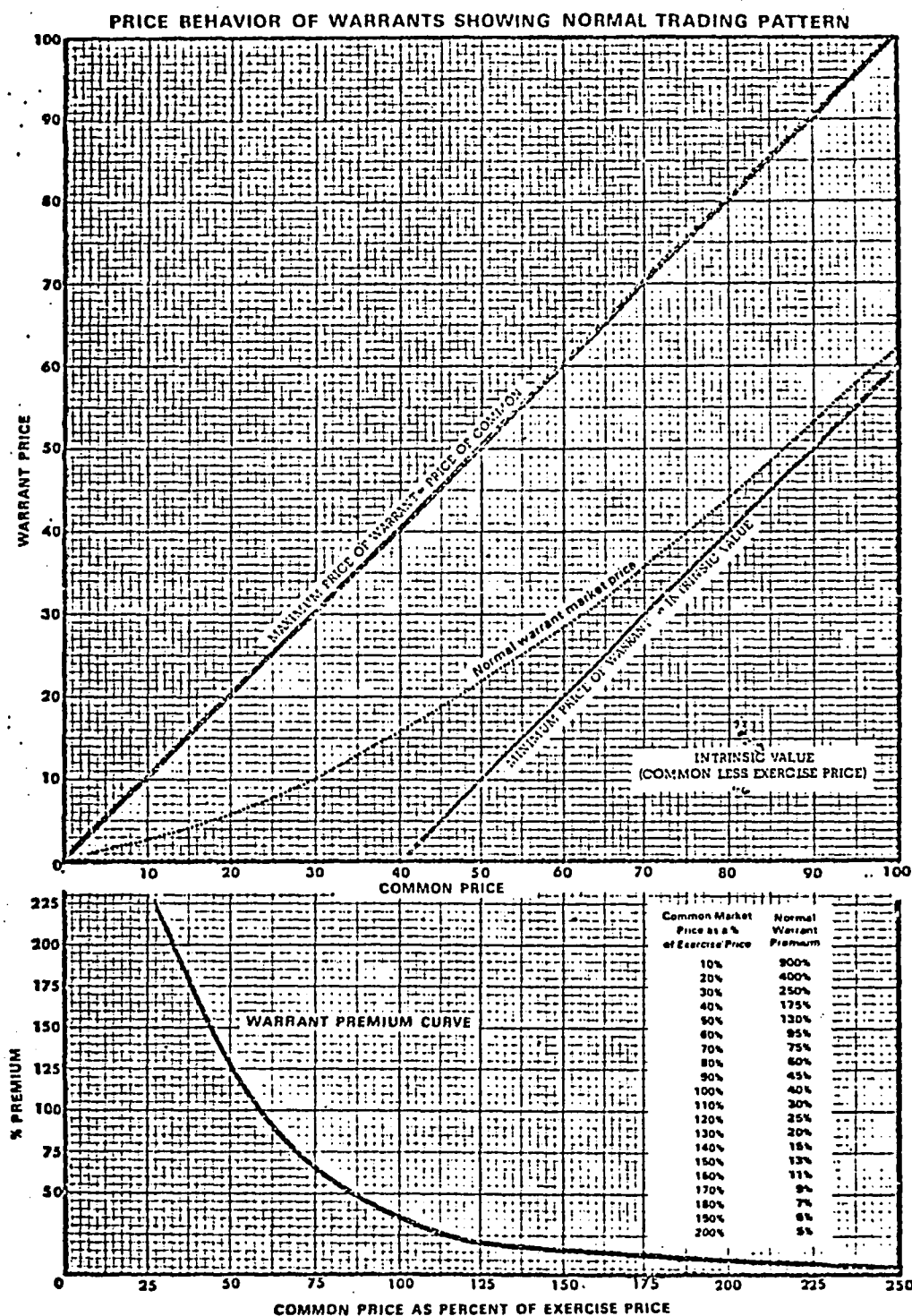


FIGURE 3

WARRANT AND PREMIUM CURVES



Source: W. Schwartz, "Warrants: A Form of Equity Capital," Financial Analysts Journal, XXVI (September, 1970), 94.

CONCLUSION

Researchers seem to agree on only three points with respect to the warrant function--

1. the convex shape,
2. the overwhelming importance of the common stock as a determinant of the warrant price,
3. the importance of the expiration date during the last two years as an influence on the warrant premium, and
4. the fact that the warrant price cannot exceed the common stock price or sell below the minimum intrinsic value line.

Disagreement exists on all other factors--for two main reasons.

1. Small sample sizes containing warrants with atypical provisions yield misleading results.
2. The important common stock effect usually "swamps" the influence of the other factors.

However, these discrepancies in the literature concerning warrants are not of great concern in this thesis which will be testing the random walk hypothesis--for two reasons.

1. The common stock price reflects many of these other factors--i.e. potential dilution and volatility. As Ayres states

with respect to his own work⁵⁷,

"Intuitively, one might feel that the expected warrant trading price W of equation (1) might not be very useful as far as the market action of this class of securities is concerned because of the possibility of a high variance which is not explained by equation (1). However, this turns out not to be the case to a first order. The large preponderance of warrant variance is accounted for by the common price."

2. As explained in the chapter on Methodology, the warrant sample utilized in this thesis will be balanced, and only data points located one or more standard errors away from the predicted warrant prices will be selected as extreme points. This one standard error criterion should offset any minor deviations resulting from the other factors. Only the extreme warrant prices will really test the validity of the random walk hypothesis.

FOOTNOTES

¹Finance Fred J. Weston and Eugene F. Brigham, Managerial Finance (New York: Holt, Rinehart and Winston, 1972), 473-8.

²Ibid. p. 473-4.

³Ibid. A footnote on p. 474.

⁴Paul Samuelson, "Rational Theory of Warrant Pricing," Industrial Management Review, VI, No. 2 (Spring, 1965), 13-31, and Paul Samuelson and R. C. Merton, "Complete Model of Warrant Pricing That Maximizes Utility," Industrial Management Review, X (Winter, 1969), 17-46.

⁵Case M. Sprenkel, "Warrant Prices As Indicators of Expectations and Preferences," Yale Economic Essays, I, No. 2 (Fall, 1961), 179-232.

⁶J. C. Van Horne, "Warrant Valuation in Relation to Volatility and Opportunity Costs," Industrial Management Review, X (Spring, 1969), 19-32.

⁷Herbert F. Ayres, "Risk Aversion In The Warrant Markets," Industrial Management Review, V, No. 1 (Fall, 1963), 45-53.

⁸A. H. Y. Chen, "Model of Warrant Pricing In a Dynamic Market," Journal of Finance, XXV (December, 1970), 1041-59.

⁹Paul Samuelson, loc. cit.

¹⁰J. C. Van Horne, loc. cit., p. 26.

¹¹A. H. Y. Chen, loc. cit., p. 1052.

¹²Case M. Sprenkel, loc. cit., p. 207-8.

¹³J. C. Van Horne, loc. cit., p. 31.

¹⁴Herbert F. Ayres, loc. cit., p. 51.

¹⁵Paul Samuelson, loc. cit.

¹⁶J. C. Van Horne, loc. cit., p. 26.

¹⁷Case M. Sprenkel, loc. cit., p. 207-8.

¹⁸A. H. Y. Chen, loc. cit.

¹⁹Herbert F. Ayres, loc. cit.

²⁰Value Line Convertible Survey, (1970-72). The footnotes list several examples. For example, the Braniff Airways warrant is callable at \$25, and the LTV, TWA and Uris Buildings warrants can be exercised with a discount bond being accepted at par value instead of with the less attractive but usual cash payment.

²¹Ibid.

²²Herbert F. Ayres, loc. cit., p. 45.

²³Paul Samuelson, loc. cit., p. 14.

²⁴J. C. Van Horne, loc. cit., p. 19-20.

²⁵A. H. Y. Chen, loc. cit., p. 1042.

²⁶Case M. Sprenkel, loc. cit. p. 197.

²⁷Paul Samuelson, loc. cit., p. 31.

²⁸Herbert F. Ayres, loc. cit., p. 47.

²⁹"What Warrants Are Worth," Fortune, (March, 1967), p. 208.

³⁰J. P. Shelton, "Relation of the Price of a Warrant to the Price of Its Associated Stock," Financial Analysts Journal, XXIII (July, 1967), p. 98.

³¹Guynemer Giguere, "Warrants, A Mathematical Method of Evaluation," Analysts Journal, XIV, No. 5 (November, 1958), 22. One example shown is Atlas Corporation.

³²Fred Pease, "The Warrant -- Its Powers and Its Hazards," Financial Analysts Journal, XIX, No. 1 (January - February, 1963), 29.

³³W. Schwartz, "Warrants: A Form of Equity Capital," Financial Analysts Journal, XXVI (September, 1970), p. 91; and A. H. Y. Chen, loc. cit., p. 1047-8; and Paul Samuelson, loc. cit., p. 20; and J. C. Van Horne, loc. cit., p. 22-3; and Case M. Sprenkel, loc. cit., p. 198; and J. P. Shelton, loc. cit., p. 88-9; and Guynemer Giguere, loc. cit., p. 17-18; and S. T. Kassouf, "Warrant Price Behavior -- 1945-1964," Financial Analysts Journal, XXIV (January, 1968), p. 126; and Ed O. Thorp and S. T. Kassouf, Beat The Market -- A Scientific Stock Market System (New York: Random House, 1967), 22-23.

³⁴Ibid.

³⁵Ibid.

³⁶J. P. Shelton, loc. cit., p. 89.

³⁷See footnotes 31 through 33.

³⁸W. Schwartz, loc. cit., p. 95.

³⁹J. P. Shelton, loc. cit., p. 143.

⁴⁰"What Warrants Are Worth," Fortune, (March, 1967), p. 210.

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⁴²Ibid.

⁴³J. P. Shelton, loc. cit., p. 93.

⁴⁴Fred Pease, loc. cit., p. 27.

⁴⁵Ed O. Thorp and S. T. Kassouf, loc. cit., p. 205; and Guynemer Giguere, loc. cit., p. 16; and J. C. Van Horne, loc. cit., p. 25; and Case M. Sprenkel, loc. cit., p. 221; and S. T. Kassouf, loc. cit., p. 123.

⁴⁶J. P. Shelton, loc. cit., p. 143.

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and J. P. Shelton, loc. cit., p. 143; and S. T. Kassouf,
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⁵⁰J. P. Shelton, loc. cit., p. 14.

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⁵⁵Ibid. p. 1047; and J. P. Shelton, loc. cit.,
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⁵⁶W. Schwartz, loc. cit., p. 617.

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CHAPTER III

REVIEW OF THE LITERATURE ON RANDOM WALK AND EFFICIENT MARKET MODELS

In contrast to the literature on warrants, the literature on random walk is extensive. When one realizes that the literature on random walk is just a subset of the total literature on efficient markets, one recognizes the enormity of the task of reviewing the literature on efficient markets.

Historically, the empirical work in this area preceded the theory. Here, however, the "big picture" will be sketched first--so that the empirical work can be placed in perspective. In order to present the theoretical framework in a familiar format, the author will adopt the notation of the most prolific author in this area of finance--Professor Eugene Fama.

THEORY

General Model. Although it is agreed that an efficient capital market is one in which prices always "fully reflect" available information, the problem is to define the term "fully reflect". The most precise definition is found in the "two parameter" Sharpe¹ and Lintner² worlds where equilibrium prices or expected returns on securities are conditional on some relevant information set and as a function

of its "risk". Mathematically, this is expressed by Fama in a general way:

$$\text{equation (1)} \quad E(p_{j,t+1} | \Phi_t) = [1 + E(\tilde{r}_{j,t+1} | \Phi_t)] p_{j,t}$$

where:

E = expected value

$p_{j,t}$ = price of security j at time t

$p_{j,t+1}$ = price of security j at time $t + 1$

$\tilde{r}_{j,t+1}$ = one-period percentage return of security j
 $= (p_{j,t+1} - p_{j,t}) / p_{j,t}$

Φ = information set "fully reflected" in the price at time t

$\tilde{p}, \tilde{r}$ = random variables at time t

$E(\tilde{r}_{j,t+1} | \Phi_t)$ = equilibrium expected return

That is, given the relevant information set Φ_t , the expected value of the price of security j at time $t + 1$ is equivalent to the initial price of security j at time period t , plus the expected value of the one-period percentage return of security j multiplied by the initial price of security j at time t . In perfectly efficient capital markets, the expected value of the expected returns in excess of equilibrium expected returns (based only on Φ_t) would be zero.

From the general efficient capital markets model above, Fama⁴ points out the many assumptions.

1. No transaction costs exist.
2. All information dissemination is costless.
3. All information is disseminated to all market participants.
4. All participants agree on the present and

future price implications of current information.

5. The current market price "fully reflects" all available information.
6. The conditions of market equilibrium can be stated in terms of expected returns.
7. The information is fully utilized by the market in forming equilibrium expected returns and current prices.
8. In light of 6. and 7. above, the model represents a "fair game"⁵ - as first recognized by Mandelbrot⁵ and Samuelson⁶.

Obviously, in the real world some of the implications above do not hold true, and most of the above implications "break down" on occasion. But the general model does provide an excellent framework for researchers attempting to determine the effects of real world frictions in the process of price formation.

Random Walk Model. The General Model above states little concerning the economic environment or the stochastic process generating returns. The two hypotheses that make up the random walk theory extend the General Model above.

1. Successive price changes or one-period returns are independent.
2. Successive price changes or one-period returns are identically distributed. Mathematically, continuing Fama's notation:

$$\text{equation (2)} \quad f(r_{j,t+1} | \Phi_t) = f(r_{j,t+1})$$

That is, the conditional and marginal probability distributions of an independent variable are identical, and the density function (f) is the same for all t . Comparing equation (1) to equation (2), one sees that the former

states that the mean of the $r_{j,t+1}$ distribution is independent of the relevant information set (Φ_t) whereas equation (2) adds that the entire $r_{j,t+1}$ distribution is independent of Φ_t . Note that the sequence or order of past returns is of no consequence in assessing distributions of future returns but that past returns are an important source of information since return distributions are assumed to be stationary over time.

One more note: If expected returns or price changes are zero, (utilizing Fama's notation again)

$$\text{equation (3) } E(\tilde{r}_{j,t+1} | \Phi_t) \geq p_{j,t} \text{ or } E(\tilde{r}_{j,t+1} | \Phi_t) \geq 0$$

equation (3) holds as an equality and the price sequence follows what is called a martingale. On the other hand, if the expected value of the next period's prices (as projected on the basis of Φ_t) is equal or greater than the current price, the price sequence follows what is called a submartingale and equation (3) implies the following:

- 1) Expected returns conditional on Φ_t are non-negative.
- 2) Trading rules based solely on Φ_t cannot have greater expected profits than always buying and holding the security until the future time period. This information will be helpful when the empirical literature is reviewed.

EMPIRICAL EVIDENCE

Overview. The first known statement and test of the random walk model was that of Bachelier⁷ in 1900. He felt that the expected profits to the speculator should be zero ("fair game" and martingale process). His work was largely ignored until the 1950's. Working (1934)⁸, Kendall (1953)⁹, Roberts (1959)¹⁰ and Osborne (1959)¹¹ performed extensive analyses of serial correlations and "hinted" at a random walk process. Alexander (1961)¹² and Cootner (1962)¹³ realized that the "fair game" assumption would not be sufficient to lead to the random walk. But it was not until Samuelson (1965)¹⁴ and Mandelbrot (1966)¹⁵ that the relationship between "fair game" models and random walks were rigorously studied and postulated. Up until that time, as Fama¹⁶ states "there existed a large body of empirical results in search of a rigorous theory".

Random Walk Literature - A La Cootner. The initial random walk literature is well represented by articles in Cootner's The Random Character of Stock Market Prices. Part I of the book contains two articles. Roberts' article¹⁷ of 1959 contains the heuristic reasoning behind what has become known as the random walk hypothesis. Also, it contains a methodology for testing the hypothesis. The other article from 1900 is based on the doctoral dissertation of Louis Bachelier in Paris, France. Cootner hails his work as "a remarkable theoretical study of speculative prices....an

imaginative empirical investigation...and the beginning of the theory of stochastic processes, a beginning which went unrecognized for decades"¹⁸. This article provides the mathematical theory of speculative prices behind Roberts' reasoning.

Part II of Cootner contains six articles. The Cowles' article of 1960¹⁹ is a correction of his 1930 article on the apparent inability of stock market forecasters to forecast the market. One error which was corrected by Cowles was pointed out by Working's article²⁰ (also in Part II of Cootner) and involves the bias resulting from the averaging process utilized in the raw data. Another error, however, involving the bias inherent in the upward long-term trend of the market was not corrected by Cowles. Kendall's article²¹ of 1953 also utilized monthly average prices--resulting in bias--but it supports the independence of price changes hypothesis. One important finding to future researchers is that most autocorrelations of one-week intervals for indices were positive and then negative for longer intervals.

The Osborne article²² of 1959 is a landmark in several respects: a) It reports that it is the logarithm of prices and not absolute price changes which are independent. b) It pioneers the introduction of the log-normal distribution in stock price studies. c) It starts the use of the behavior of the variance of price changes over successively longer differencing intervals - as a test of independence.

d) It tests the relationship between the overall market and individual stocks, and runs tests on individual stocks instead of price indices--for the first time.

Moore's article²³ confirms the work of Osborne and Kendall in that the autocorrelation coefficients are insignificantly small; the runs tests support the independence hypothesis, and the distribution of the price changes appears log-normal. Two of Moore's contrary findings reappear in the later literature. First, there were more large price changes than expected. Second, individually insignificant autocorrelations of successive one-week changes were negative to a statistically significant degree. Moore's significant work is statistical "proof" that stock price movements approximate Brownian motion.

The Granger and Morgenstern²⁴ article of 1963 applied more sophisticated spectral analysis techniques to stock price series. Spectral analysis is more sophisticated than the correlogram, gives a complete picture of autocorrelation in any stationary stochastic process with finite variance, and determines the best linear predictor for such a time series. However, if the series is not stationary, or if the variance does not exist²⁵, or if a nonlinear relationship exists²⁶, then spectral analysis cannot be utilized, and the article's findings supporting the random walk hypothesis would be invalid.

Part III of Cootner contains nine articles. These articles tend to question the independence assumption and,

in general, try to find deviations from Brownian motion. In the process, new tests and more involved probability distribution theory are utilized.

The Alexander articles²⁷ of 1961 and 1964 contain the first test of stock prices that distinguishes any existing non-linear dependence. He also discusses the tests of independent Gaussian increments with similar results to that of Kendall²⁸. Alternatives to the simple Gaussian increment distribution--i.e. log-normal distribution--are discussed along similar lines to that of Osborne²⁹ and Moore³⁰. Alexander and Houthakker³¹ develop nonlinear filter rules for stock indices (Alexander) and commodities (Houthakker) which are successful over buy and hold strategies only at the high filter levels because on small filters, commissions, dividends, and excessive transactions remove the profit potential. Interestingly, Alexander applies the χ^2 test to test for the normality of Osborne's data- as well as tests of randomness of successive prices to his own data. In addition, he illustrates that percentage changes rather than logarithmic changes should be utilized by random walkers - if they wish to eliminate the expectation of gain. Finally, Alexander introduces the concept of the move or swing. That is, speculative market price changes appear to follow the random walk over time, but a move, once initiated, tends to persist. Cootner points out several potential problems that exist with these articles, however³². First, the lack of theoretical statistical analysis of the underlying stochastic

process makes establishment of the statistical significance difficult. Second, if the underlying stochastic process is nonstationary instead of nonlinear the same results could erroneously be achieved.

The Cootner article³³ of 1962 contains mechanical trading rules applied to individual stocks (Alexander dealt with indices) which are profitable enough on a gross basis to provide evidence of either dependence or nonstationarity, but not evidence of large market imperfections which would be profitable on a net basis. In addition, Cootner introduces the now well accepted restricted random walk hypothesis. He utilizes two previously unmentioned tests-- the mean-square-successive-differences test of nonrandomness and the kurtosis test. A negative finding: Alexander's, Cootner's and Houthakker's decision rules have not been profitable when applied to individual stocks.

The Larsen article³⁴ is interesting because he points out the weakness in the tests and statistics utilized in the analysis of stochastic processes to economic data. The weakness stems from the fact that economic time series are often short, nonstationary, and have nonrandom samples drawn from them - which counters the assumptions of the existing statistical theory. The weakness of the correlogram is emphasized - and it was unfortunately utilized by most of the random walkers. Larsen, Working and the Steiger article³⁵ of 1963 develop the range test of nonlinear dependence and the underlying theoretical distribution.

While Larsen raises doubt concerning the validity of the previous tests utilized by random walkers, the significance of periodograms, and the related spectral analysis; the Mandelbrot article³⁶ of 1963 introduces the concept of the Pareto-Levy distribution which implies that, with respect to price series, 1) linear regression is not possible through least-squares and 2) correlation and spectral analysis are meaningless!

Bachelier assumed that price changes from transaction to transaction are independent, identically distributed random variables with finite variances. If transactions are uniformly spread over time, and if the number of transactions per unit time is large, then the Central Limit Theorem applies, and the price changes will have normal or Gaussian distributions. Although Osborne, Moore and Kendall thought their data supported the normality hypothesis, all had higher tails (i.e. higher proportions of large observations) in their data distributions than the normal distribution would have had. Mandelbrot then proposed his non-normal stable distributions.

Part IV in Cootner contains three articles on put and call options which contain inconclusive and even contradictory results. For example, Kruizenga³⁷ finds option trading profitable while Boness³⁸ finds it unprofitable. Also contained in Part IV of Cootner are three articles on warrants and these were reviewed in the previous Review of the Warrant Literature. In this next section I will rely

heavily on Fama's work to review the efficient markets literature between 1964 and 1970³⁹.

Post-Cootner Random Walk and Efficient Markets. Levy (1965-68)⁴⁰ utilized simulation to "disprove" the random walk hypothesis - after relegating all prior statistical random walk effort to insignificance by attacking the tests, runs analysis, etc. Although Levy's simulation technique survives as a valid approach - i.e. Zweig's study (1973)⁴¹ - his work has been criticized by Cox⁴² on the basis of his not beating the buy and hold strategy for the initial portfolio, and by Jensen⁴³ who reran two of Levy's relative strength trading rules and found that they did not support Levy's results.

The profitability of small filters over "buy and hold", the consistently positive but consistently close to zero serial correlations, the slight tendency for the number of runs of positive and negative price changes to be less than the numbers expected from a purely random process-all point to dependence in successive price changes or returns and thus, to some systematic patterns within the random walk framework. More recently, Fama's⁴⁴ and Fama and Blume's⁴⁵ results verify those findings of Alexander, Cootner and Moore (mentioned above) with respect to this positive dependence. However, with respect to the efficient capital markets or "fair game" models, the dependence is so small that profitable trading has not been shown possible. Thus, although the narrow random walk hypothesis has been refuted,

the efficient market theory has not been countered on this score. Smidt⁴⁶ also feels that random walkers should not expect to find complete absence of systematic elements in their empirical studies and that failure to detect some degree of nonrandomness sometimes, is evidence that the statistical tests utilized are of insufficient power. He states, too, on the other hand, that the detection of some nonrandom components is not evidence against the general random walk hypothesis unless above normal profits can be made from the systematic tendencies.

With respect to Mandelbrot's work, Fama⁴⁷, Blume⁴⁸, (common stocks) and Roll⁴⁹ (U.S. Government Treasury Bills) conclude that non-normal stable distributions better describe distributions of returns than does the normality assumption. Mandelbrot's work has apparently stimulated research by others in this area - i.e. Fama and Roll⁵⁰, and Blattenberg and Sargent⁵¹. Roll's work is interesting because his taking account of the observed high tails of the data distributions significantly affected the interpretation of the results.

Few studies are involved with testing to see if prices "fully reflect" all publicly available information. Fama, Fisher, Jensen and Roll⁵² found that the information in stock splits (concerning the firm's future dividend payment) is fully reflected - on average - in the price of a split share at the time of the split. Ball and Brown⁵³ and Scholes⁵⁴ studied annual earnings announcements by firms,

and new issues and large block secondary issues of common stock. Waud⁵⁵ did a study of the effects of announcements of discount rate changes by Federal Reserve Banks. All of these studies found some small effect on the market price the day that the news became publicly known ("announcement effect") but that the effect was short-lived--thus supporting the efficient markets model.

Several studies have been directed toward learning the extent to which returns on a given security are related to returns on other securities. Kendall (mentioned above) found that, although individual securities do seem serially correlated, a high degree of cross-correlation between simultaneous returns of different securities exists. King⁵⁶ found that on average about fifty percent of the variance of an individual stock's returns was accounted for by a "market factor" and another ten percent of the variance accounted for by the "industry factors". Thus, the information which affects the total market will also have much to do with explaining price movements in individual stocks.

Can fund managers obtain special information and outperform the market? Sharpe⁵⁷, Treynor⁵⁸, and Jensen⁵⁹ answer "no" to both questions based on their findings. The funds have not outperformed the averages; nor has one fund consistently been a winner. Thus, much evidence exists to support the efficient markets model where prices "fully reflect" all information.

There are two exceptions, however; the specialists

(Niederhoffer and Osborne⁶⁰) and the corporate insiders (Scholes⁶¹) who have monopolistic information. Niederhoffer and Osborne found that the specialist sells above his last purchase on eighty-three percent of all sales, and buys below his last sale on eighty-one percent of all purchases. Scholes showed that corporate insiders do have access to monopolistic information. Thus, in at least two instances, the market is inefficient.

CONCLUSIONS

The above review is far from being complete but since the literature is so vast one must "draw the line" and pick a representative sample of articles. Based on the literature, the author's opinions concerning the random walk hypothesis and the efficient markets model are as follows:

1. Stock prices do not move in a purely random fashion--although the predominant explanation for a price change will be randomness.
2. Stock prices have systematic elements, moves or swings--within the random walk framework--which (via dependence) refutes the narrow or pure random walk hypothesis but not the broad random walk or efficient markets model--because it has not been shown that abnormal profits can be made by utilizing the systematic patterns.
3. This restricted random walk of Cootner's has been tested for with weak or inappropriate statistical tools. Hopefully, the work of Mandelbrot and others, with non-

normal stable distributions, will resolve this situation.

4. In light of the weak statistical tools and Mandelbrot's findings mentioned above, it is probably better for the researcher to test the efficient markets model via the buy and hold criterion (perhaps testing it against simulated decision rules) rather than the historical pre-Mandelbrot route of testing for independence (runs test and serial coefficient tests), kurtosis, normality (X^2 test), non-randomness (mean-square-successive-differences test for excessive reversals), nonlinear dependence (range test), etc.

Instead of an "either statistical testing or mechanical filters" approach, some have adopted the "play it safe" approach of Stevenson and Bear⁶² and Leuthold⁶³ and applied both approaches to the same data. Others like Upson⁶⁴ have compromised by retaining the statistical approach but only if "sophisticated" spectral analysis is utilized. Still others--Cootner, Alexander and Zweig--prefer testing a decision rule which attempts to outperform the buy and hold strategy. The author's thinking places him in this latter group.

FOOTNOTES

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CHAPTER IV

METHODOLOGY

General Approach. Cootner has two related theories which have been accepted, tested and elaborated upon by others. One theory is the restricted random walk (also called random walk within reflecting barriers) which tries to explain price movements. Essentially, it states that prices fluctuate randomly when they are close to some mean value because of information entering the market in a random fashion. However, when price fluctuations generated by non-professional investors, move too far from the mean, astute professionals enter the market and reverse the direction of price changes back toward the mean (hence the term "reflecting barriers").

Related to the random walk version stated above, then, is a theory of investor expectations. That is, Cootner and others categorize stock market investors as either professionals or non-professionals--which simply means that a significant gap in knowledge exists between the two investor groups. The more astute professional investors are constantly "correcting" poor judgment, excessive exuberance, or extreme pessimism on the part of the less knowledgeable non-professional investors. For example, excessive rises in stock prices generated by non-professional buying will be corrected by price reversals generated by professional

selling back toward some mean.

If Cootner's theories are correct, excessive warrant prices, and thus excessive warrant premiums, should be indicative of non-professional investor expectations which will soon be corrected by professional selling or buying. The effect of the professional investor's selling or buying is to shrink or expand the warrant premiums and thus return the warrant price back toward the mean.

Based on the "Conclusion" to Chapter III -- Review of the Literature on Random Walks and Efficient Market Models-- the author will test the general random walk hypothesis with a decision rule whose results will be compared with the "buy and hold" percentage return as opposed to taking the approach of testing with weak statistical tests.

To test the efficient capital markets model based on Cootner's restricted random walk and investor expectations theories, with the warrant data, one must first determine some measure of both the mean warrant price and the excessive warrant price. The mean warrant measure will be estimated by the value predicted via a theoretically valid hyperbolic function. This hyperbolic function will be derived later and tested with "live" warrant data. The excessive warrant price is expressed in terms of standard errors and is based on a comparison of the distance between the actual observed warrant price and the warrant price predicted by the hyperbola.

The second step in the hypothesis test is the develop-

ment of a standard return against which the percentage returns generated by each decision rule can be compared. The standard return utilized is the average weekly percentage return generated by just buying and holding each warrant. Since the data was collected on a weekly basis, the average percentage return standard is expressed as a weekly percentage return. Returns are computed both with and without commissions. The percentage rate of return rather than absolute dollar profits is utilized in order to eliminate differences in the amount of money invested per warrant.

The third step in testing the hypothesis is to define the filters necessary for utilization of the decision rule. Many types of filters could be developed but in this case the filter will be expressed as a function of the standard error of estimate ($=S$). That is,

$$\text{Filter} = \pm (X \text{ times } S \text{ to } (X+.25) \text{ times } S)$$

Five filters will be utilized in this thesis. That is, warrant prices are placed into the following categories-- $1-1.25S$, $1.25-1.5S$, $1.5-1.75S$, $1.75-2S$, and $2S+$.

The fourth step in testing the hypothesis is to devise the decision rule which will test the hypothesis by either underperforming or outperforming the standard buy and hold strategy.

Decision Rule:

For each filter, buy \$1,000 worth of warrants, or cover a short position in \$1,000 amounts when the weekly warrant price is located within the negative portion of the filter; sell short or

close out a long position in amounts of \$1,000 when the weekly warrant price is located within the positive portion of the filter; make no transaction when the weekly warrant price is located short of, or beyond, the filter.

From the application of the decision rule to the warrant data one can simulate the investment process during the time period in question--for each of the five filter levels. The extensive computations of these simulated results are summarized in three reports found in the next chapter. The first and second reports are identical except that one takes commissions into account, while the other does not. These two reports will illustrate the percentage returns for each warrant and for the total warrant sample. The third report will illustrate how many transactions were made per filter-decision rule--both per warrant and in total. It also illustrates the number of active decision rules--both per warrant and in total.

The final step in testing Cootner's theories is to test the significance of the difference between the computed filter-decision rule percentage returns and the standard buy and hold percentage return. Although the existing literature utilizes the common Student "t" statistic for testing means, Professor Wolf has pointed out that the Dunnett t test for paired means is more accurate in this application.

After selecting a confidence level this "t" statistic

will decide if the filter-decision rule percentage return is significantly better or worse than the standard "buy and hold strategy" percentage return.

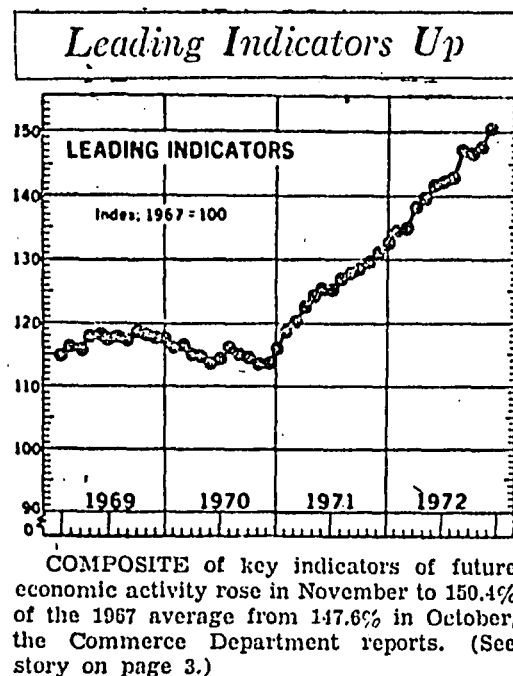
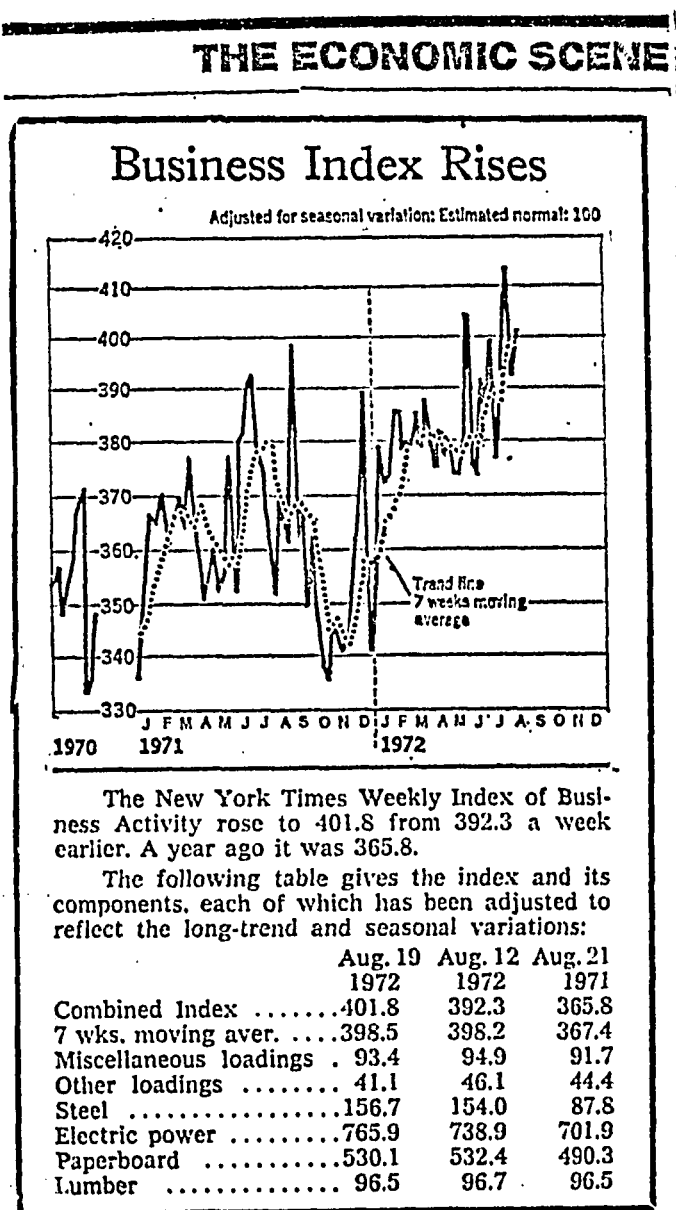
If the filter-decision rule returns exceed that of the standard buy and hold return, then the random walk disbelievers have evidence for their arguments. On the other hand, if the filter-decision rule returns are less than or equal to that of the standard buy and hold return, random walk or efficient markets theorists will have additional evidence for their theory--hence the significance of the thesis.

Test Period. The test period includes the two years from September, 1970 to September, 1972 and was selected for the following reasons.

1. As the three charts on the following pages indicate, a pick-up in business and stock market activity commenced about August-September, 1970. The Dow Jones Averages broke the 1000 level in November, 1972. Thus, the test period commences just as the market and economy bottomed out, and ends just before it hit historically high levels. It follows that the warrant premiums should be representative of all possible premium ranges.
2. Because of the April, 1970 AT & T warrant offering and the resultant interest in warrants, the Value Line Convertible Survey

FIGURE 4

BUSINESS ACTIVITY DURING THE TEST PERIOD



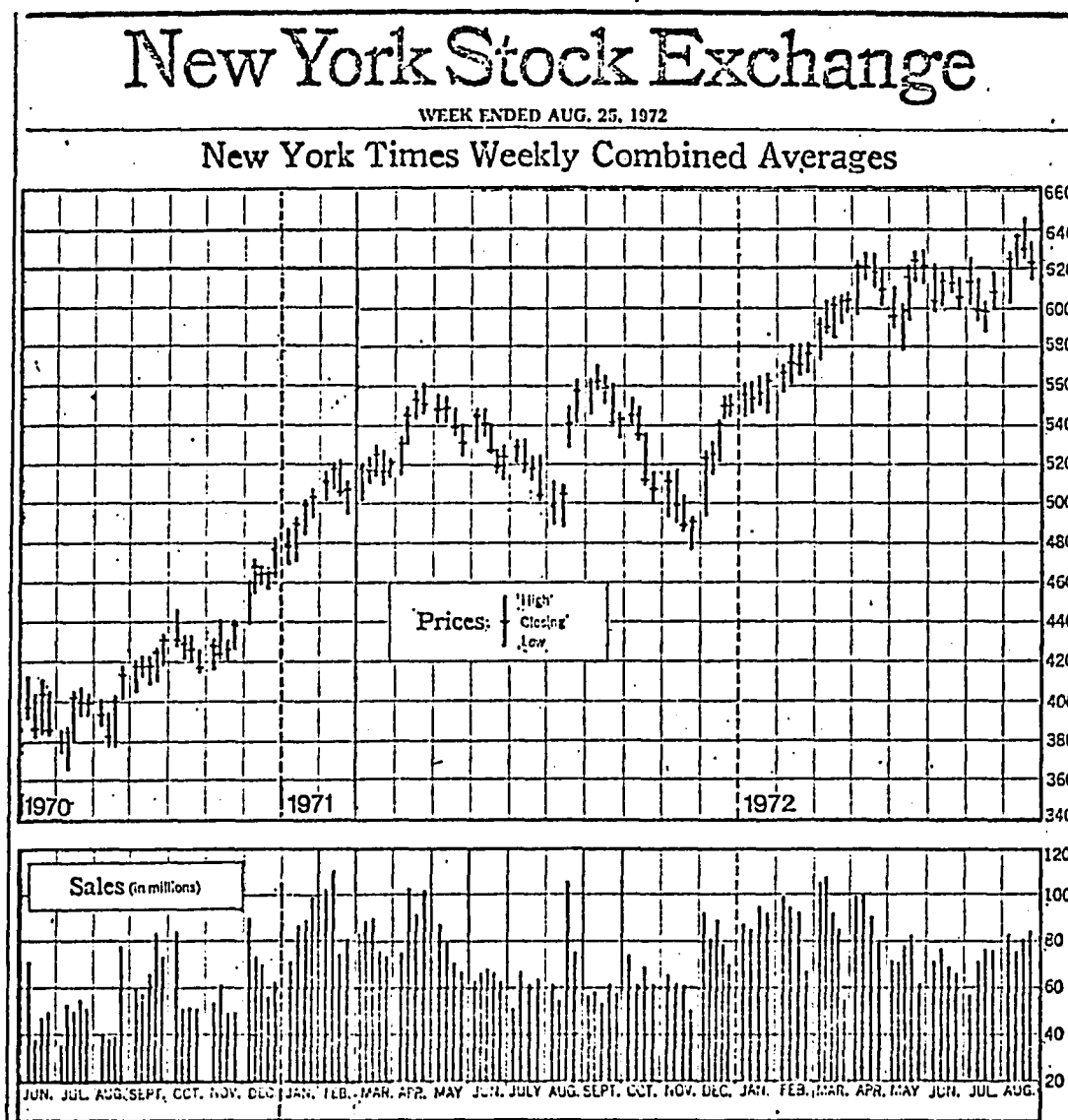
Source: New York Times of August 27, 1972.

Source: Wall Street Journal of December 29, 1972.

FIGURE 5

STOCK MARKET ACTIVITY DURING THE TEST PERIOD

THE NEW YORK TIMES, SUNDAY, AUGUST 27, 1972



began including weekly data on warrants--commencing in mid-1970. The initial sample contained 60 warrants but it grew to include 180 warrants by September, 1972. Although data can be gathered from different sources, it is obviously more convenient to utilize one uniform source for the bulk of the data collection. In fact, for reasons pointed out previously, September 1970 was probably the first time that the warrant sample became large enough to perform a valid empirical study of warrants.

Appendix C contains a cross-reference sheet for correlating the week numbers with the dates which they represent.

Sources. The Value Line Convertible Survey is the basis of the bulk of the warrant and common stock price data. Value Line has several characteristics of which the warrant researcher should be aware.

1. Each issue comes out on Monday and contains prices as of the previous Monday. When a holiday occurs on a Monday, the previous Friday's prices are utilized. Spot checks of Value Line's prices with the other sources discussed below indicate high reliability for their data.

2. This weekly publication comes out four times per month. Therefore, in any month containing five weeks, the researcher has a "hole" in each warrant's weekly data stream. No footnote is listed in the publication which states this fact.
3. Each issue coming out around the twenty-first of the month has the warrant information deleted in favor of information on pending mergers. Thus, another "hole" in the data exists for the researcher to fill. Again, no footnote is listed which states this fact.

To "plug" the remaining "holes" in the data, back issues of the Wall Street Journal and Barron's on microfilm were utilized, as well as the O-T-C pink sheets and ISL books published by the Bunker-Ramo Corporation.

Sample Selection. The goal in selecting the total sample is to pick warrants which are typical of the majority of warrants, and to eliminate any factors which would erroneously indicate that a warrant price is excessive when, in fact, it is not. The sample was selected in the following manner.

1. In order to avoid having warrant premiums

being distorted by the rapid decrease characteristic of the two years prior to the expiration date, warrants expiring during 1973 and 1974 were excluded from the sample.

2. Warrants with any of the thirteen atypical provisions mentioned in Chapter I were excluded from the sample except for
 - a) one flush-out warrant listed on the AMEX which does not permit the company to enforce that provision,
 - b) one warrant with a slight increase in exercise price scheduled for 1979 which is sufficiently far away that the change has no effect on today's warrant price,
 - c) the Alleghany warrant which is the only representative perpetual warrant included in the sample.
3. Only warrants which existed before the first quarter of 1972 were considered for inclusion in the total warrant sample. Thus, a minimum of 40, and a maximum of 106, weekly data points exist for each warrant.
4. Where more than one warrant was exercisable into the same company's common stock, the additional warrant was eliminated from the total sample.

Thus, the Value Line sample was reduced to a total sample of 45 warrants--which is seventy-five percent of the 1970 Value Line warrant sample and twenty-five percent of that for 1972. A total of 3,842 data points--certainly sufficient sample size for statistical significance--finally resulted.

Appendix A contains a summary list of all warrants and the fixed data concerning each.

Creating Sub-samples From The Total Sample. Although the previously mentioned rapid premium decline will not be present for warrants expiring during 1975, 1976, 1977--three to five years away from the latest data points in the sample--premiums on these warrants are bound to be slightly lower than those of warrants expiring in 1978 and beyond. In other words, studies show that warrant premiums do not commence declining rapidly until two years from the expiration date but a slight premium decline may occur between the third and fifth years prior to expiration--i.e. 1975, 1976, 1977. After the fifth year, expiration has little effect on the premium size, and the other factors--previously mentioned in Chapter II--become more important. Hence, the total sample was split into two sub-samples--A and B. Sample A's 27 warrants have expiration dates in 1975, 1976 and 1977. Sample B's 18 warrants have expiration dates which occur after 1977. All warrants have ninety-five percent, ninety-seven percent or one hundred percent dilution protection. As illustrated by "Characteristics of

Samples A and B" in Appendix B, the samples are well balanced with respect to the other factors.

1. The number of warrants listed on the NYSE, AMEX and O-T-C.
2. The relative size of the warrant issue--as a percentage of the total common stock base.
3. The percentages of each sample having warrants whose associated common stock pays cash dividends.

Appendix B also contains a summary list of samples A and B.

A Note on Random Sampling. It was previously explained that the total warrant sample was carefully selected and balanced to

1. eliminate warrants with the thirteen atypical provisions
2. eliminate warrants maturing within the next two years in order to avoid warrant premium distortion from the rapid decrease characteristic of the two years prior to the expiration date.
3. eliminate differences between the sub-samples so that the only significant difference would be proximity to expiration date.

This method of sampling is not random selection but none of the random walk researchers have utilized random sampling. For example,

1. Osborne:

All NYSE stocks on July 31, 1956
 All NYSE and AMEX stocks on July 31, 1956
 Letter H stock sample from NYSE on July 31, 1956
 Letter M stock sample from AMEX on July 31, 1956
 Sample from Toronto Mines and Oils on
 Sept. 21, 1956
 First 20 securities listed by Securities
 Research Corp.
 Dow Jones Industrial Index from 12/31/54 to
 12/15/55 and from 12/31/55 to 12/31/56

2. Moore:

Friday close of S & P 500 from Jan. 1942 to
 Sept. 1958
 Friday close for 30 randomly selected NYSE
 stocks Jan. 1951 to Dec. 24, 1958
 One non-random stock, Miami Copper

3. Granger and Morgenstern:

Non-random selection of six companies
 Weekly turnover for General Electric and Idaho
 Power + other series

4. Cootner

Students select 28 stocks from a list of 50
 companies with stock option plans
 13 from the steel industry
 3 selected from a marketing advisory firm
 3 chosen because of signs of strong seasonal-
 ity + other series

Recall also the lack of data on warrants until recently,
 and the significant data problems existent in the warrant lit-
 erature. Thus, the lack of random selection will not invali-
 date my results to a greater extent than that which occurs
 with the work of other warrant and random walk researchers.
 In my opinion, this prevalent lack of random sampling in the
 literature is a further reason why the historical statistical
 and spectral analysis techniques for testing the random walk

hypothesis are less desirable than is the testing of the buy and hold strategy with a filter-decision rule. The bulk of the historical statistical tests assumed random sampling-- which has not occurred in the research. Of course, the previously mentioned Larson, Smidt and Mandelbrot objections to these statistical tests are strong, unrefuted, and even supported by the evidence.

Analyzing The Data. In order to become familiar with the characteristics of each warrant's price data, the following adjustments and plots were made to the data.

1. Both warrant and common stock prices were expressed as a percentage of the exercise price so that the prices of all warrants could be compared.
2. The warrant premium was computed and expressed as the percentage increase in the common stock price necessary to justify the warrant price.
3. The four plots of the data can be found in Appendix C.
 - a. Warrant and common stock prices over time
 - b. Premiums over time
 - c. Warrant prices versus common stock prices
 - d. Premiums versus common stock prices
4. Five curves were applied to the data.
 - a. Least squares straight line
 - b. Least squares parabola
 - c. Hyperbola with a coefficient of 0.9
 - d. Hyperbola with a coefficient of 1.1
 - e. Hyperbola with a coefficient of 1

As will be explained later, only the hyperbola with a co-

efficient of one is theoretically valid. However, one can obtain a better feel for the data by comparing the standard errors of estimate and coefficients of determination for the different curves. The computer program, WOLF, which computes the least squares coefficients, standard errors, sum of residuals, and coefficients of determination for the two warrant samples can be found in Appendix E. The statistical formulas utilized in the program can be found in Appendix D. Warrant Function Limitations. There are three major difficulties in applying mathematical warrant functions.

1. Based on the review of the literature, one realizes that Professor Samuelson's comment¹ is correct. "A formula covering the general case of finite warrants still has not been worked out, and ... there is even doubt that one can be worked out, and ... mathematicians may have to be content with approximation". His concern is with the ever decreasing premium on a warrant as its expiration date draws closer--especially during the last two years. The author agrees with his statement but for an additional reason. The many variations in warrant terms mean that the warrant model builder has to contend with not only the 13 warrant variations listed in Chapter I, but all combinations of the 13 variations as well. Unfortunately, for many combinations of

warrant variations, there may be only one warrant--or none at all--with which to empirically test a particular segment of the model. In the jargon of experimental design, there are insufficient data points per cell for one to be able to come up with statistically significant results.

2. There is a very practical reason why warrant researchers usually cannot fit functions to individual warrants. Although the test period can be selected so that the entire range of warrant prices can be plotted for a sample of warrants, one cannot accomplish this for individual warrants. That is, the data points for individual warrants are usually restricted to a range of prices characteristic of the warrant's trading range during the test time period. Thus, one cannot obtain the entire range of possible warrant prices--from zero to over four times the exercise price--for each warrant.
3. The least squares statistical technique for fitting a curve to data is not really legitimate when utilized with time series data because of the significant covariance which exists between the prices of different stocks, and perhaps among the prices of an individual

stock.

Derivation of the Hyperbola. As pointed out by Chapter II the theoretically valid warrant function should meet the following conditions.

1. Pass through the origin
2. Asymptotically approach the minimum warrant value line, that is, $W = C-100$
3. Remain below the maximum warrant value line, that is, $W = C$
4. Be convex in shape

The only curve which meets all of the conditions above is the hyperbola².

equation (1)
$$\frac{Y^2}{a^2} - \frac{X^2}{b^2} = 1$$

where:

a = X intercept of asymptote

b = Y intercept of asymptote

Since the asymptote in this warrant case is $Y = X-100$ and $a = 100$ and $b = -100$, equation (1) becomes

equation (2)
$$\frac{Y^2}{100^2} - \frac{X^2}{100^2} = 1$$

Multiplying by 100^2 ,

equation (3)
$$Y^2 - X^2 = 100^2$$

$$Y = \sqrt{X^2 + 100^2}$$

But since the center or point of intersection of the axes of symmetry is not at $(0,0)$ but at $(0,-100)$

equation (4) $X' = X + 0$ or $X = X'$

equation (5) $Y' = Y - 100$ or $Y = Y' + 100$

one must translate the axes by plugging equations (4) and (5) into (3) to get

$$Y' + 100 = \sqrt{X'^2 + 100^2}$$

equation (6) $Y' = \sqrt{X'^2 + 100^2} - 100$

In this warrant case, the warrant price $W = Y'$ and the common stock price $C = X'$, so that the theoretically valid hyperbolic function becomes

equation (7) $W = \sqrt{C^2 + 100^2} - 100$

Categorizing Warrant Prices Into Filters. Having derived a theoretically valid hyperbola which can be utilized to predict a warrant price, once given the associated common stock price, one can now categorize--via WOLF--all warrant prices into the five filter categories--i.e. 1-1.25S, 1.25-1.5S, 1.5-1.75S, 1.75-2S and 2S+ away from the predicted warrant price. Of course, S is the standard error of estimate. The raw data, adjusted data, predicted warrant price, premium and filter category for each data point in the two warrant samples A and B can be found in Appendix F.

Computing The Average Weekly Percentage Returns And

Dunnett t Test Values. A second computer program, FILTER, shown in Appendix E, does the following.

- 1) It takes a particular warrant's data and computes the standard average weekly percentage return by purchasing \$1,000 of the warrant in the first week and selling it in the last week of the test period. The average weekly per-

centage return is computed by taking the total profit or loss, dividing it by the investment balance which is weighted by the number of weeks since the first transaction, and multiplying by 100.

- 2) FILTER then takes the same warrant data again and buys \$1,000 worth of warrants (or covers \$1,000 worth of a short position) when the weekly warrant price is located between -1.0 and -1.25S away from the hyperbola's predicted warrant value. If the weekly warrant price is located between +1.0 and +1.25S away from the hyperbola's predicted value, it sells short \$1,000 worth of warrants (or closes out \$1,000 worth of a long position). If the weekly warrant price is located within $\pm 1.0S$ or beyond $\pm 1.25S$ no transaction is made.
- 3) Counters in the program keep track of the number of transactions and number of active rules per filter-decision rule and warrant. Balances of the number of shares and dollar amounts of the security position are maintained assuming that commissions first, exist and second, do not exist. The ending security position is closed out in the last week of the period and the average weekly percentage return is computed.
- 4) The simulation of investment explained in

steps 2) and 3) are repeated four more times for each warrant--once for each of the filter categories--i.e. 1-1.25S, 1.25-1.5S, 1.5-1.75S, 1.75-2S and 2S+.

- 5) The mean average weekly percentage return--both with and without commissions--for all of the warrants per sample is computed for each filter-decision rule and for the standard buy and hold return.
- 6) The Dunnett t test values are then computed for each sample's filter-decision rules. The statistical formulas utilized in the t test computations are listed in Appendix D.
- 7) FILTER then prints three reports per warrant sample. One report lists all of the warrants and--per filter-decision rule and for the standard--shows the average weekly percentage returns, total mean returns and t values - assuming no commissions. The second report is identical to the first except that commissions are taken into account. The third report lists the number of transactions which occurred per filter-decision rule and in total. The transaction totals and the number of active filter-decision rules per warrant and per filter-decision rule are also illustrated.

Both of the computer programs--WOLF and FILTER--were

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Both of the computer programs--WOLF and FILTER--were

written by the author in time-sharing BASIC for a Univac 1106.

Deriving The Critical Dunnett t Test Values.³ In order to utilize Dunnett's t test tables, one must determine three variables. The first variable is the number of treatment means (P) or, in this warrant case, the number of filter-decision rules, which equals five. The second variable is the confidence level desired and in this warrant case the 95% and 99% confidence levels were selected. The third variable is the degrees of freedom and it is determined by the formula $(P + 1)(N - 1)$ where $P = 5$ filter-decision rules and $N = 27$ warrants for sample A and $N = 18$ warrants for sample B. Plugging these values into the degrees of freedom formula above, the degrees of freedom for sample A are 156, and those for sample B are 102. For sample A, the Dunnett t test table⁴ for five treatment means and 156 degrees of freedom yields

$t = 2.59$ for the 95% confidence level

$t = 3.15$ for the 99% confidence level.

For sample B, the Dunnett t test table for five treatment means and 102 degrees of freedom yields

$t = 2.60$ for the 95% confidence level

$t = 3.17$ for the 99% confidence level.

Testing The Hypothesis. By comparing the t test values computed by FILTER for each filter-decision rule with the critical Dunnett t test values above, one can determine whether the standard buy and hold strategy's average weekly

percentage return has been exceeded by the average weekly percentage return of any or all filter-decision rules.

If it is determined that the buy and hold strategy has been outperformed by the filter-decision rules, then random walk disbelievers will have evidence to support their contention that systematic patterns do exist in stock prices which can be utilized to outperform the market. On the other hand, if the buy and hold strategy outperforms the filter-decision rules, then random walkers will have evidence to support their theory that even if systematic patterns do exist in stock prices, they are of insignificant magnitude and/or consistency to insure a greater return than that obtainable by just buying and holding.

FOOTNOTES

¹"What Warrants Are Worth", Fortune,
(March, 1967), 210.

²George B. Thomas, Calculus and Analytical
Geometry (London: Addison - Wesley Publishing, 1961)
486.

³Charles W. Dunnett, "A Multiple Comparison
Procedure For Comparing Several Treatments With a
Control," American Statistical Association Journal,
L (December, 1955), 1119-20.

⁴Ibid.

CHAPTER V

RESULTS, CONCLUSIONS AND AREAS FOR FURTHER RESEARCH

Warrant Function Results. The five curves applied to the data in each sample and the resulting equations, standard errors, sum of residuals, and coefficients of determination can be found in Appendix G. Also in Appendix G are the standard errors and sum of residuals for the individual warrants of both samples.

Unlike the hyperbolas, the equations for the least squares straight line and parabola indicate that the warrant price would be negative if the common stock price equalled zero--which is not possible. The sum of the residuals for the two least squares equations is very close to zero for both samples. It should equal precisely zero but with 2,101 data points in sample A and 1,741 data points in sample B, the small non-zero value is acceptable. The sum of residuals measure is not as meaningful for the non-least squares hyperbolas in that it does not have to have a zero value.

In sample A the theoretical $B = 1$ hyperbola had a high coefficient of determination and a low standard error. Both measures were inferior to the least squares parabola's and the $B = 0.9$ hyperbola's corresponding figures but not by a significant amount. In sample B of all five

curves the theoretical $B = 1$ hyperbola had both the lowest standard error and the highest coefficient of determination.

TABLE 1

SUMMARY STATISTICS FOR SAMPLES A AND B

Sample	Remaining Life	<u>Mean Prices</u>		<u>Theoretical Hyperbola</u>	
		<u>Warrant</u>	<u>Stock</u>	<u>Standard Error</u>	<u>Coefficient of Determination</u>
A	Shorter	52.3087	118.540	14.6915	.86687
B	Longer	47.2937	88.789	8.1160	.98702

The table above, included for informational purposes, has two interesting results. One, the standard error for longer term sample B is almost half that for shorter term sample A. This phenomenon can be explained by utilizing the present value (PV) framework, and by investor expectations.

Sample A warrants expire in 1975-7 while those of sample B expire in 1978 and beyond. From the PV framework, one realizes that a given change in the estimated resale value of the warrant expiring in three to five years will result in a larger change in today's present value warrant price than will the same change in resale value for a warrant expiring in six-plus years. At the same time, investor expectations for short run price changes occur more often than do investor expectations for changes in the long run trend price. That is, short term prices fluctuate more than long term price trends. With warrants expiring in the short run, the investor has no long run trend to reference in order to temper changes in the short run price

expectations. Thus, the greater standard error for the short term warrant sample A is understandable.

Second, the previous table also illustrates that the mean common stock prices are very different for the two samples. In sample A the mean common stock price is above the exercise level, while that of sample B is below the exercise price. Yet the mean warrant prices are almost identical. This means that the warrant premiums for those warrants in longer term sample B are much higher than those of shorter term sample A. There are two explanations for this phenomenon.

1. The shorter the time to expiration, the less of a premium that the investor is willing to pay for the option.
2. The higher that the common stock price moves above the exercise price, the closer it is to the minimum value asymptote, and the smaller is the premium--as can be seen from the graph of the hyperbolic function on page 39.

Warrant Function Conclusions

1) The theoretically derived $B = 1$ hyperbola is as good a fitting curve as the least squares parabola utilized by most warrant researchers. However, as explained earlier, the parabola is theoretically not acceptable. The theoretical $B = 1$ hyperbola has the additional characteristic of being a single equation which fits both

samples well.

- 2) The theoretical $B = 1$ hyperbola can validly be utilized to categorize warrant prices according to the five filters--i.e. 1-1.25S, 1.25-1.5S, 1.5-1.75S, 1.75-2S and 2S+. These categories are necessary for testing the efficient markets or general random walk theories.
- 3) The standard errors of short term warrant samples should be greater than those of long term warrant samples--as was the case in this study--because of present value and investor expectations.

Efficient Markets Test Results. The six reports from FILTER--three reports for each of the two samples--are illustrated on the following pages.

Analyzing the first report--Average Weekly Percentage Returns Without Commissions--for both samples A and B, one notices the following.

- 1) The mean return for the standard buy and hold strategy was either negligibly positive or even negative--i.e. + 0.0068354% per week for sample A and -0.016462% per week for sample B.
- 2) None of the filter-decision rules in either samples A or B significantly (99% confidence level) outperformed or under-performed the

TABLE 2

SAMPLE A

AVERAGE WEEKLY PERCENTAGE RETURNS
WITHOUT COMMISSIONS

WARRANTS -----	FILTER DECISIONS RULES					BUY & HOLD STANDARD -----
	1-1.25S -----	1.25-1.5S -----	1.5-1.75S -----	1.75-2S -----	2S+ -----	
1 AFFILIATED CAPITAL	-.812568	-.760054	-.790425	0	0	-.756598
2 AMERICAN CENTURY INVESTORS	0	.36581	-1.03706	-1.02756	-.211126	-1.02653
3 AMERICAN MOTORS	0	0	0	0	0	.283019
4 AMERICAN SHIPBUILDING	-1.42283	.427505	0	0	0	-.237772
5 AT&T	-.188602	.420557	0	0	0	-.102594
6 BENEFICIAL STANDARD MORTGAGE	.548218	2.43825	.1121	.372678	.203177	.440191
7 CHI INVESTMENT	-.478801	4.99815	0	0	0	1.58087
8 CARRIER	-2.29451	0	0	0	0	-.80776
9 CHRYSLER	0	0	0	0	0	-.127129
10 DIVERSIFIED INDUSTRIES	0	0	0	0	0	-1.16618
11 EQUITY FUNDING	-.63047	-.407952	-.495555	-.439408	0	-.48145
12 FEDERATED DEVELOPMENT	0	0	0	0	0	-.396226
13 FIDELCO GROWTH INVESTORS	0	3.03101	.896992	.34534	.074679	.783699
14 FIRST DENVER MORTGAGE	-.947435	.170475	-1.19313	-.06177	5.6338	-.778847

TABLE 2--Continued

15 FLYING TIGER	-.066461	-.139809	-.029338	0	0	1.29121
16 GOULD	0	0	0	0	0	.269322
17 HOLIDAY INN	-.314829	1.37622	-.166172	-.145783	-.301656	.227716
18 IOWA BEEF PROCESSORS	0	0	0	0	0	.255149
19 LOUISIANA LAND & EXPLORATION	-1.03363	0	0	0	0	-.252525
20 MOBIL OIL	.788464	3.53376	2.41641	0	0	.574214
21 RYDER SYSTEMS	.255727	3.45819	0	0	0	1.13652
22 TAMPA ELECTRIC	-.491847	.584603	0	0	0	-.292778
23 TESORO PETROLEUM	-.043422	.089226	-.084368	-.327273	0	.923994
24 DEL E WEBB	-.417396	-.474984	-1.48148	0	0	-.353774
25 WESTERN PACIFIC INDUSTRIES	0	0	0	0	0	-.4148
26 WILLIAMS COMPANIES	-.224668	0	0	0	0	.532801
27 ZAYRE	0	0	0	0	0	-.91919
MEANS:	-.287965	.707813	-.068594	-.047547	.199958	6.83541E-3
T VALUES:	-2.48263	2.50916	-.573848	-1.14694	.921355	

TABLE 3

SAMPLE B

AVERAGE WEEKLY PERCENTAGE RETURNS
WITHOUT COMMISSIONS

WARRANTS -----	1-1.255 -----	FILTER DECISIONS RULES				BUY & HOLD STANDARD -----
		1.25-1.55 -----	1.5-1.755 -----	1.75-25 -----	25+ -----	
1 APL	-.397727	0	0	0	0	-.034941
2 ALLEGHANY	-.448502	-.390606	-.255629	-.235405	-.344578	.236707
3 FIREBOARD	-.172171	.388704	0	0	0	-.179513
4 GENERAL DEVELOPMENT	-.219526	-1.02461	-3.77313	0	0	-.710771
5 GREYHOUND	0	0	0	0	0	-.468284
6 GULF+WESTERN INDUSTRIES	0	0	0	0	0	1.44284
7 INSTRUMENTS SYSTEMS	0	0	0	0	0	-.434078
8 ITEL1978	-1.10135	-.15433	-.080286	-.216873	-.105631	-.206368
9 LEASCO	-.272954	-.106514	0	0	0	.120237
10 LERNER STORES	-.784483	.342685	-.388362	-.291121	-.358597	-.262326
11 NATIONAL GENERAL NEW	0	0	0	0	0	.708895
12 NATIONAL INDUSTRIES	-.836337	-.758807	0	0	0	-.757576
13 PHOENIX STEEL	.17779	-.048099	-.367818	-.600601	0	.707547
14 TENNECO 1975A	-1.37037	0	0	0	0	.14639
15 UNITED BRANDS	0	0	0	0	0	-.228702
16 US SMELTING	0	0	0	0	0	.038475
17 WARD FOODS	0	0	0	0	0	-.212693
18 WHITTAKER	-.740533	-.80388	0	0	0	-.202156
MEANS:	-.452327	.029373	-.27029	-.074667	-.044934	-.016462
T VALUES:	-2.97109	.211724	-1.21846	-1.52191	-1.05672	

TABLE 4

SAMPLE A

AVERAGE WEEKLY PERCENTAGE RETURNS
WITH COMMISSIONS

WARRANTS -----	FILTER DECISIONS RULES					BUY & HOLD STANDARD -----
	1-1.255 -----	1.25-1.55 -----	1.5-1.755 -----	1.75-25 -----	25+ -----	
1 AFFILIATED CAPITAL	-.839305	-.780268	-.812331	0	0	-.775562
2 AMERICAN CENTURY INVESTORS	0	-2.27273	-1.0649	-1.06140	-.226178	-1.04894
3 AMERICAN MOTORS	0	0	0	0	0	.252358
4 AMERICAN SHIPBUILDING	-1.46301	-2.85714	0	0	0	-.27689
5 AT+T	-.230439	-.613787	0	0	0	-.123614
6 BENEFICIAL STANDARD MORTGAGE	.495039	-1.74927	.059988	.303223	.178071	.391308
7 CMI INVESTMENT	-.59841	-6.25	0	0	0	1.49327
8 CARRIER	-2.33424	0	0	0	0	-.827249
9 CHRYSLER	0	0	0	0	0	-.160183
10 DIVERSIFIED INDUSTRIES	0	0	0	0	0	-1.18805
11 EQUITY FUNDING	-.667401	-.443805	-.54097	-.481614	0	-.507293
12 FEDERATED DEVELOPMENT	0	0	0	0	0	-.409906
13 FIDELCO GROWTH INVESTORS	0	-1.53846	.832511	.287926	.053706	.726228
14 FIRST DENVER MORTGAGE	-.974127	-2.5641	-1.23959	-.081685	2.99296	-.797254

TABLE 4--Continued

15 FLYING TIGER	-.086957	-.217774	-.081347	0	0	1.23146
16 GOULD	0	0	0	0	0	.239004
17 HOLIDAY INN	-.352024	-2.30461	-.180809	-.200278	-.337218	.196439
18 IOWA BEEF PROCESSORS	0	0	0	0	0	.224961
19 LOUISIANA LAND & EXPLORATION	-1.10822	0	0	0	0	-.284091
20 MOBIL OIL	.725469	-2.10674	1.97721	0	0	.536274
21 RYDER SYSTEMS	.215819	-2.61438	0	0	0	1.07079
22 TAMPA ELECTRIC	-.519601	-1.04987	0	0	0	-.309044
23 TESORO PETROLEUM	-.093356	.030177	-.139207	-.369091	0	.85544
24 DEL E WEBB	-.439429	-.503595	-1.53704	0	0	-.368514
25 WESTERN PACIFIC INDUSTRIES	0	0	0	0	0	-.465406
26 WILLIAMS COMPANIES	-.272699	0	0	0	0	.492008
27 ZAYRE	0	0	0	0	0	-.939314
MEANS:	-.316403	-1.03098	-.100981	-.059367	.098568	-.028287
T VALUES:	-2.39966	-3.58663	-.597956	-.646736	1.12696	

TABLE 5

SAMPLE 8

AVERAGE WEEKLY PERCENTAGE RETURNS
WITH COMMISSIONS

WARRANTS -----	FILTER DECISIONS RULES					BUY & HOLD STANDARD -----
	1-1.25S -----	1.25-1.5S -----	1.5-1.75S -----	1.75-2S -----	2S+ -----	
1 APL	-.421117	0	0	0	0	-.657652
2 ALLEGHANY	-.462887	-.204077	-.278956	-.256993	-.373674	.207204
3 FIREBOARD	-.183606	-1.0989	0	0	0	-.19661
4 GENERAL DEVELOPMENT	-2.23248	-5.0	-3.82586	0	0	-.735375
5 GREYHOUND	0	0	0	0	0	-.487441
6 GULF+WESTERN INDUSTRIES	0	0	0	0	0	1.38319
7 INSTRUMENTS SYSTEMS	0	0	0	0	0	-.446811
8 ITEL1978	-1.07381	-.179712	-.146584	-.29591	-.119342	-.224794
9 LEASCO	-.297081	-.129522	0	0	0	.093646
10 LERNER STORES	-.933789	-4.33071	-.440037	-.331513	-.399897	-.293647
11 NATIONAL GENERAL NEW	0	0	0	0	0	.667588
12 NATIONAL INDUSTRIES	-.864311	-.778697	0	0	0	-.776515
13 PHOENIX STEEL	.125644	-.065407	-.43438	-.653153	0	.666274
14 TENNECO 1975A	-1.96111	0	0	0	0	.115258
15 UNITED BRANDS	0	0	0	0	0	-.246569
16 US SMELTING	0	0	0	0	0	.013928
17 WARD FOODS	0	0	0	0	0	-.230961
18 WHITTAKER	-.754628	-.817415	0	0	0	-.220687
MEANS:	-.503288	-.700247	-.284768	-.08542	-.049606	-.042888
T VALUES:	-2.82257	-1.87764	-1.14485	-.995324	-.22639	

TABLE 6

SAMPLE A

NUMBER OF TRANSACTIONS

WARRANTS -----	0-15 ----	LOCATION OF DATA POINTS					TOTALS -----	DATA POINTS -----	ACTIVE RULES -----
		1-1.255 -----	1.25-1.55 -----	1.5-1.755 -----	1.75-25 -----	25+ -----			
1 AFFILIATED CAPITAL	46	16	5	2	0	0	69	66	3
2 AMERICAN CENTURY INVESTORS	0	0	2	9	10	35	56	52	4
3 AMERICAN MOTORS	106	0	0	0	0	0	106	106	0
4 AMERICAN SHIPBUILDING	62	2	2	0	0	0	66	64	2
5 AT+T	18	75	15	0	0	0	108	106	2
6 BENEFICIAL STANDARD MORTGAGE	0	7	7	11	8	38	71	66	5
7 CMI INVESTMENT	49	3	2	0	0	0	54	52	2
8 CARRIER	55	9	0	0	0	0	64	63	1
9 CHRYSLER	69	0	0	0	0	0	69	69	0
10 DIVERSIFIED INDUSTRIES	49	0	0	0	0	0	49	49	0
11 EQUITY FUNDING	41	10	8	9	2	0	70	66	4
12 FEDERATED DEVELOPMENT	106	0	0	0	0	0	106	106	0
13 FIDELCO GROWTH INVESTORS	0	0	3	10	9	48	70	66	4
14 FIRST DENVER MORTGAGE	6	17	12	14	20	2	71	66	5

TABLE 6--Continued

15 FLYING TIGER	27	31	30	6	0	0	94	91	3
16 GOULD	106	0	0	0	0	0	106	106	0
17 HOLIDAY INN	36	20	24	25	3	3	111	106	5
18 IOWA BEEF PROCESSORS	105	0	0	0	0	0	105	105	0
19 LOUISIANA LAND & EXPLORATION	37	30	0	0	0	0	67	66	1
20 MOBIL OIL	56	30	17	6	0	0	109	106	3
21 RYDER SYSTEMS	17	39	13	0	0	0	69	67	2
22 TAMPA ELECTRIC	83	20	5	0	0	0	108	106	2
23 TESORO PETROLEUM	41	2	3	11	2	0	59	55	4
24 DEL E WEBB	93	9	5	2	0	0	109	106	3
25 WESTERN PACIFIC INDUSTRIES	41	0	0	0	0	0	41	41	0
26 WILLIAMS COMPANIES	86	6	0	0	0	0	92	91	1
27 ZAYRE	58	0	0	0	0	0	58	58	0
TOTALS	1393	326	153	105	54	126	2157	2101	56
ACTIVE RULES		17	16	11	7	5	56		

TABLE 7

SAMPLE 8

NUMBER OF TRANSACTIONS

WARRANTS -----	0-15 ----	LOCATION OF DATA POINTS					TOTALS -----	DATA POINTS -----	ACTIVE RULES -----
		1-1.25S -----	1.25-1.5S -----	1.5-1.75S -----	1.75-2S -----	2S+ -----			
1 APL	104	3	0	0	0	0	107	106	1
2 ALLEGHANY	54	8	12	13	4	20	111	106	5
3 FIREBOARD	95	10	3	0	0	0	108	106	2
4 GENERAL DEVELOPMENT	45	8	6	3	0	0	62	59	3
5 GREYHOUND	81	0	0	0	0	0	81	81	0
6 GULF+WESTERN INDUSTRIES	106	0	0	0	0	0	106	106	0
7 INSTRUMENTS SYSTEMS	106	0	0	0	0	0	106	106	0
8 ITEL1978	18	5	5	10	8	65	111	106	5
9 LEASCO	71	23	14	0	0	0	108	106	2
10 LERNER STORES	10	6	12	13	10	20	71	66	5
11 NATIONAL GENERAL NEW	106	0	0	0	0	0	106	106	0
12 NATIONAL INDUSTRIES	42	22	4	0	0	0	68	66	2
13 PHOENIX STEEL	61	23	19	5	2	0	110	106	4
14 TENNECO 1975A	90	2	0	0	0	0	92	91	1
15 UNITED BRANDS	106	0	0	0	0	0	106	106	0
16 US SMELTING	106	0	0	0	0	0	106	106	0
17 WARD FOODS	106	0	0	0	0	0	106	106	0
18 WHITTAKER	100	4	4	0	0	0	108	106	2
TOTALS	1407	114	79	44	24	105	1773	1741	32
ACTIVE RULES		11	9	5	4	3	32		

standard return. Two of the filter-decision rules in sample A outperformed the standard buy and hold strategy but the t values for all of the filter-decision rules were between ± 2.59 , which indicates that none of them significantly (95% confidence level) outperformed or under-performed the standard return. Only one filter-decision rule outperformed the standard buy and hold strategy in sample B but its t value was insignificant. One filter-decision rule in sample B significantly (95% confidence level) did worse than the standard buy and hold return.

Analyzing the second report--Average Weekly Percentage Returns With Commissions--for both samples A and B, one notices the following.

- 1) The mean return for the standard buy and hold strategy was $-.028287\%$ per week for sample A and $-.042888\%$ per week for sample B. These returns are more indicative of reality in that commissions were taken into account.
- 2) In sample A only one filter-decision rule outperformed the standard return but not significantly. On the other hand, one filter-decision rule did very significantly (99% confidence level) worse than the standard buy and hold

strategy. In sample B all filter-decision rules under-performed the standard buy and hold strategy but only one was significantly (95% confidence level) worse.

Analyzing the third report--Number of Transactions--one notices the following.

1. Eight of the 27 warrants in sample A and seven of the 18 warrants in sample B had no active filter-decision rules. That is, 15 of the 45 warrants, or one third, had all of their data points located within one standard error of the theoretically derived hyperbola. This finding adds more evidence to the validity of the theoretical $B = 1$ hyperbolic warrant function.
2. For both samples, more warrants had an active 1-1.25S filter-decision rule than had an active 1.25-1.5S filter-decision rule than had an active 1.5-1.75S filter decision rule, etc. This finding is expected because more data points are located closer to the mean than are away from the mean. For both samples more data points existed at the 1-1.25 filter level than at the 1.25-1.5S filter level than at the 1.5-1.75S filter level, etc.--with one exception. The number of data points at the 2S+ filter level was larger than that for the preceding two or three filter levels. This unusual

result stems from six of the 45 warrants-- American Century Investors, Beneficial Standard Mortgage, Fidelco Growth Investors, Alleghany Corporation, Itel and Lerner Stores.

The main reason for the large number of 2S data points for these six warrants is mathematical. The six warrants are low-priced and exercisable into common stocks selling far above their exercise prices. Thus, with a small absolute increase or decrease in the stock price, the low-priced warrant could easily result in a large percentage and/or premium change. Secondly, with the exception of Lerner Stores and Itel, all of the warrants represent investment companies. With the exception of Lerner Stores, all of the warrants also represent interest-sensitive companies. While Itel and Alleghany benefitted from the falling interest rates characteristic of the test period, the three real estate mortgage trusts were caught in a profit squeeze¹. Also, the real estate trust business has had an income-oriented, staid image in the past². Thus, one would expect higher premiums on the Alleghany and Itel warrants because the factors mentioned above would increase investor expectations for profit. On the other hand, the

three mortgage trusts would have lower than normal premiums because the profit squeeze and past image would lower investor expectations for gain.

Lerner Stores has a lower than normal premium because of Mr. Riklis' negative image on Wall Street. Mr. Riklis commenced his Rapid-American empire (includes Lerner Stores) by purchasing textile companies below book value and liquidating them at a profit. His image as a liquidator of companies, rather than a builder, remains with Wall Streeters--even though he has successfully built a three billion dollar retailing giant!

Efficient Markets Test Conclusions. The findings of this thesis support a number of concepts.

- 1) The filter-decision rules could not outperform the buy and hold strategy for either sample--especially when commissions were taken into account. The thesis provides evidence for the random walkers and proponents of the efficient markets model.
- 2) The theoretical $B = 1$ hyperbola was supported again by the Number of Transactions Reports. One-third of the warrants had all of their data points within $\pm 1\%$ of the warrant price predicted by the hyperbola.

- 3) All exceptions and seemingly unusual findings were explainable in terms of mathematics, characteristics of the test period, and Wall Street thinking.

Areas For Further Research. There are five areas of research which should be explored in more depth by future warrant and/or efficient markets researchers.

- 1) While analyzing the warrant-stock price data, it became obvious that the financial truism that warrants have greater leverage than the associated common stocks does not always hold. That is, for a given percentage change in the common stock price, the lower-priced warrant should change more percentage-wise, but it often does not.
- 2) Most random walkers utilize, as the standard measure of return, the buy and hold strategy's percentage return. But the buy and hold return is very dependent on which days are selected as the first and last days in the test period. More research is needed to find a better standard measure. For instance, one could assume that a purchase was made on the first day and sold on the second day. Then assume purchase again on the first day and sale on the third day. On the second trial, assume that the purchase is made on the second day and sold on the third

day. Then assume purchase on the second day and sale on the fourth day. After going through every possible combination of purchase and sale for the time period in question, compute the average return and utilize it as the standard. Thus, the importance of the first and last days in the time period will be minimized.

- 3) Research is needed for the development of more sophisticated decision rules for outperforming the standard return. For example, if one would purchase \$2,000 worth of warrants at the -2S level and only \$1,000 worth at the -1S level-- he could possibly outperform the standard return.
- 4) Even in a random process one could outperform the standard return through betting procedures-- like hedging techniques. For example, when warrant premiums exceed $X\%$ sell \$1,000 worth of warrants short and purchase \$1,000 worth of common stock. Hopefully, either the inflated warrant premium will increase less than the rising common stock price, or it will decline more than the falling common stock price.
- 5) More research must be done on working the time to expiration factor into the hyperbolic warrant function. If sufficient test data had existed, and a way was found to take the time to expiration factor into account, this study

would neither have had to exclude from the sample those warrants expiring in two years (1973-4), nor would it have been necessary to keep two separate warrant samples throughout. Further research is needed in all of the above areas.

FOOTNOTES

¹D. Turov, "Out of the Cellar--The Market is
Down On REIT Warrants," Barrons, LII (March 27, 1972), 5.

²Ibid.

APPENDIX A

WARRANT CHARACTERISTICS

WARRANT CHARACTERISTICS

<u>WARRANT</u>	<u>WARRANT EXCHANGE</u>	<u>COMMON EXCHANGE</u>	<u>COMMON CASH DIVIDEND</u>	<u>(000,000) ABSOLUTE ISSUE SIZE</u>	<u>RELATIVE SIZE OF WARRANT ISSUE (%)</u>	<u>MATURITY DATE</u>	<u>EXERCISE PRICE</u>	<u>SAMPLE</u>
1. APL	OTC	NYSE	NO	.200	13	12/31/88	28.00	B
2. Affiliated Capital	ASE	ASE	NO	.525	29	3/26/75	10.00 ¹	A
3. Allegheny	ASE	NYSE	YES	.531	6	NONE	3.75	B
4. American Century Investors	ASE	ASE	YES	.906	47	6/30/75	23.00	A
5. American Motors	OTC	NYSE	NO	.875	3	10/1/76	12.00	A
6. American Shipbuilding	OTC	NYSE	YES	.149	9	8/1/76	30.00 ¹	A
7. AT & T	NYSE	NYSE	YES	31.355	6	5/15/75	52.00	A
8. Beneficial Standard Mortgages	ASE	ASE	YES	.775	282	7/14/75	20.00	A
9. CMI Investment	ASE	ASE	NO	.495	23	8/26/76	31.75	A
10. Carrier	ASE	NYSE	YES	.750	2	7/15/76	41.00	A
11. Chrysler	NYSE	NYSE	YES	1.800	4	5/15/76	34.00	A
12. Diversified Industries	ASE	NYSE	NO	.674	11	7/15/76	9.25	A
13. Equity Funding	ASE	NYSE	YES	.617	8	12/1/75	25.25	A
14. Federated Development	OTC	NYSE	NO	.562	30	12/31/75	16.00	A
15. Fibreboard	ASE	NYSE	YES	.729	23	12/1/78	22.50	B
16. Fidelco Growth Investors	ASE	ASE	YES	.471	34	9/1/75	25.00	A
17. First Denver Mortgage	ASE	ASE	YES	1.510	100	10/6/75	20.00	A
18. Flying Tiger	ASE	NYSE	NO	.598	10	12/31/75	31.00 ¹	A
19. General Development	NYSE	NYSE	NO	2.000	20	7/15/78	28.25	B

WARRANT CHARACTERISTICS CONT.

20. Gould	ASE	NYSE	YES	1.875	37 ²	6/29/76	55.00	A
21. Greyhound	NYSE	NYSE	YES	4.250	11	5/14/80	23.50	B
22. Gulf & Western Industries	ASE	NYSE	YES	7.076	48 ³	1/31/78	55.00 ¹	B
23. Holiday Inns	OTC	NYSE	YES	.330	1	6/18/75	24.75	A
24. Instrument Systems	OTC	ASE	NO	.803	10	5/28/81	40.00	B
25. Iowa Beef Processors	OTC	NYSE	NO	.300	14	9/15/75	25.00	A
26. Itel 1978	OTC	ASE	NO	.450	10	5/1/78	6.25	B
27. Leasco 1978	ASE	NYSE	YES	6.011	58	6/4/78	34.80	B
28. Lerner Stores	ASE	ASE	YES	.936	22 ³	8/31/82	15.00	B
29. Louisiana Land & Exploration	ASE	NYSE	YES	1.800	10	6/15/76	40.50	A
30. Mobil Oil	ASE	NYSE	YES	.800	1	8/1/75	47.50	A
31. National General NEW	ASE	NYSE	YES	9.354	188	9/30/78	40.00	B
32. National Industries	ASE	NYSE	NO	2.998	44	10/31/78	21.40	B
33. Phoenix Steel	OTC	ASE	NO	1.450	35	12/31/79	7.90	B
34. Ryder Systems	ASE	NYSE	YES	.350	7	8/5/75	25.00 ⁴	A
35. Tampa Electric	OTC	NYSE	YES	.300	3	12/31/76	23.00	A
36. Tenneco 1975A	NYSE	NYSE	YES	2.500	4	4/1/79	32.17	B
37. Tesoro Petroleum	ASE	NYSE	NO	.715	18	8/24/76	27.63	A
38. United Brands 1979	ASE	NYSE	NO	10.050	93	2/1/79	46.00	B
39. U.S. Smelting ⁵	ASE	NYSE	YES	1.178	51 ²	1/15/79	66.00	B
40. Ward Foods	ASE	NYSE	NO	.677	22 ³	1/2/79	60.00	B
41. Webb (Del.E.)	OTC	NYSE	NO	.562	7	12/1/75	6.25	A

WARRANT CHARACTERISTICS CONT.

42. Western Pacific Industries	OTC	NYSE	NO	1.300	40	1/10/77	20.50	A
43. Whittaker	ASE	NYSE	NO	1.600	8	3/21/79	50.00	B
44. Williams Companies	NYSE	NYSE	NO	1.979	29	1/1/76	20.00	A
45. Zayre	OTC	NYSE	NO	.300	6	8/31/76	40.00	A

Footnotes

¹Companies Conversion Ratios

American Shipbuilding	1.05
Affiliated Capital	1.046
Gulf & Western Industries	1.027
Flying Tiger	1.05

²Protection against dilution is 97%

³Protection against dilution is 95%

⁴The exercise price drops in half to \$12.50 because of the two for one split on May 1, 1972.

⁵U.S. Smelting is now called U.V. Industries

APPENDIX B

WARRANT SUB-SAMPLES

and

CHARACTERISTICS OF SAMPLES A AND B

WARRANT SUB-SAMPLES

<u>Sample A</u>	<u>Sample B</u>
1. Affiliated Capital	1. APL
2. American Century Investors	2. Allegheny
3. American Motors	3. Fibreboard
4. American Shipbuilding	4. General Development
5. AT & T	5. Greyhound
6. Beneficial Standard Mortgage	6. Gulf & Western Industries
7. CMI Investment	7. Instrument Systems
8. Carrier	8. Itel 1978
9. Chrysler	9. Leasco 1978
10. Diversified Industries	10. Lerner Stores
11. Equity Funding	11. National General NEW
12. Federated Development	12. National Industries
13. Fidelco Growth Investors	13. Phoenix Steel
14. First Denver Mortgage	14. Tenneco 1975 A
15. Flying Tiger	15. United Brands 1979
16. Gould	16. U.S. Smelting
17. Holiday Inns	17. Ward Foods
18. Iowa Beef Processors	18. Whittaker
19. Louisiana Land & Exploration	
20. Mobil Oil	
21. Ryder Systems	
22. Tampa Electric	
23. Tesoro Petroleum	
24. Webb (Del. E.)	
25. Western Pacific Industries	
26. Williams Companies	
27. Zayre	

Characteristics Of Samples A and B

<u>Sample A</u>		<u>Factor</u>	<u>Sample B</u>	
<u>% Age</u>	<u>Number</u>	<u>Warrant Listings</u>	<u>Number</u>	<u>% Age</u>
11.1	3	NYSE	3	16.7
55.5	15	AMEX	11	61.1
33.4	9	OTC	4	22.2
		<u>Warrant Issue Size</u> <u>As A %Age Of Its</u> <u>Common Stock Base</u>		
66.6	18	< 25%	11	61.1
33.4	9	≥ 25%	7	38.9
		<u>Cash Dividends</u> <u>Paid On Common</u>		
55.5	15	Yes	9	50.0
44.5	12	No	9	50.0
		<u>Expiration Year</u>		
	14	1975 1978	7	
	12	1976 1979	6	
	1	1977 1980+	5	
	27	Totals	18	

APPENDIX C

WEEKLY CROSS-REFERENCE

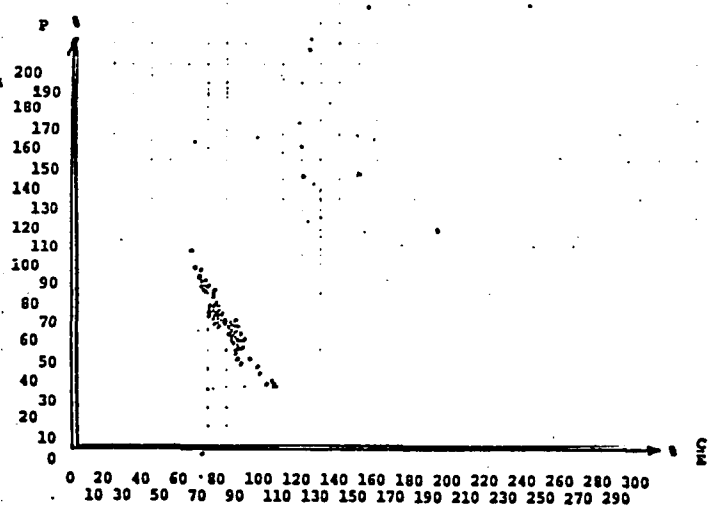
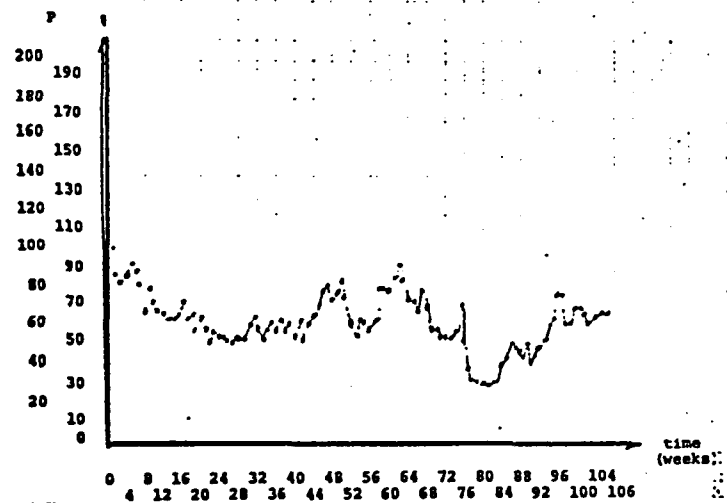
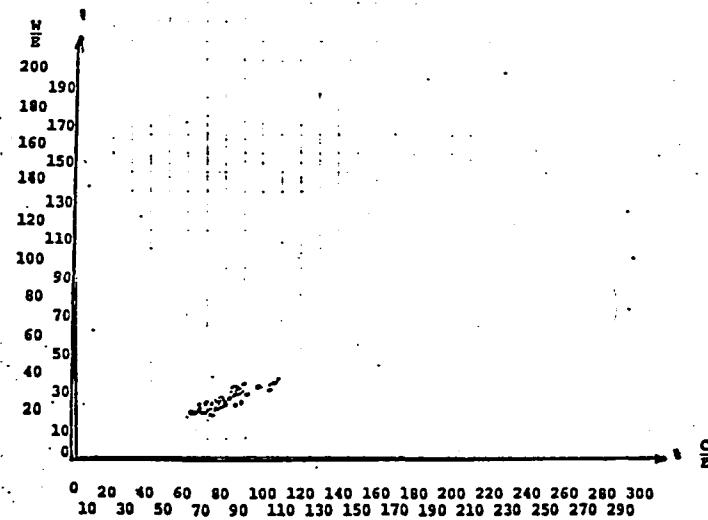
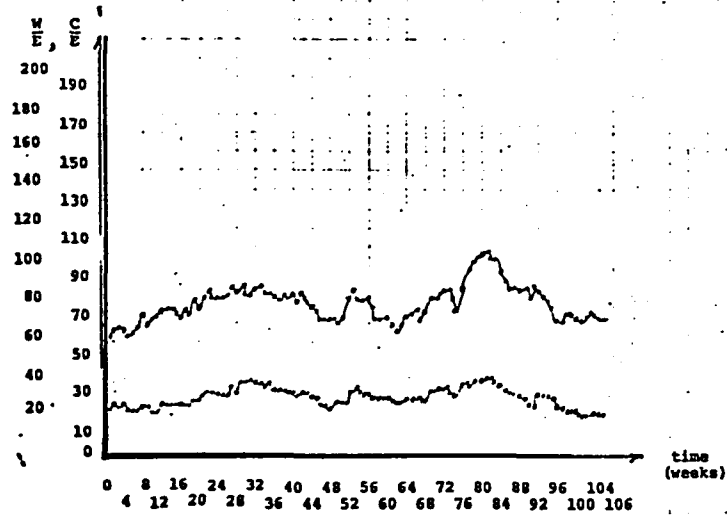
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FOUR PLOTS OF THE DATA FOR EACH WARRANT

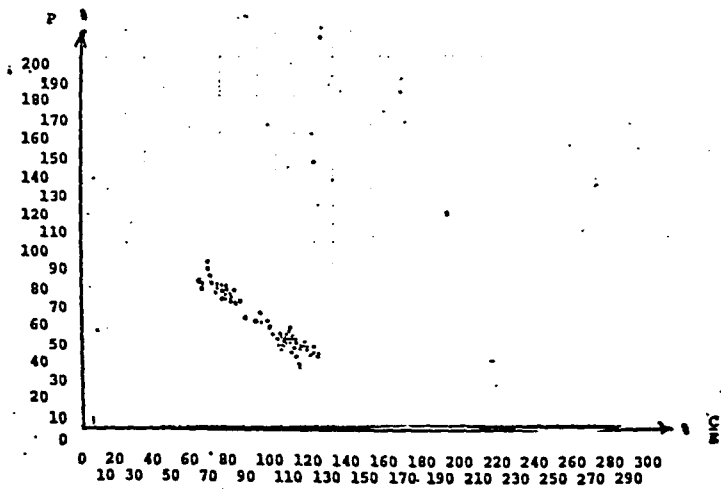
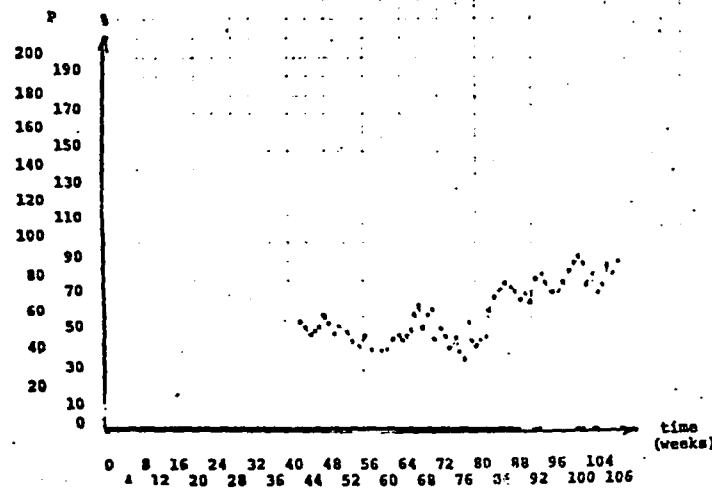
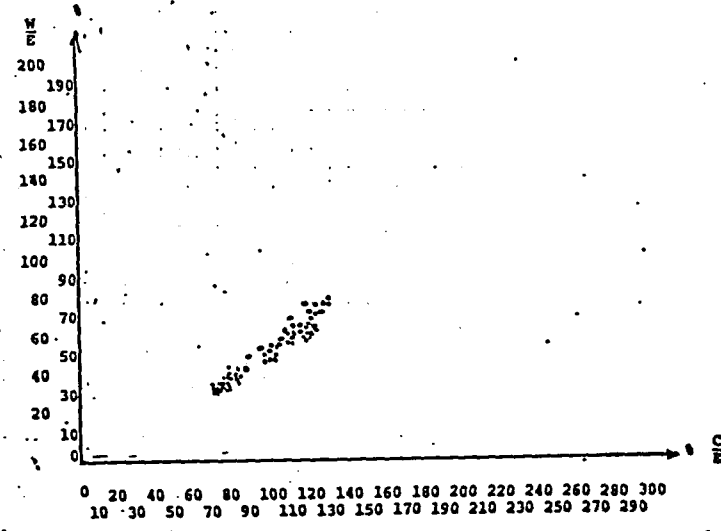
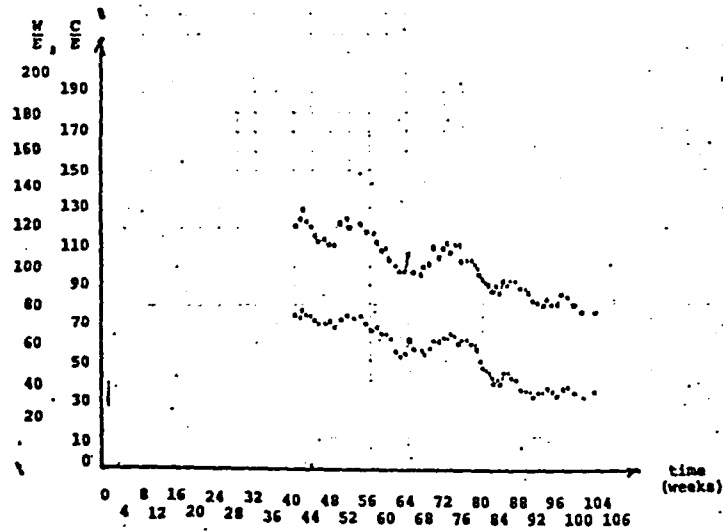
WEEKLY CROSS-REFERENCE

<u>WEEK</u>	<u>DATE</u>	<u>WEEK</u>	<u>DATE</u>	<u>WEEK</u>	<u>DATE</u>	<u>WEEK</u>	<u>DATE</u>
1.	9/21/70	28.	3/29/71	55.	10/4/71	82.	4/10/72
2.	9/28/70	29.	4/ 5/71	56.	10/11/71	83.	4/17/71
3.	10/ 5/70	30.	4/12/71	57.	10/18/71	84.	4/24/72
4.	10/12/70	31.	4/19/71	58.	10/25/71	85.	5/ 1/72
5.	10/19/70	32.	4/26/71	59.	11/ 1/71	86.	5/ 8/72
6.	10/26/70	33.	5/ 3/71	60.	11/ 8/71	87.	5/15/72
7.	11/ 2/70	34.	5/10/71	61.	11/15/71	88.	5/22/72
8.	11/ 9/70	35.	5/17/71	62.	11/22/71	89.	5/29/72
9.	11/16/70	36.	5/24/71	63.	11/29/71	90.	6 / 5/72
10.	11/23/70	37.	5/31/71	64.	12/ 6/71	91.	6/12/72
11.	11/30/70	38.	6/ 7/71	65.	12/13/71	92.	6/19/72
12.	12/ 7/70	39.	6/14/71	66.	12/20/71	93.	6/26/72
13.	12/14/70	40.	6/21/71	67.	12/27/71	94.	7/ 3/72
14.	12/21/70	41.	6/28/71	68.	1/ 3/72	95.	7/10/72
15.	12/28/70	42.	7/ 5/71	69.	1/10/72	96.	7/17/72
16.	1/ 4/71	43.	7/12/71	70.	1/17/72	97.	7/24/72
17.	1/11/71	44.	7/19/71	71.	1/24/72	98.	7/31/72
18.	1/18/71	45.	7/26/71	72.	1/31/72	99.	8/ 7/72
19.	1/25/71	46.	8/ 2/71	73.	2/ 7/72	100.	8/14/72
20.	2/ 1/71	47.	8/ 9/71	74.	2/14/72	101.	8/21/72
21.	2/ 8/71	48.	8/16/71	75.	2/21/72	102.	8/28/72
22.	2/15/71	49.	8/23/71	76.	2/28/72	103.	9/ 4/72
23.	2/22/71	50.	8/30/71	77.	3/ 6/72	104.	9/11/72
24.	3/ 1/71	51.	9/ 6/71	78.	3/13/72	105.	9/18/72
25.	3/ 8/71	52.	9/13/71	79.	3/20/72	106.	9/25/72
26.	3/15/71	53.	9/20/71	80.	3/27/72		
27.	3/22/71	54.	9/27/71	81.	4/ 3/72		

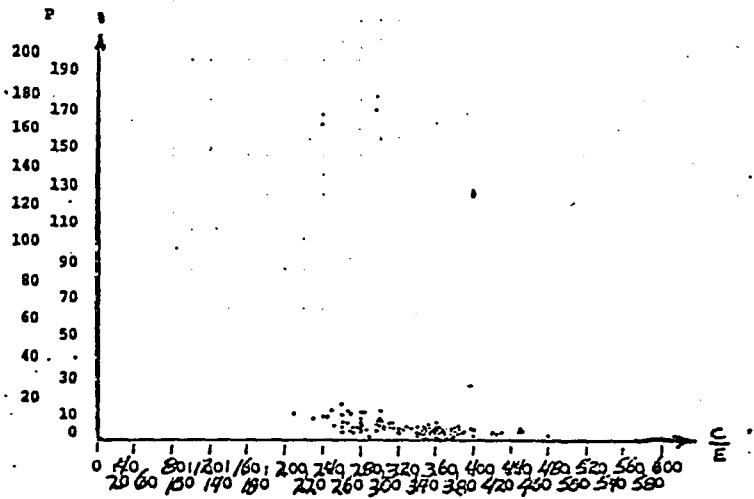
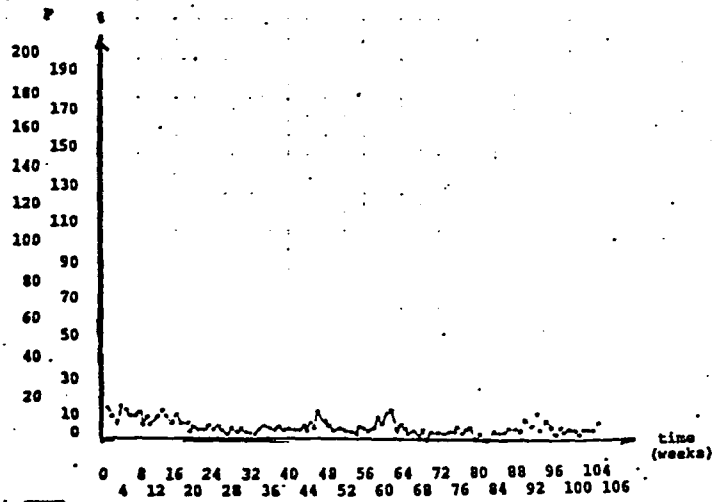
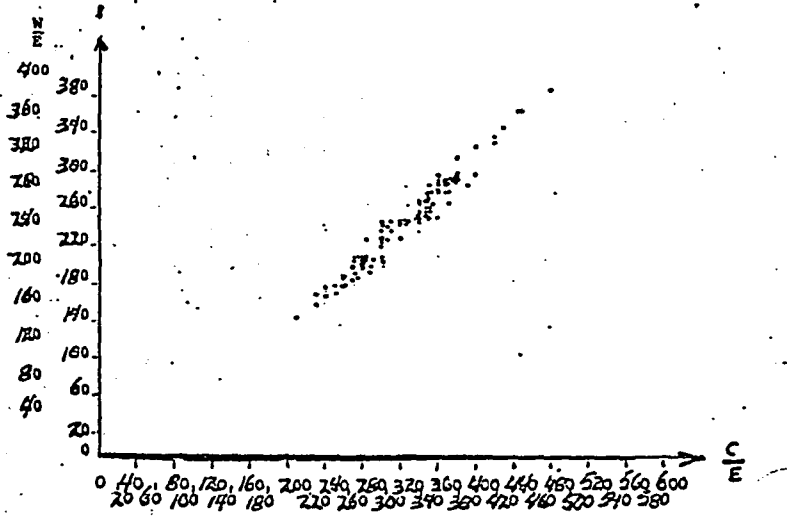
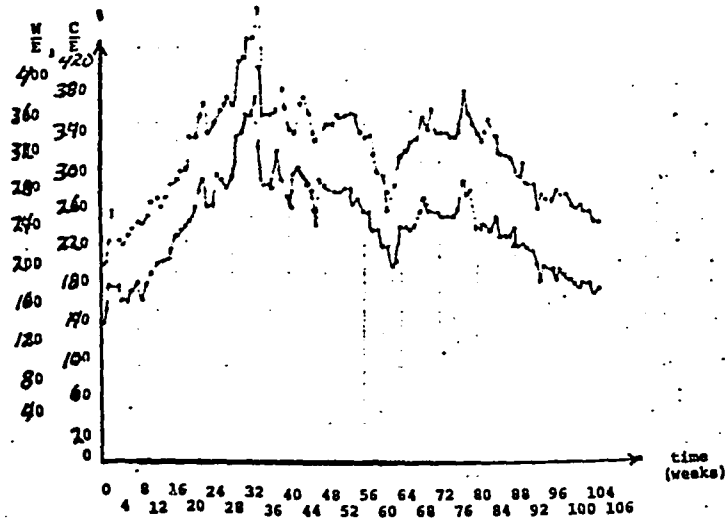
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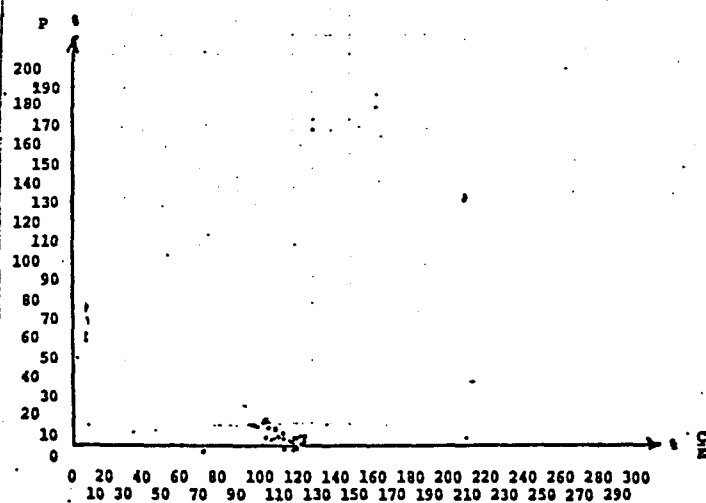
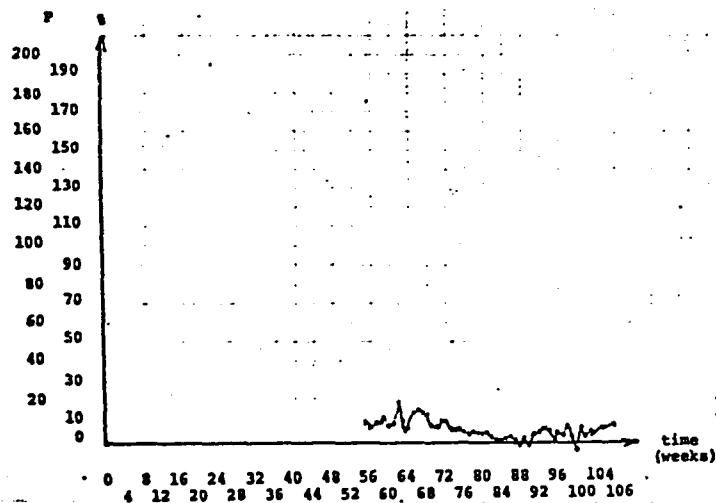
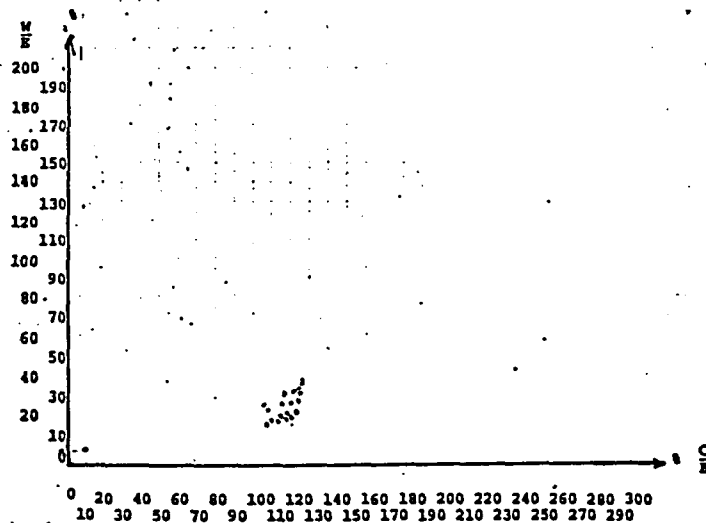
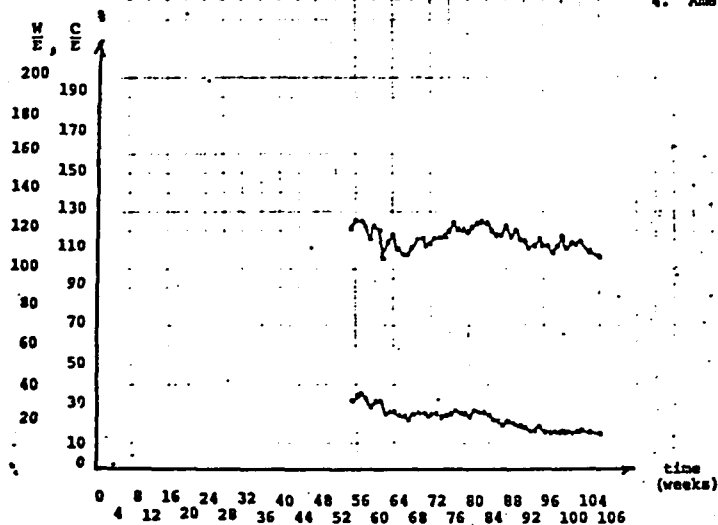
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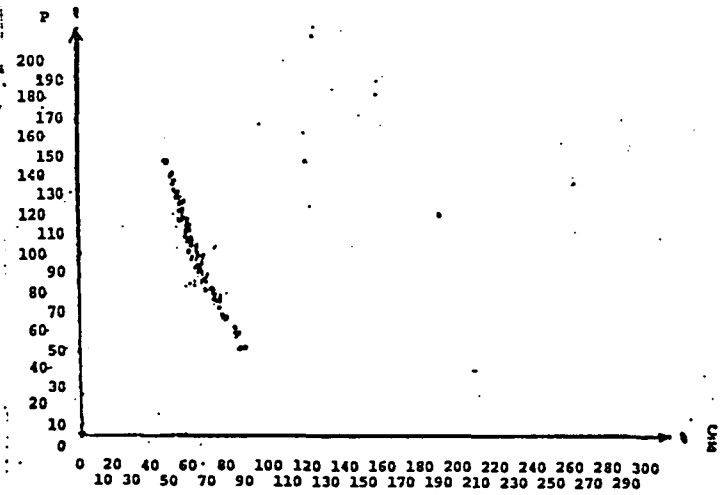
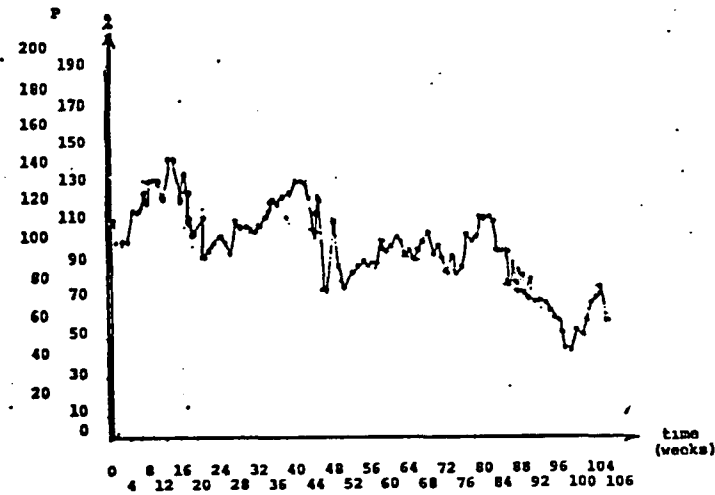
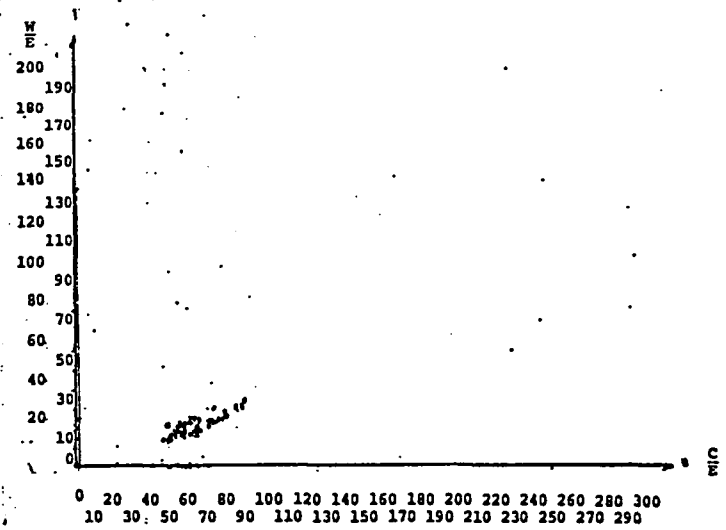
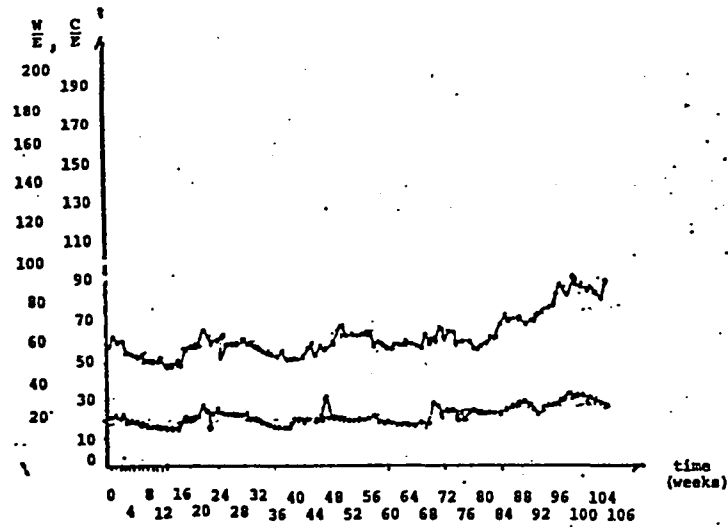
3. Allegheny



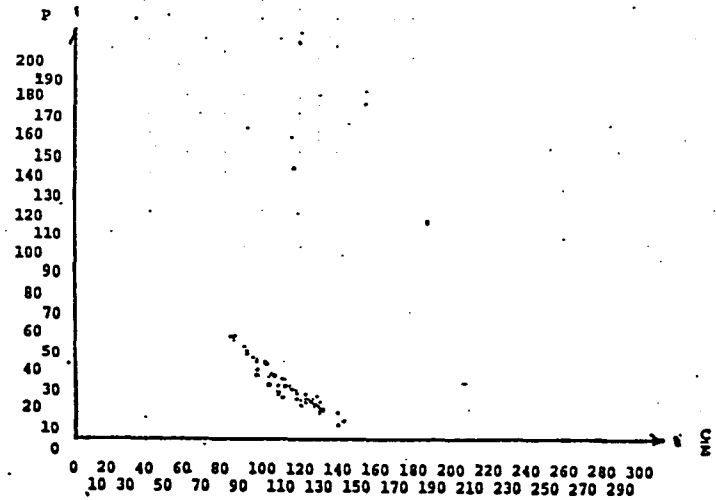
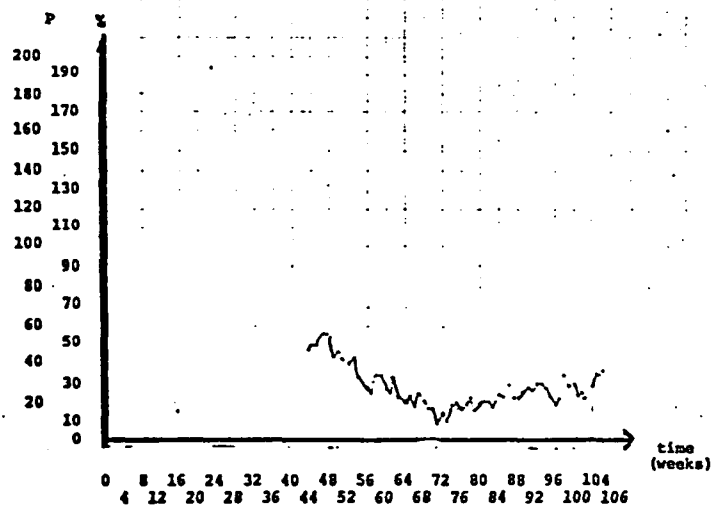
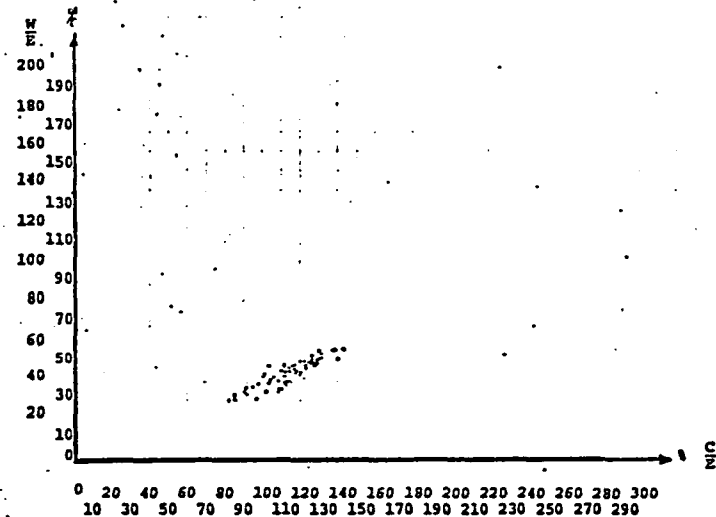
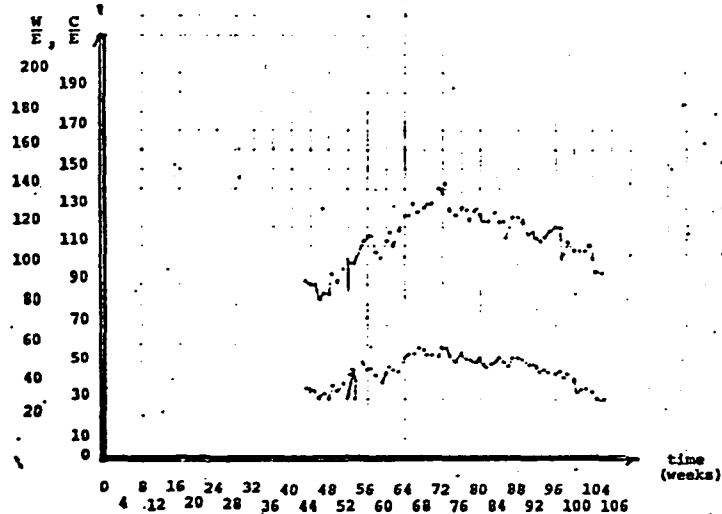
4. American Century Investors



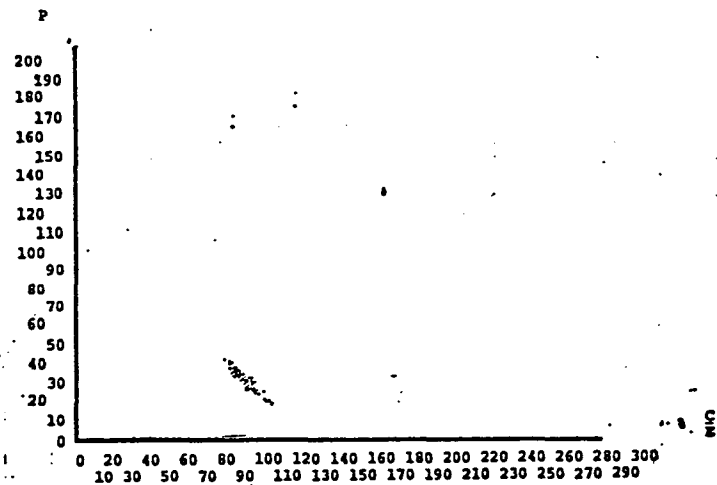
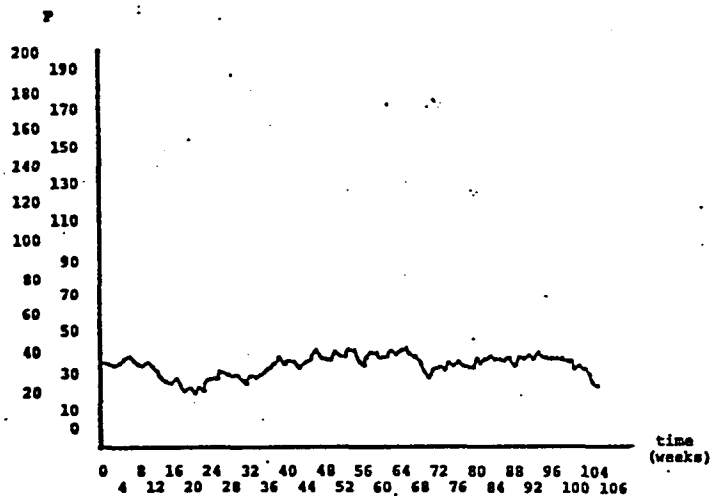
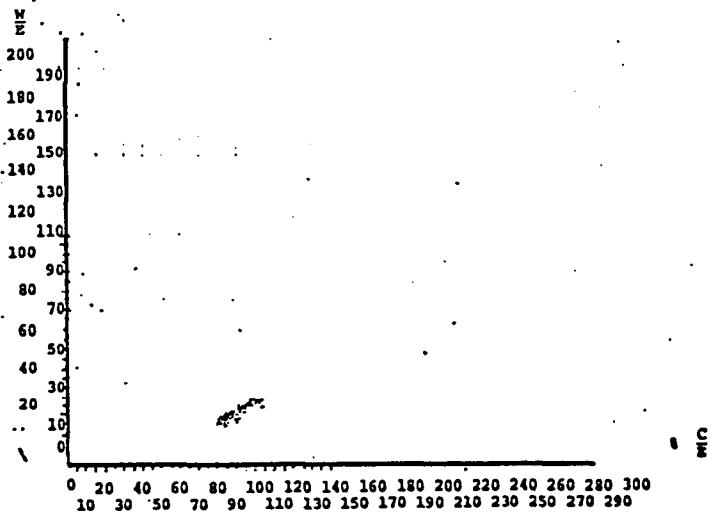
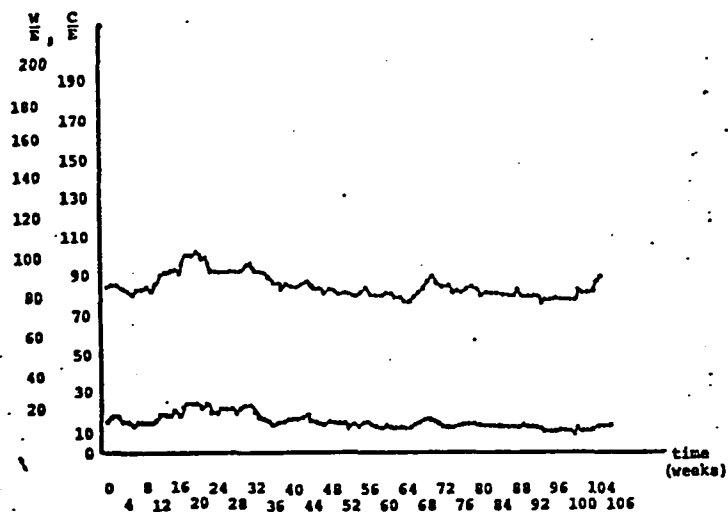
5. American Motors



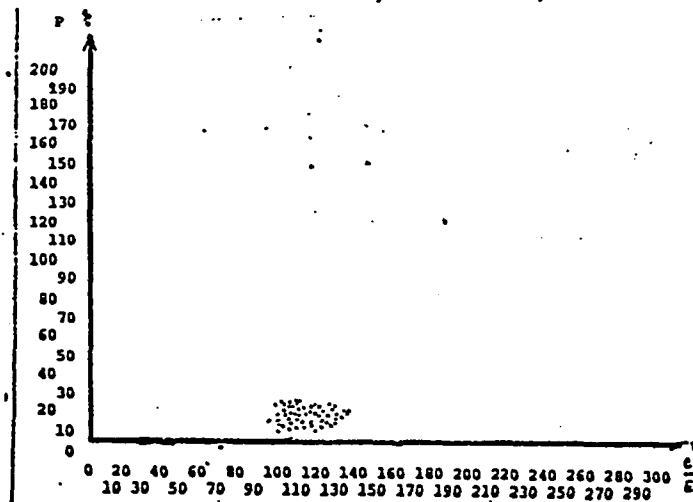
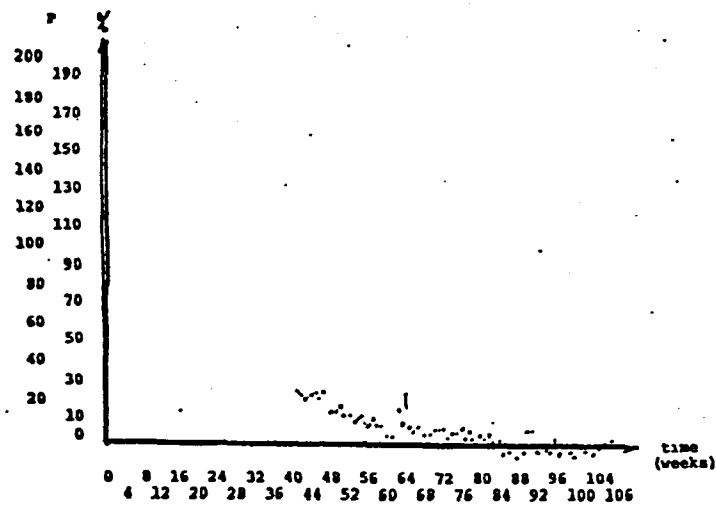
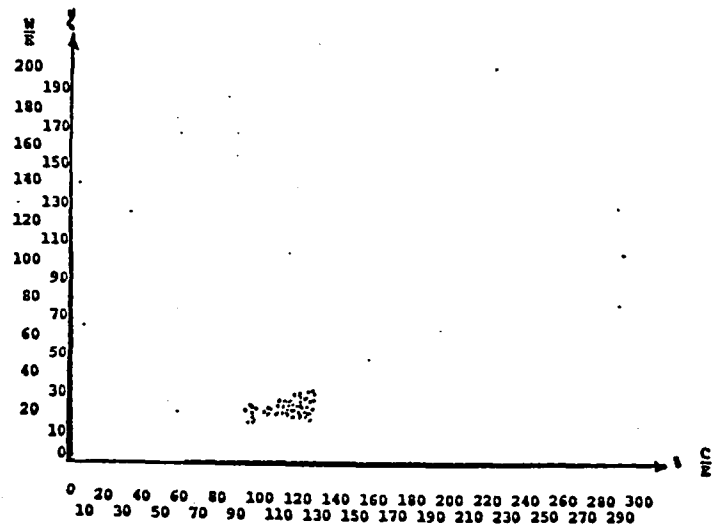
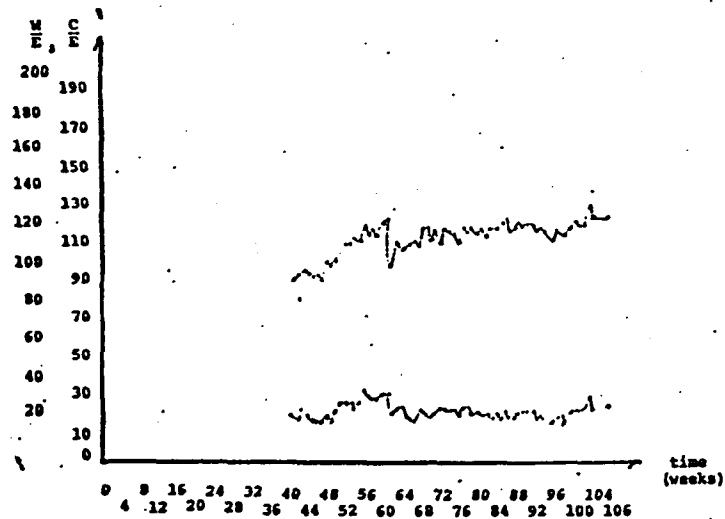
6. American Shipbuilding



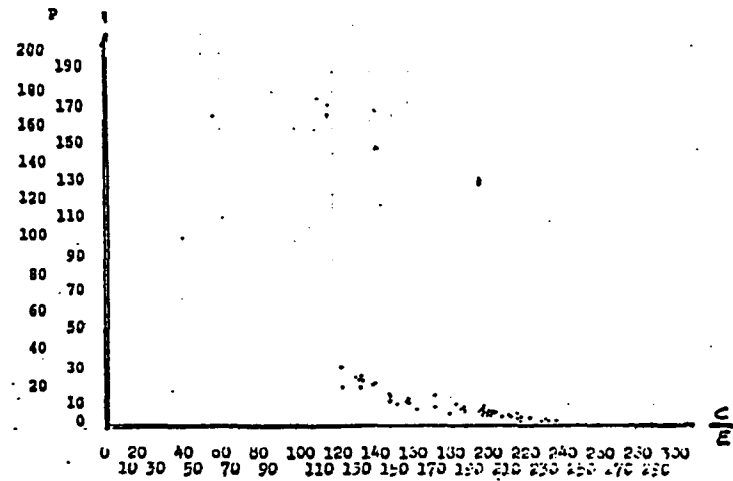
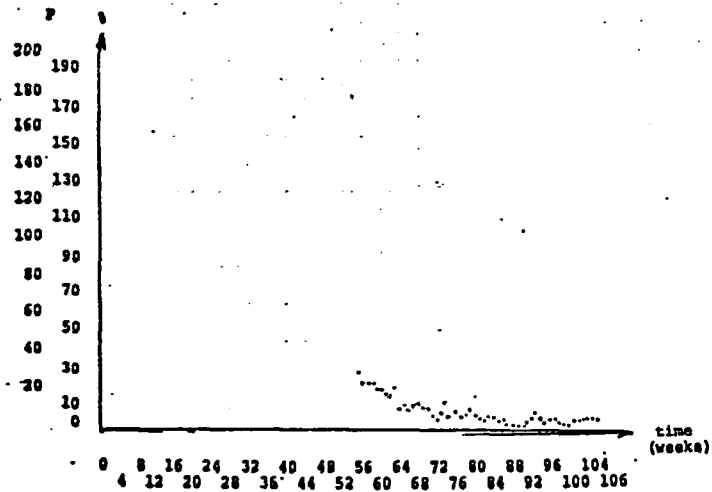
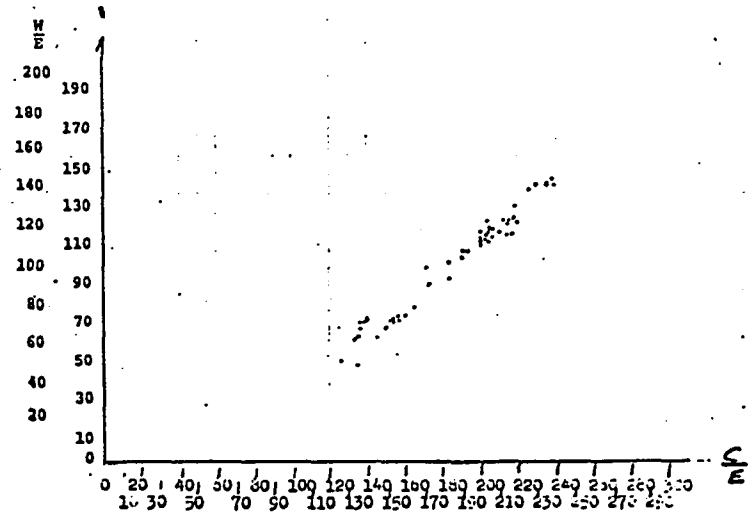
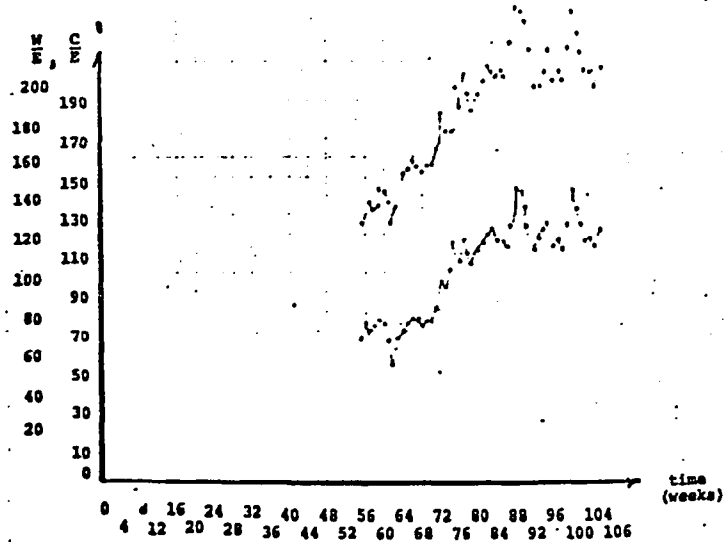
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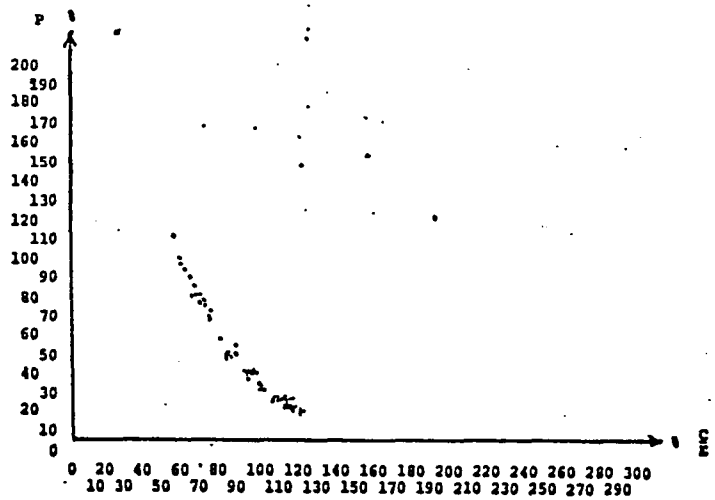
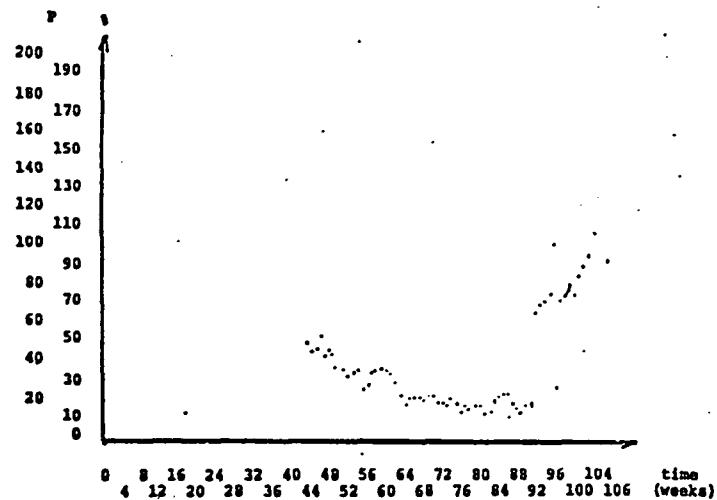
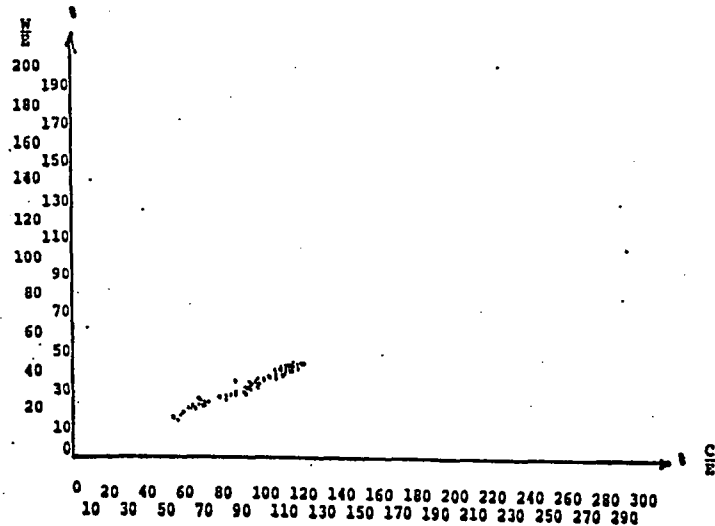
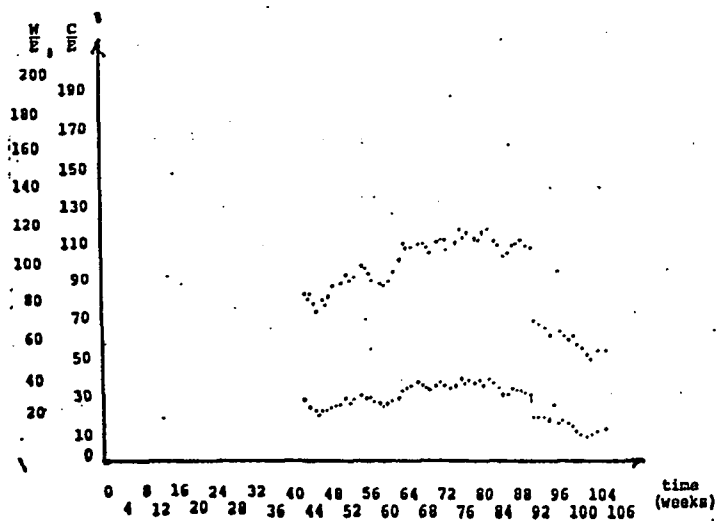
8. Beneficial Standard Mortgages



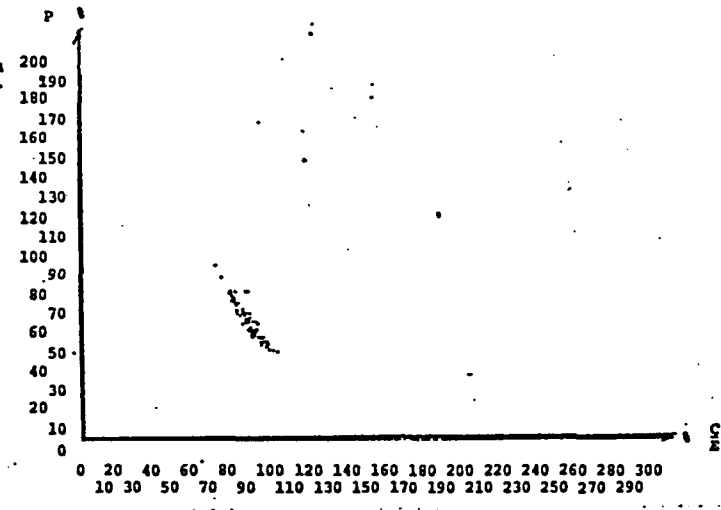
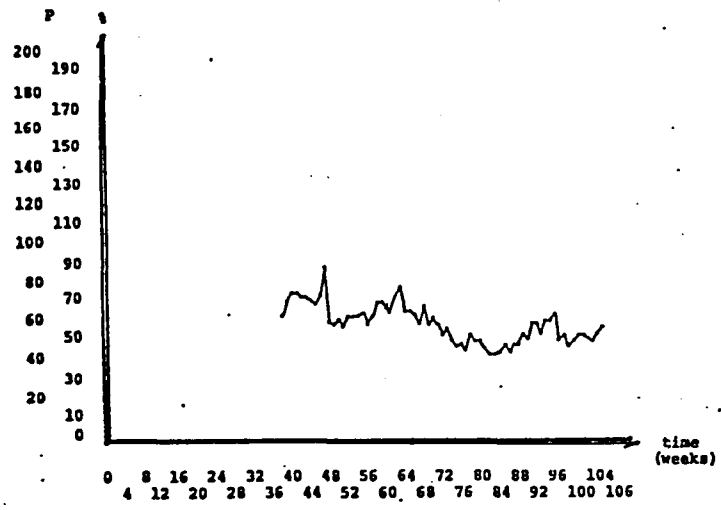
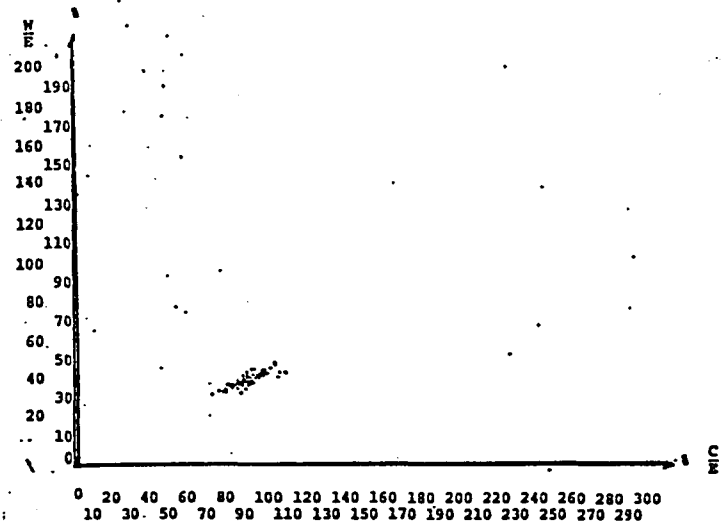
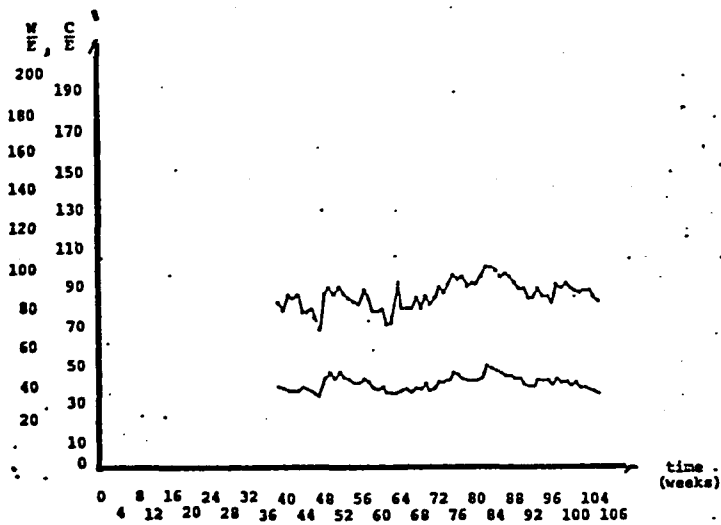
9. CMI Investment



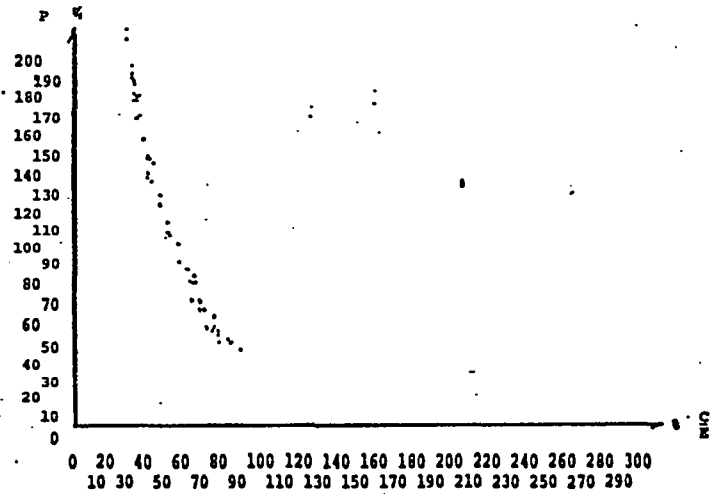
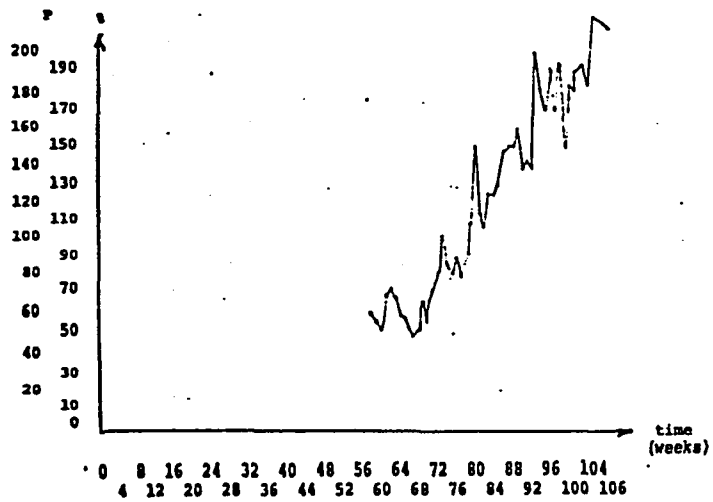
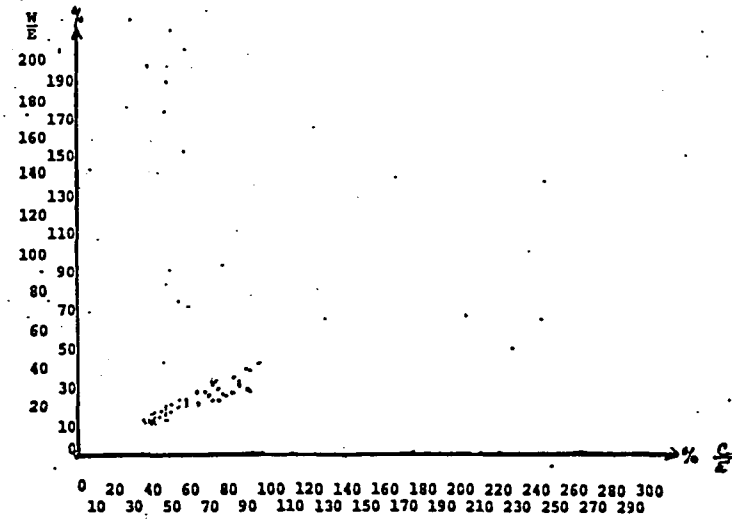
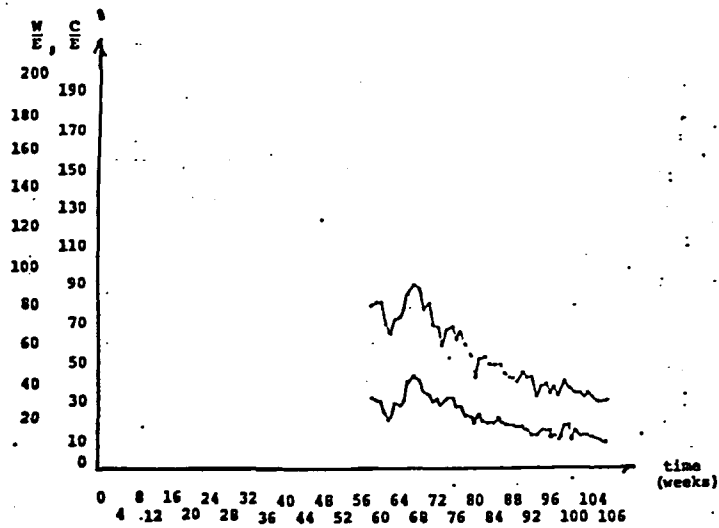
10. Carrier



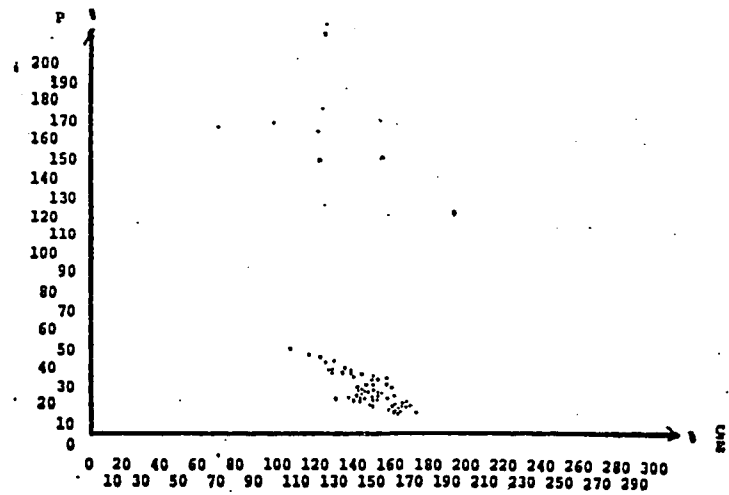
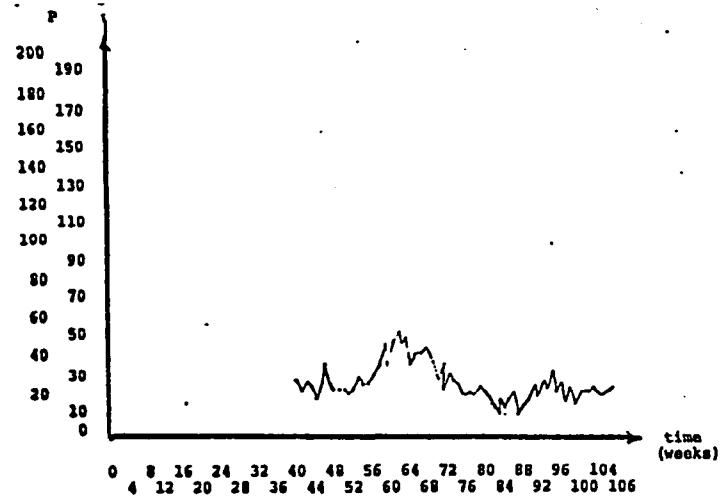
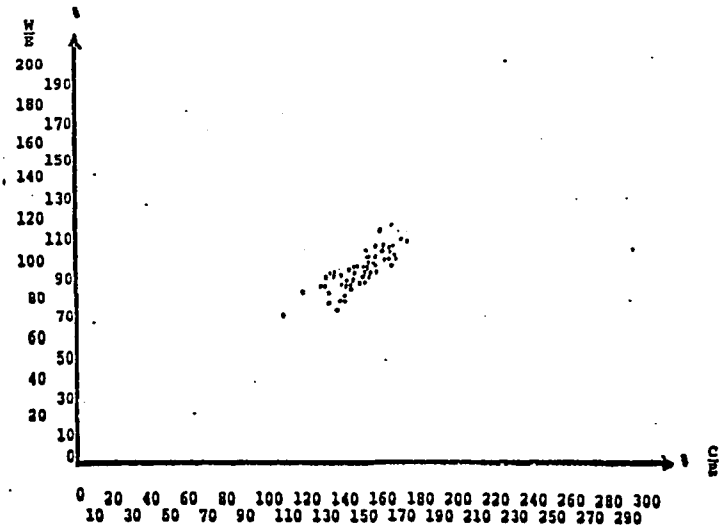
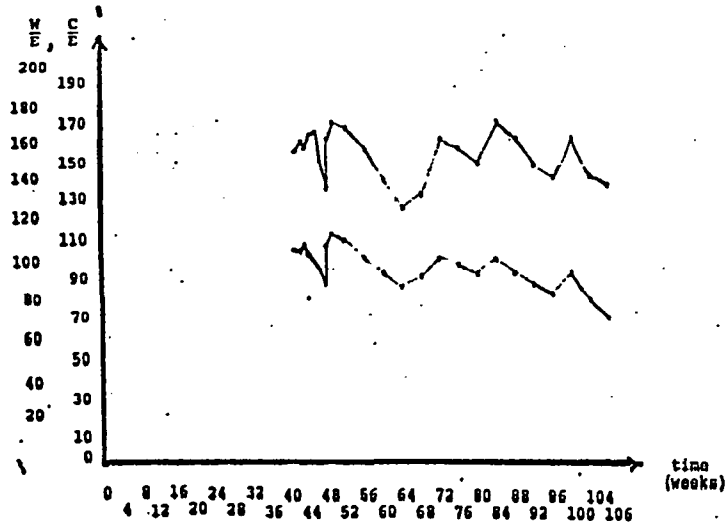
11. Chrysler



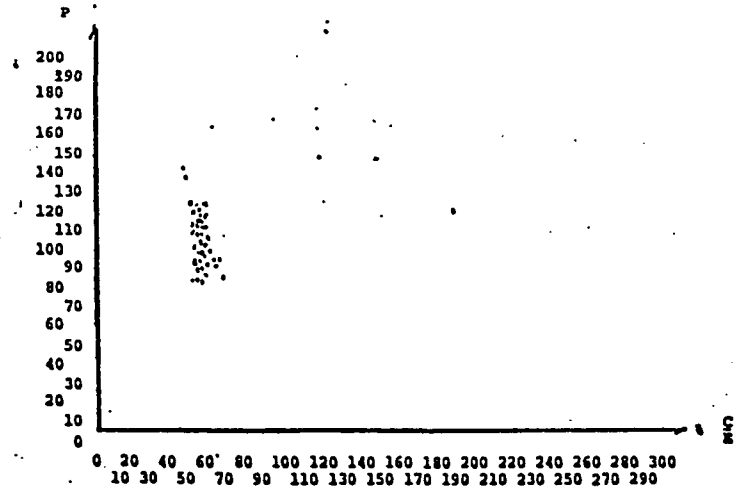
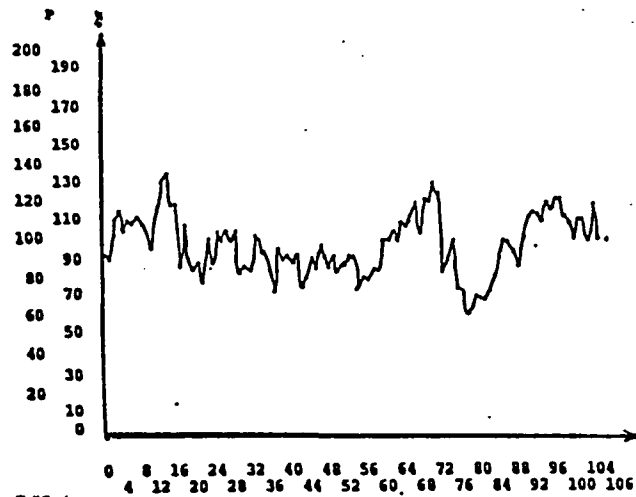
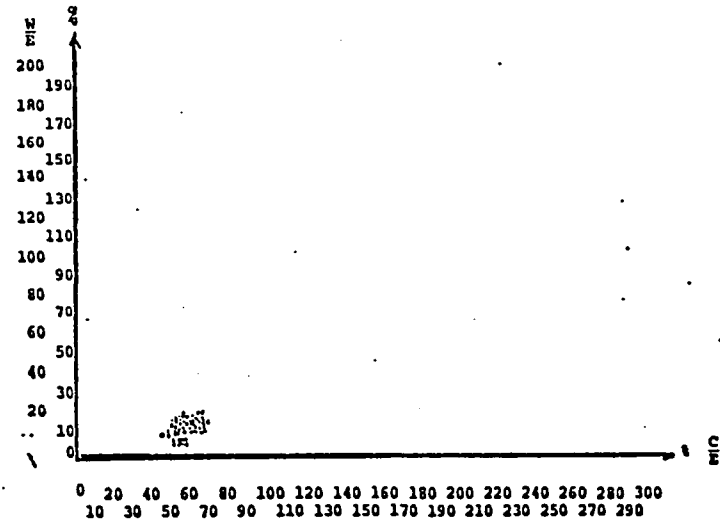
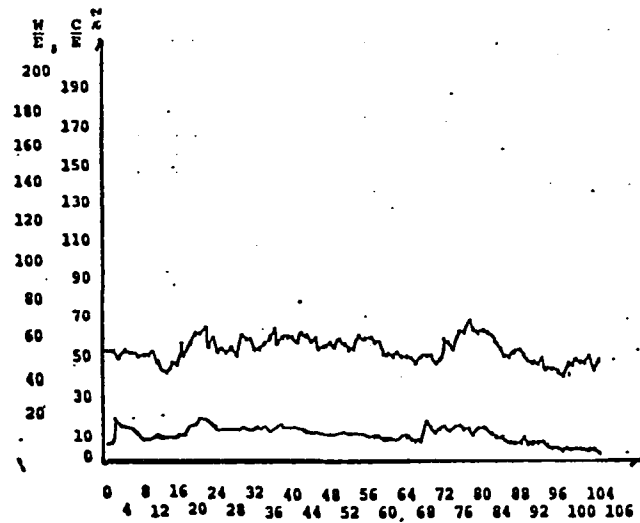
12. Diversified Industries



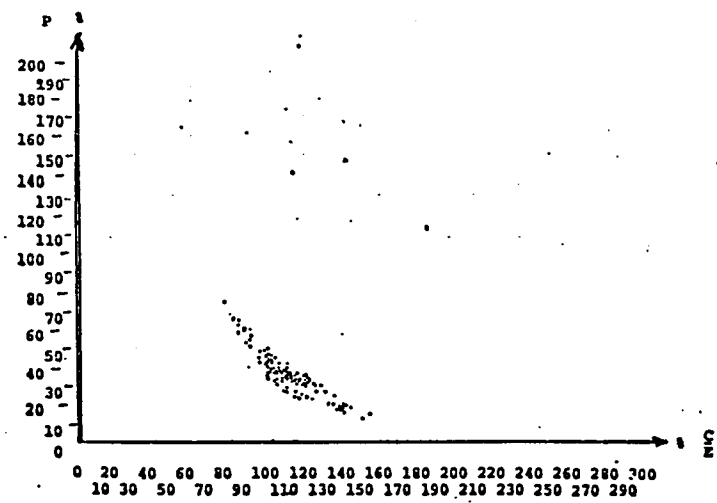
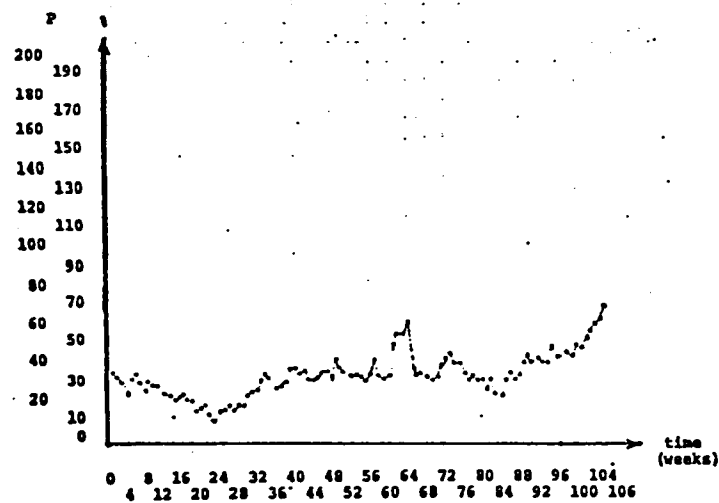
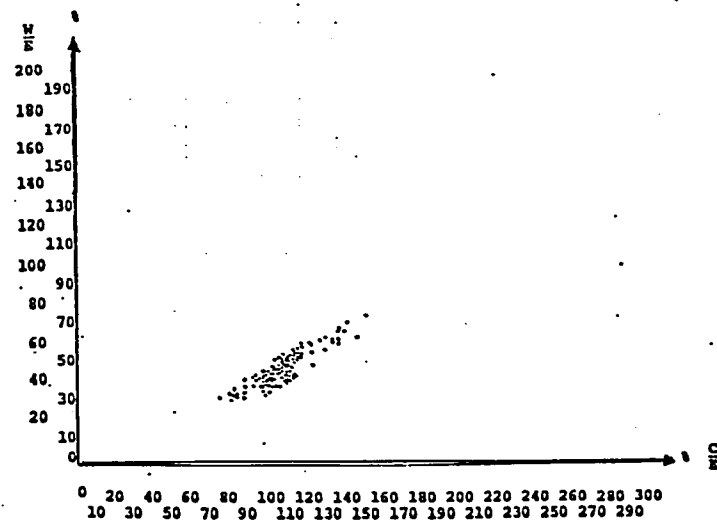
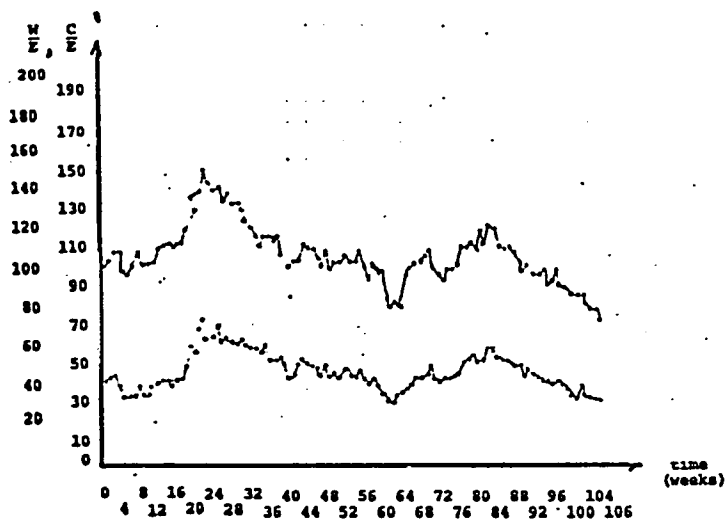
13. Equity Funding



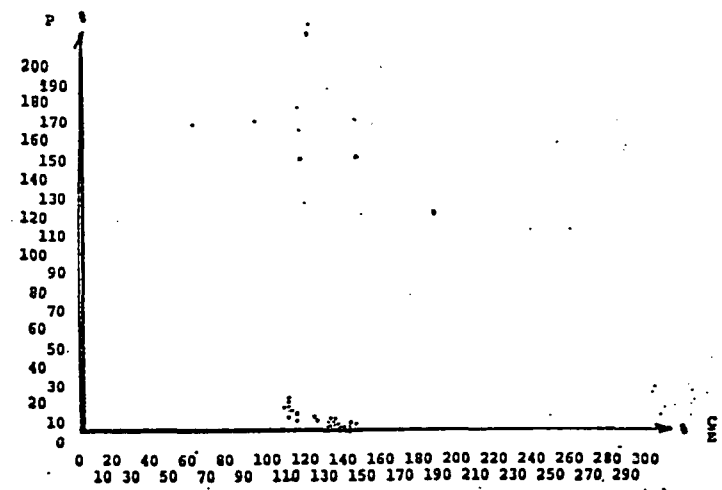
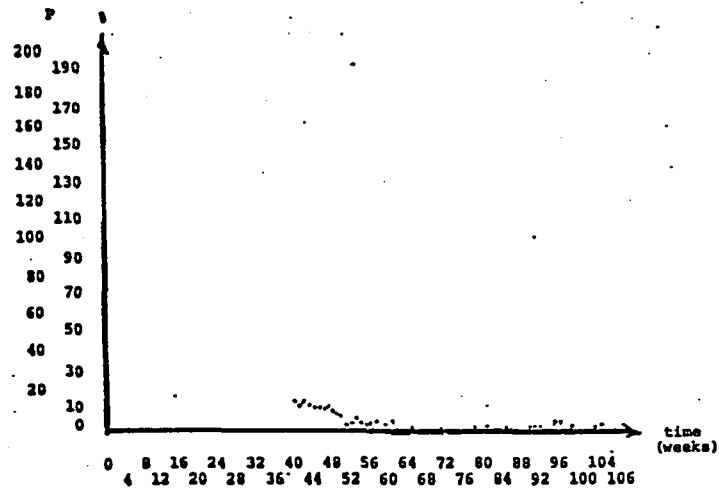
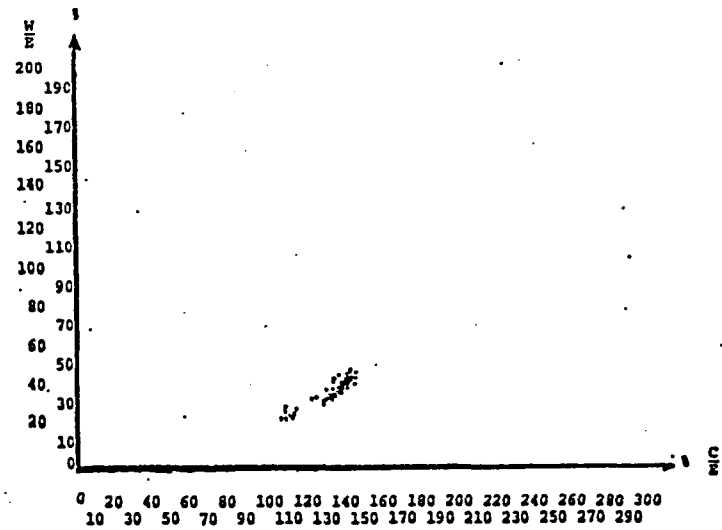
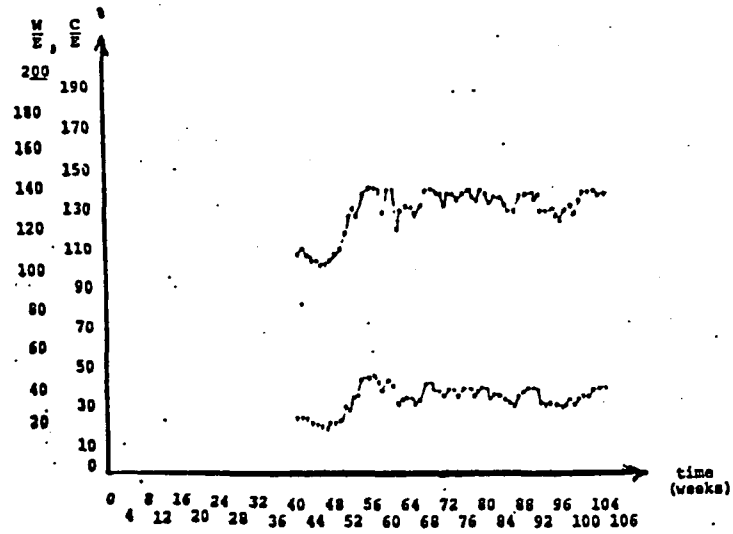
14. Federated Development



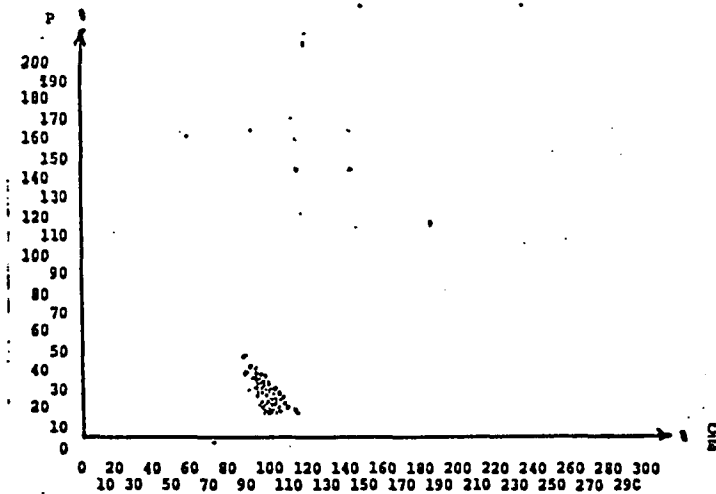
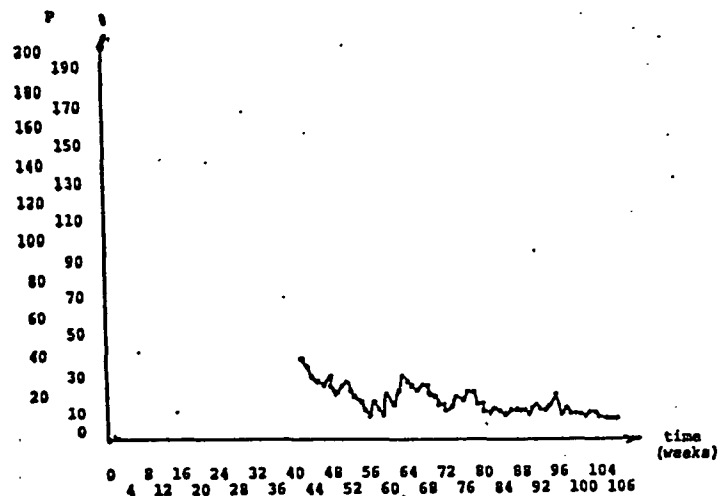
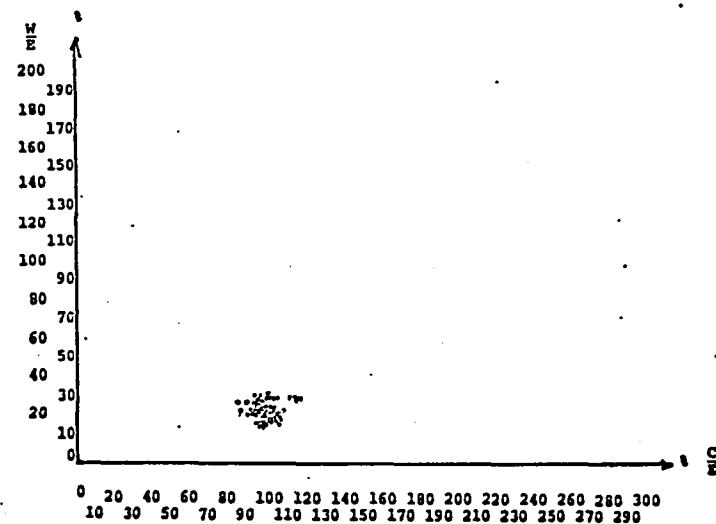
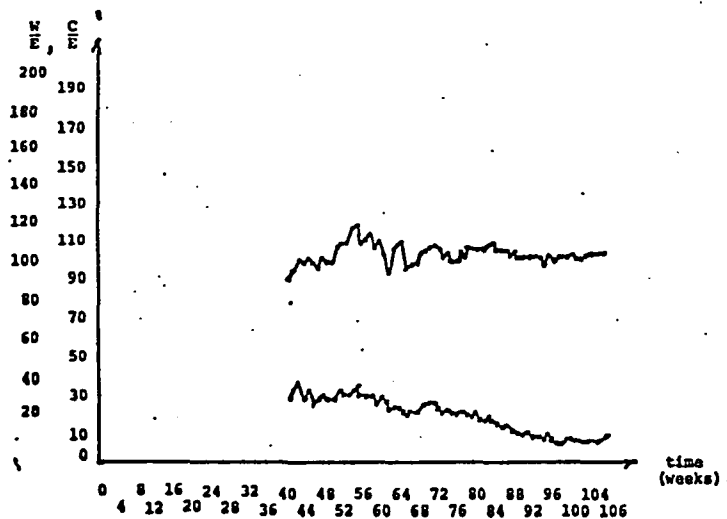
15. Fibreboard



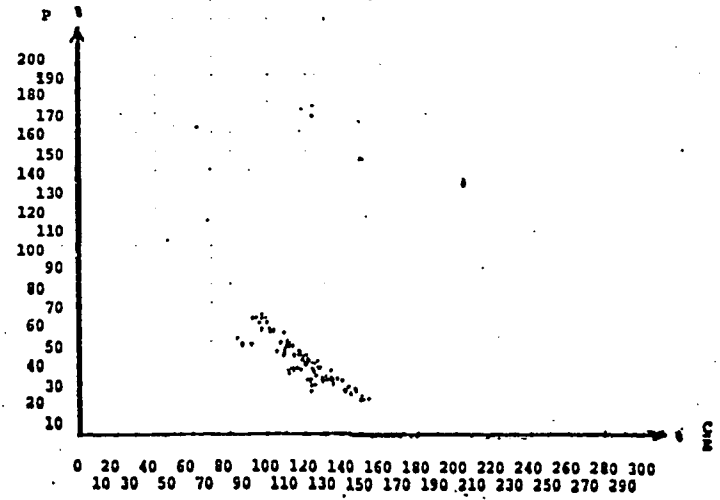
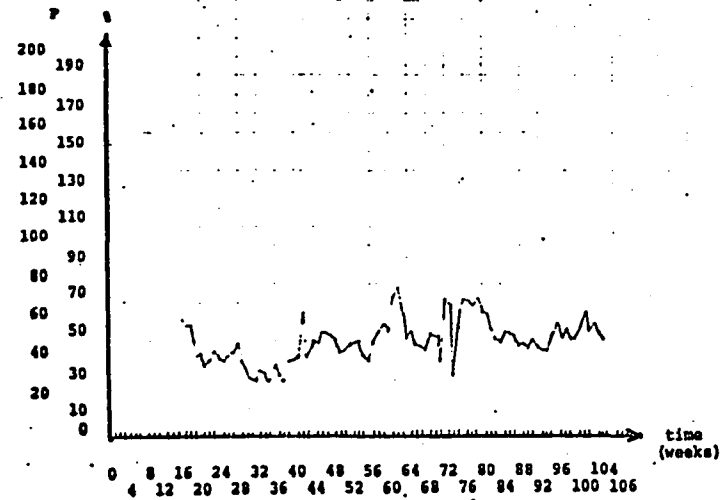
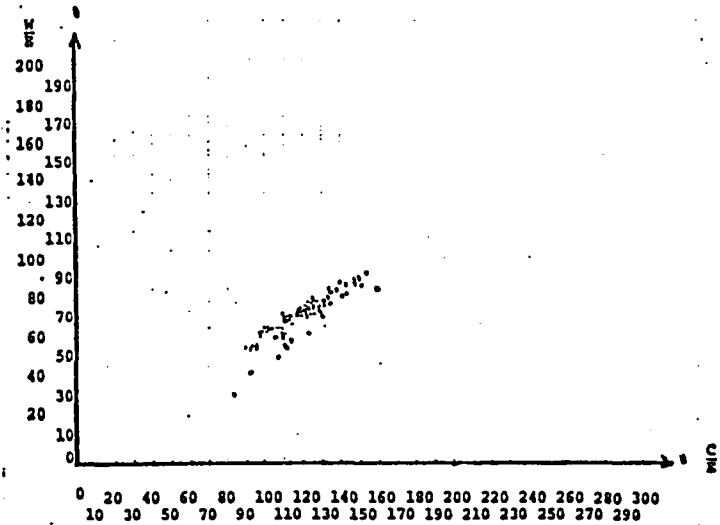
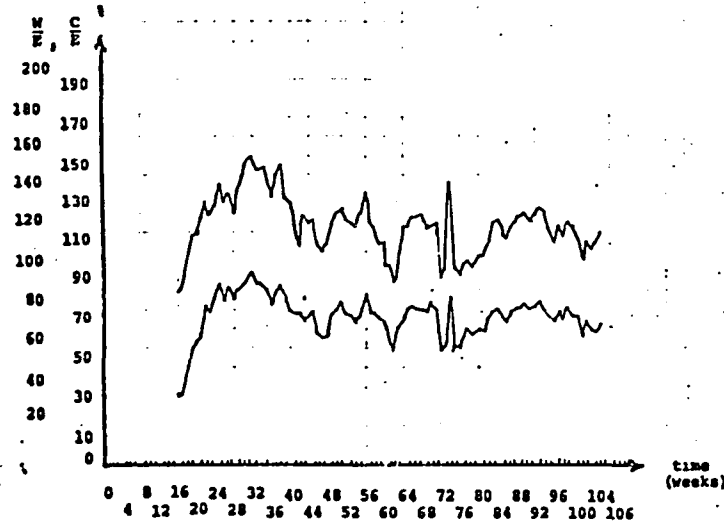
16. Fidelco Growth Investors



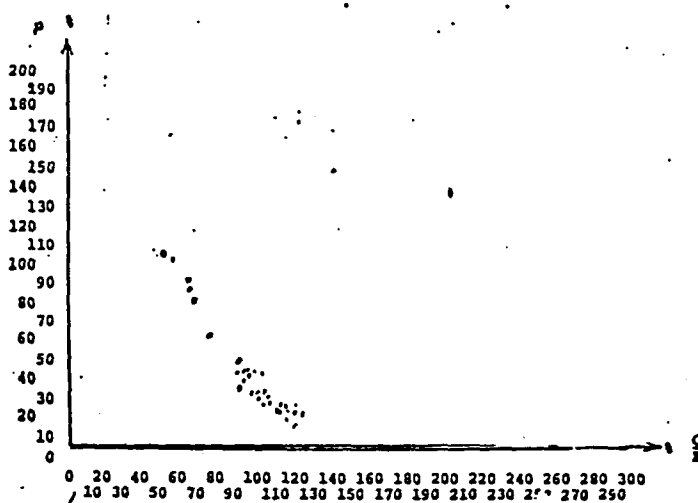
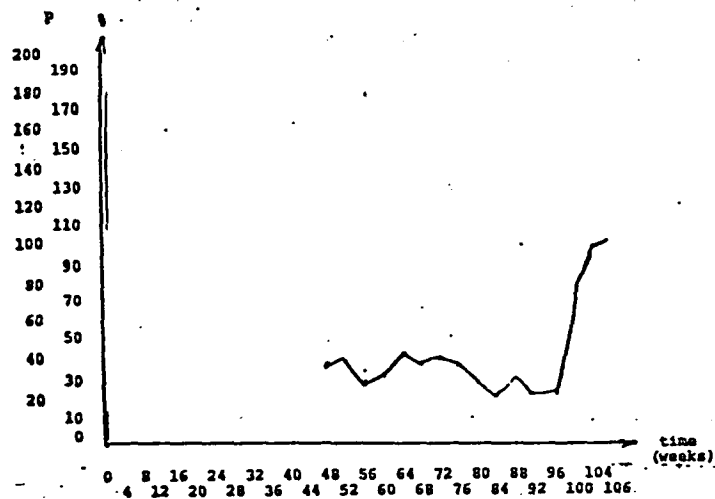
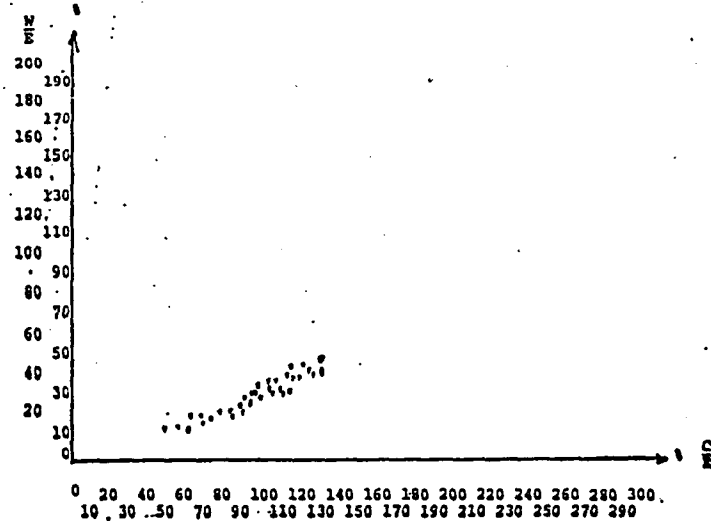
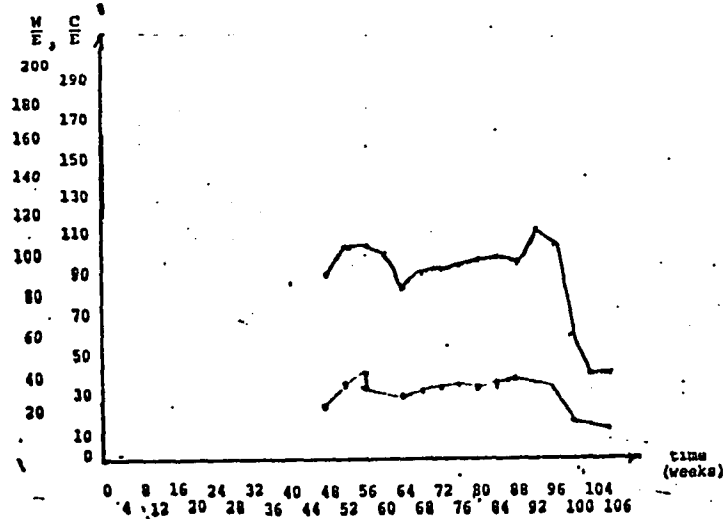
17. First Denver Mortgage



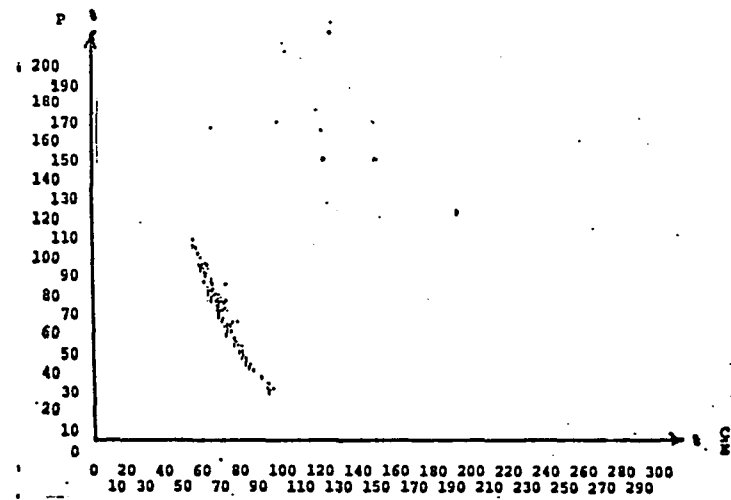
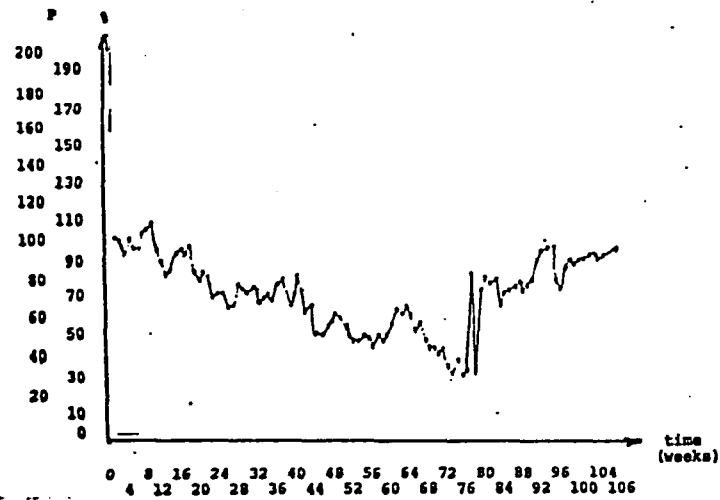
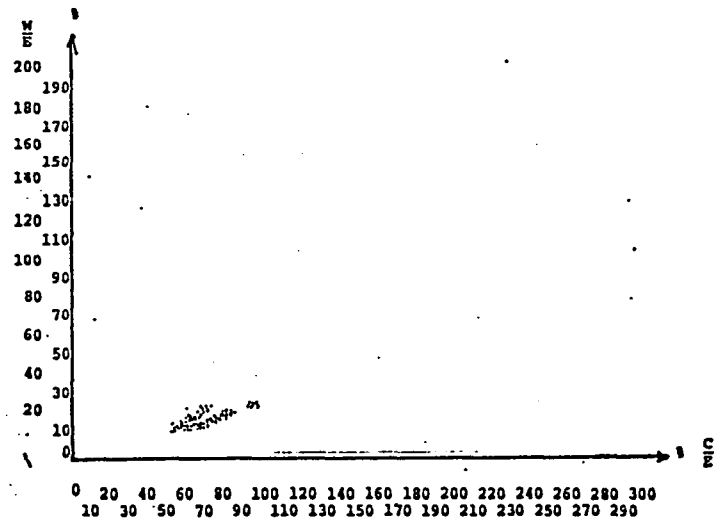
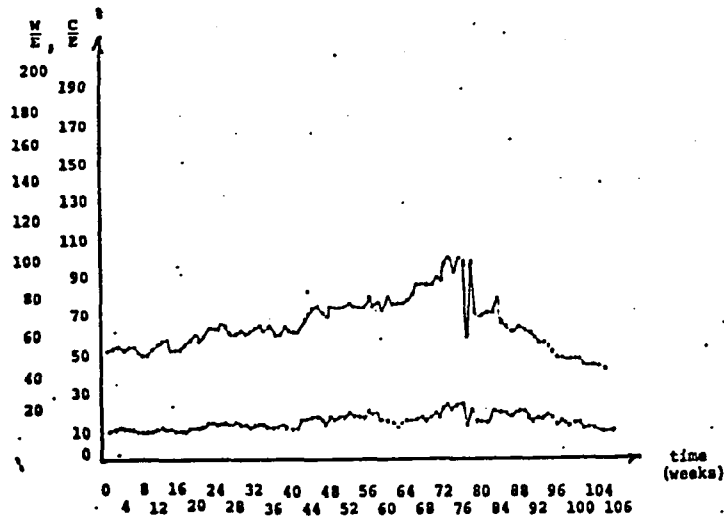
18. Flying Tiger



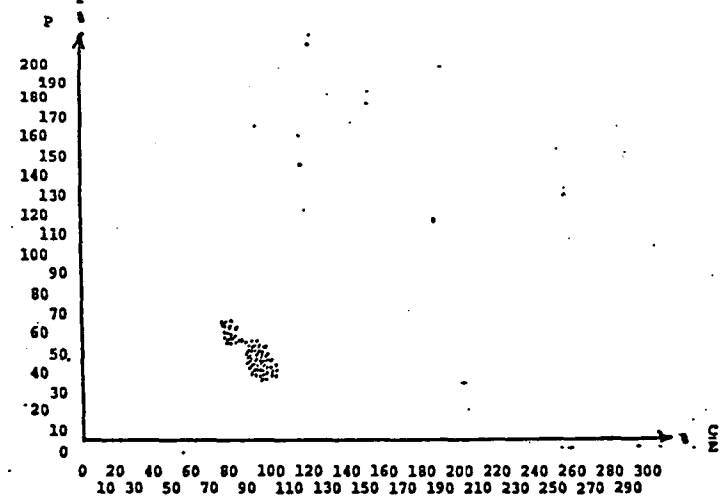
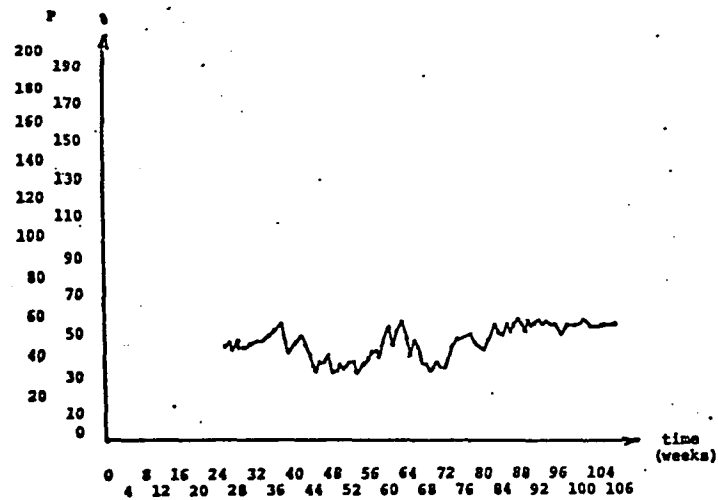
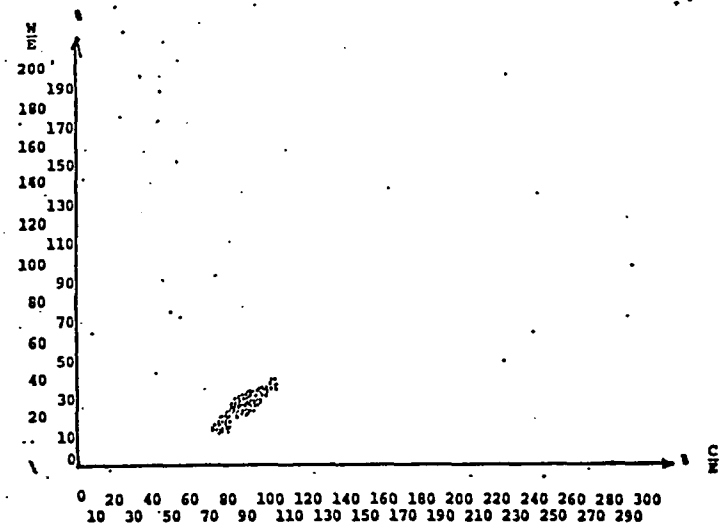
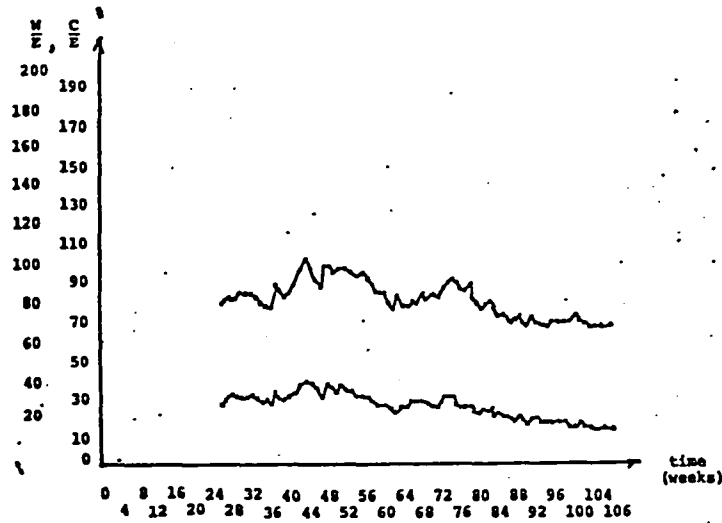
19. General Development



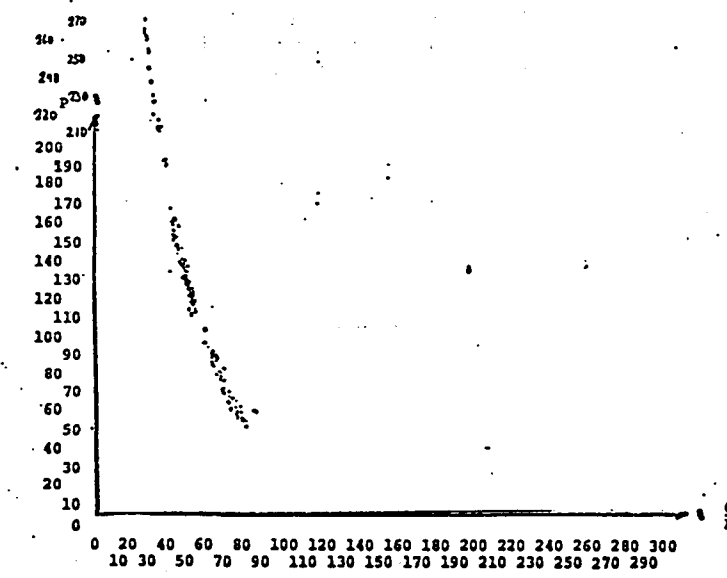
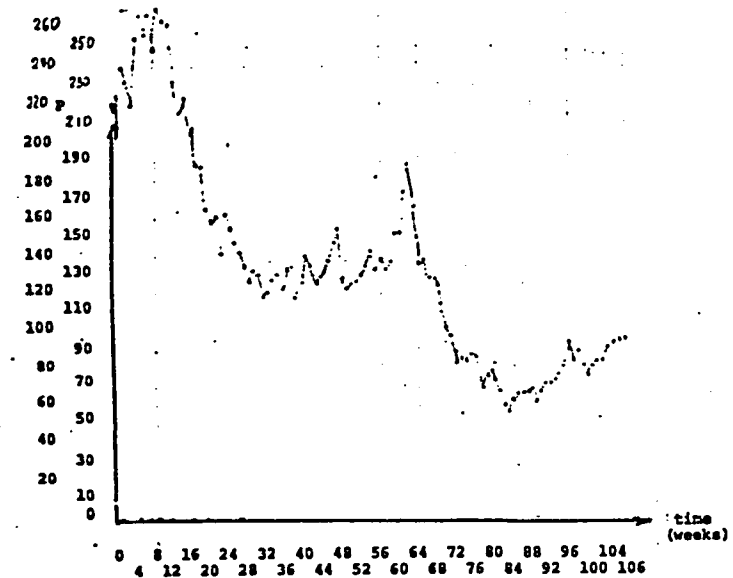
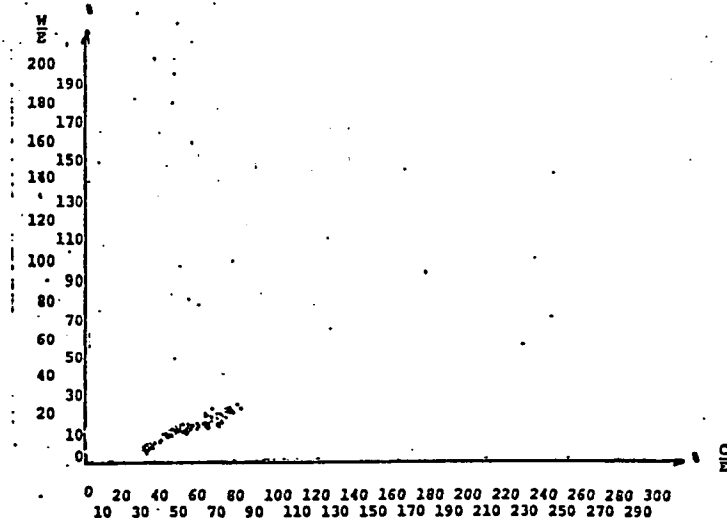
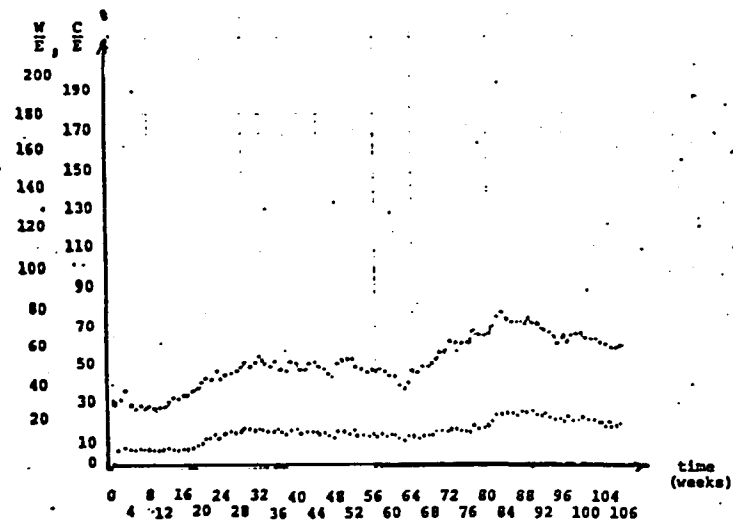
20. Gould



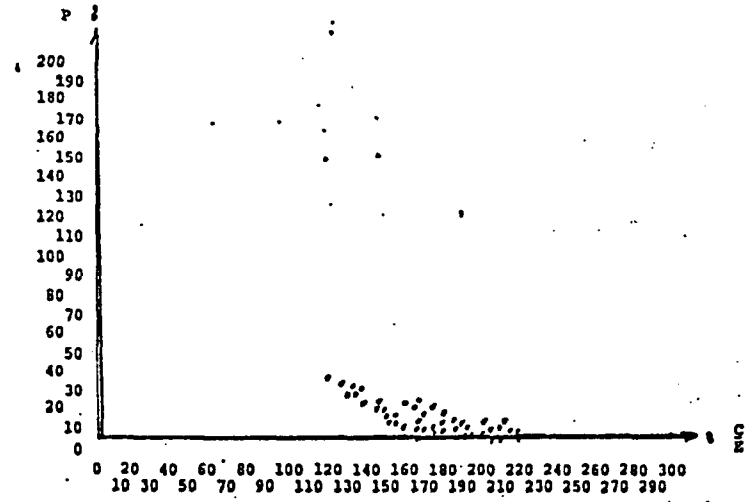
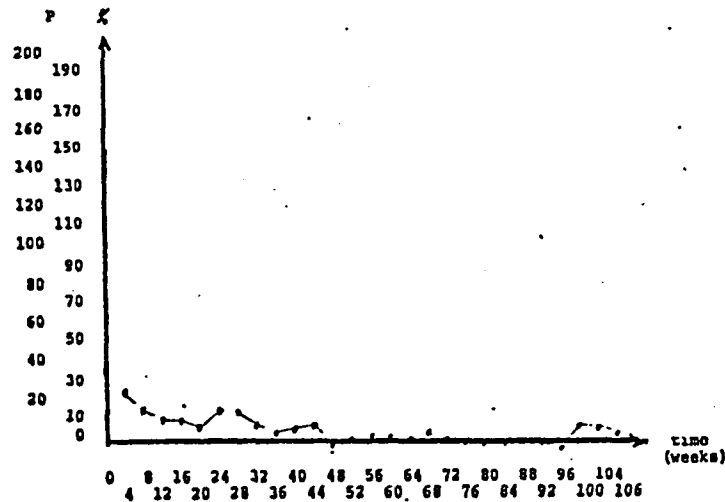
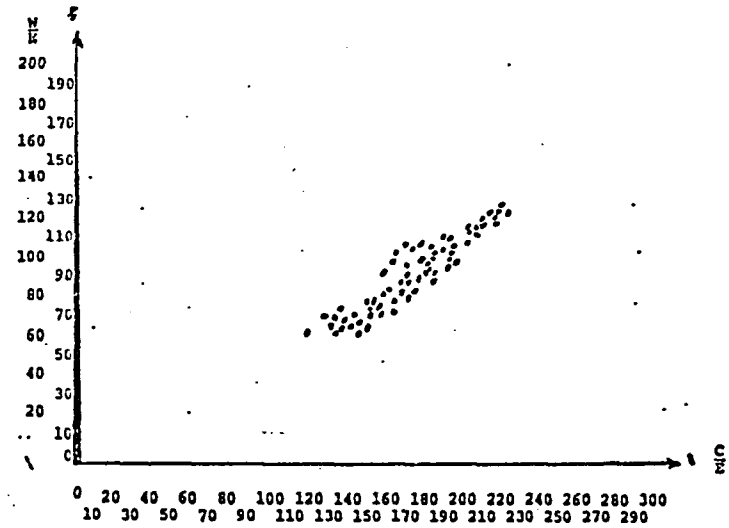
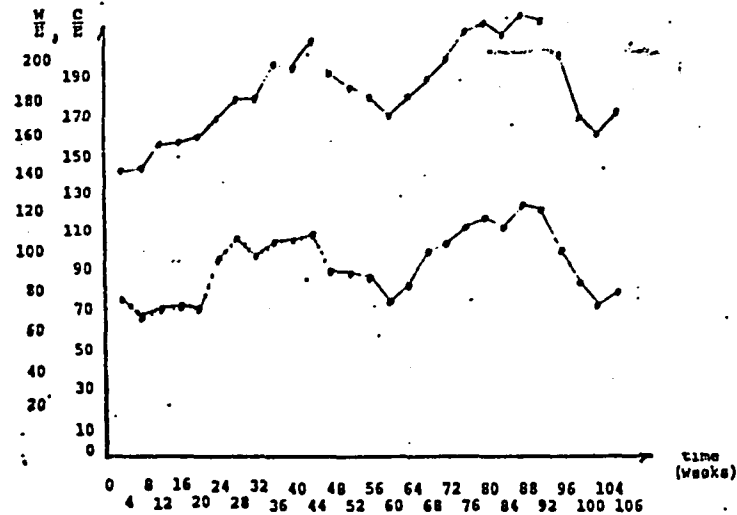
21. Greyhound



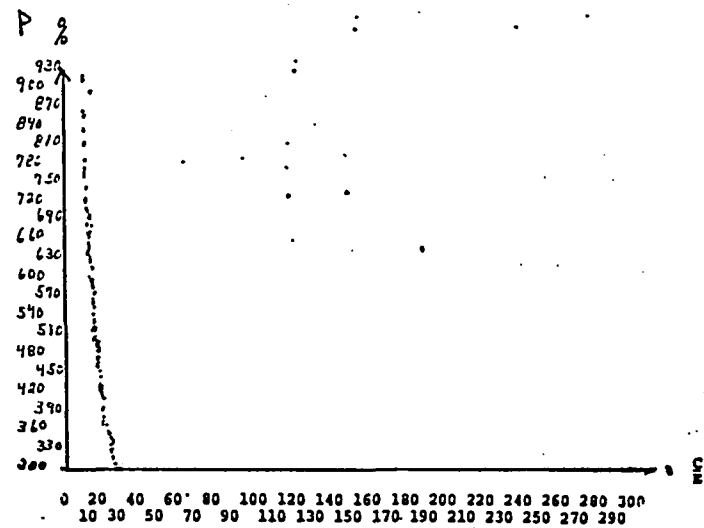
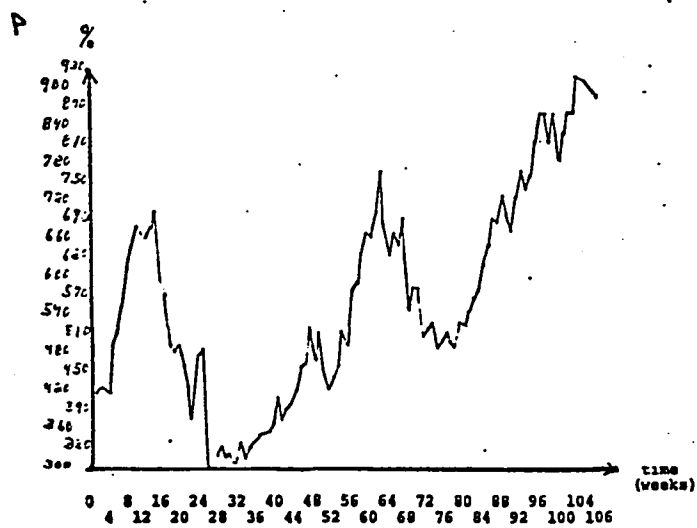
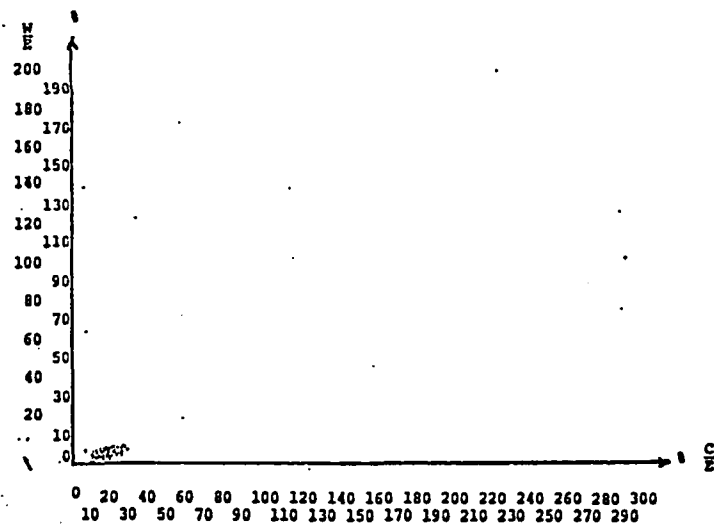
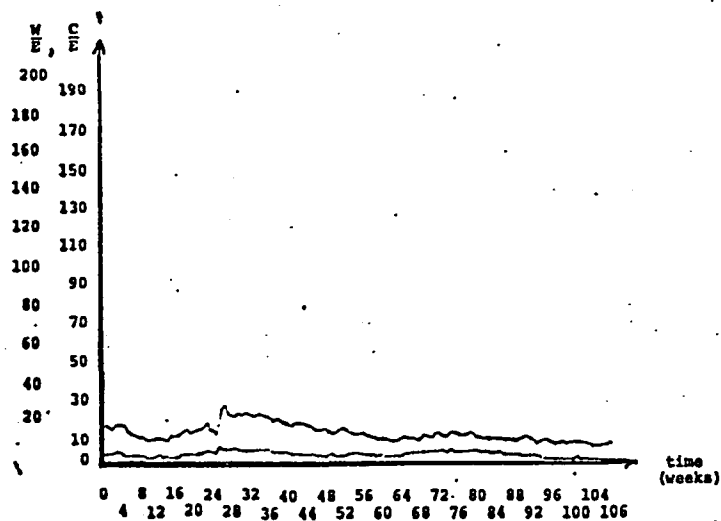
22. Gulf + Western



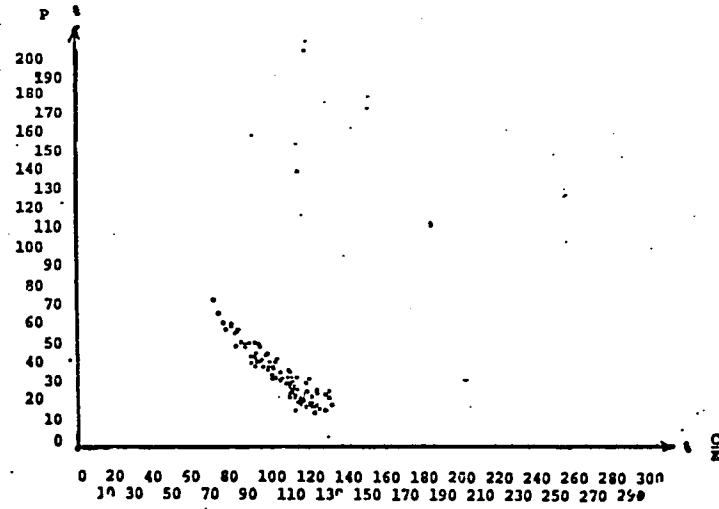
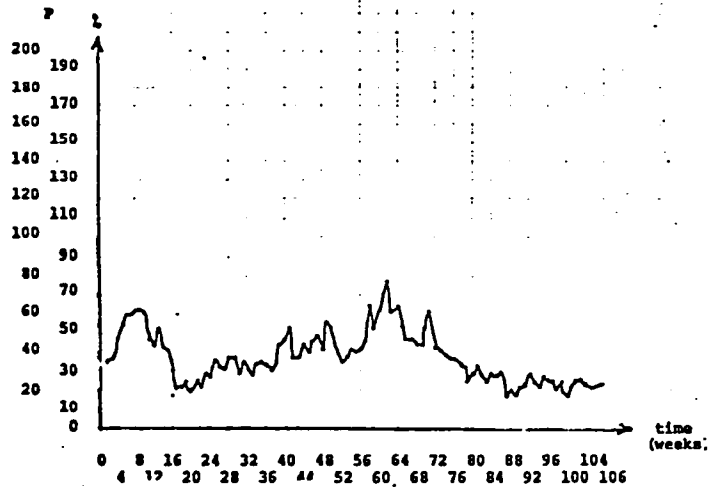
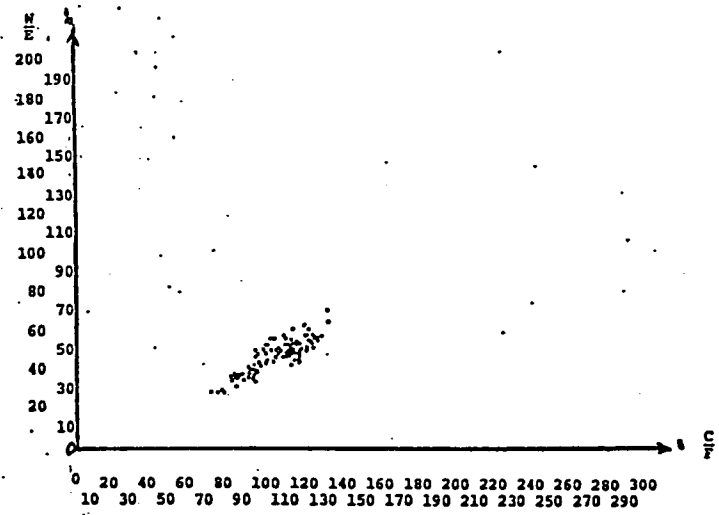
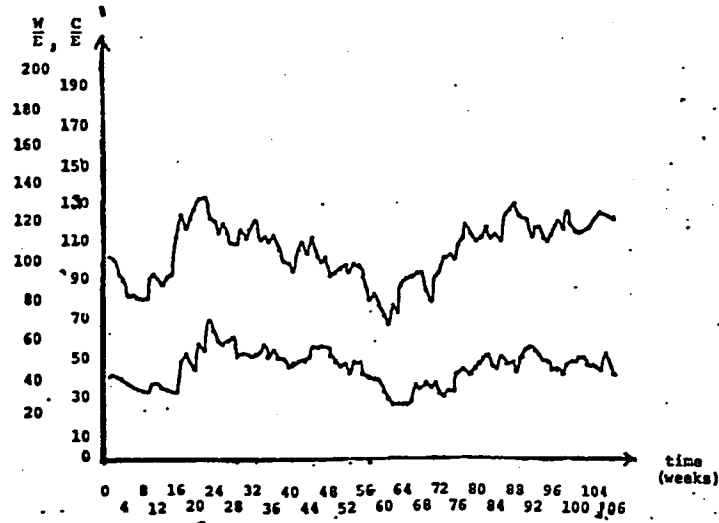
23. Holiday Inns



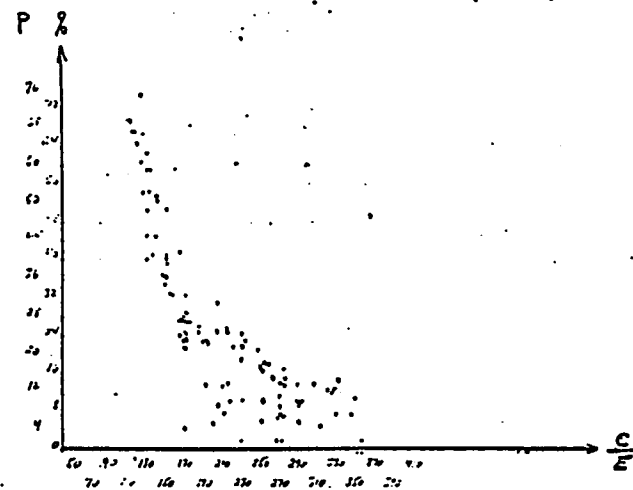
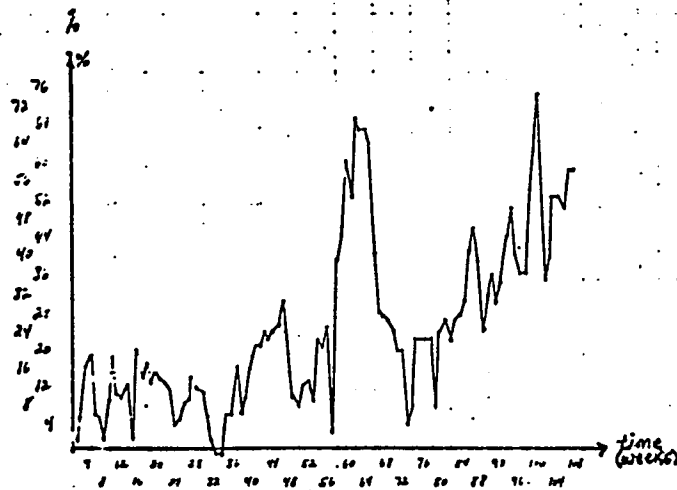
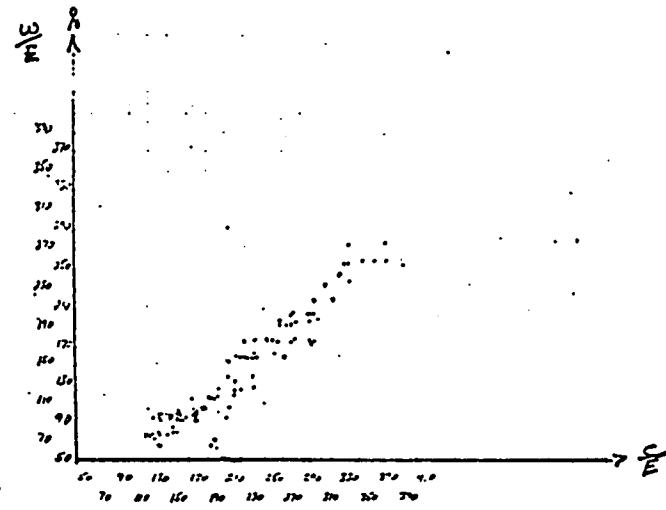
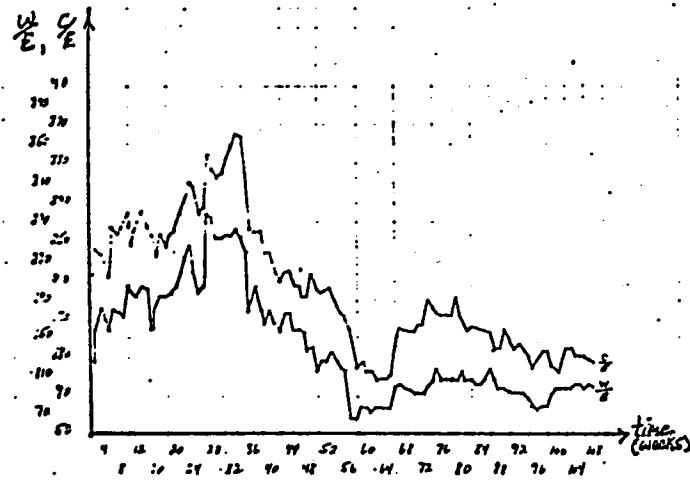
24. Instrument Systems



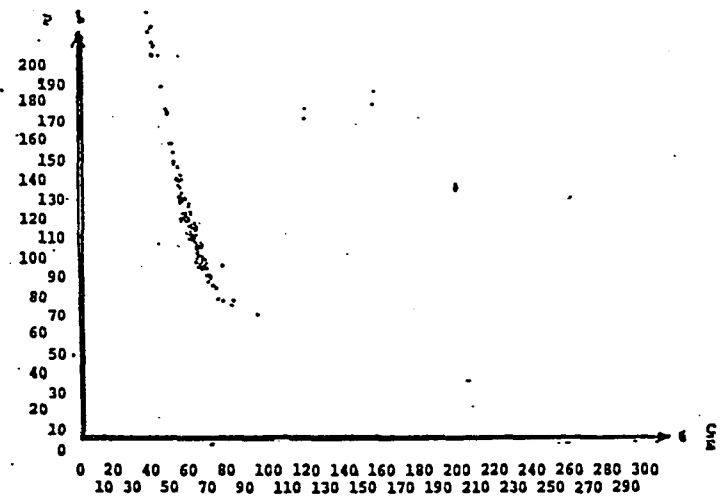
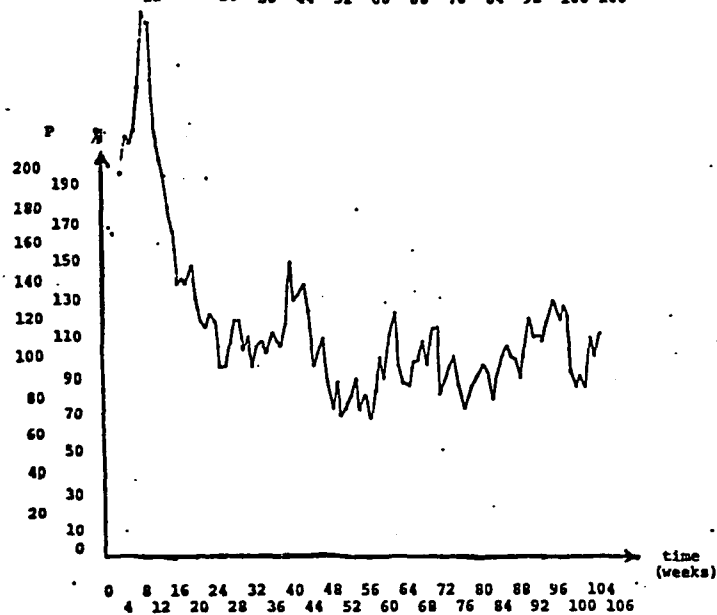
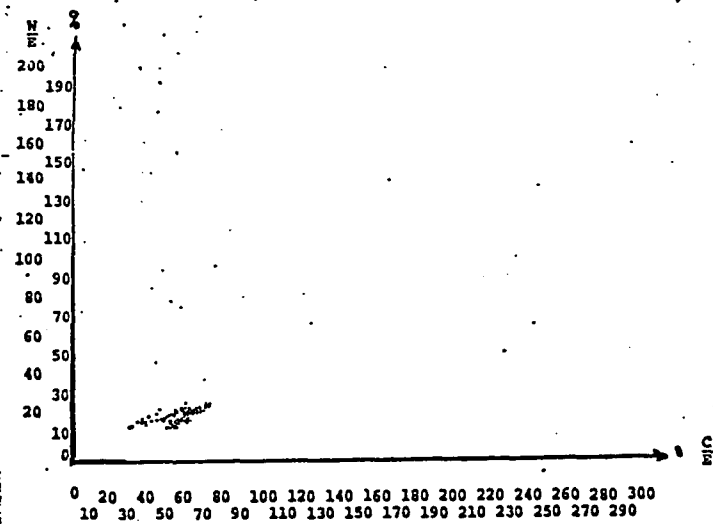
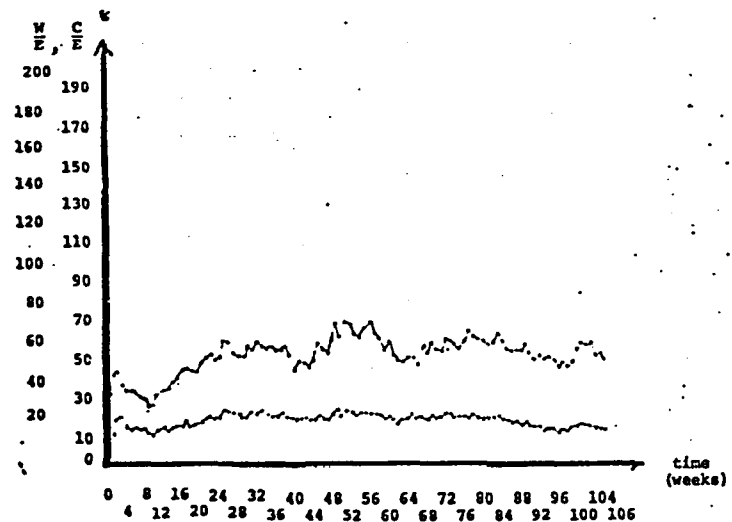
25. Iowa Beef Processors



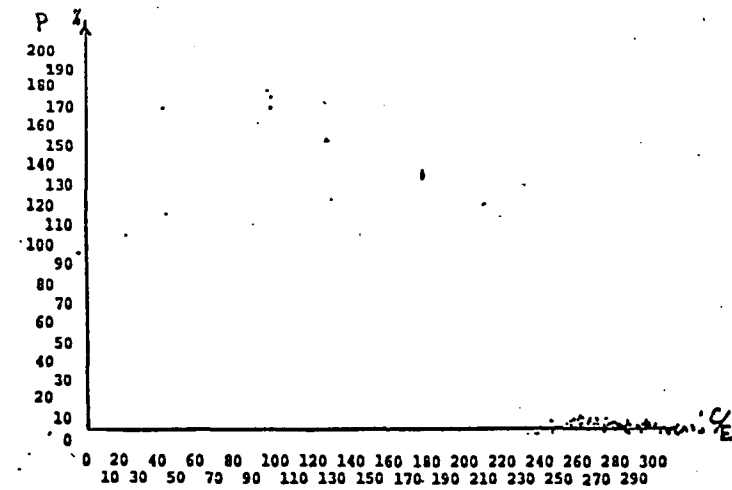
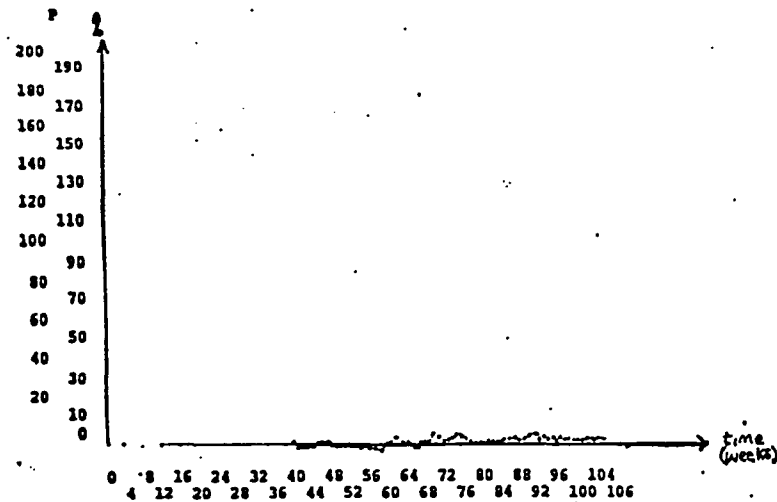
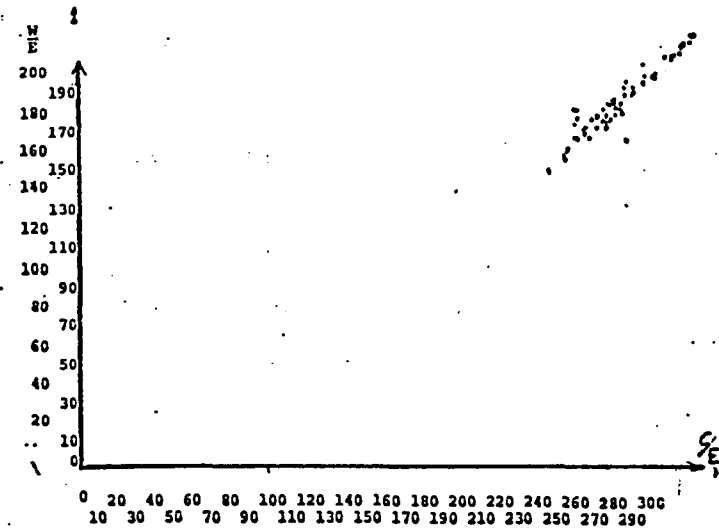
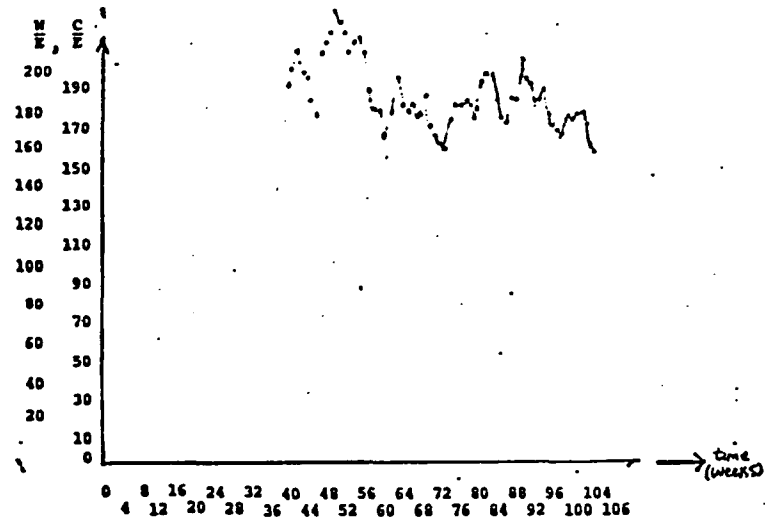
26. Ital 1978



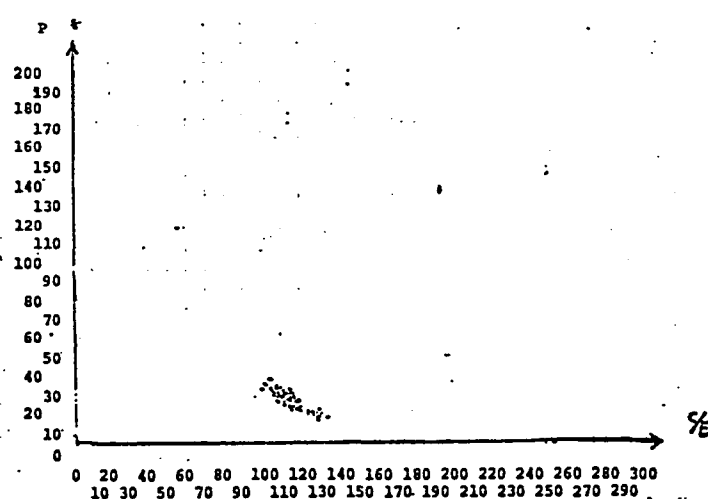
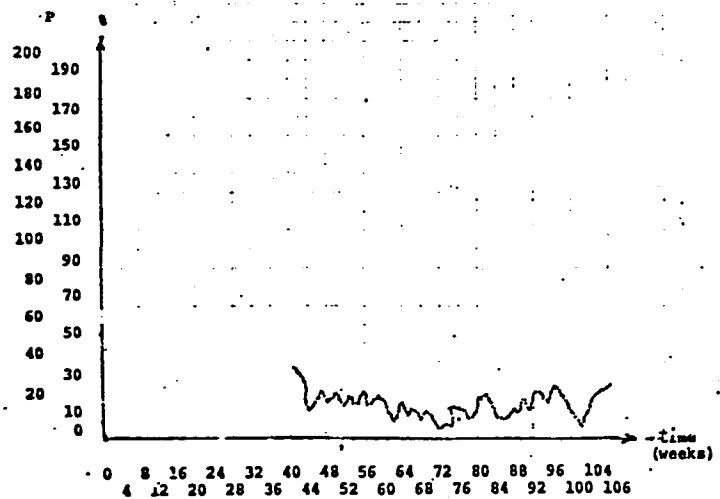
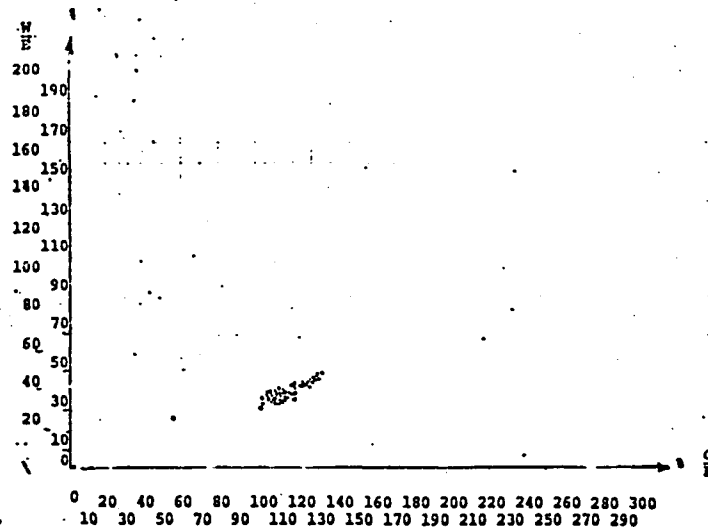
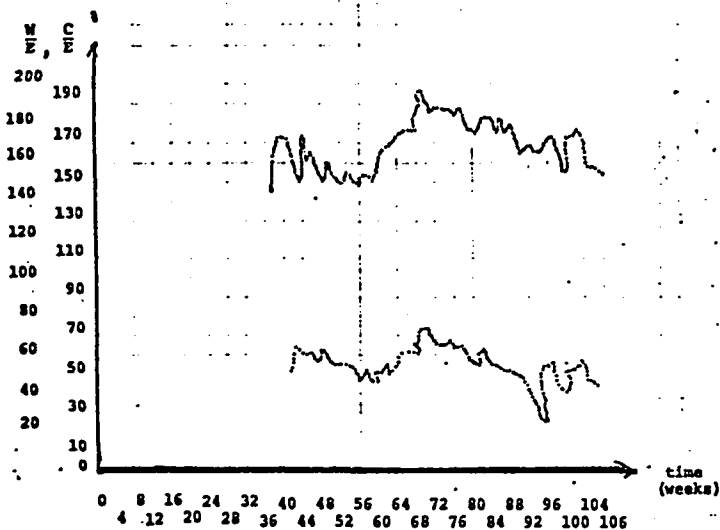
27. Leasco 1978



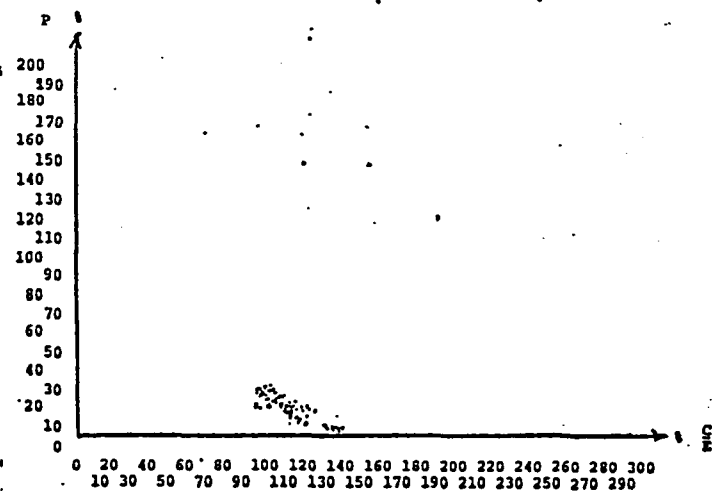
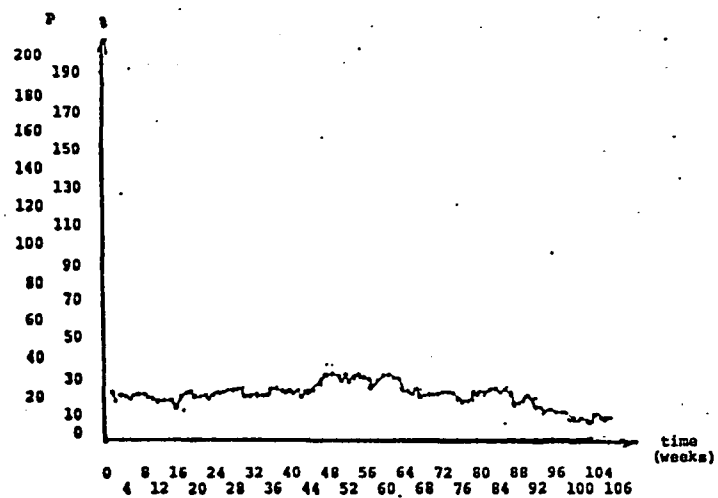
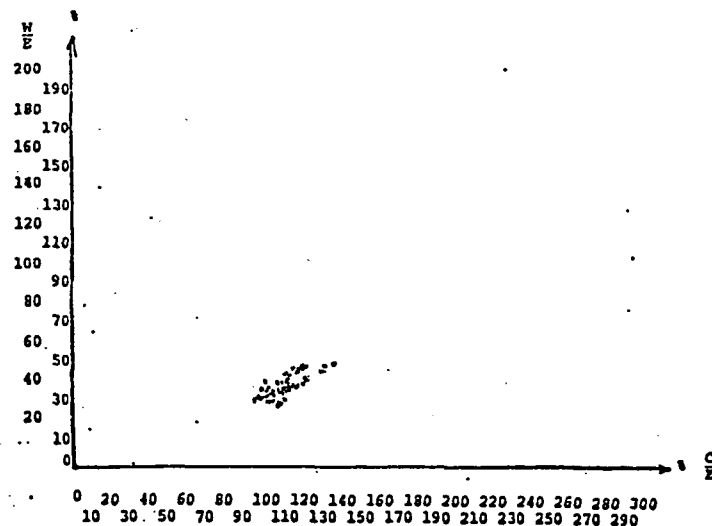
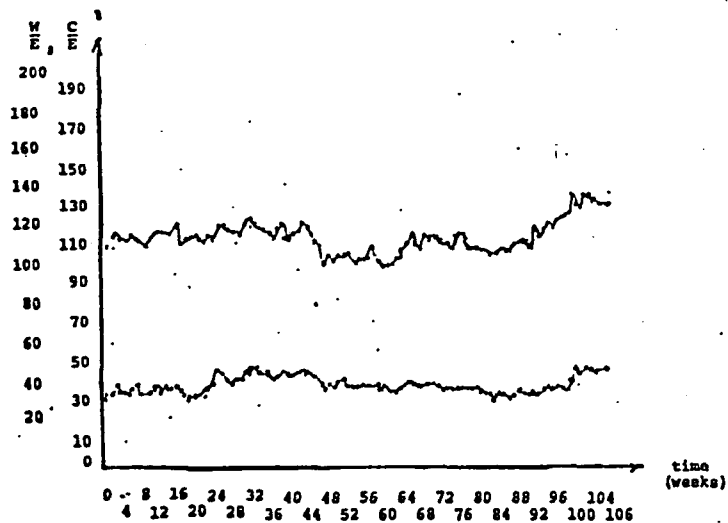
28. Lerner Stores



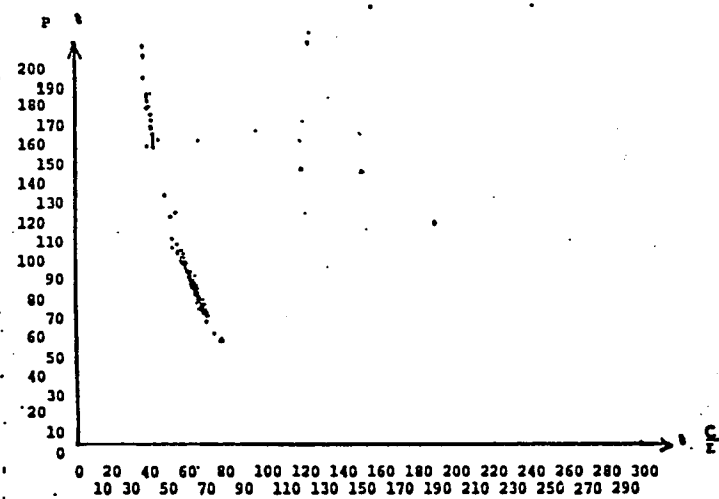
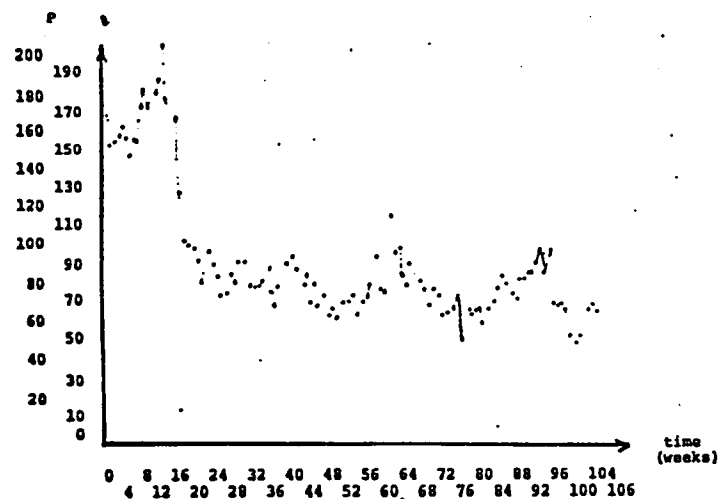
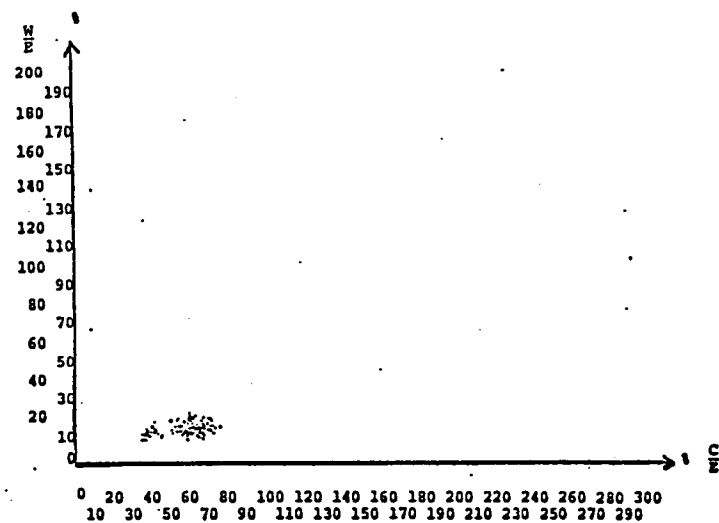
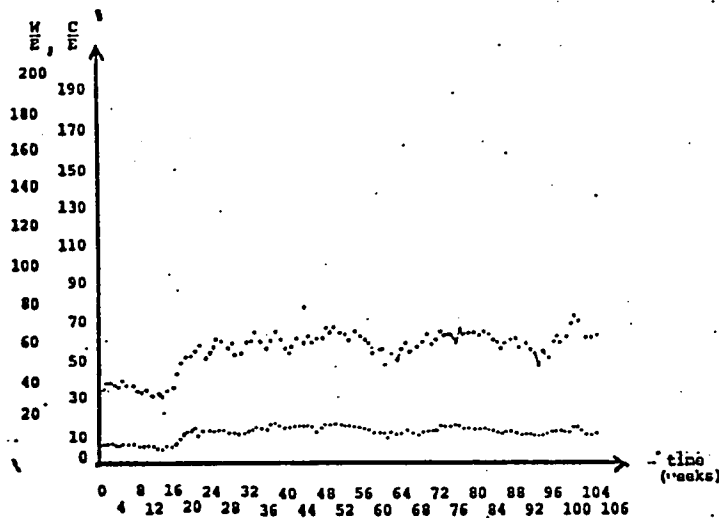
29. Louisiana Land & Exploration



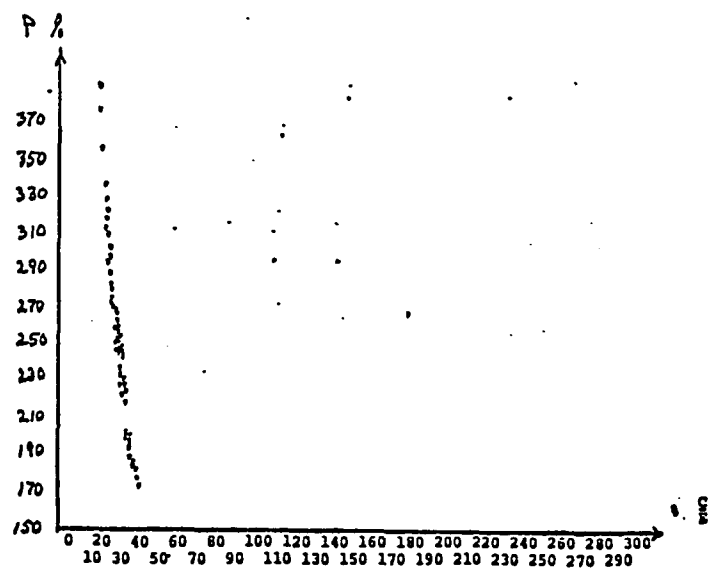
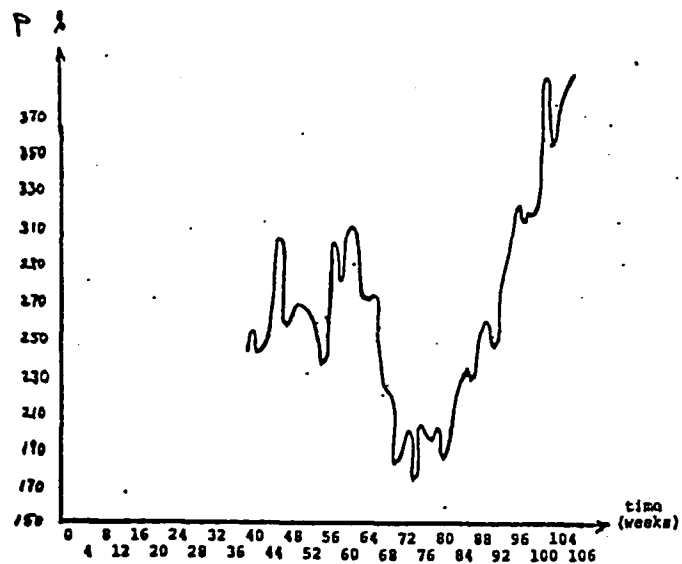
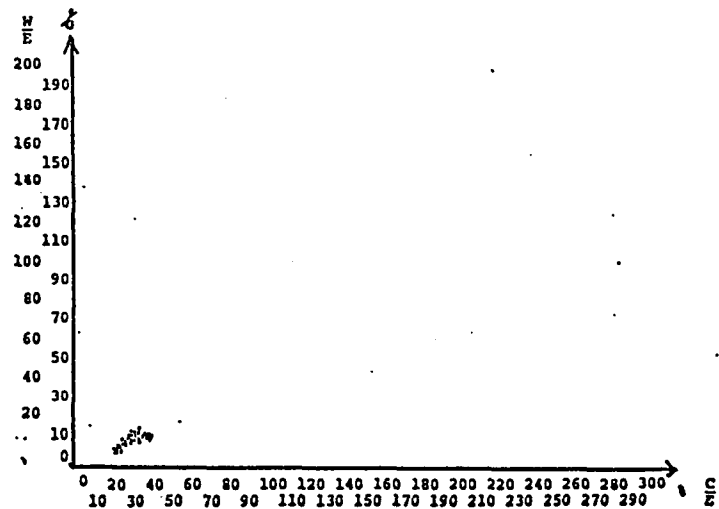
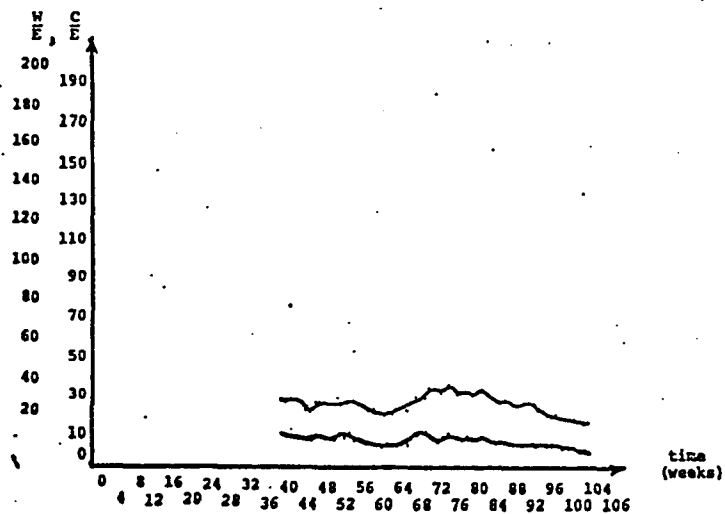
30. Mobil Oil



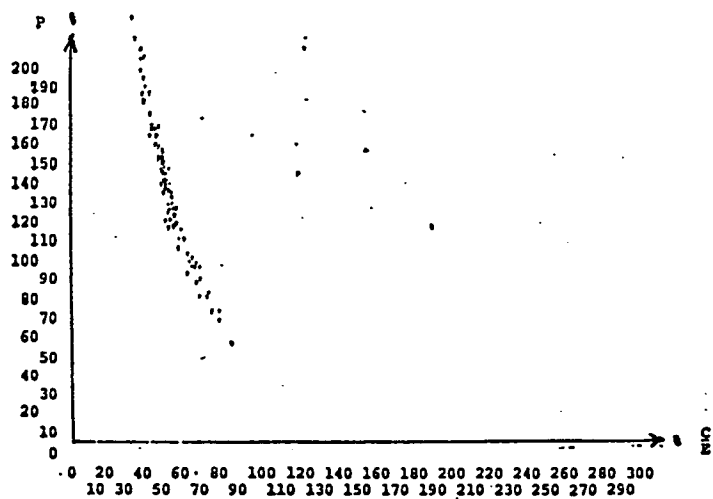
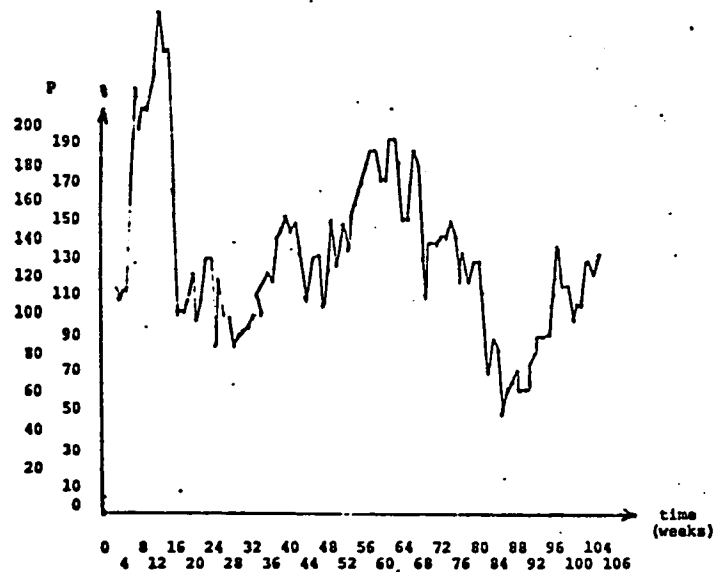
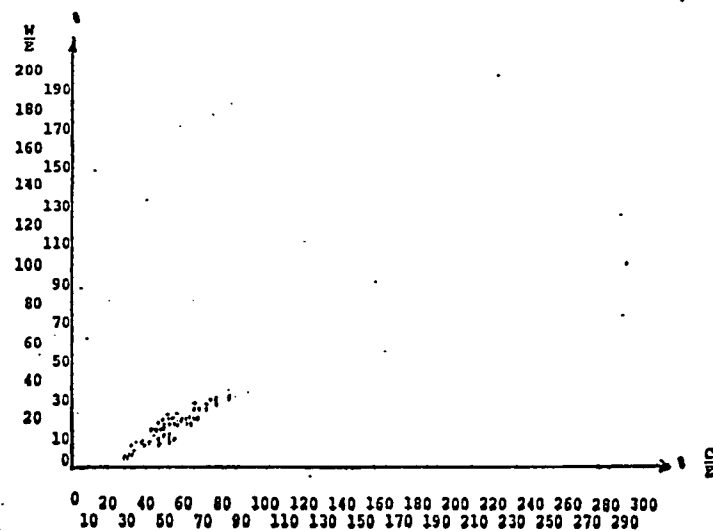
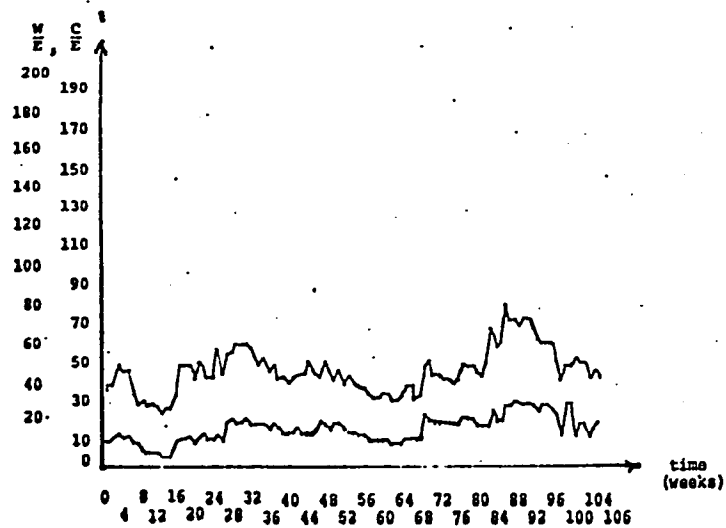
31. National General NEW



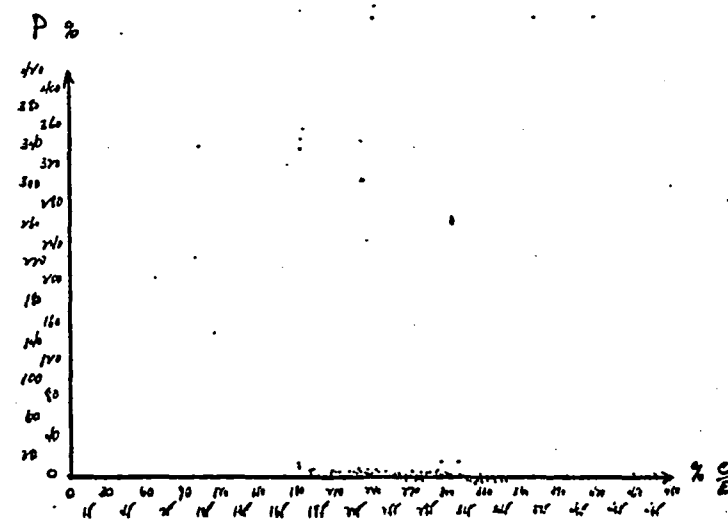
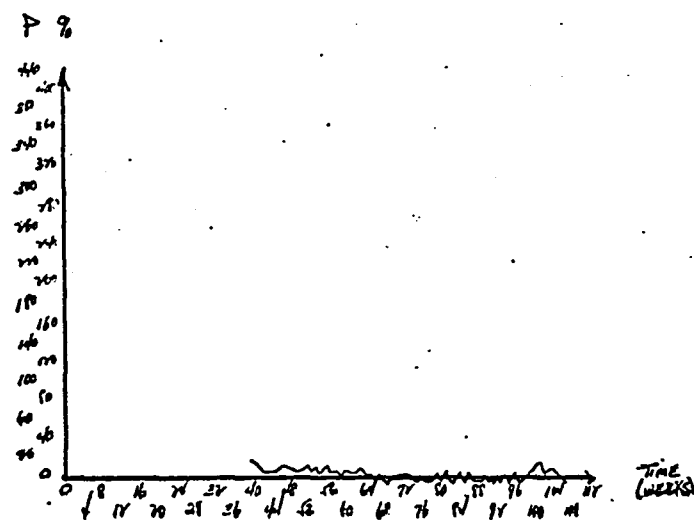
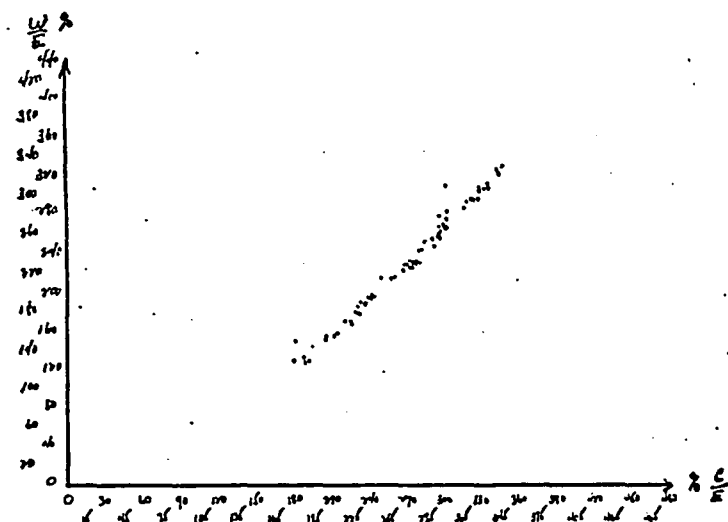
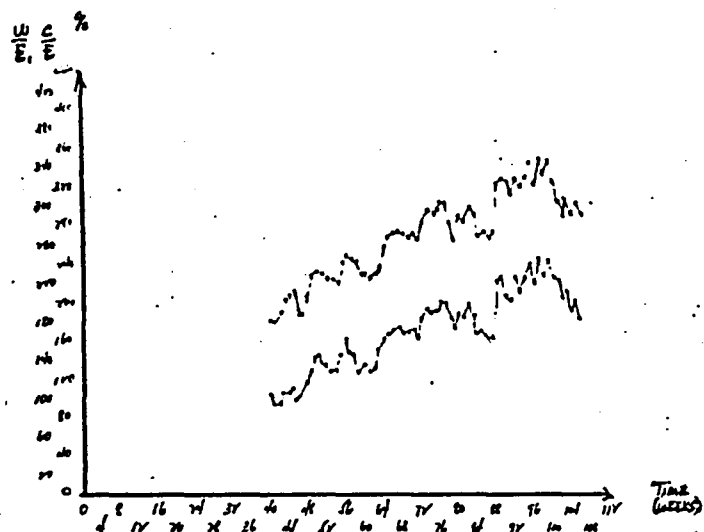
32. National Industries



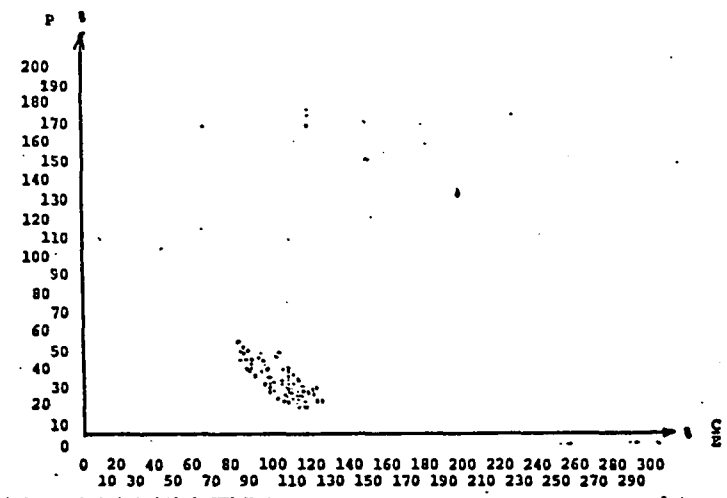
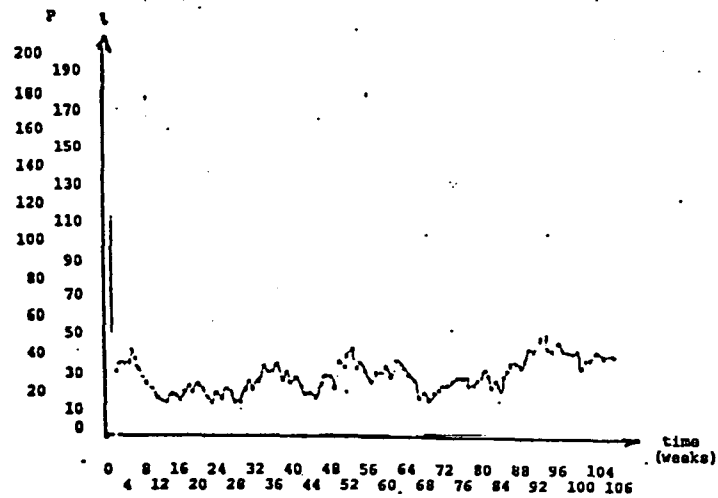
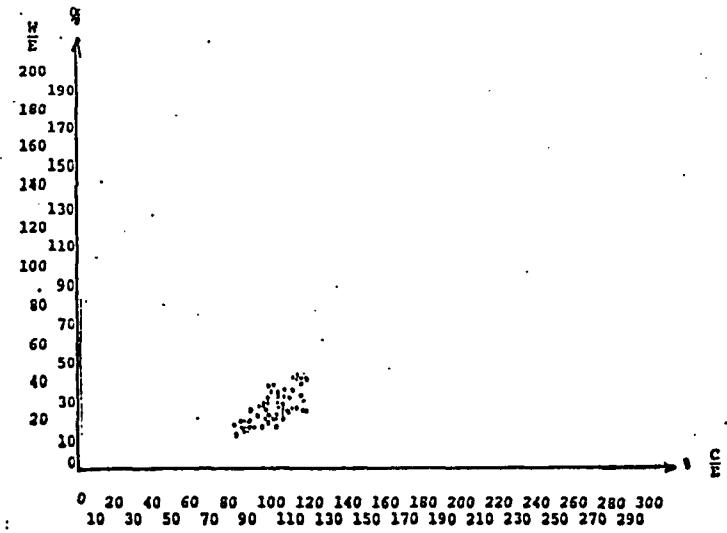
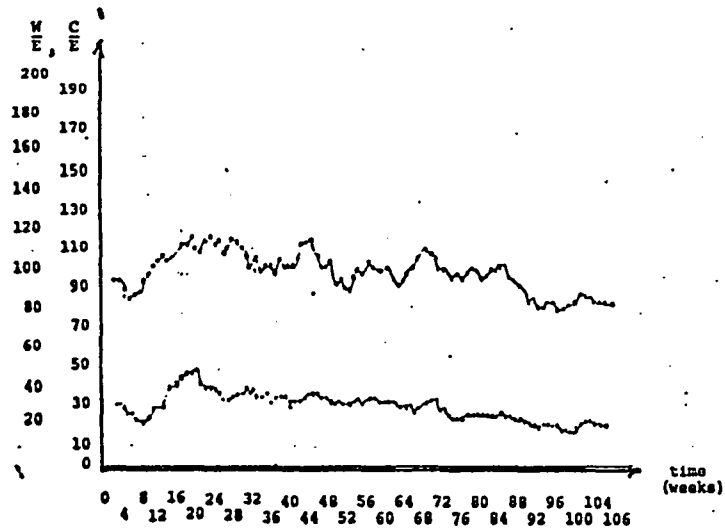
33. Phoenix Steel



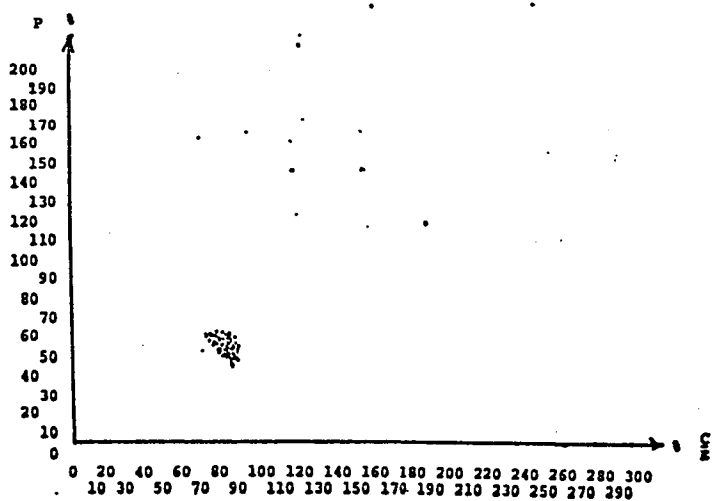
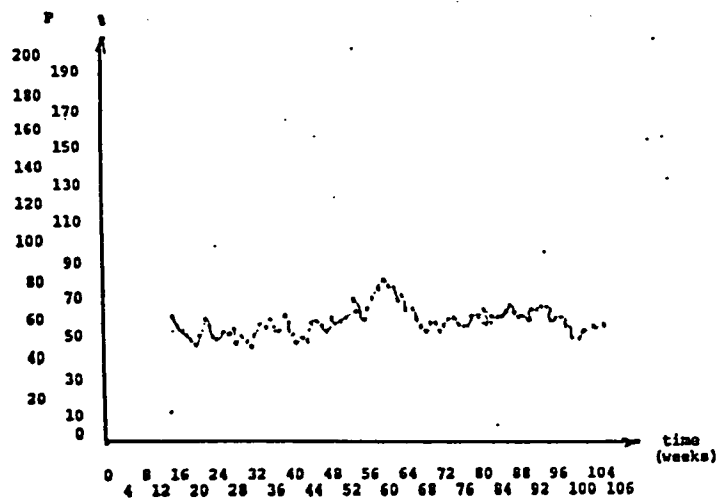
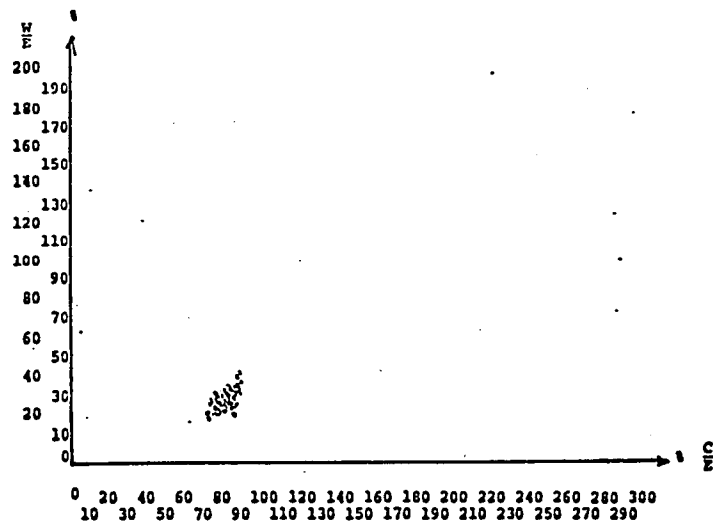
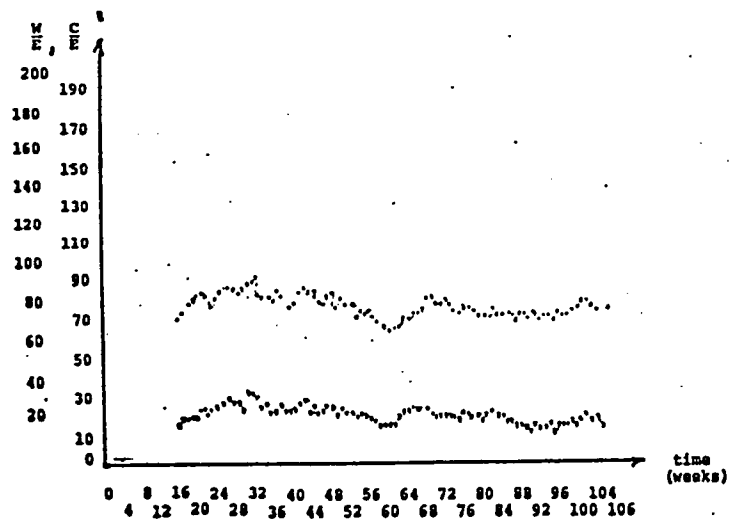
34. Rydor Systems



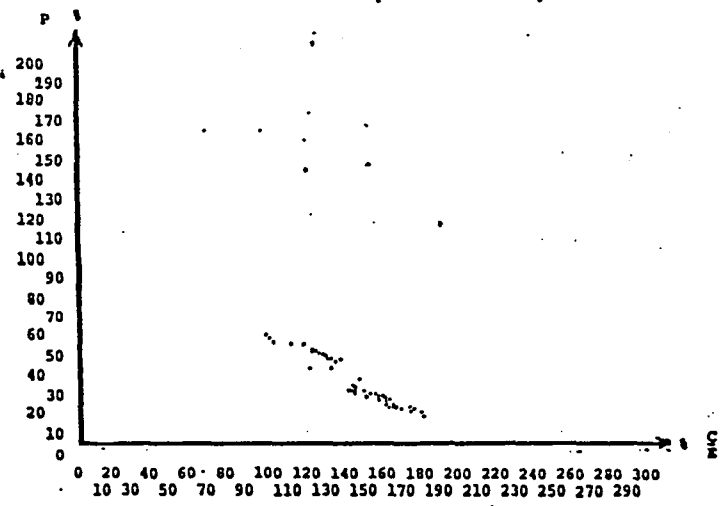
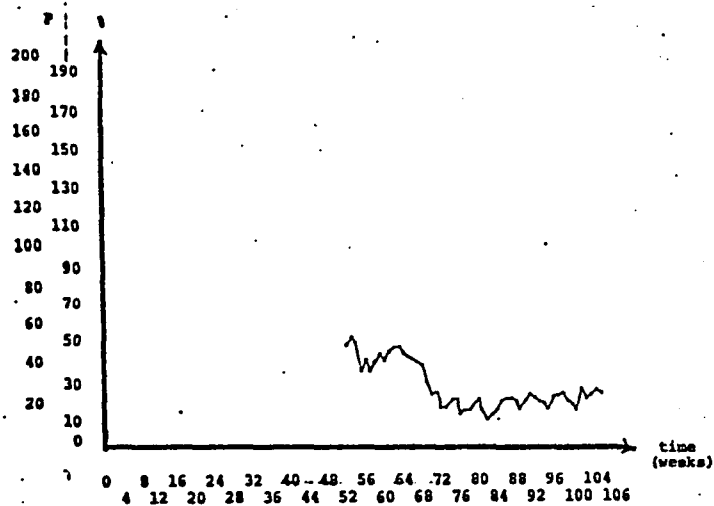
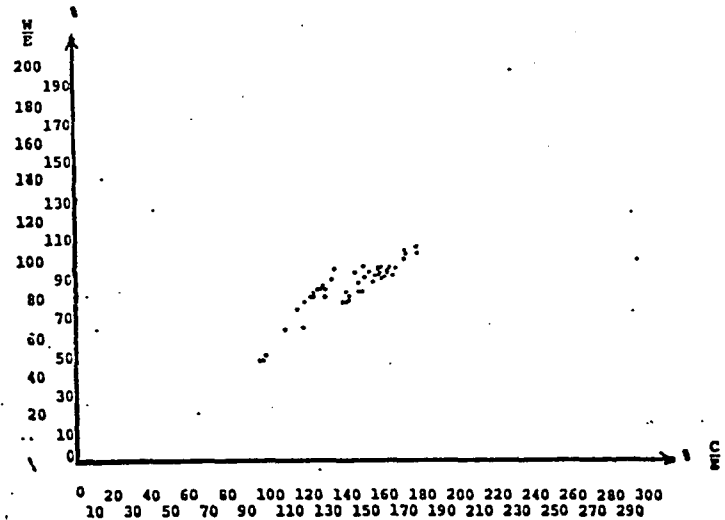
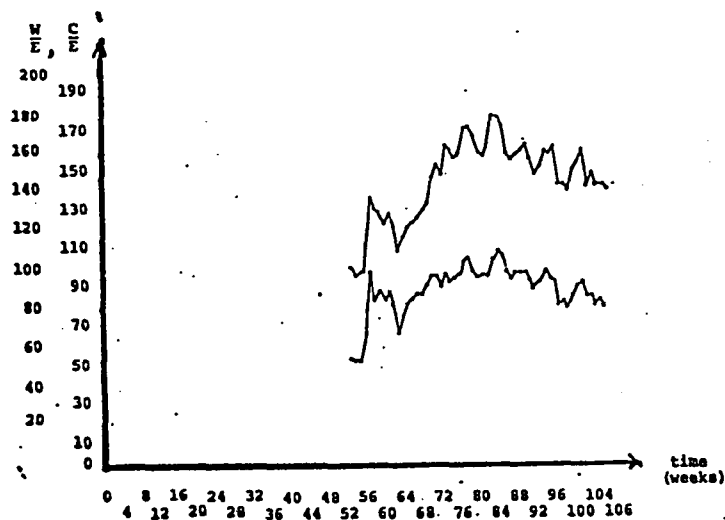
35. Tampa Electric



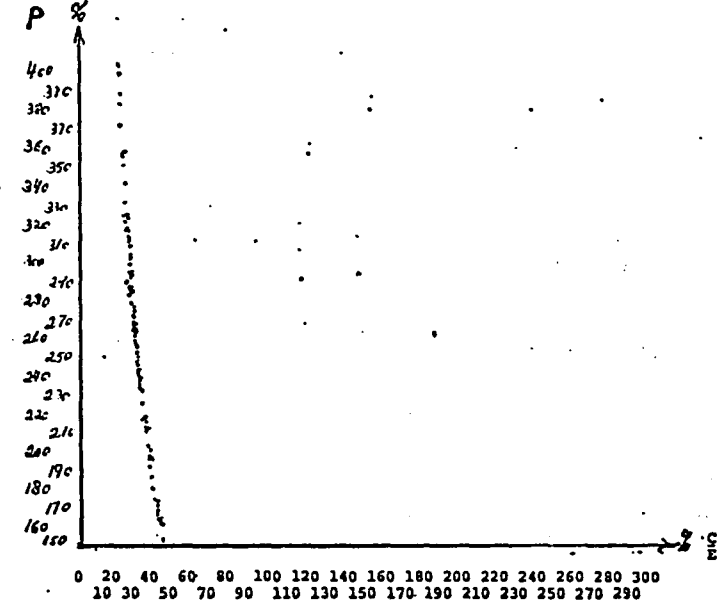
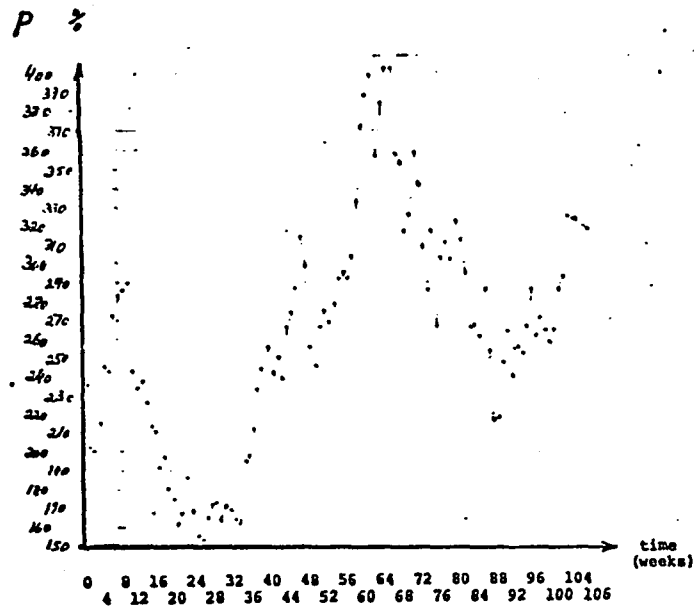
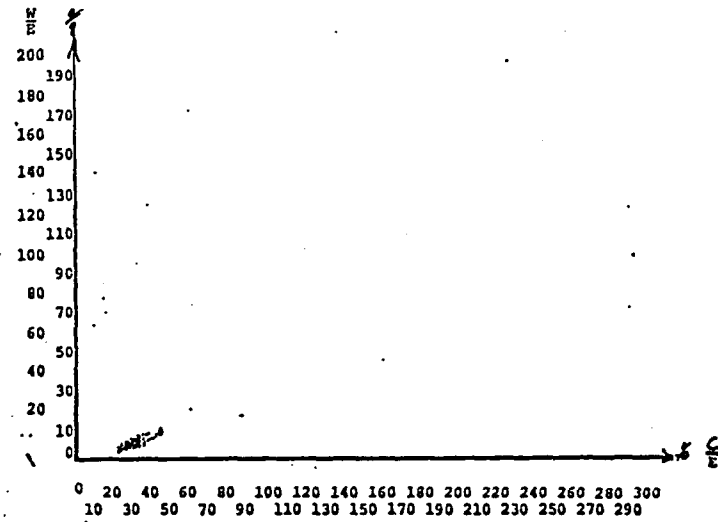
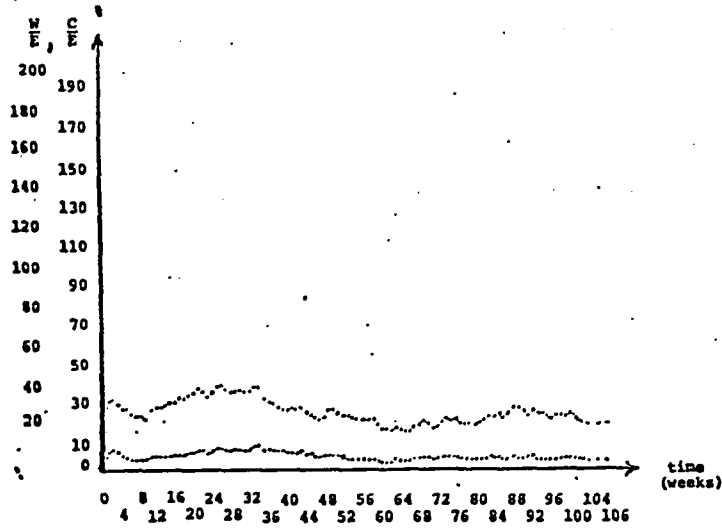
36. Tunnoco 1975A



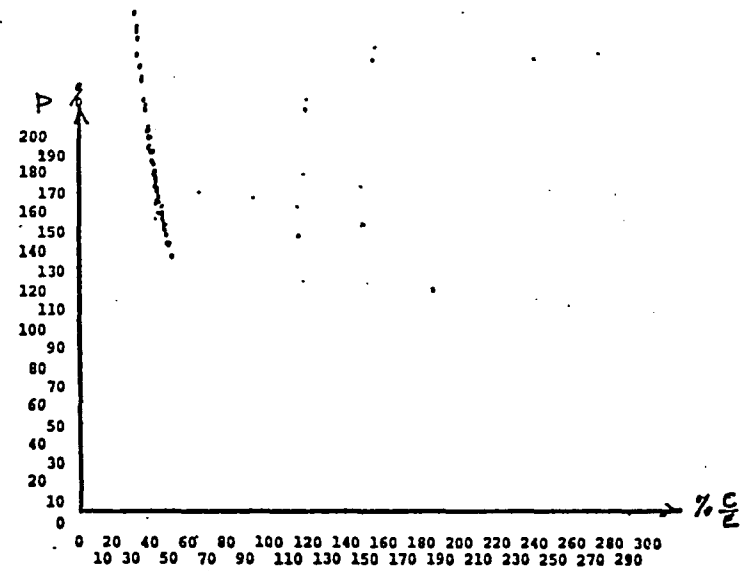
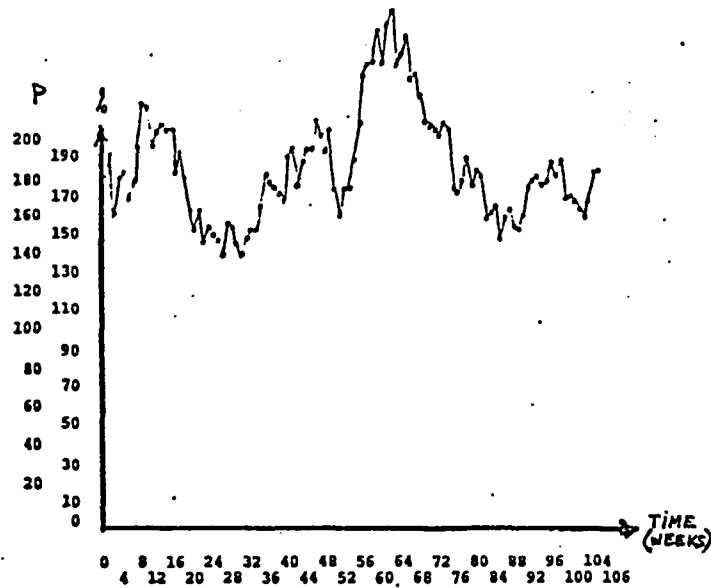
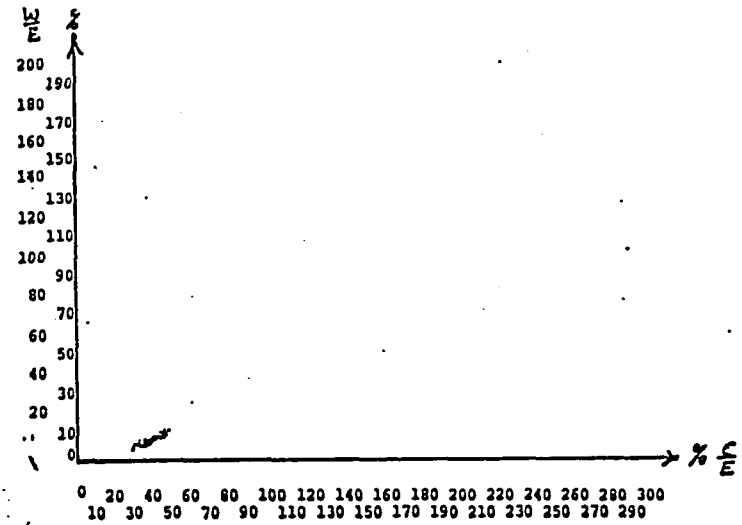
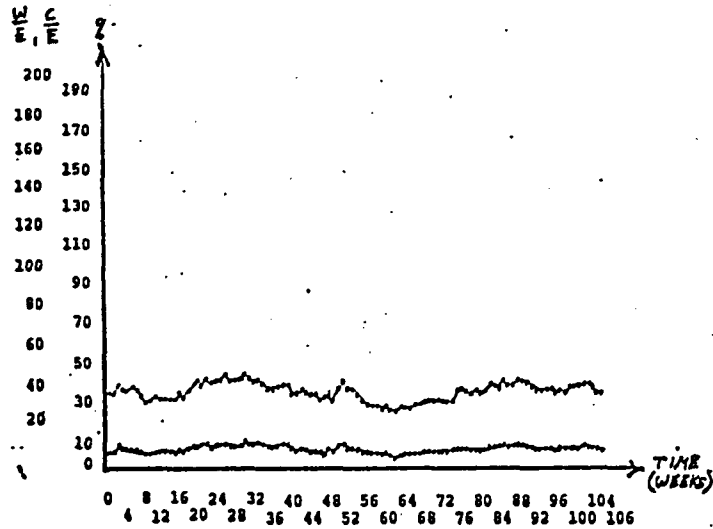
37. Tesoro Petroleum

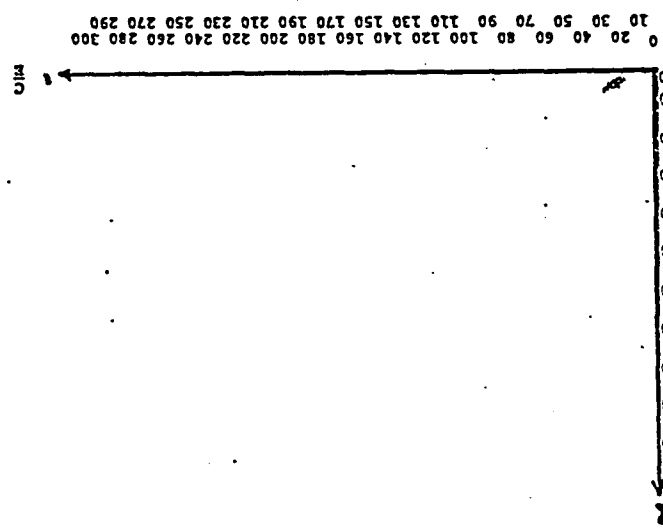
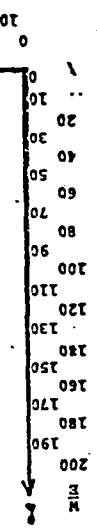
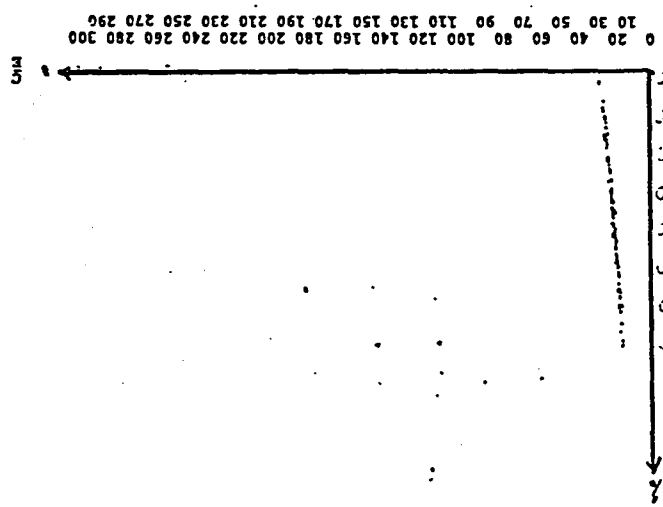
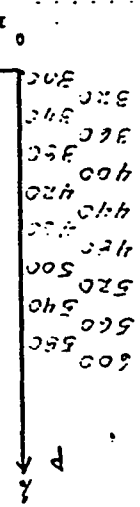
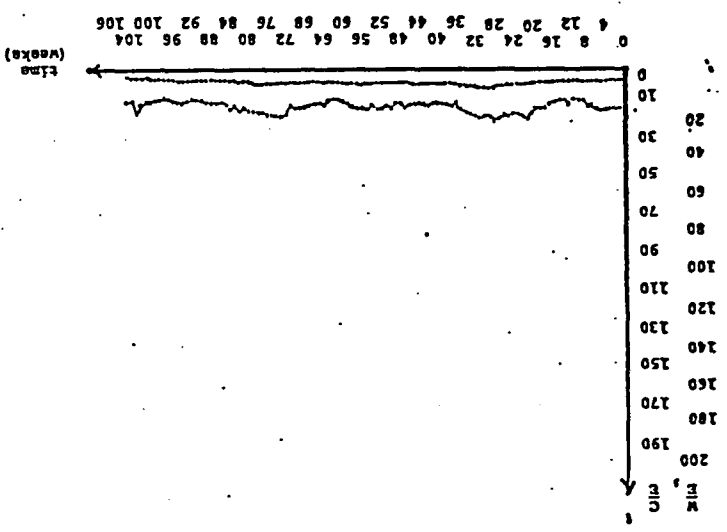
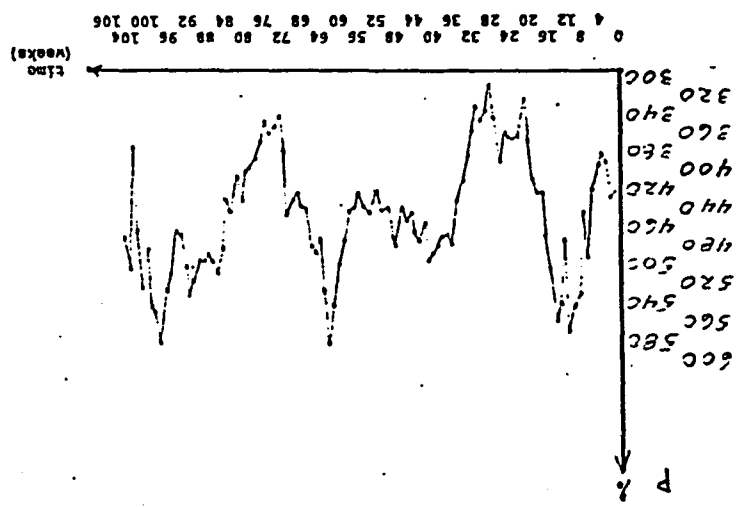


38. United Brands 1979



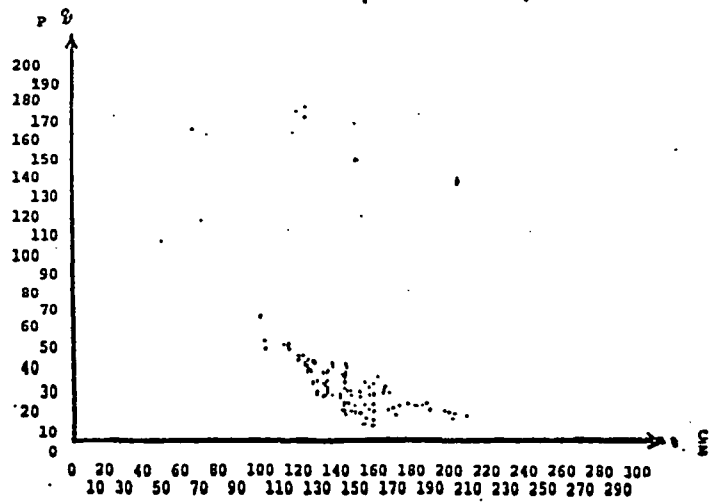
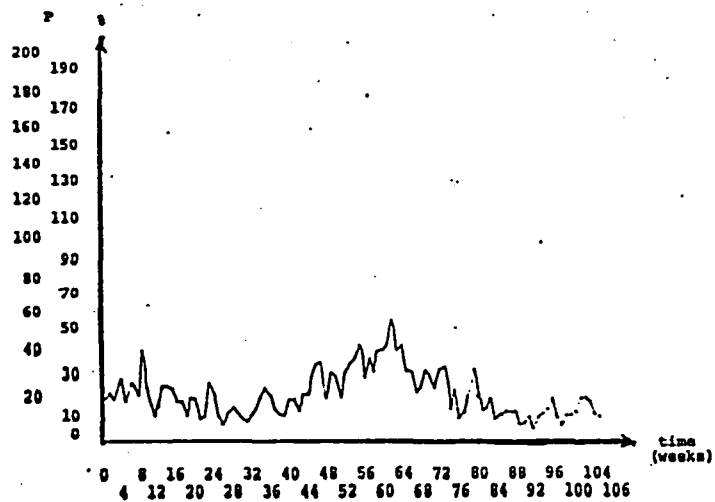
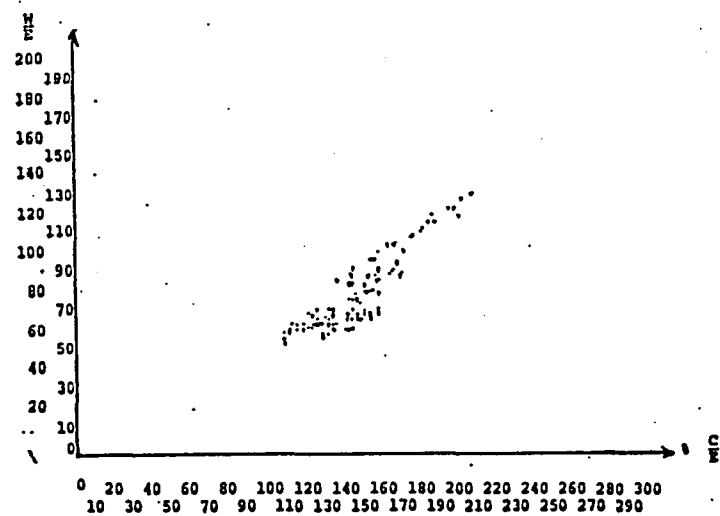
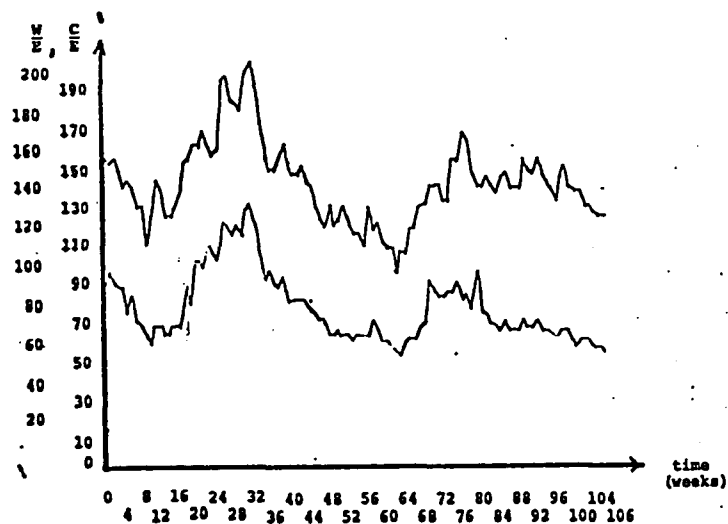
39. U.S. Smelting



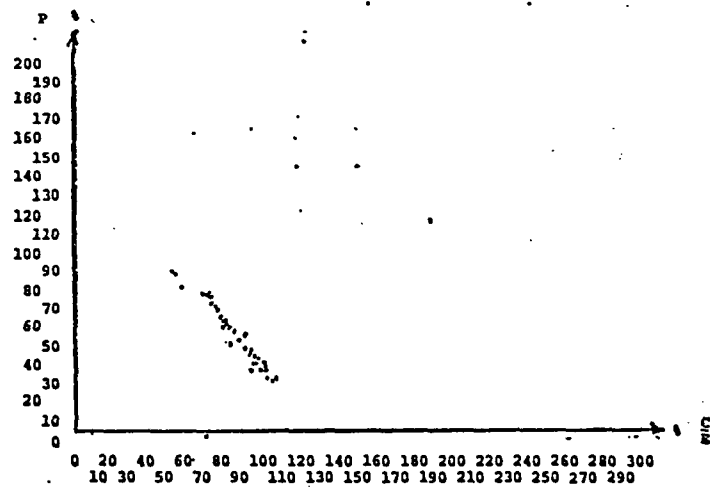
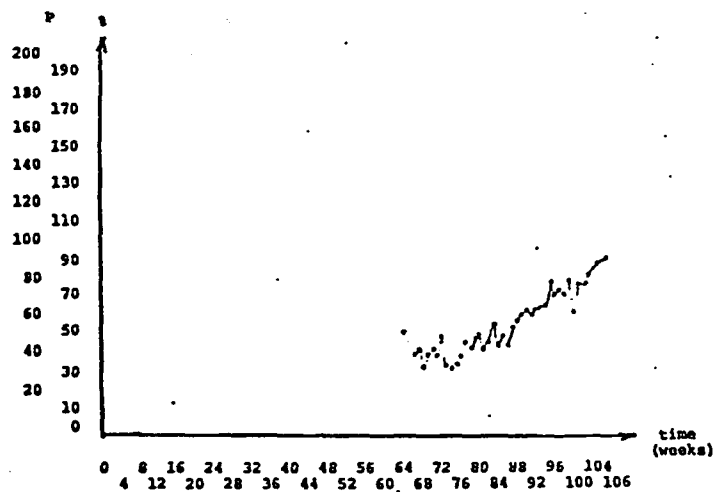
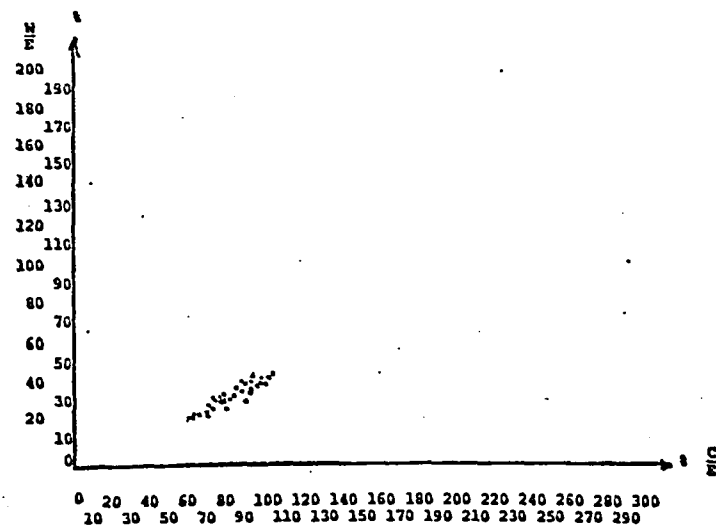
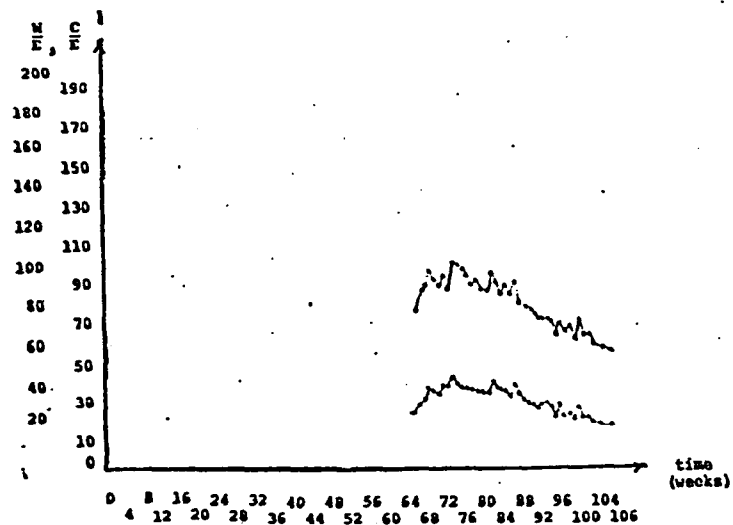


40. Ward Foods

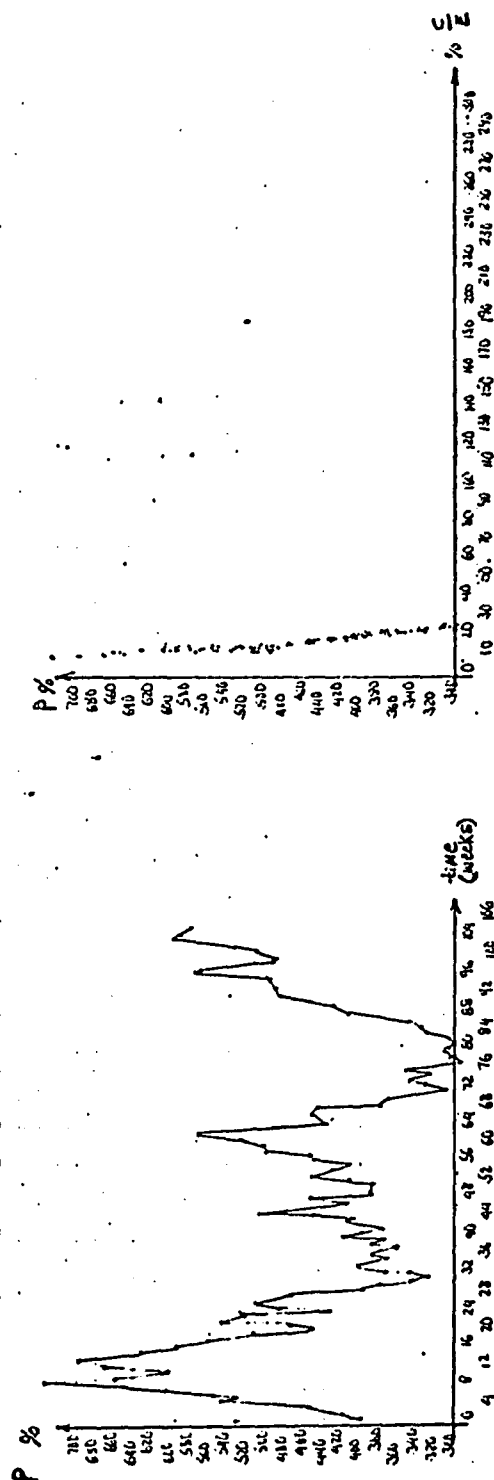
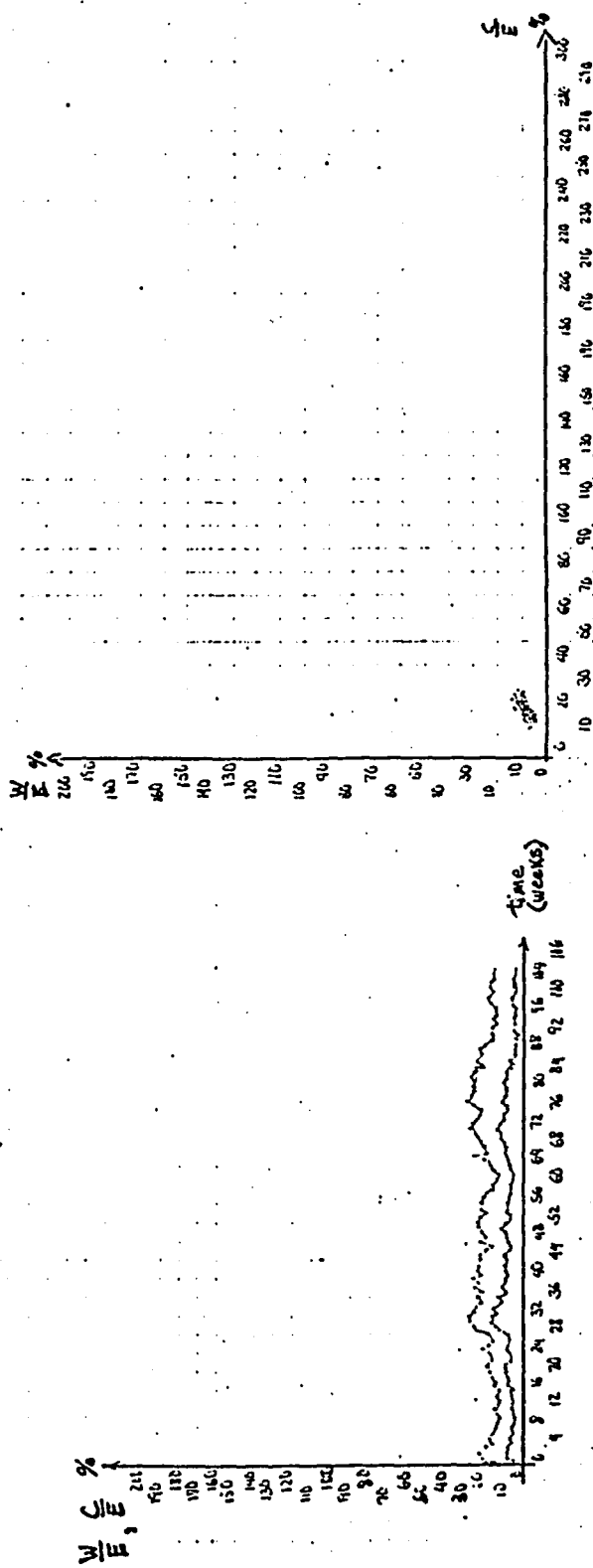
41. Webb (Del.E.)



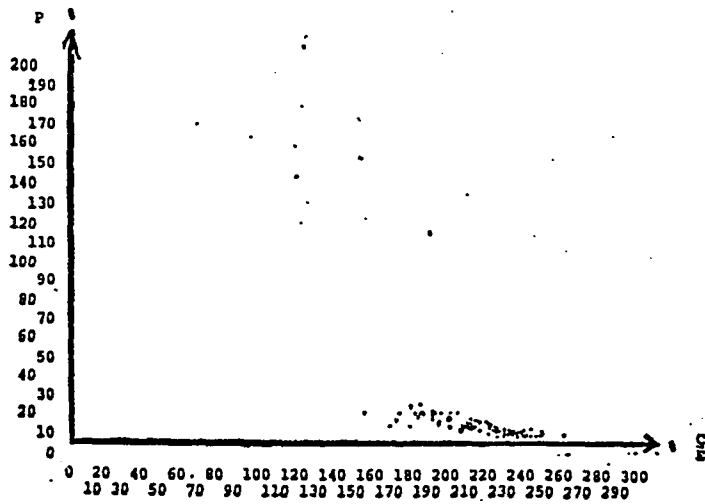
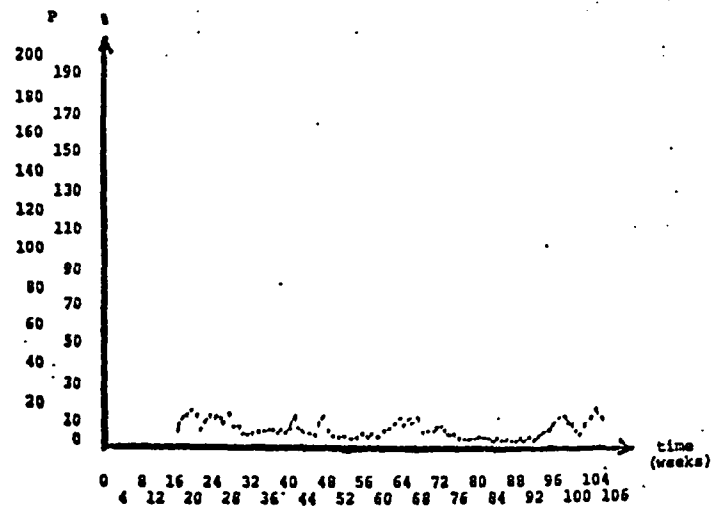
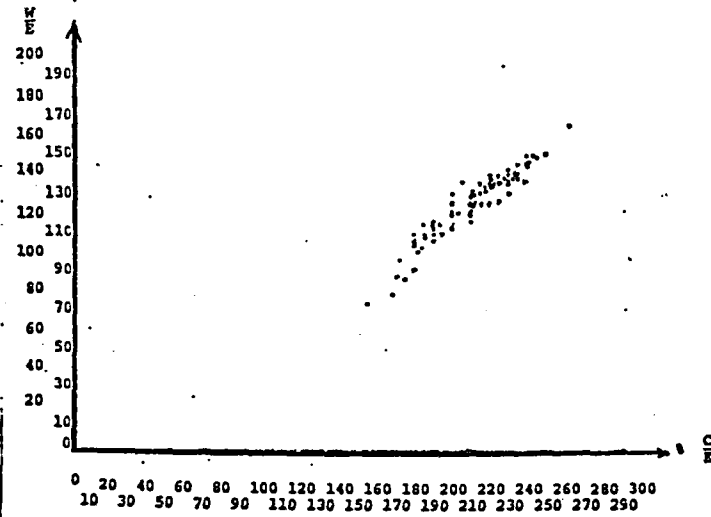
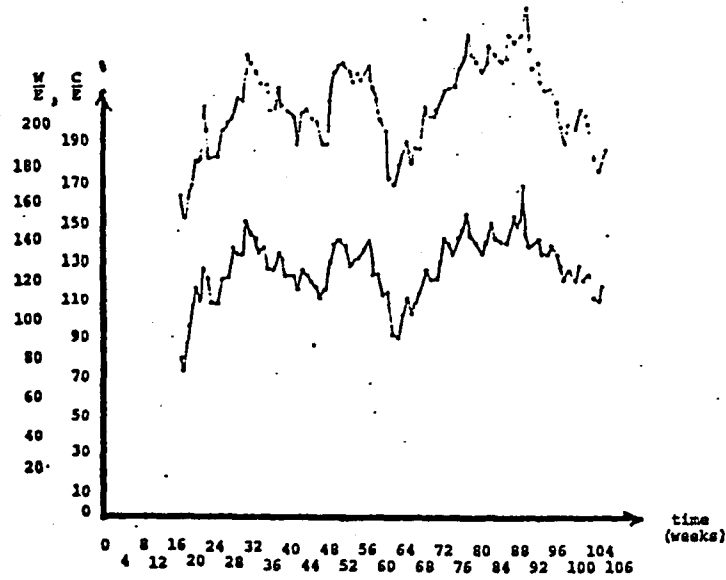
42. Western Pacific Industries



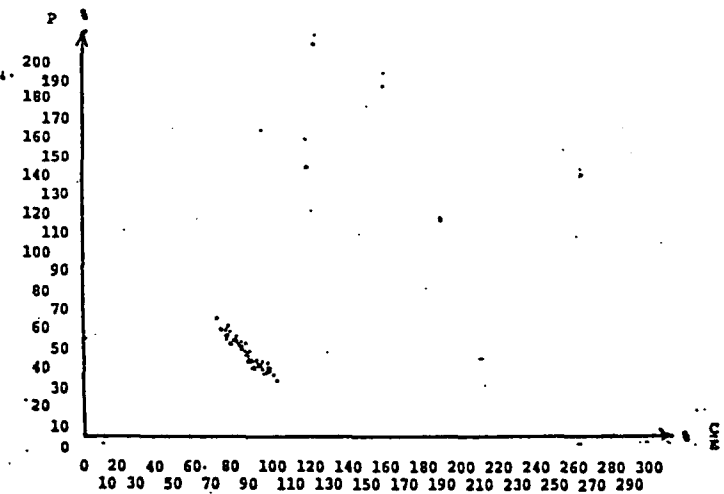
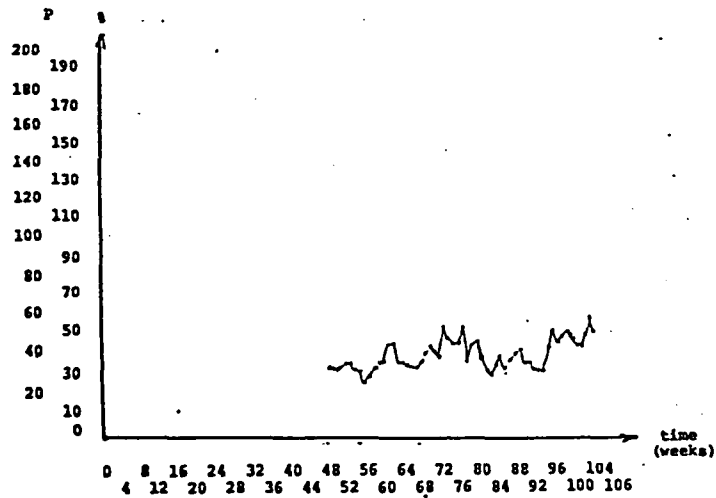
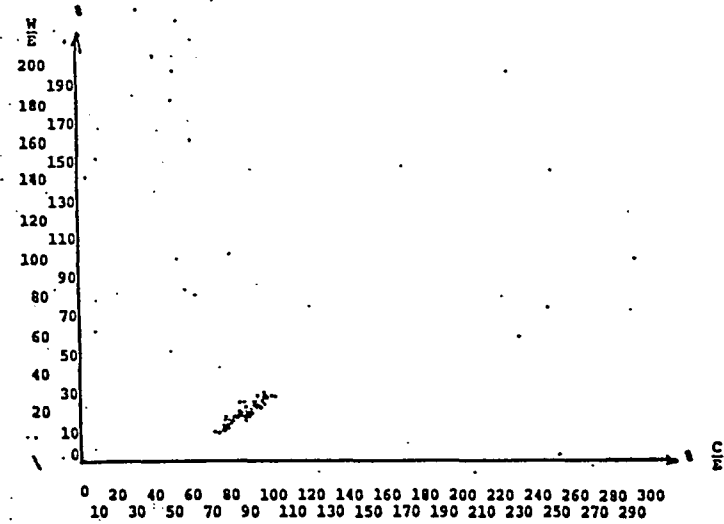
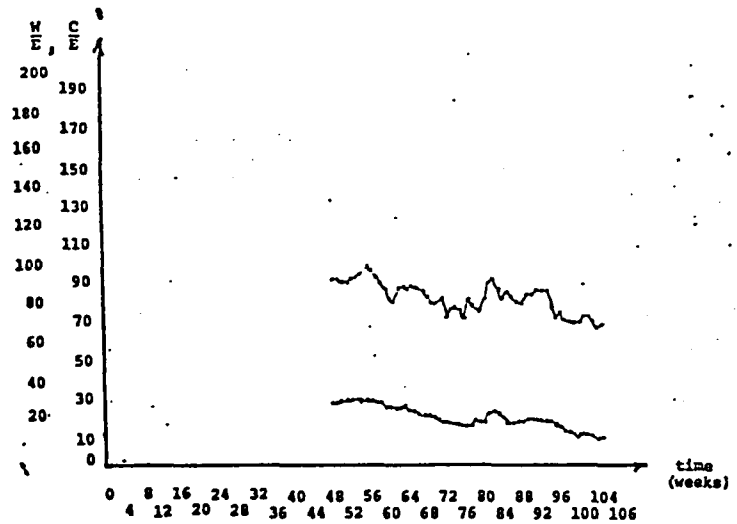
43. WHITTAKER



44. Williams Companions



45. Zayra



APPENDIX D

STATISTICAL FORMULAS

Sum of Residuals (SR).¹

$$SR = \sum (W_o - W_e)$$

where:

W_o = warrant price observed

W_e = warrant price estimated from the equation
for the warrant function

SR = 0 for least squares curves.

Coefficient of Determination (R^2).²

$$\begin{aligned} R^2 &= \text{Explained Variance/Total Variance} \\ &= 1 - (\text{Unexplained Variance/Total Variance}) \\ &= 1 - (\sum (W_o - W_e)^2 / \sum (W_o - \bar{W})^2) \end{aligned}$$

where:

$\bar{W}$ = mean warrant price

W_o, W_e = same as above

$$0 < R^2 < 1$$

Standard Error (S).³

$$S = \sqrt{\sum (W_o - W_e)^2 / N - F}$$

where:

W_o, W_e = same as above

N = sample size

F = degrees of freedom

The formula for the standard error of a sample is the same as the standard deviation equation for a total population except that $\bar{W}$ is replaced by W_e .

Least Squares Straight Line Coefficients.⁴

$$W = A_0 + A_1 C$$

$$A_0 = \frac{\sum W \sum C^2 - \sum C \sum CW}{N \sum C^2 - (\sum C)^2}$$

$$A_1 = \frac{N \sum WC - \sum C \sum W}{N \sum C^2 - (\sum C)^2}$$

where:

A_0 = W intercept which should equal zero in this case

A_1 = the slope

W = warrant price as percent of exercise price

C = common stock price as percent of exercise price

Least Squares Parabolic Normal Equations.⁵

$$W = A_0 + A_1 C + A_2 C^2$$

$$\sum W = A_0 N + A_1 \sum C + A_2 \sum C^2$$

$$\sum WC = A_0 \sum C + A_1 \sum C^2 + A_2 \sum C^3$$

$$\sum WC^2 = A_0 \sum C^2 + A_1 \sum C^3 + A_2 \sum C^4$$

where:

W, C, N, A_0 = same as above

A_1, A_2 = coefficients

Computed t Test Values.

$$t_f = \bar{X}_f - \bar{X}_c / (S_{f-c}/\sqrt{N})$$

where:

N = sample size

t_f = t statistic for filter level f versus control c

$\bar{X}_f$ = mean return per filter level f

$\bar{X}_c$ = mean return for control c

S_{f-c} = standard error between filter level f and control c

and:

$$S_{f-c} = \sqrt{(\sum d_i^2 - (\sum d_i)^2 / N) / (N - 1)}$$

where:

$$d_i = X_{if} - X_{ic}$$

Comparison With Dunnett's Critical t Test Values.

The computed t test value for each filter-decision rule is compared with that found in Dunnett's t test value table. The table value is obtained in the manner explained in Chapter IV on Methodology.

The problem of multiple comparisons with a control is a special case of the more general multiple comparisons problem considered by Tukey and Scheffé. Tukey's procedure based on the Studentized range and Scheffé's procedure based on the F-distribution are utilized when making any number of comparisons among a set of sample means. But when one makes comparisons between one of the means (control)

and each of the others (filters), the Tukey and Scheffé procedure results in confidence limits which are wider than necessary.⁷

FOOTNOTES

¹Murray R. Spiegel, Statistics (New York: Schaum Publishing, 1961), 219.

²Ibid., 244.

³Ibid., 243.

⁴Ibid., 242.

⁵Ibid., 221.

⁶Charles W. Dunnett, "A Multiple Comparison Procedure For Comparing Several Treatments With a Control," American Statistical Association Journal, L (December, 1955), 1119-20.

⁷Ibid., 1097.

APPENDIX E

COMPUTER PROGRAMS

QBASIC

BASIC R2.0 23:11:08 1 AUG 73

OLD:WOLF
READY

LIST

WOLF 23:11:09 1 AUG 73

```
10 DIM M(35),A(120),H(45),AS(45),L(45),T(106)
20 DIM Y(106),X(106),W(3900),B(3900),C(3900),K(3900)
30 DIM P(3900),U(3900),R(45),Q(7,30),O(7,30),N(7,30)
40 DIM D(7,30),V(7,30),F(7,30)
200 PRINT 'NUMBER OF WARRANTS IN THIS RUN'
210 INPUT M(1)
220 PRINT ' '
230 PRINT ' '
239 REM READ EACH WARRANTS' DATA
240 FOR J=1 TO M(1)
260 INPUT A(1),H(J),A(3),AS(J),A(4)
270 PRINT ' '
279 REM PRINT CO NAME
280 PRINT TAB(58);AS(J)
290 PRINT ' '
299 REM READ EACH WEEKS DATA
300 FOR I=H(J) TO (A(1)+H(J)-1)
309 REM WAR.NO.,WK NO.,WAR.PRICE,COM.PRICE
320 INPUT L(J),T(I),Y(I),X(I)
329 REM EDITING
330 IF T(I-1)<T(I)GO TO 350
340 PRINT TAB(60); 'CARDS ARE OUT OF ORDER'
349 REM WKLY COUNTER FOR ALL WAR.'S
350 S=S+1
359 REM ADJUST WAR.
360 A(S)=(Y(I)/(A(3)+A(4)))*100
369 REM SAVE UNADJUSTED WAR.
370 B(S)=Y(I)
379 REM ADJUST COM.
380 C(S)=(X(I)/A(3))*100
389 REM SAVE UNADJUSTED COM.
390 K(S)=X(I)
399 REM PREM.
400 P(S)=(A(S)+100-C(S))*100/C(S)
409 REM SAVE WEEK NO.
410 U(S)=T(I)
420 NEXT I
430 T(1)=0
439 REM SAVE THE # OF WEEKS FOR EACH WAR.
440 R(J)=S
449 REM EDITING
450 IF H(J)-R(J-1)=A(1) GO TO 470
460 PRINT TAB(60); 'CARD IS MISSING'
469 REM RENUMBER WAR'S.
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```

470 L(J)=J
480 NEXT J
490 PRINT ' '
500 PRINT ' '
510 PRINT ' '
520 PRINT ' '
529 REM COMPUTE ALL INITIAL SUMS
530 FOR I=1 TO 5
539 REM WAR. SUM
540 A(5)=A(5)+W(I)
549 REM COM.SUM
550 A(6)=A(6)+C(I)
559 REM WAR. TIMES COM SUM
560 A(7)=A(7)+W(I)*C(I)
569 REM COM SQRD SUM
570 A(8)=A(8)+C(I)*C(I)
580 NEXT I
590 PRINT ' '
600 PRINT ' '
609 REM COMPUTE MEANS
610 PRINT ' '
619 REM MEAN WAR
620 M(2)=A(5)/S
621 PRINT M(2)
629 REM MEAN COM.
630 M(3)=A(6)/S
631 PRINT M(3)
639 REM MEAN COM.SQRD
640 M(4)=A(8)/S
650 PRINT ' '
660 PRINT ' '
669 REM COMPUTE DIFF'S, SUMS AND THEIR SQRS
670 PRINT ' '
680 FOR I=1 TO 5
689 REM DIFF WAR .
690 M(6)= (W(I)-M(2))
699 REM SUM DIFF WAR
700 M(7)=M(7)+M(6)
709 REM DIFF COM.
710 M(8)=C(I)-M(3)
719 REM SUM DIFF COM
720 M(9)=M(9)+M(8)
729 REM DIFF SQRD COM
730 M(10)=C(I)*C(I)-M(4)
739 REM SUM DIFF SQRD COM
740 M(11)=M(11)+M(10)
749 REM SUM DIFF SQRD COM
750 M(12)=M(12)+(M(6)*M(8))
759 REM SUM DIFF COM TIMES DIFF COM SQRD
760 M(13)=M(13)+(M(6)*M(10))
769 REM SUM DIFF WAR. TIMES DIFF COM.
770 M(14)= M(14)+(M(6)*M(8))
779 REM SUM DIFF SQRD COM SQRD
780 M(15)=M(15)+(M(10)*M(10))
789 REM SUM DIFF WAR. TIMES DIFF SQRD COM
790 M(16)=M(16)+(M(6)*M(10))
791 REM SUM DIFF WAR SQRD

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792 M(17)=M(17)+(M(6)*M(6))
793 NEXT I
800 PRINT ' '
810 PRINT ' '
819 REM COMPUTE COEFFICIENTS FOR ST. LINE
820 PRINT ' '
830 A(9)=[(A(5)*A(8))-(A(6)*A(7))]/[(S*A(8))-(A(6)*A(6))]
840 A(10)=[(S*A(7))-(A(6)*A(5))]/[(S*A(8))-(A(6)*A(6))]
849 REM COMPUTE COEFFICIENTS FOR PARABOLA
850 PRINT ' '
860 M(18)=M(15)-M(13)*M(13)/M(12)
870 M(19)=M(16)-M(13)*M(14)/M(12)
880 A(13)=M(19)/M(18)
890 A(12)=[M(14)-M(13)*A(13)]/M(12)
900 A(11)=[A(5)-A(6)*A(12)-A(8)*A(13)]/S
909 REM FOR ALL FUNCTIONS: COMPUTE STD ERROR, SUM OF RESIDUALS AND RSQD
910 PRINT ' '
912 E=0
919 REM INITIALIZE COUNTER
920 S=0
929 REM FUNCTION COUNTER - ONE PASS FOR EACH FUNCTION
930 E=E+1
939 REM FOR ALL WAR*NS
940 FOR J=1 TO M(1)
949 REM IND. WAR.
950 FOR I=M(J) TO (R(J)-R(J-1)+M(J)-1)
959 REM AKLY COUNTER FOR ALL WAR*NS
960 S=S+1
970 IF E=5 GO TO 1020
980 IF E=4 GO TO 1040
990 IF E=3 GO TO 1060
1000 IF E=2 GO TO 1080
1010 IF E=1 GO TO 1100
1020 A(15)=SQR(C(S)*C(S)+10000)-100
1030 GO TO 1120
1040 A(15)=SQR(1.1*C(S)*C(S)+10000)-100
1050 GO TO 1120
1060 A(15)=SQR(0.9*C(S)*C(S)+10000)-100
1070 GO TO 1120
1080 A(15)=A(11)+A(12)*C(S)+A(13)*C(S)*C(S)
1090 GO TO 1120
1100 A(15)=A(9)+A(10)*C(S)
1119 REM WAR.O=WAR.EST.
1120 M(20)=M(5)-A(15)
1122 REM SUM(WAR.O=WAR.EST)
1124 M(34)=M(34)+M(20)
1129 REM SUM((WAR.O=WAR.EST)SQRD)
1130 M(21)=M(21)+(M(20)*M(20))
1139 REM WAR.O=MEAN WAR.
1140 M(23)=M(5)-M(2)
1149 REM SUM(WAR.O=MEAN WAR.)SQRD
1150 M(25)=M(25)+(M(23)*M(23))
1159 REM WAR.EST=MEAN WAR.
1160 M(26)=A(15)-M(2)
1169 REM SUM(WAR.EST=MEAN WAR.)SQRD
1170 M(28)=M(28)+(M(26)*M(26))
1180 NEXT I

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1182 REM IND.AAR. SUM OF RESIDUALS=SUM(WAR.O-WAR.EST)
1184 F(E,J)=M(34)
1186 REM INITIALIZE
1188 M(34)=0
1189 REM IND. WAR. SUM OF RESIDUALS=M(21)
1190 D(E,J)=M(21)
1199 REM INITIALIZE
1200 M(21)=0
1209 REM IND.AAR.SUM((WAR.O-MEAN WAR.)SQRD)
1210 N(E,J)=M(25)
1219 REM INITIALIZE
1220 M(25)=0
1229 REM IND.AAR.SUM((WAR.EST.-MEAN WAR.)SQRD)
1230 O(E,J)=M(28)
1239 REM INITIALIZE
1240 M(28)=0
1249 REM IND. WAR.STD.ERRORS
1250 G(E,J)=SGR(D(E,J))/(R(J)-R(J-1)-2)
1259 REM IND.AAR. R=2*S
1260 V(E,J)=1-(D(E,J)/N(E,J))
1270 NEXT J
1280 IF E< 5 GO TO 920
1290 FOR E=1 TO 5
1299 REM FOR THE TOTAL SAMPLE
1300 FOR J=1 TO M(1) OFOR THE TOTAL SAMPLE
1309 REM SUM( SUM OF RESIDUALS)
1310 A(E*22)=A(E*22)+D(E,J)
1312 REM SUM(SUM OF RESIDUALS)
1314 A(E*17)=A(E*17)+F(E,J)
1319 REM SUM((WAR.O-MEAN WAR.)SQRD)
1320 A(E*18)=A(E*18)+N(E,J)
1329 REM SUM((WAR.EST-MEAN WAR.)SQRD)
1330 A(E*19)=A(E*19)+O(E,J)
1340 NEXT J
1349 REM SAMPLE STD. ERROR
1350 A(E*20)= SQH(A(E*22)/(5-2))
1359 REM SAMPLE R=2*S
1360 A(E*21)=1-(A(E*22)/A(E*18))
1370 NEXT E
1379 REM INITIALIZE
1380 S=0
1389 REM FOR ALL WAR.NS
1390 FOR J=1 TO M(1)
1395 PRINT ' '
1397 PRINT ' '
1399 REM WAR.NO. AND NAME
1400 PRINT TAB (58):L(J):AS(J)
1410 PRINT ' '
1419 REM MAKE REPORT HEADINGS (COLUMNS)
1420 PRINT ' '
1430 PRINT TAB(35): 'COMMON TO' : TAB(50): 'WARRANT TO':
1440 PRINT TAB (65): 'PREDICTED':TAB(115): 'PREMIUM'
1450 PRINT TAB (9): 'WARRANT': TAB(19): 'COMMON':
1460 PRINT TAB (35): 'EXERCISE': TAB(50): 'EXERCISE':
1470 PRINT TAB (65):'WARRANT ':TAB(95):'WARRANT':
1480 PRINT TAB(115):'SUBSAMPLE'
1490 PRINT TAB (3): 'WEEK': TAB(9): 'PRICE($)':

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1500 PRINT TAB(19);'PRICE(S)';TAB(35);'PRICE(S)';
1510 PRINT TAB(50);'PRICE(S)';TAB(65);'PRICE(S)';
1520 PRINT TAB(80);'RESIDUAL';TAB(95);'PREMIUM(S)';
1530 PRINT TAB(115);'BY STD DEV';
1540 PRINT TAB(3);'-----';TAB(9);'-----';
1550 PRINT TAB(19);'-----';TAB(35);'-----';
1560 PRINT TAB(50);'-----';TAB(65);'-----';
1570 PRINT TAB(80);'-----';TAB(95);'-----';
1580 PRINT TAB(115);'-----';
1590 PRINT ' '
1599 REM IND.WAR.
1600 FOR J=H(J) TO (R(J)-R(J-1)+H(J)-1)
1609 REM WKLY COUNTER
1610 S=S+1
1619 REM HYP
1620 M(30)=SQRT(C(S)*C(S)+10000)-100
1629 REM HYP DIFF
1630 M(31)=M(S)-M(30)
1639 REM POSITIVE HYP DIFF
1640 M(32)=ABS(M(31))
1649 REM STD ERROR EXCEEDS 2
1650 BS='>2*****'
1660 IF M(32)>=2*A(100) GO TO 1760
1669 REM STD. ERROR BET. 1.75 AND 2
1670 BS='>1.75-2<****'
1680 IF M(32)>=1.75*A(100) GO TO 1760
1689 REM STD.ERROR BET. 1.5 AND 1.75
1690 BS='>1.5-1.75<***'
1700 IF M(32)>=1.5*A(100) GO TO 1760
1709 REM STD. ERROR BET. 1.25 AND 1.5
1710 BS='>1.25-1.5<**'
1720 IF M(32)>=1.25*A(100) GO TO 1760
1729 REM STD ERROR BET. 1 AND 1.25
1730 BS='>1-1.25<*'
1740 IF M(32)>=A(100) GO TO 1760
1749 REM STD. ERROR LESS THAN 1
1750 BS='1<'
1760 PRINT TAB(3);U(S);TAB(10);B(S);
1770 PRINT TAB(20);K(S);TAB(36);C(S);
1780 PRINT TAB(51);A(S);TAB(66);M(30);
1790 PRINT TAB(80);M(31);TAB(96);P(S);
1800 PRINT TAB(118);BS
1810 NEXT I
1820 NEXT J
1830 PRINT ' '
1831 DS(4)='-----'
1832 DS(5)='-----'
1833 DS(6)='-----'
1834 DS(7)='-----'
1840 PRINT
1850 PRINT
1860 PRINT 'S=';S
1870 PRINT ' '
1871 CS(1)='LEAST SQUARES STRAIGHT LINE:'
1872 CS(2)='LEAST SQUARES PARABOLA:'
1873 CS(3)='B=0.9 HYPERBOLA:'
1880 PRINT ' '

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1890 PRINT ' '
1900 PRINT ' '
1901 C$(4)='B=1.1 HYPERBOLA:'
1902 C$(5)='THEORETICAL HYPERBOLA:'
1903 C$(6)='FUNCTION FOR TOTAL SAMPLE'
1910 PRINT ' '
1920 PRINT ' '
1930 PRINT ' '
1931 C$(7)='STANDARD'
1932 C$(8)='SUM OF'
1933 C$(9)='COEFFICIENT OF'
1940 PRINT
1942 IF S=1741 GO TO 1950
1944 PRINT TAB(58); 'SAMPLE A'
1946 GO TO 1951
1950 PRINT TAB(58); 'SAMPLE B'
1951 D$(1)='ERROR'
1952 D$(2)='RESIDUALS'
1953 D$(3)='DETERMINATION'
1960 PRINT ' '
1969 REM MAKE REPORT HEADINGS
1970 PRINT ' '
1980 PRINT TAB (20); C$(6);
1990 PRINT TAB (70); 'EQUATION'
2000 PRINT TAB(20); D$(4);
2010 PRINT TAB(70); D$(5)
2011 PRINT ' '
2020 PRINT ' '
2030 PRINT TAB(14); C$(1);
2040 PRINT TAB(60); 'W='; A(9); '+'; A(10); 'C'
2050 PRINT ' '
2060 PRINT TAB (19); C$(2);
2070 PRINT TAB(60); 'W='; A(11); '+'; A(12); 'C+'; A(13); 'C'
2080 PRINT ' '
2090 PRINT TAB(26); C$(3);
2100 PRINT TAB(60); 'W= 0.9*C+C+10000-100'
2110 PRINT ' '
2120 PRINT TAB(26); C$(4);
2130 PRINT TAB(60); 'W=1.1*C+C+10000-100'
2140 PRINT ' '
2150 PRINT ' '
2160 PRINT TAB(20); C$(5);
2170 PRINT TAB (60); 'W=C+C+10000-100'
2180 PRINT ' '
2190 PRINT ' '
2200 PRINT ' '
2210 PRINT TAB(50); 'TOTAL SAMPLE'
2220 PRINT ' '
2230 PRINT ' '
2240 PRINT TAB(52); C$(7); TAB(70); C$(8); TAB(90); C$(9)
2250 PRINT TAB(20); C$(6); TAB(54); D$(1); TAB(68); D$(2); TAB(90); D$(3)
2260 PRINT TAB(20); D$(4); TAB(52); D$(5); TAB(68); D$(6); TAB(90); D$(7)
2270 PRINT ' '
2280 PRINT TAB(14); C$(1); TAB(52); A(20); TAB(68); A(17); TAB(90); A(21)
2282 PRINT ' '
2290 PRINT TAB(19); C$(2); TAB(52); A(40); TAB(68); A(34); TAB(90); A(42)
2292 PRINT ' '

```



```

2300 PRINT TAB(26);CS(3);TAB(52);A(60);TAB(68);A(51);TAB(90);A(63)
2302 PRINT " "
2310 PRINT TAB(26);CS(4);TAB(52);A(80);TAB(68);
2312 PRINT A(68);TAB(90);A(84)
2320 PRINT " "
2330 PRINT TAB(20);CS(5);TAB(52);A(100);TAB(68);A(85);TAB(90);A(105)
2340 PRINT " "
2350 PRINT " "
2360 PRINT " "
2370 PRINT " "
2379 REM FOR EACH WARRANT
2380 FOR J=1 TO M(1)
2390 PRINT " "
2400 PRINT " "
2410 PRINT " "
2420 PRINT TAB(32);J;"",AS(J)
2430 PRINT " "
2440 PRINT TAB(52);CS(7);TAB(70);CS(8)
2450 PRINT TAB(20);CS(6);TAB(54);DS(1);TAB(68);DS(2)
2460 PRINT TAB(20);DS(4);TAB(52);DS(5);TAB(68);DS(6)
2470 PRINT " "
2479 REM FOR EACH FUNCTION
2480 FOR E=1 TO 5
2490 PRINT TAB(20);CS(E);TAB(52);Q(E,J);TAB(68);F(E,J)
2492 PRINT " "
2500 NEXT E
2510 NEXT J
2520 END

```

END BASIC. 23:11:13 1 AUG 73

DFIN

QBASIC

BASIC R2.0 23:11:10 1 AUG 73

OLD:FILTER
READY

LIST

FILTER 23:11:13 1 AUG 73

```
10 DIM H(50),A(80),M(40),S(3900),W(3900),AS(50)
20 DIM B (3900),C(3900),U(3900),R(30),T(30,7)
30 DIM G(30,7),O(30,7),Q(30,7),V(7,200)
40 DIM Z(30,7),X(30,7),P(30,7),L(30,7),F(30,7)
50 DIM D(30,7),K(20,7),BS(40)
110 PRINT "NUMBER OF WARRANTS IN THIS RUN:"
120 INPUT A(7)
130 PRINT
140 PRINT
150 FOR J=1 TO A(7):READ EACH WAR.'S DATA
160 PRINT
170 PRINT
190 INPUT A(8),H(J),A(9),AS(J), A(10)
200 PRINT
210 PRINT TAB(58):AS(J):PRINT CO. NAME
220 PRINT
230 FOR I=H(J) TO (A(8)+H(J)-1) : READ EACH WK.'S DATA
250 INPUT M(20),M(21),M(22),M(23)
260 S=S+1 : WKLY COUNTER FOR ALL WAR.'S
270 A(5)=(M(22)/(A(9)+A(10)))*100:QADJ = WAR.'S
280 B(5)=M(22) :SAVE UNADJ. WAR.
290 C(5)=(M(23)/A(9))*100 :QADJ. COM.
300 U(5)= M(21) :SAVE WK NO.
310 M(20)=0
320 M(21)=0
330 M(22)=0
340 M(23)=0
350 NEXT I
360 R(J)=S : SAVE THE NO. OF WKS PER WAR.
370 IF R(J)-R(J-1)=A(8) GO TO 390 : EDITING
380 PRINT "CARD IS MISSING"
390 NEXT J
392 IF S=1741 GO TO 398
394 A(11)=14.6918 :SAMPLE A
395 BS(1)="SAMPLE A"
396 GO TO 410
398 A(11)=6.11635 :SAMPLE B
400 BS(1)="SAMPLE B"
410 S=0 : INITIALIZE WKLY COUNTER FOR ALL WAR.'S
420 FOR J=1 TO A(7) : FOR EACH WARRANT
425 E(6)=0 : INITIALIZE COUNTER PER WAR.
440 E(0)=0 :CIS
450 FOR I=H(J) TO (R(J)-R(J-1)+H(J)-1) : FOR EACH WK
460 S=S+1 : ALL WAR. WKLY COUNTER
```

```

470 E(6)=E(6)+1 @ IND. WAR. WKLY COUNTER
480 IF E(6)>1 GO TO 520
490 G(J,6)=1000@ INITIAL STD INV.
500 O(J,6)=1000/B(5) @ INITIAL STD NO. OF SHARES
510 Q(J,6)=(G(J,6)-(1.013*1000-12)/B(5))@ LESS COM'S
520 A(12)=52R(C(5)+C(5)+10000)-100@ W. EST
530 A(13)=ABS(A(5)-A(12)) @ ABS. RESIDUAL W.Q-W. EST
540 IF A(13)<A(11) GO TO 1340
550 IF A(13)<A(11)*1.25 GO TO 1190
560 IF A(13)<A(11)*1.5 GO TO 1040
570 IF A(13)<A(11)*1.75 GO TO 890
580 IF A(13)<A(11)*2 GO TO 740
590 E(5)=E(5)+1 @ COUNTER FOR >25 DECISION RULE TRANS.
592 IF E(6)=(R(J)-R(J-1)) GO TO 1370
600 IF A(5)-A(12)<0 GO TO 650 @ BUY
610 G(J,5)=G(J,5)+1000 @SELL: COST BAL.
620 O(J,5)=O(J,5)-(1000/B(5)) @ NO. OF SHARES
630 Q(J,5)=Q(J,5)-((1000-.013*1000-12)/B(5))@ LESS COM'S
640 GO TO 680
650 G(J,5)=G(J,5)+1000 @ BUY: COST BAL.
660 O(J,5)=O(J,5)+(1000/B(5)) @ NO. OF SHARES
670 Q(J,5)=Q(J,5)+((1000-.013*1000-12)/B(5))@ LESS COM'S
680 V(5,E(5))=U(5) @ SAVE WK. OF THIS TRANS.
690 IF E(5)=1 GO TO 1350 @IF 1ST TRANS, DON'T SUM
700 M(5)=V(5,E(5))-V(5,(E(5)-1))@ NO. OF WKS. BET. TRANS.
710 A(19)=M(5)+A(19) @ SAVE NO. OF WKS IN WAR.'S INV. PER.
720 Z(J,5)=M(5)*G(J,5)+Z(J,5) @ COMPUTE WTD. COST BAL.
730 GO TO 1350
740 E(4)=E(4)+1 @ COUNTER FOR 1.75-2.5 DECISION RULE TRANS.
742 IF E(6)=(R(J)-R(J-1)) GO TO 1370
750 IF A(5)-A(12)<0 GO TO 800 @ BUY
760 G(J,4)=G(J,4)+1000 @ SELL
770 O(J,4)=O(J,4)-(1000/B(5)) @NO. OF SHARES
780 Q(J,4)=Q(J,4)-((1000-.013*1000-12)/B(5)) @ LESS COM'S
790 GO TO 830
800 G(J,4)=G(J,4)+1000 @ BUY: COST BAL.
810 O(J,4)=O(J,4)+(1000/B(5)) @ NO. OF SHARES
820 Q(J,4)=Q(J,4)+((1000-.013*1000-12)/B(5)) @LESS COM.'S
830 V(4,E(4))=U(5) @ SAVE WK. OF THIS TRANS.
840 IF E(4)=1 GO TO 1350 @IF 1ST TRANS,DON'T SUM
850 M(4)=V(4,E(4))-V(4,(E(4)-1)) @ NO. OF WKS BET. TRANS.
860 A(18)=M(4)+A(18) @ SAVE NO. OF WKS. IN WAR INV. PER.
870 Z(J,4)=M(4)*G(J,4)+Z(J,4) @ COMPUTE WTD. COST BAL.
880 GO TO 1350
890 E(3)=E(3)+1 @ COUNTER FOR 1.5-1.75 S DECISION RULE TRANS.'S
892 IF E(6)=(R(J)-R(J-1)) GO TO 1370
900 IF A(5)-A(12)<0 GO TO 950 @ BUY
910 G(J,3)=G(J,3)+1000 @ SELL
920 O(J,3)=O(J,3)-(1000/B(5)) @ NO. OF SHARES
930 Q(J,3)=Q(J,3)-((1000-.013*1000-12)/B(5)) @ LESS COM'S
940 GO TO 980
950 G(J,3)=G(J,3)+1000 @ BUY: COST BAL.
960 O(J,3)=O(J,3)+(1000/B(5)) @ NO. OF SHARES
970 Q(J,3)=Q(J,3)+((1000-.013*1000-12)/B(5))@ LESS COM.'S
980 V(3,E(3))=U(5) @ SAVE WK. OF THIS TRANS.
990 IF E(3)=1 GO TO 1350 @IF 1ST TRANS, DON'T SUM
1000 M(3)=V(3,E(3))-V(3,(E(3)-1)) @ NO. OF WKS. BET. TRANS.

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1010 A(17)=M(3)+A(17) @ SAVE NO. OF WKS. IN WAR. INV. PER.
1020 Z(J,3)=M(3)+G(J,3)+Z(J,3) @ COMPUTE WTD. COST BAL.
1030 GO TO 1350.
1040 E(2)=E(2)+1 @ COUNTER FOR 1.25-1.5 S DECISION RULE TRANS.
1042 IF E(6)=(R(J)-R(J-1)) GO TO 1370
1050 IF M(5)-A(12)<0 GO TO 1100 @ BUY
1060 G(J,2)=G(J,2)-1000 @ SELL
1070 O(J,2)=O(J,2)-(1000/B(5)) @ NO. OF SHARES
1080 Q(J,2)=Q(J,2)-((1000-.013*1000-12)/B(5)) @ LESS COM'S
1090 GO TO 1130
1100 G(J,2)=G(J,2)+1000 @ BUY: COST BAL.
1110 O(J,2)=O(J,2)+(1000/B(5)) @ NO. OF SHARES
1120 Q(J,2)=Q(J,2)+((1000-.013*1000-12)/B(5)) @ LESS COM'S
1130 V(2,E(2))=U(5) @ SAVE WK. OF THIS TRANS.
1140 IF E(2)=1 GO TO 1350 @ IF 1ST TRANS, DON'T SUM
1150 M(2)=V(2,E(2))-V(2,(E(2)-1)) @ NO. OF WKS BET. TRANS.
1160 A(16)=M(2)+A(16) @ SAVE NO. OF WKS IN WAR. INV. PER.
1170 Z(J,2)=M(2)+G(J,2)+Z(J,2) @ COMPUTE WTD. COST BAL.
1180 GO TO 1350
1190 E(1)=E(1)+1 @ COUNTER FOR 1-1.25 S DECISION RULE TRANS.
1192 IF E(6)=(R(J)-R(J-1)) GO TO 1370
1200 IF M(5)-A(12)<0 GO TO 1250 @ BUY
1210 G(J,1)=G(J,1)-1000 @ SELL
1220 O(J,1)=O(J,1)-(1000/B(5)) @ NO. OF SHARES
1230 Q(J,1)=Q(J,1)-((1000-.013*1000-12)/B(5)) @ LESS COM'S
1240 GO TO 1280
1250 G(J,1)=G(J,1)+1000 @ BUY: COST BAL.
1260 O(J,1)=O(J,1)+(1000/B(5)) @ NO. OF SHARES
1270 Q(J,1)=Q(J,1)+((1000-.013*1000-12)/B(5)) @ LESS COM'S
1280 V(1,E(1))=U(5) @ SAVE WK. OF THIS TRANS.
1290 IF E(1)=1 GO TO 1350 @ IF 1ST TRANS, DON'T SUM
1300 M(1)=V(1,E(1))-V(1,(E(1)-1)) @ NO. OF WKS BET. TRANS.
1310 A(15)=M(1)+A(15) @ SAVE NO. OF WKS IN WAR. INV. PER.
1320 Z(J,1)=M(1)+G(J,1)+Z(J,1) @ COMPUTE WTD. COST BAL.
1330 GO TO 1350
1340 E(0)=E(0)+1 @ COUNTER FOR <1S DATA POINTS
1342 IF E(6)=(R(J)-R(J-1)) GO TO 1370
1350 NEXT I
1360 REM COMPUTE STD RETURN
1370 K(J,6)=O(J,6)*B(5) @ CLOSE-OUT INITIAL STD. BUY
1380 P(J,6)=Q(J,6)*B(5) @ LESS COM'S
1390 L(J,6)=((K(J,6)-G(J,6))/G(J,6))*100 @ STD RET.
1400 F(J,6)=((P(J,6)-G(J,6))/G(J,6))*100 @ LESS COM'S
1410 L(J,6)=L(J,6)/E(6) @ STD AKLY RET.
1420 F(J,6)=F(J,6)/E(6) @ LESS COM'S
1430 FOR N=1 TO 5
1435 IF E(N)=0 GO TO 1600 @ NO TRANSACTIONS FOR THIS DECISION RULE
1440 E(N)=E(N)+1 @ INCREASE COUNTENS FOR CLOSE-OUT TRANS.
1450 V(N,E(N))=U(5) @ SAVE LAST TRANS
1460 M(N)=V(N,E(N))-V(N,(E(N)-1)) @ NO. OF WKS BET. LAST TWO TRANS.
1470 A(14+N)=M(N)+A(14+N) @ SUM OF WKS IN WAR. INV. PER.
1480 Z(J,N)=M(N)+G(J,N)+Z(J,N) @ SUM OF FINAL WTD COST BAL.
1490 D(J,N)=Z(J,N)/A(14+N) @ AVE. WKLY COST BAL.
1510 K(J,N)=O(J,N)*B(5)-G(J,N) @ CLOSE-OUT PROFIT
1520 P(J,N)=G(J,N)*B(5)-G(J,N) @ LESS COM'S
1560 L(J,N)=((K(J,N)/A(14+N))/D(J,N))*100 @ WKLY % RET.
1570 F(J,N)=((P(J,N)/A(14+N))/D(J,N))*100 @ LESS COM'S

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1580 T(I,J,N)=E(N) @ SAVE COUNTER PER DECISION RULE PER WAR.
1590 E(N)=0 @ INITIALIZE ALL COUNTERS EXCEPT E(1) & E(6)
1600 NEXT N
1610 T(I,J,0)=E(1) @SAVE 15 COUNTER
1620 NEXT J
1630 FOR N=1 TO 6 @ FOR ALL DECISION RULES
1640 FOR J=1 TO A(7) @ FOR ALL WAR.'S
1650 X(1,N)= L(J,N)+ X(1,N) @ SUM RET.'S
1660 X(2,N)= F(J,N)+X(2,N) @ LESS COM.'S
1670 NEXT J
1680 X(3,N)= X(1,N)/A(7) @ MEANS PER DECISION RULE
1690 X(4,N)= X(2,N)/A(7) @ LESS COM.'S
1700 NEXT N
1702 FOR N=1 TO 5 @ COMPUTE COMPONENTS OF T VALUE
1704 FOR J=1 TO A(7)
1706 X(5,N)=X(5,N)+(L(J,N)-X(3,6))@ SUMOFD1'S
1708 X(6,N)=X(6,N)+(L(J,N)-X(3,6))**2@SUM OF D1'S 2
1710 X(7,N)=X(7,N)+(F(J,N)-X(4,6)) @ SUM OF D1'S-LESS COM'S
1712 X(8,N)=X(8,N)+(F(J,N)-X(4,6))** 2@LESS COM'S
1714 NEXT J
1716 X(9,N)=X(5,N)**2@ SQR SUM OF D1'S
1718 X(10,N)=X(7,N)**2 @ SQR SUM OF D1'S LESS COM'S
1720 A(20*N)= X(3,N)-X(3,6) @ MEAN D1-C
1722 A (30*N)= X(4,N)-X(4,6) @ MEAN D1-C LESS COM'S
1724 A(40*N)=(X(6,N)-X(9,N)/A(7))/(A(7)-1)@ S2
1726 A(50*N)=(X(8,N)-X(10,N)/A(7))/(A(7)-1)@ S2 LESS COM'S
1728 A(60*N)= SQR(A(40*N)/A(7)) @ STD. ERROR/RULE
1730 A(70*N)= SQR(A(50*N)/A(7)) @LESS COM'S
1740 X(11,N)=A(20*N)/A(60*N) @ T VALUE/RULE
1750 X(12,N)=A(30*N)/A(70*N) @ LESS COM'S
1760 X(5,N)=0
1770 X(6,N)=0
1780 X(7,N)=0
1790 X(8,N)=0
1800 NEXT N
1810 FOR N=0 TO 5 @ FOR EACH DECISION RULE
1820 FOR J=1 TO A(7) @ FOR EACH WAR., SUM TRANS.
1830 H(30*N)= T (J,N) + H(30*N)
1832 H(50*N)=H(50*N)+1
1834 IF T(J,N)<>0 GO TO 1840
1836 H(50*N)=H(50*N)-1
1840 NEXT J
1850 H(40)= H(40)+H(30*N) @ SUM OF COUNTERS
1860 NEXT N
1890 B$(2)= ' AVERAGE WEEKLY PERCENTAGE RETURNS '
1900 B$(3)= ' WITHOUT COMMISSIONS '
1910 B $(4)= ' WITH COMMISSIONS'
1920 B$(5)= ' NUMBER OF TRANSACTIONS'
1930 B$(6)= ' FILTER DECISIONS RULES'
1940 B$(7)='BUY & HOLD'
1950 B$(8)= ' STANDARD'
1960 B$(9)='-----'
1970 B$(10)='WARRANTS'
1980 B$(11)='TOTALS'
1990 B$(12)='-----'
2000 B$(13)='-----'
2010 B$(14)='MEANS:'

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2020 BS(15)='T VALUES'
2030 BS(16)='0-15'
2040 BS(17)='1-1.255'
2050 BS(18)='1.25-1.55'
2060 BS(19)='1.5-1.755'
2070 BS(20)='1.75-25'
2080 BS(21)='25+'
2090 BS(22)='-----'
2100 BS(23)='-----'
2110 BS(24)='-----'
2120 BS(25)='LOCATION OF DATA POINTS'
2122 BS(26)='RULES'
2124 BS(27)='POINTS'
2126 BS(28)='DATA'
2127 BS(33)='ACTIVE RULES'
2128 BS(29)='ACTIVE'
2129 BS(30)='-----'
2130 PRINT
2140 PRINT
2142 FOR J=1 TO A(7)  QSUM # OF TRANSACTIONS/WAR. FOR ALL DEC.*5
2144 M(41)= M(41)+T(J,0)+T(J,1)+ T(J,2)+ T(J,3)+T(J,4)+T(J,5)
2146 NEXT J
2150 PRINT
2160 PRINT TAB(58);BS(1)
2170 PRINT
2180 PRINT TAB(45);BS(2)
2185 PRINT TAB(53);BS(3)
2190 PRINT
2200 PRINT TAB(50);BS(6);TAB(110);BS(7)
2210 PRINT TAB(5);BS(10);TAB(35);BS(17);TAB(47);BS(18);
2220 PRINT TAB(59);BS(19);TAB(71);BS(20);TAB(84);BS(21);
2230 PRINT TAB(110);BS(8)
2240 PRINT TAB(5);BS(9);TAB(35);BS(12);TAB(47);BS(24);
2250 PRINT TAB(59);BS(24);TAB(71);BS(12);TAB(83);BS(13);
2260 PRINT TAB(111);BS(9)
2270 FOR J=1 TO A(7)  # FOR EACH WARRANT
2280 PRINT
2290 PRINT TAB(2);J;TAB(6);AS(J);TAB(35);L(J,1);
2300 PRINT TAB(47);L(J,2);TAB(59);L(J,3);TAB(71);L(J,4);
2310 PRINT TAB(83);L(J,5);TAB(111);L(J,6)
2320 NEXT J
2330 PRINT
2340 PRINT TAB(28);BS(14);TAB(35);X(3,1);TAB(47);X(3,2);
2350 PRINT TAB(59);X(3,3);TAB(71);X(3,4);TAB(83);X(3,5);
2360 PRINT TAB(111);X(3,6)
2370 PRINT
2380 TAB(25);BS(15);TAB(35);X(11,1);TAB(47);X(11,2);
2390 PRINT TAB(59);X(11,3);TAB(71);X(11,4);TAB(83);X(11,5)
2400 PRINT
2410 PRINT
2420 PRINT
2430 PRINT
2440 PRINT TAB(58);BS(1)
2450 PRINT
2460 PRINT TAB(45);BS(2)
2470 PRINT TAB(52);BS(4)
2480 PRINT

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2490 PRINT TAB(50);BS(6);TAB(110);BS(7)
2500 PRINT TAB(5);BS(10);TAB(35);BS(17);TAB(47);BS(18);
2510 PRINT TAB(59);BS(19);TAB(71);BS(20);TAB(84);BS(21);
2520 PRINT TAB(110);BS(18)
2530 PRINT TAB(5);BS(9);TAB(35);BS(12);TAB(47);BS(24);
2540 PRINT TAB(59);BS(24);TAB(71);BS(12);TAB(83);BS(13);
2550 PRINT TAB(111);BS(9)
2560 FOR J=1 TO A(7) : FOR EACH WARRANT
2570 PRINT
2580 PRINT TAB(2);J;TAB(6);AS(J);TAB(35);F(J,1);
2590 PRINT TAB(47);F(J,2);TAB(59);F(J,3);TAB(71);F(J,4);
2600 PRINT TAB(83);F(J,5);TAB(111);F(J,6)
2610 NEXT J
2620 PRINT
2630 PRINT TAB(28);BS(14);TAB(35);X(4,1);TAB(47);X(4,2);
2640 PRINT TAB(59);X(4,3);TAB(71);X(4,4);TAB(83);X(4,5);
2650 PRINT TAB(111);X(4,6)
2660 PRINT
2670 PRINT TAB(25);BS(15);TAB(35);X(12,1);TAB(47);X(12,2);
2680 PRINT TAB(59);X(12,3);TAB(71);X(12,4);TAB(83);X(12,5)
2690 PRINT
2700 PRINT
2710 PRINT
2720 PRINT
2730 PRINT TAB(65);BS(1)
2740 PRINT
2750 PRINT TAB(55);BS(5)
2760 PRINT
2770 PRINT TAB(55);BS(25);TAB(116);BS(28);TAB(124);BS(29)
2780 PRINT TAB(5);BS(10);TAB(40);BS(16);TAB(50);BS(17);
2790 PRINT TAB(60);BS(18);TAB(70);BS(19);TAB(80);BS(20);
2800 PRINT TAB(90);BS(21);TAB(98);BS(11);
2802 PRINT TAB(116);BS(27);TAB(124);BS(26)
2810 PRINT TAB(5);BS(9);TAB(40);BS(22);TAB(50);BS(12);
2820 PRINT TAB(60);BS(24);TAB(70);BS(24);TAB(80);BS(12);
2830 PRINT TAB(89);BS(13);TAB(98);BS(30);
2832 PRINT TAB(116);BS(30);TAB(124);BS(13)
2840 FOR J=1 TO A(7) : FOR EACH WARRANT
2842 M(49)=T(J,0)+T(J,1)+T(J,2)+T(J,3)+T(J,4)+T(J,5)
2844 M(48)=M(48)+(R(J)-R(J-1))
2850 PRINT
2860 PRINT TAB(2);J;TAB(6);AS(J);TAB(40);T(J,0);
2870 PRINT TAB(50);T(J,1);TAB(60);T(J,2);TAB(70);T(J,3);
2880 PRINT TAB(80);T(J,4);TAB(90);T(J,5);
2890 PRINT TAB(98);M(49);TAB(116);(R(J)-R(J-1));TAB(124);(M(49)-(R(J)-R(J-1)))
2900 NEXT J
2910 PRINT
2920 PRINT TAB(30);BS(11);TAB(40);M(30);TAB(50);M(31);
2930 PRINT TAB(60);M(32);TAB(70);M(33);TAB(80);M(34);
2940 PRINT TAB(90);M(35);TAB(98);M(40);TAB(116);M(48);TAB(124);(M(40)-M(48))
2950 PRINT
2990 PRINT TAB(30);BS(33);TAB(50);M(51);TAB(60);M(52);TAB(70);M(53);
2995 PRINT TAB(80);M(54);TAB(90);M(55);TAB(98);(M(51)+M(52)+M(53)+M(54)+M(55))
3000 END

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END BASIC. 23:11:16 1 AUG 73

APPENDIX F
INDIVIDUAL WARRANT DATA
PER SAMPLE

SAMPLE A

1 AFFILIATED CAPITAL

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
41	7.75	11.5	115.00	74.0918	52.3975	21.6943	51.3842	>1.25-1.5<<<
42	7.63	11.75	117.50	72.9446	54.2927	18.6518	47.1869	>1.25-1.5<<<
43	8	12.38	123.80	76.4818	59.1428	17.339	42.5540	>1-1.25<<
44	7.63	12	120.00	72.9446	56.2050	16.7396	44.1205	>1-1.25<<
45	7.63	11.5	115.00	72.9446	52.3975	20.547	50.3866	>1.25-1.5<<<
46	7.38	10.88	108.80	70.5545	47.7750	22.7795	56.7596	>1.5-1.75<<<<
47	6.75	10.75	107.50	64.5315	46.8205	17.7111	53.0526	>1-1.25<<
48	7.13	11.25	112.5	68.1644	50.5199	17.6445	49.4795	>1-1.25<<
49	7.13	11	110.00	68.1644	48.6607	19.5038	52.8768	>1.25-1.5<<<
50	6.88	11	110.00	65.7744	48.6607	17.1137	50.7040	>1-1.25<<
51	8	12.38	123.80	76.4818	59.1428	17.339	42.5540	>1-1.25<<
52	7.88	12.5	125	75.3346	60.0781	15.2565	40.2677	>1-1.25<<
53	7.75	12	120.00	74.0918	56.2050	17.8868	45.0765	>1-1.25<<
54	7.5	12.13	121.30	71.7017	57.2059	14.4958	41.5513	1<
55	7.13	11.88	118.80	68.1644	55.285	12.8794	41.5526	1<
56	6.88	11.75	117.50	65.7744	54.2927	11.4816	41.0846	1<
57	7	11.25	112.5	66.9216	50.5199	16.4017	48.3748	>1-1.25<<
58	6.63	10.75	107.50	63.3843	46.8205	16.5639	51.9854	>1-1.25<<
59	6.63	11	110.00	63.3843	48.6607	14.7236	48.5312	>1-1.25<<
60	6.25	10.38	103.80	59.7514	44.1334	15.616	53.9031	>1-1.25<<
61	5.5	9.75	97.50	52.5813	39.6648	12.9165	56.4936	1<
62	5.13	9.13	91.30	49.0440	35.4093	13.6346	63.2464	1<
63	5.63	9.25	92.50	53.8241	36.2213	17.6028	66.2963	>1-1.25<<
64	6.38	10.75	107.50	60.9943	46.8205	14.1738	49.7621	1<
65	5.88	10	100	56.2142	41.4214	14.7928	56.2141	>1-1.25<<
66	5.75	9.75	97.50	54.9713	39.6648	15.3065	58.9449	>1-1.25<<
67	5.88	10.88	108.80	56.2142	47.7750	8.43919	43.5792	1<
68	6	10.38	103.80	57.3614	44.1334	13.2280	51.8006	1<
69	6.75	11.5	115.00	64.5315	52.3975	12.134	43.0709	1<
70	6.25	10.63	106.30	59.7514	45.9441	13.8073	50.2836	1<
71	6.5	11.25	112.5	62.1415	50.5199	11.6216	44.1258	1<
72	6.5	11.5	115.00	62.1415	52.3975	9.74399	40.9926	1<
73	6	10.88	108.80	57.3614	47.7750	9.58642	44.6336	1<
74	6.38	11.5	115.00	60.9943	52.3975	8.59676	39.995	1<
75	5.75	11.5	115.00	54.9713	52.3975	2.57382	34.7577	1<
76	5.88	10.25	102.50	56.2142	43.2	13.0141	52.4041	1<
77	5.5	10.25	102.50	52.5813	43.2	9.38123	48.8598	1<
78	5.25	10.25	102.50	50.1912	43.2	6.99117	46.528	1<
79	5.25	10.13	101.30	50.1912	42.3436	7.84764	48.2638	1<
80	5.13	10	100	49.0440	41.4214	7.62262	49.0440	1<
81	4.63	8.75	87.5	44.2639	32.8768	11.387	64.8730	1<
82	4.38	8.25	82.50	41.8738	29.6389	12.2349	71.9682	1<
83	4.25	8	80.00	40.6310	28.0625	12.5685	75.7887	1<
84	4.13	7.75	77.50	39.4837	26.5158	12.9679	79.979	1<
85	3.75	7.63	76.30	35.8509	25.7843	10.0666	78.0483	1<
86	3.63	7.63	76.30	34.7036	25.7843	8.91934	76.5447	1<
87	4	8	80.00	38.2409	28.0625	10.1784	72.8011	1<
88	3.75	7.75	77.50	35.8509	26.5158	9.33505	75.2914	1<
89	4.38	8.25	82.50	41.8738	29.6389	12.2349	71.9682	1<
90	4.38	7.88	78.80	41.8738	27.3163	14.5575	80.0429	1<

91	4.25	7.75	77.50	40.6310	26.5158	14.1152	81.4593	1<
92	4.13	7.75	77.50	39.4837	26.5158	12.9679	79.979	1<
93	3.63	7.63	76.30	34.7036	25.7843	8.91934	76.5447	1<
94	3.63	7.63	76.30	34.7036	25.7843	8.91934	76.5447	1<
95	3.63	7.5	75	34.7036	25	9.70363	79.6048	1<
96	3.5	7.25	72.50	33.4608	23.5162	9.94461	84.0839	1<
97	3.63	7.13	71.30	34.7036	22.8157	11.8880	88.9252	1<
98	3.63	7	70.00	34.7036	22.0656	12.6381	92.4338	1<
99	4	7.5	75	38.2409	25	13.2409	84.3212	1<
100	3.63	7.75	77.50	34.7036	26.5158	8.18783	73.8111	1<
101	3.53	7.5	75	33.7476	25	8.74761	78.3301	1<
102	4	8.25	82.50	38.2409	29.6389	8.6020	67.5648	1<
103	4.13	8.13	81.30	39.4837	28.8786	10.6052	71.5667	1<
104	3.63	7.5	75	34.7036	25	9.70363	79.6048	1<
105	3.5	7.5	75	33.4608	25	8.4608	77.9477	1<
106	3.88	7.5	75	37.0937	25	12.0937	82.7916	1<

2 AMERICAN CENTURY INVESTORS

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
55	7.25	27.88	121.217	31.5217	57.1421	-25.6204	8.50072	>1.5-1.75<000
56	7.88	28.88	125.565	34.2609	60.5199	-26.2590	6.92521	>1.75-2<0000
57	8.13	28.75	125	35.3478	60.0781	-24.7303	8.27826	>1.5-1.75<000
58	7.75	28.13	122.304	33.6957	57.9821	-24.2865	9.3139	>1.5-1.75<000
59	6.88	27	117.391	29.913	54.210	-24.2969	10.6667	>1.5-1.75<000
60	7.25	28.13	122.304	31.5217	57.9821	-26.4604	7.53644	>1.75-2<0000
61	7.13	27.75	120.652	31.0	56.7066	-25.7066	8.57658	>1.5-1.75<000
62	5.75	24.25	105.435	25	45.3151	-20.3151	18.5567	>1.25-1.5<000
63	5.88	26.5	115.217	25.5652	52.5616	-26.9964	8.98113	>1.75-2<0000
64	6.13	27.38	119.043	26.6522	55.4714	-28.8192	6.39153	>1.75-2<0000
65	5.5	25.38	110.348	23.913	48.9182	-25.0052	12.2931	>1.5-1.75<000
66	5.25	24.88	108.174	22.8261	47.3146	-24.4885	13.545	>1.5-1.75<000
67	5	25	108.696	21.7391	47.6982	-25.959	12.0	>1.75-2<0000
68	5.63	25.63	111.435	24.4783	49.7254	-25.2472	11.705	>1.5-1.75<000
69	5.75	26.75	116.304	25	53.3842	-28.3842	7.47664	>1.75-2<0000
70	5.75	26.88	116.870	25	53.8132	-28.8132	6.75685	>1.75-2<0000
71	5.38	25.88	112.522	23.3913	50.5362	-27.1449	9.65997	>1.75-2<0000
72	5.5	26	113.043	23.913	50.9266	-27.0135	9.61538	>1.75-2<0000
73	5.38	26.75	116.304	23.3913	53.3842	-29.9929	6.09346	>2<0000
74	5.25	26.88	116.870	22.8261	53.8132	-30.9671	5.09673	>2<0000
75	5.63	27	117.391	24.4783	54.210	-29.7317	6.03704	>2<0000
76	5.88	27.75	120.652	25.5652	56.7066	-31.1413	4.07207	>2<0000
77	6.38	28.5	123.913	27.7391	59.2308	-31.4917	3.08772	>2<0000
78	5.75	27.63	120.13	25	56.3052	-31.3052	4.05357	>2<0000
79	5.75	27.75	120.652	25	56.7066	-31.7066	3.6036	>2<0000
80	5.38	27.5	119.565	23.3913	55.8712	-32.4799	3.2	>2<0000
81	6	28.13	122.304	26.0870	57.9821	-31.8952	3.09278	>2<0000
82	5.88	28.38	123.391	25.5652	58.8251	-33.2599	1.76181	>2<0000
83	5.75	28.5	123.913	25	59.2308	-34.2308	0.877194	>2<0000
84	5.5	28.38	123.391	23.913	58.8251	-34.9121	0.422834	>2<0000
85	5	27.63	120.13	21.7391	56.3052	-34.5661	1.33913	>2<0000
86	4.75	27.25	118.478	20.6522	55.039	-34.3868	1.83486	>2<0000
87	4.5	27.25	118.478	19.5652	55.039	-35.4738	0.917432	>2<0000
88	4.75	28	121.739	20.6522	57.5450	-36.8928	0.892857	>2<0000
89	4.75	27.18	118.174	20.6522	54.8066	-34.1544	2.09713	>2<0000
90	4.5	27.75	120.652	19.5652	56.7066	-37.1413	0.4009	>2<0000
91	4.5	26.63	115.783	19.5652	52.9889	-33.4237	3.26699	>2<0000
92	4.25	26.25	114.13	18.4783	51.7424	-33.2641	3.80952	>2<0000
93	4	25.63	111.435	17.3913	49.7254	-32.3341	5.3453	>2<0000
94	4	25.75	111.957	17.3913	50.1142	-32.7229	4.85437	>2<0000
95	4.38	26.88	116.870	19.0435	53.6132	-34.7697	1.86012	>2<0000
96	3.88	25.75	111.957	16.8696	50.1142	-33.2446	4.38835	>2<0000
97	3.63	25.62	111.391	15.7826	49.6931	-33.9105	3.94223	>2<0000
98	3.63	25	108.696	15.7826	47.6982	-31.9155	6.52	>2<0000
99	3.63	25.75	111.957	15.7826	50.1142	-34.3316	3.41748	>2<0000
100	3.88	27	117.391	16.8696	54.210	-37.3404	0.444444	>2<0000
101	3.88	25.5	110.870	16.8696	49.3053	-32.4357	5.41177	>2<0000
102	3.75	26	113.043	16.3043	50.9266	-34.6222	2.88462	>2<0000
103	3.88	25.88	112.522	16.8696	50.5362	-33.6666	3.86399	>2<0000
104	4	26	113.043	17.3913	50.9266	-33.5353	3.84615	>2<0000
105	3.5	25.25	109.783	15.2174	48.4999	-33.2825	4.95050	>2<0000

3 AMERICAN MOTORS

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	2.5	6.88	57.3333	20.8333	15.2697	5.5636	110.756	1<
2	2.63	7.25	60.4167	21.9167	16.8340	5.08271	101.793	1<
3	2.5	7.13	59.4167	20.8333	16.320	4.51334	103.366	1<
4	2.5	7.13	59.4167	20.8333	16.320	4.51334	103.366	1<
5	2.25	6.5	54.1667	18.75	13.7279	5.02213	119.231	1<
6	2.25	6.5	54.1667	18.75	13.7279	5.02213	119.231	1<
7	2.25	6.25	52.0833	18.75	12.7505	5.99951	128.0	1<
8	2.13	6.38	53.1667	17.75	13.2550	4.495	121.473	1<
9	2	6	50	16.6667	11.8034	4.86327	133.333	1<
10	2	6	50	16.6667	11.8034	4.86327	133.333	1<
11	2	6	50	16.6667	11.8034	4.86327	133.333	1<
12	2	6.25	52.0333	16.6667	12.7505	3.91617	124.0	1<
13	1.88	5.63	46.9167	15.6667	10.4589	5.20774	146.536	1<
14	1.88	5.63	46.9167	15.6667	10.4589	5.20774	146.536	1<
15	1.88	6.25	52.0833	15.6667	12.7505	2.91618	122.08	1<
16	2	5.88	49.0	16.6667	11.3598	5.30689	138.095	1<
17	2.63	6.88	57.3333	21.9167	15.2697	6.64694	112.645	1<
18	2.5	7	58.3333	20.8333	15.7704	5.06297	107.143	1<
19	2.63	7	58.3333	21.9167	15.7704	6.1463	109.0	1<
20	2.75	6.88	57.3333	22.9167	15.2697	7.64694	114.390	1<
21	3.25	7.88	65.6667	27.0833	19.6332	7.45010	93.5279	1<
22	2.88	7.5	62.5	24.0	17.9248	6.07524	98.40	1<
23	2.63	7.25	60.4167	21.9167	16.8340	5.06271	101.793	1<
24	2.75	7.25	60.4167	22.9167	16.8340	6.08271	103.448	1<
25	2.63	7.25	60.4167	21.9167	16.8340	5.08271	101.793	1<
26	2.63	7.5	62.5	21.9167	17.9248	3.9919	95.0667	1<
27	2.63	6.88	57.3333	21.9167	15.2697	6.64694	112.645	1<
28	2.5	6.88	57.3333	20.8333	15.2697	5.5636	110.756	1<
29	2.5	6.88	57.3333	20.8333	15.2697	5.5636	110.756	1<
30	2.63	7	58.3333	21.9167	15.7704	6.1463	109.0	1<
31	2.38	6.88	57.3333	19.8333	15.2697	4.5636	109.012	1<
32	2.5	6.88	57.3333	20.8333	15.2697	5.5636	110.756	1<
33	2.38	6.75	56.25	19.8333	14.7347	5.09859	113.037	1<
34	2.5	6.63	55.250	20.8333	14.2478	6.56552	118.703	1<
35	2.5	6.5	54.1667	20.8333	13.7279	7.10547	123.077	1<
36	2.38	6.5	54.1667	19.8333	13.7279	6.10547	121.231	1<
37	2.38	6.38	53.1667	19.8333	13.2550	6.57834	125.392	1<
38	2.25	6.63	55.250	18.75	14.2478	4.50219	114.932	1<
39	2	6.13	51.0833	16.6667	12.2921	4.37461	128.385	1<
40	2	6	50	16.6667	11.8034	4.86327	133.333	1<
41	2	6	50	16.6667	11.8034	4.86327	133.333	1<
42	1.88	6	50	15.6667	11.8034	3.86327	131.333	1<
43	2	6.25	52.0833	16.6667	12.7505	3.91617	124.0	1<
44	2	6.75	56.25	16.6667	14.7347	1.93192	107.407	1<
45	2.13	6.5	54.1667	17.75	13.7279	4.02213	117.385	1<
46	2.13	6.25	52.0833	17.75	12.7505	4.99951	126.08	1<
47	3.63	8.75	72.9167	30.25	23.7612	6.48878	78.6286	1<
48	2.25	6.75	56.25	18.75	14.7347	4.01525	111.111	1<
49	2.5	7.63	63.5833	20.8333	18.5025	2.33084	90.0393	1<
50	2.38	7.88	65.6667	19.8333	19.6332	2.00098	82.4873	1<

51	2.5	8.13	67.750	20.8333	20.7893	.044003	78.3518	1<
52	2.5	7.75	64.5833	20.8333	19.042	1.79130	87.0968	1<
53	2.5	7.63	63.5833	20.8333	18.5025	2.33084	90.0393	1<
54	2.5	7.5	62.5	20.8333	17.9248	2.90857	93.3333	1<
55	2.5	7.63	63.5833	20.8333	18.5025	2.33084	90.0393	1<
56	2.63	7.63	63.5833	21.9167	18.5025	3.41418	91.7431	1<
57	2.63	7.63	63.5833	21.9167	18.5025	3.41418	91.7431	1<
58	2.25	7	58.3333	18.75	15.7704	2.97963	103.571	1<
59	2.13	7.13	59.4167	17.75	16.320	1.43001	98.1767	1<
60	2.25	7.12	59.3333	18.75	16.2774	2.47256	100.14	1<
61	2.13	6.88	57.3333	17.75	15.2697	2.48027	105.378	1<
62	2	6.87	57.250	16.6667	15.2283	1.43836	103.785	1<
63	2	7.13	59.4167	16.6667	16.320	3.46676	96.3534	1<
64	2.13	7.13	59.4167	17.75	16.320	1.43001	98.1767	1<
65	2	7.25	60.4167	16.6667	16.8340	1.6729	93.1034	1<
66	2.13	7.13	59.4167	17.75	16.320	1.43001	98.1767	1<
67	2.25	7	58.3333	18.75	15.7704	2.97963	103.571	1<
68	2.25	6.88	57.3333	18.75	15.2697	3.48027	107.122	1<
69	3.25	7.75	64.5833	27.0833	19.042	8.04130	96.7742	1<
70	3	7.5	62.5	25	17.9248	7.07524	100	1<
71	2.88	7.63	63.5833	24.0	18.5025	5.49751	95.0197	1<
72	3	8	66.6667	25	20.185	4.81496	87.5	1<
73	3	7.63	63.5833	25	18.5025	6.49751	96.5924	1<
74	2.75	7.88	65.6667	22.9167	19.6332	3.28343	87.1827	1<
75	3	7.88	65.6667	25	19.6332	5.36677	90.3553	1<
76	2.75	7.13	59.4167	22.9167	16.320	6.59668	106.872	1<
77	2.88	7.25	60.4167	24.0	16.8340	7.16604	105.241	1<
78	3	7.25	60.4167	25	16.8340	8.16604	106.897	1<
79	2.88	6.88	57.3333	24.0	15.2697	8.73027	116.279	1<
80	2.88	6.88	57.3333	24.0	15.2697	8.73027	116.279	1<
81	2.88	6.88	57.3333	24.0	15.2697	8.73027	116.279	1<
82	2.88	7	58.3333	24.0	15.7704	8.22963	112.571	1<
83	2.88	7.5	62.5	24.0	17.9248	6.07524	98.40	1<
84	2.88	7.5	62.5	24.0	17.9248	6.07524	98.40	1<
85	3	8.25	68.75	25	21.353	3.64695	81.8182	1<
86	3.25	8.88	74.00	27.0833	24.4026	2.66076	71.7342	1<
87	3.13	8.5	70.8333	26.0833	22.5453	3.53799	78.0	1<
88	3.25	8.63	71.9167	27.0833	23.1747	3.90863	76.7092	1<
89	3.13	8.68	72.3333	26.0833	23.4184	2.66490	74.3088	1<
90	3	8.13	67.750	25	20.7893	4.21067	84.5018	1<
91	2.88	8.63	71.9167	24.0	23.1747	.8253	72.4218	1<
92	3	8.63	71.9167	25	23.1747	1.8253	73.8123	1<
93	3.25	8.88	74.00	27.0833	24.4026	2.68076	71.7342	1<
94	3.25	9	75	27.0833	25	2.06333	69.4444	1<
95	3.25	9.25	77.0833	27.0833	26.2610	.822334	64.8649	1<
96	3.5	9.5	79.1667	29.1667	27.5436	1.6231	63.1579	1<
97	3.63	10.13	84.4167	30.25	30.867	1.617007	54.2942	1<
98	4	10.75	89.5833	33.3333	34.2579	1.924527	48.8372	1<
99	3.63	10.5	87.5	30.25	32.8768	2.62682	48.8571	1<
100	3.88	10	83.3333	32.3333	30.1708	2.16251	58.8	1<
101	3.88	10.13	84.4167	32.3333	30.867	1.46633	56.7621	1<
102	3.5	9.5	79.1667	29.1667	27.5436	1.6231	63.1579	1<
103	3.63	9.13	76.0833	30.25	25.6530	4.59701	71.1939	1<
104	3.5	9	75	29.1667	25	4.16667	72.2222	1<
105	3.38	8.75	72.9167	28.1667	23.7612	4.40545	75.7714	1<
106	3.25	9.38	78.1667	27.0833	26.9253	.15805	62.580	1<

4 AMERICAN SHIPBUILDING

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
43	11.5	27.5	91.6667	36.5079	35.6568	.851099	48.9177	1<
44	11.25	27.13	90.4333	35.7143	34.8265	.887778	50.0711	1<
45	11.25	27	90.00	35.7143	34.5362	1.17605	50.7937	1<
46	9.75	25.13	83.7667	30.9524	30.4487	.503717	56.3299	1<
47	10.5	25.5	85.00	33.3333	31.244	2.08929	56.8627	1<
48	9.75	25.5	85.00	30.9524	31.244	-.291664	54.0616	1<
49	11.75	28.63	95.4333	37.3016	38.230	-.926369	43.8717	1<
50	10.75	27.5	91.6667	34.1270	35.6568	-1.52965	46.3203	1<
51	12	29.38	97.9333	38.0952	39.9676	-1.87239	41.0094	1<
52	14	30.75	102.50	44.4444	43.2	1.24441	40.9214	1<
53	14.75	33.38	111.267	46.8254	49.6004	-2.77497	31.9561	1<
54	13.75	30.38	101.267	43.6508	42.3198	1.33095	41.8540	1<
55	15.5	33.75	112.5	49.2063	50.5199	-1.31358	32.6279	1<
56	14.75	34.5	115.00	46.8254	52.3975	-5.57211	27.6743	1<
57	14.5	34.5	115.00	46.0317	52.3975	-6.36576	26.9641	1<
58	13.5	31.88	106.267	42.8571	45.9199	-3.06271	34.4327	1<
59	12.5	31.13	103.767	39.6825	44.1094	-4.42666	34.6122	1<
60	13.63	33.75	112.5	43.2698	50.5199	-7.25009	27.3510	1<
61	15	35.25	117.50	47.619	54.2927	-6.67369	25.6332	1<
62	14.75	33.12	110.40	46.8254	48.9569	-2.13151	32.994	1<
63	14.25	35.5	118.333	45.2381	54.9283	-9.6902	22.7364	1<
64	16.63	38	126.667	52.7937	61.3829	-8.56926	20.6266	1<
65	17.25	38	126.667	54.7619	61.3829	-6.62101	22.1805	1<
66	17.5	39.88	132.933	55.5556	66.3468	-10.7913	17.0177	1<
67	18.38	38.5	128.333	58.3492	62.6943	-4.34512	23.3890	1<
68	18	39.13	130.433	57.1429	64.3559	-7.21302	20.4775	1<
69	17.25	39.75	132.50	54.7619	66.0608	-11.2368	16.8014	1<
70	17.25	39.88	132.933	54.7619	66.3468	-11.5849	16.4207	1<
71	16.75	42.25	140.833	53.1746	72.7253	-19.5507	8.76303	>1.25-1.5<00
72	18.5	41.5	138.333	58.7302	70.693	-11.9629	14.7447	1<
73	18.38	43	143.333	58.3492	74.7697	-16.4205	10.4762	>1-1.25<0
74	16.75	38.88	129.60	53.1746	63.6953	-10.5207	18.1903	1<
75	16	36	126.667	50.7937	61.3829	-10.5893	19.0476	1<
76	16.75	39.25	130.833	53.1746	64.6735	-11.4989	17.0761	1<
77	16.63	38.75	129.167	52.7937	63.3525	-10.5588	18.2919	1<
78	16.25	37.25	124.167	51.5873	59.4282	-7.84093	22.0837	1<
79	16	38.75	129.167	50.7937	63.3525	-12.5568	16.7435	1<
80	16.25	38	126.667	51.5873	61.3829	-9.79561	19.6742	1<
81	15.5	37	123.333	49.2063	56.7801	-9.57372	20.9781	1<
82	15.25	37	123.333	48.4127	56.7801	-10.3674	20.3346	1<
83	15.63	38.13	127.10	49.619	61.7232	-12.1042	17.7176	1<
84	16.38	36.75	122.50	52.0	58.1336	-6.13365	24.0816	1<
85	15.75	36.75	122.50	50	58.1336	-8.13364	22.4490	1<
86	15.25	34.25	114.167	48.4127	51.7697	-3.35695	29.9965	1<
87	16.5	37.63	125.433	52.3810	60.4167	-8.03576	21.4836	1<
88	16.38	37.5	125	52.0	60.0781	-8.07811	21.60	1<
89	16.13	36.75	122.50	51.2063	56.1336	-6.92730	23.4338	1<
90	15.5	35	116.667	49.2063	53.6591	-4.45272	27.8912	1<
91	15.5	35.25	117.50	49.2063	54.2927	-5.08639	26.9841	1<

92	15.25	34.25	114.167	48.4127	51.7697	-3.35695	29.9965	1<
93	14.25	33.75	112.5	45.2381	50.5199	-5.28184	29.1005	1<
94	14.5	34.25	114.167	46.0317	51.7697	-5.73791	27.911	1<
95	14.25	35.63	118.767	45.2381	55.2595	-10.0214	22.2886	1<
96	14	36.13	120.433	44.4444	56.5381	-12.0937	19.9373	1<
97	14.25	36	120.00	45.2381	56.2050	-10.9669	21.0317	1<
98	13	31.5	105.00	41.2698	45.00	-3.73016	34.5427	1<
99	14	33.63	112.10	44.4444	50.2212	-5.77676	28.8532	1<
100	12.75	32.5	108.333	40.4762	47.4317	-6.95552	29.6703	1<
101	11	32.5	108.333	34.9206	47.4317	-12.5111	24.5421	1<
102	11.25	32.5	108.333	35.7143	47.4317	-11.7174	25.2747	1<
103	11.25	33.13	110.433	35.7143	46.9816	-13.2673	22.8925	1<
104	10.75	31	103.333	34.1270	43.7977	-9.67071	29.8003	1<
105	9.5	29	96.6667	30.1587	39.0843	-8.92558	34.6470	1<
106	9.75	28.88	96.2667	30.9524	38.8066	-7.85421	36.0309	1<

5 AT+T

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	8	44.38	85.3462	15.3846	31.4685	-16.0839	35.196	>1-1.25<
2	8.38	45	86.5385	16.1154	32.2456	-16.1302	34.1778	>1-1.25<
3	8.38	45.13	86.7885	16.1154	32.4094	-16.2940	33.7913	>1-1.25<
4	8	44.25	85.0962	15.3846	31.3063	-15.9217	35.5932	>1-1.25<
5	7.88	43.63	83.9038	15.1538	30.5368	-15.3829	37.245	>1-1.25<
6	7.38	42.75	82.2115	14.1923	29.4555	-15.2632	38.9006	>1-1.25<
7	7.88	43.75	84.1346	15.1538	30.6852	-15.5314	36.8686	>1-1.25<
8	8.13	44.63	85.8269	15.6346	31.7811	-16.1465	34.73	>1-1.25<
9	8	45	86.5385	15.3846	32.2456	-16.861	33.3333	>1-1.25<
10	8.25	44	84.6154	15.8654	30.9953	-15.1299	36.9318	>1-1.25<
11	8.75	45.38	87.2692	16.8269	32.7250	-15.898	33.8695	>1-1.25<
12	10.13	47.75	91.8269	19.4808	35.7652	-16.2844	30.1152	>1-1.25<
13	10	48.13	92.5577	19.2308	36.2605	-17.0297	28.8178	>1-1.25<
14	10	49.25	94.7115	19.2308	37.7326	-18.5019	25.8883	>1-1.25<
15	10.63	49.75	95.6731	20.4423	38.3956	-17.9533	25.8894	>1-1.25<
16	10.13	48.75	93.75	19.4808	37.0732	-17.5924	27.4462	>1-1.25<
17	11	50.75	97.5962	21.1538	39.7319	-18.5781	24.1379	>1-1.25<
18	11.88	52.88	101.692	22.8462	42.623	-19.7769	20.8018	>1-1.25<
19	11.75	52.63	101.212	22.5962	42.2806	-19.6845	21.1286	>1-1.25<
20	11.88	53.63	103.135	22.8462	43.6550	-20.6088	19.1124	>1-1.25<
21	11.25	52	100	21.6346	41.4214	-19.7867	21.6346	>1-1.25<
22	11.5	52.5	100.962	22.1154	42.1029	-19.9875	20.9524	>1-1.25<
23	10.5	48.88	94.00	20.1923	37.2443	-17.0520	27.8642	>1-1.25<
24	10.5	49	94.2308	20.1923	37.4025	-17.2102	27.551	>1-1.25<
25	11	49.25	94.7115	21.1538	37.7326	-16.5788	27.9188	>1-1.25<
26	11.25	48.5	93.2692	21.6346	36.7448	-15.1102	30.4124	>1-1.25<
27	11.13	48.88	94.00	21.4038	37.2443	-15.8405	29.153	>1-1.25<
28	10.88	49	94.2308	20.9231	37.4025	-16.4794	28.3265	>1-1.25<
29	11.13	49	94.2308	21.4038	37.4025	-15.9986	28.8367	>1-1.25<
30	11.63	50.5	97.1154	22.3654	39.3965	-17.0312	26.0	>1-1.25<
31	11.75	51.13	98.3269	22.5962	40.2433	-17.6471	24.6822	>1-1.25<
32	10.63	48.63	93.5192	20.4423	36.9155	-16.4732	28.7888	>1-1.25<
33	10.38	48.38	93.0385	19.9615	36.5875	-16.6260	28.9376	>1-1.25<
34	10	47.88	92.0769	19.2308	35.9344	-16.7036	29.4904	>1-1.25<
35	9.5	46.88	90.1538	18.2692	34.6392	-16.370	31.186	>1-1.25<
36	8.5	45.75	87.9808	16.3462	33.1939	-16.8477	32.2404	>1-1.25<
37	8.88	45.25	87.0192	17.0769	32.5607	-15.4838	34.5414	>1-1.25<
38	9	44.5	85.5769	17.3077	31.6184	-14.3107	37.0787	1<
39	9.63	45.75	87.9808	18.5192	33.1939	-14.6747	34.7104	1<
40	9.25	44.75	86.0577	17.7885	31.9315	-14.1431	36.8715	1<
41	9.25	44.75	86.0577	17.7885	31.9315	-14.1431	36.8715	1<
42	9.5	45.25	87.0192	18.2692	32.5607	-14.2915	35.9116	1<
43	9.88	46.75	89.9038	19.0	34.4719	-15.4719	32.3636	>1-1.25<
44	9.13	45.25	87.0192	17.5577	32.5607	-15.003	35.0939	>1-1.25<
45	8.88	44.5	85.5769	17.0769	31.6184	-14.5415	36.8090	1<
46	8.75	44.13	84.8654	16.8269	31.1569	-14.330	37.6615	1<
47	8.5	42.88	82.4615	16.3462	29.6144	-13.2683	41.0914	1<
48	9	44.5	85.5769	17.3077	31.6184	-14.3107	37.0787	1<
49	8.5	44	84.6154	16.3462	30.9953	-14.6491	37.5	1<

50	8.38	43	82.6923	16.1154	29.7614	-13.646	40.4186	1<
51	8.5	43.63	83.9038	16.3462	30.5368	-14.1906	38.6661	1<
52	8.13	43	82.6923	15.6346	29.7614	-14.1268	39.8372	1<
53	8.13	42.63	81.9808	15.6346	29.3091	-13.6745	41.0509	1<
54	7.75	42.25	81.25	14.9038	28.8471	-13.9432	41.4201	1<
55	8.25	44.13	84.8654	15.8654	31.1569	-15.2915	36.5284	>1-1.25<
56	8.25	44.75	86.0577	15.8654	31.9315	-16.0661	34.6369	>1-1.25<
57	7.5	43.13	82.9423	14.4231	29.9208	-15.4978	37.955	>1-1.25<
58	7.38	42.25	81.25	14.1923	28.8471	-14.6547	40.5444	1<
59	7	42.13	81.0192	13.4615	28.7017	-15.401	40.0427	>1-1.25<
60	7.5	42.88	82.4615	14.4231	29.6144	-15.1914	38.7593	>1-1.25<
61	7.13	42.25	81.25	13.7115	28.8471	-15.1355	39.9527	>1-1.25<
62	7	41.63	80.0577	13.4615	28.0985	-14.6370	41.7247	>1-1.25<
63	6.88	41.88	80.5385	13.2308	28.3995	-15.1668	40.5922	1<
64	6.25	41.13	79.0962	12.0192	27.4998	-15.4806	41.6241	>1-1.25<
65	6.75	41.25	79.3269	12.9808	27.6431	-14.6623	42.4242	>1-1.25<
66	7.5	42.5	81.7308	14.4231	29.1508	-14.7277	40.0	>1-1.25<
67	7.88	43.25	83.1731	15.1530	30.6683	-14.9144	38.4509	>1-1.25<
68	8.63	44.75	86.0577	16.5962	31.9315	-15.3354	35.486	>1-1.25<
69	8.88	46.5	87.4231	17.0769	34.1510	-17.0741	30.9247	>1-1.25<
70	8.75	47.5	91.3462	16.8269	35.4405	-18.6135	27.8947	>1-25-1.5<
71	8.13	45.63	87.750	15.6346	33.0416	-17.4070	31.7773	>1-1.25<
72	7.75	44.75	86.0577	14.9038	31.9315	-17.0277	33.5196	>1-1.25<
73	7.75	45.25	87.0192	14.9038	32.5607	-17.6569	32.0442	>1-1.25<
74	7.25	43.63	83.9038	13.9423	30.5368	-16.5945	35.6011	>1-1.25<
75	7.38	44	84.6154	14.1923	30.9553	-16.8030	34.9545	>1-1.25<
76	7.5	43.63	83.9038	14.4231	30.5368	-16.1137	36.3741	>1-1.25<
77	8	44.25	85.0962	15.3846	31.3063	-15.9217	33.5932	>1-1.25<
78	7.88	45	86.5385	15.1538	32.2456	-17.0718	33.0667	>1-1.25<
79	7.88	44.5	85.5769	15.1538	31.6184	-16.4616	34.5618	>1-1.25<
80	7.38	43.13	82.9423	14.1923	29.9208	-15.7285	37.6788	>1-1.25<
81	7.38	43.38	83.4231	14.1923	30.2283	-16.0360	36.8834	>1-1.25<
82	7.25	43.13	82.9423	13.9423	29.9208	-15.9785	37.3754	>1-1.25<
83	7.25	42.88	82.4615	13.9423	29.6144	-15.6721	38.1763	>1-1.25<
84	7.25	43	82.6923	13.9423	29.7614	-15.8191	37.7907	>1-1.25<
85	7	42.88	82.4615	13.4615	29.6144	-16.1529	37.5933	>1-1.25<
86	7	42.63	81.9808	13.4615	29.3091	-15.8476	38.4002	>1-1.25<
87	6.88	42.5	84.6154	14.1923	30.9553	-15.920	38.5412	>1-1.25<
88	7.38	44	84.6154	14.1923	30.9553	-16.8030	34.9545	>1-1.25<
89	7.5	42.88	82.6923	14.4231	29.7614	-15.3383	38.3721	>1-1.25<
90	7.25	42.68	82.4615	13.9423	29.6144	-15.6721	38.1763	>1-1.25<
91	6.75	42.25	81.25	12.9808	28.8471	-15.8663	39.0533	>1-1.25<
92	6.88	42.63	81.9808	13.2308	27.3091	-16.0783	38.1187	>1-1.25<
93	6.25	41.5	79.8077	12.0192	27.9424	-15.9232	40.3614	>1-1.25<
94	6.13	41.88	80.5385	11.7865	28.3995	-16.6111	38.8013	>1-1.25<
95	6	41.88	80.5385	11.5385	28.3995	-16.8611	38.4909	>1-1.25<
96	5.75	41.63	80.0577	11.0577	28.0985	-17.0408	38.7221	>1-1.25<
97	6	41.88	80.5385	11.5385	28.3995	-16.8611	38.4909	>1-1.25<
98	5.75	41.75	80.2885	11.0577	28.2429	-17.1852	38.3234	>1-1.25<
99	5.75	41.88	80.5385	11.0577	28.3995	-17.3419	37.8940	>1-1.25<
100	5.63	41.88	80.5385	10.8269	28.3995	-17.5726	37.6075	>1-1.25<
101	6.38	44.38	85.3462	12.2692	31.4685	-19.1993	31.5457	>1-25-1.5<
102	6	43.5	83.6538	11.5385	30.3762	-18.8378	33.3333	>1-25-1.5<
103	5.75	43.88	84.3846	11.0577	30.8463	-19.7866	31.6089	>1-25-1.5<
104	5.88	44.63	85.8269	11.3077	31.7611	-20.4734	29.6886	>1-25-1.5<
105	6.5	46.38	89.1923	12.5	33.9973	-21.4973	26.1320	>1-25-1.5<
106	7.13	47.38	91.1154	13.7115	35.2849	-21.5734	24.7995	>1-25-1.5<

6 BENEFICIAL STANDARD MORTGAGE

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
41	4.75	19.38	96.90	23.75	39.2466	-15.4966	27.7090	>1-1.25<•
42	4.5	19.5	97.50	22.5	39.6648	-17.1648	25.641	>1-1.25<•
43	4.88	20	100	24.4	41.4214	-17.0214	24.40	>1-1.25<•
44	4.75	19.88	99.40	23.75	40.9977	-17.2477	24.4970	>1-1.25<•
45	4.38	19.5	97.50	21.9	39.6648	-17.7648	25.0256	>1-1.25<•
46	4.13	19.5	97.50	20.65	39.6648	-19.0148	23.7436	>1-1.25-1.5<••
47	4.13	19.25	96.250	20.65	38.795	-18.145	25.3507	>1-1.25<•
48	4.63	21	105.00	23.15	45.00	-21.850	17.2857	>1-1.25-1.5<••
49	4.38	20.75	103.750	21.9	44.0974	-22.1974	17.4940	>1-1.5-1.75<•••
50	5	21	105.00	25	45.00	-20.00	19.0476	>1-1.25-1.5<••
51	6	22.63	113.150	30.0	51.0064	-21.0064	14.8917	>1-1.25-1.5<••
52	6	22.63	113.150	30.0	51.0064	-21.0064	14.8917	>1-1.25-1.5<••
53	6	23.63	118.150	30.0	54.7883	-24.7883	10.0296	>1-1.5-1.75<•••
54	5.75	23.13	115.650	28.75	52.8886	-24.1366	11.3273	>1-1.5-1.75<•••
55	6	23.13	115.650	30.0	52.8886	-22.8886	12.4081	>1-1.5-1.75<•••
56	7.25	24.88	124.40	36.25	59.61	-23.36	9.52572	>1-1.5-1.75<•••
57	6.63	24	120.00	33.15	56.2050	-23.0550	10.9583	>1-1.5-1.75<•••
58	6.5	24.25	121.250	32.5	57.1673	-24.6673	9.27835	>1-1.5-1.75<•••
59	6.25	24	120.00	31.25	56.2050	-24.9550	9.375	>1-1.5-1.75<•••
60	6.88	25.75	128.750	34.4	63.0232	-28.6232	4.38935	>1-1.75-2<••••
61	6.88	25.88	129.40	34.4	63.537	-29.137	3.86399	>1-1.75-2<••••
62	5.13	21.38	106.90	25.65	46.3817	-20.7317	17.5398	>1-1.25-1.5<••
63	5.38	23	115.00	26.9	52.3975	-25.4975	10.3478	>1-1.5-1.75<•••
64	5	22.38	111.90	25	50.072	-25.072	11.7069	>1-1.5-1.75<•••
65	4.88	22.88	114.40	24.4	51.9453	-27.5453	8.74126	>1-1.75-2<••••
66	4.75	23	115.00	23.75	52.3975	-28.6475	7.60870	>1-1.75-2<••••
67	4.5	22.63	113.150	22.5	51.0064	-28.5064	8.26337	>1-1.75-2<••••
68	5.5	24.63	123.150	27.5	58.6377	-31.1377	3.53228	>2•••••
69	5.38	24.63	123.150	26.9	58.6377	-31.7377	3.04507	>2•••••
70	5	23.88	119.40	25	55.7445	-30.7445	4.69012	>2•••••
71	5.13	24.13	120.650	25.65	56.7049	-31.0549	4.14422	>2•••••
72	5.25	23.63	118.150	26.25	54.7883	-28.5383	6.85569	>1-1.75-2<••••
73	5.25	24.63	123.150	26.25	58.6377	-32.3877	2.51726	>2•••••
74	5.25	24.5	122.50	26.25	58.1336	-31.8836	3.06122	>2•••••
75	5.25	24.38	121.90	26.25	57.6693	-31.4193	3.5685	>2•••••
76	5	23.38	116.90	25	53.6363	-28.6363	6.929	>1-1.75-2<••••
77	5.5	24.88	124.40	27.5	59.61	-32.11	2.49196	>2•••••
78	5.5	24.25	121.250	27.5	57.1673	-29.6673	5.15464	>2•••••
79	5	24.5	122.50	25	58.1336	-33.1336	2.04082	>2•••••
80	5.13	24.13	120.650	25.65	56.7049	-31.0549	4.14422	>2•••••
81	5	24.5	122.50	25	58.1336	-33.1336	2.04082	>2•••••
82	5	24	120.00	25	56.2050	-31.2050	4.16667	>2•••••
83	4.63	24.5	122.50	23.15	58.1336	-34.9836	5.30613	>2•••••
84	4.88	24.5	122.50	24.4	58.1336	-33.7336	1.55102	>2•••••
85	4.63	25	125	23.15	60.0781	-36.9281	-1.48	>2•••••
86	5	25.25	126.250	25	61.0561	-36.0561	-9.990098	>2•••••
87	4.75	24.5	122.50	23.75	58.1336	-34.3836	1.02041	>2•••••
88	4.5	24.75	123.750	22.5	59.1039	-36.6039	-1.0101	>2•••••
89	4.75	25	125	23.75	60.0781	-36.3281	-1.0	>2•••••

90	4.88	24.88	124.40	24.4	59.61	-35.21	7.66619E-7	>2.....
91	4.88	24.88	124.40	24.4	59.61	-35.21	7.66619E-7	>2.....
92	4.75	24.88	124.40	23.75	59.61	-35.86	-.522508	>2.....
93	4.25	24.38	121.90	21.25	57.6693	-36.4193	-.533223	>2.....
94	4.38	24.5	122.50	21.9	58.1336	-36.2336	-.489795	>2.....
95	4.25	24.38	121.90	21.25	57.6693	-36.4193	-.533223	>2.....
96	4	23.88	119.40	20.0	55.7445	-35.7445	.502513	>2.....
97	4.25	24.5	122.50	21.25	58.1336	-36.8836	-1.02041	>2.....
98	4.25	24.25	121.250	21.25	57.1673	-35.7173	0	>2.....
99	4	24.13	120.650	20.0	56.7049	-36.7049	-.538748	>2.....
100	4.63	24.88	124.40	23.15	59.61	-36.46	-1.00482	>2.....
101	5.25	25.63	128.150	26.25	62.5498	-36.2998	-1.48264	>2.....
102	5.25	25.5	127.50	26.25	62.0378	-35.7878	-.980392	>2.....
103	5.5	25.5	127.50	27.5	62.0378	-34.5378	0	>2.....
104	6.63	27	135.00	33.15	68.0030	-34.8530	-1.37037	>2.....
105	5.88	26	130.00	29.4	64.0122	-34.6122	-.461537	>2.....
106	6.13	26	130.00	30.65	64.0122	-33.3622	.500001	>2.....

7 CHI INVESTMENT

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
55	21.13	40.25	126.772	66.5512	61.4653	5.08585	31.3789	1<
56	24	43.63	137.417	75.5906	69.7515	5.63903	27.7791	1<
57	22.5	42.5	133.858	70.8661	67.0869	3.77924	27.6471	1<
58	27.75	42.63	134.268	71.6535	67.4151	4.23844	27.8442	1<
59	24	45.38	142.929	75.5906	74.4383	1.15221	22.8515	1<
60	23.5	45	141.732	74.0157	73.459	.556704	22.7778	1<
61	20.38	43.25	136.22	64.1890	60.4853	-4.79628	20.5318	1<
62	16.5	40.25	126.772	51.9685	61.4653	-9.44652	19.8758	1<
63	21.25	42.5	133.858	66.9291	67.0869	-1.15774	24.7059	1<
64	27.5	48.13	151.591	70.8661	81.6031	-10.7370	12.7156	1<
65	23.63	48.5	152.756	74.4252	82.577	-8.15182	14.1856	1<
66	24.88	50.63	159.465	78.3622	88.2258	-9.86358	11.8507	1<
67	24.88	50.13	157.890	78.3622	86.8935	-8.53128	12.9663	1<
68	23.75	48.5	152.756	74.8031	82.577	-7.77367	14.4330	1<
69	24	49.75	156.693	75.5906	85.8835	-10.2929	12.0603	1<
70	24	49.88	157.102	75.5906	86.2208	-10.6382	11.7682	1<
71	25.88	52.63	165.764	81.5118	93.5914	-12.0746	9.50029	1<
72	30.5	58.13	183.087	96.0630	108.616	-12.5532	7.08756	1<
73	29.5	55.25	174.016	92.4134	100.702	-7.78908	10.8597	1<
74	32.25	55	173.228	101.575	100.02	1.55466	16.3636	1<
75	37	62.88	198.047	116.535	121.862	-5.32648	9.33524	1<
76	34.25	59.88	188.598	107.874	113.470	-5.59581	10.2204	1<
77	38	64.75	203.937	119.685	127.135	-7.44995	7.72201	1<
78	35	60.88	191.748	110.236	116.258	-6.02128	9.64192	1<
79	33.38	58.5	184.252	105.134	109.640	-4.5058	11.3333	1<
80	35.5	61.25	192.913	111.811	117.291	-5.48043	9.79592	1<
81	37	63.75	200.787	116.535	124.311	-7.77591	7.84314	1<
82	38.38	66.630	209.858	120.802	132.466	-11.5842	5.25289	1<
83	39	66	207.874	122.835	130.676	-7.84176	7.19697	1<
84	37.5	64.380	202.772	118.11	126.089	-7.9740	7.56446	1<
85	37.5	66	207.874	118.11	130.676	-12.5662	4.92424	1<
86	36.5	63.88	201.197	114.961	124.678	-9.71730	6.84095	1<
87	40	69.880	220.094	125.984	141.747	-15.7627	2.67602	>1-1.25<=
88	46	75.860	238.992	144.882	159.070	-14.1881	2.46442	1<
89	45	75.5	237.795	141.732	157.966	-16.2340	1.65563	>1-1.25<=
90	42.25	73.25	230.709	133.071	151.449	-18.3779	1.02389	>1.25-1.5<=
91	39.63	68.380	215.37	124.819	137.454	-12.6348	4.38725	1<
92	35.5	63	198.425	111.811	122.199	-10.3883	6.74603	1<
93	37.88	63.13	198.835	119.307	122.565	-3.2580	10.2962	1<
94	38.5	65.630	206.709	121.260	129.627	-8.36696	7.03947	1<
95	40.25	69.130	217.732	126.772	139.598	-12.8266	4.1516	1<
96	35.75	63.5	200	112.598	123.607	-11.0088	6.29921	1<
97	37.38	65.25	205.512	117.732	128.55	-10.8177	5.94636	1<
98	35.5	63.75	200.787	111.811	124.311	-12.5003	5.49020	1<
99	40	69.5	218.898	125.984	140.658	-14.6735	3.23741	1<
100	45.13	74.75	235.433	142.142	155.79	-13.6487	2.84950	1<
101	42	71.130	224.031	132.283	145.337	-13.0533	3.68340	1<
102	40	68.130	214.583	125.984	136.740	-10.7555	5.31337	1<
103	37.75	65.5	206.299	118.898	129.258	-10.3607	6.10687	1<

104	38	65.5	206.299	119.685	129.258	-9.57325	6.48855	1<
105	36.5	63.25	199.213	114.961	122.903	-7.94217	7.90514	1<
106	38.5	66.130	208.283	121.260	131.045	-9.78561	6.23015	1<

B CARRIER

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
44	13.5	36	87.8049	32.9268	33.0778	-0.150953	51.3889	1<
45	11.5	35.88	87.5122	28.0488	32.8849	-4.83607	46.3211	1<
46	10	34.25	83.5366	24.3902	30.301	-5.91080	48.9051	1<
47	9.75	32.5	79.2683	23.7805	27.6067	-3.82618	56.1538	1<
48	10	35.13	85.6829	24.3902	31.6874	-7.29713	45.1751	1<
49	10	34.38	83.8537	24.3902	30.5045	-6.11430	48.3421	1<
50	11	35.5	86.5854	26.8293	32.2763	-5.44705	46.4789	1<
51	11.75	37.75	92.0732	28.6585	35.9319	-7.27332	39.7351	1<
52	12	38.13	93.00	29.2683	36.5613	-7.29305	38.9982	1<
53	13.25	40	97.5610	32.3171	39.7073	-7.39028	35.625	1<
54	12.5	39.25	95.7317	30.4878	38.4361	-7.94832	36.3057	1<
55	13.25	39.5	96.3415	32.3171	38.8585	-6.54141	37.3418	1<
56	14	43	104.878	34.1463	44.9117	-10.7654	27.9070	1<
57	13.75	41.88	102.146	33.5366	42.9471	-9.41052	30.7307	1<
58	13.75	40.25	98.1707	33.5366	40.1338	-6.59725	36.0248	1<
59	12.75	39.13	95.439	31.0976	38.2339	-7.13632	37.3676	1<
60	12.5	38.63	94.2195	30.4878	37.3947	-6.90694	38.4934	1<
61	12.25	38.63	94.2195	29.878	37.3947	-7.51670	37.8462	1<
62	12.38	39	95.1220	30.1951	38.0152	-7.82004	36.8718	1<
63	13.13	41.25	100.610	32.0244	41.8532	-9.82878	31.2242	1<
64	14.25	44.5	108.537	34.7561	47.5811	-12.825	24.1573	1<
65	15.88	47.75	116.463	38.7317	53.5048	-14.7731	19.1204	>1-1.25<
66	16.25	46.38	113.122	39.6341	50.9853	-11.3512	23.4368	1<
67	16.75	46.63	113.732	40.8537	51.4427	-10.5891	23.8473	1<
68	16.88	47	114.634	41.1707	52.1216	-10.9509	23.1489	1<
69	16.63	47	114.634	40.5610	52.1216	-11.5606	22.617	1<
70	16.13	46	112.195	39.3415	50.2922	-10.9507	24.1957	1<
71	15.63	45.5	110.976	38.1220	49.384	-11.2621	24.4615	1<
72	16.5	47.63	116.171	40.2439	53.2829	-13.0390	20.7222	1<
73	17	48.25	117.683	41.4634	54.4321	-12.9687	20.2073	1<
74	16.63	48.25	117.683	40.5610	54.4321	-13.8711	19.4404	1<
75	16.25	46.25	112.805	39.6341	50.7479	-11.1138	23.7838	1<
76	16.63	47.75	116.463	40.5610	53.5048	-12.9438	20.6911	1<
77	17.63	50.13	122.268	43.0	57.9542	-14.9542	16.9559	>1-1.25<
78	16.88	48.75	118.902	41.1707	55.3634	-14.1927	18.7282	1<
79	17.5	49.75	121.341	42.6829	57.2379	-14.5550	17.5879	1<
80	17	48.5	118.293	41.4634	54.8973	-13.4338	19.5876	1<
81	16.88	48.25	117.683	41.1707	54.4321	-13.2614	19.9585	1<
82	16.75	50	121.951	40.8537	57.7089	-16.8552	15.5	>1-1.25<
83	17.63	50.5	123.171	43.0	58.6538	-15.6538	16.099	>1-1.25<
84	17.25	47.88	116.78	42.0732	53.7455	-11.6723	21.6583	1<
85	16.13	46.5	113.415	39.3415	51.2048	-11.8633	22.8602	1<
86	15	45	109.756	36.5854	48.4803	-11.8949	24.4444	1<
87	15	45.13	110.073	36.5854	48.7148	-12.1295	24.0860	1<
88	16	47.5	115.854	39.0244	53.0427	-14.0183	20.0	1<
89	15.75	47.75	116.463	38.4146	53.5048	-15.0902	18.8482	>1-1.25<
90	15.75	48.75	118.902	38.4146	55.3634	-16.9488	16.4103	>1-1.25<
91	15.5	47.38	115.561	37.8049	52.8213	-15.0164	19.2486	>1-1.25<
92	15.13	47	114.634	36.9024	52.1216	-15.2192	19.4255	>1-1.25<

93	9.63	30.13	73.4878	23.4878	24.0986	-.610773	68.0385	1<
94	9.63	29.25	71.3415	23.4878	22.8397	.648055	73.094	1<
95	9.5	29	70.7317	23.1707	22.4866	.684103	74.1379	1<
96	8.63	27.63	67.3902	21.0488	20.5879	.460868	79.6236	1<
97	12.63	41.38	100.927	30.8049	42.0782	-.11.2734	29.6037	1<
98	8.5	28.25	68.9024	20.7317	21.4395	-.707767	75.2212	1<
99	8.63	27.75	67.6829	21.0488	20.7517	.297059	78.8468	1<
100	8.5	27	65.8537	20.7317	19.7360	.995731	83.3333	1<
101	8	27.38	66.7805	19.5122	20.2482	-.736021	78.9627	1<
102	7.25	25.75	62.8049	17.6829	18.0866	-.403705	87.3786	1<
103	6.63	24.88	60.6829	16.1707	16.9719	-.801134	91.4389	1<
104	5.5	23.38	57.0244	13.4146	15.1164	-.1.70175	98.8879	1<
105	6.13	22.38	54.5854	14.9512	13.9279	1.02334	110.590	1<
106	6.63	24.38	59.4634	16.1707	16.3439	-.173144	95.3651	1<

9 CHRYSLER

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
38	14.25	29.25	86.0294	41.9118	31.9131	9.99669	64.9573	1<
39	13.88	27.88	82.00	40.8235	29.3213	11.5022	71.736	1<
40	13.25	26.75	78.6765	38.9706	27.2399	11.7307	76.6355	1<
41	13.13	26.63	78.3235	38.6176	27.0219	11.5957	76.9808	1<
42	13.38	27	79.4118	39.3529	27.6958	11.6571	75.4815	1<
43	14	27.38	80.5294	41.1765	28.3939	12.7826	75.3104	1<
44	13.75	27.63	81.2647	40.4412	28.8563	11.5849	72.8194	1<
45	13.38	27.75	81.6176	39.3529	29.0792	10.2737	70.7387	1<
46	12.75	26.5	77.9412	37.5	26.7865	10.7135	76.4151	1<
47	12.63	24.5	72.0588	37.1471	23.2578	13.8893	90.3265	1<
48	15.5	30.75	90.4412	45.5882	34.8318	10.7565	60.9756	1<
49	16.5	31.63	93.0294	48.5294	36.5814	11.948	59.6586	1<
50	15.75	30.63	90.0882	46.3235	34.5953	11.7282	62.4225	1<
51	16.63	31.88	93.7647	48.9118	37.0833	11.8285	58.8143	1<
52	16.13	30.5	89.7059	47.4412	34.3397	13.1015	64.3607	1<
53	15.63	30	88.2353	45.9706	33.3622	12.6084	65.4333	1<
54	14.75	29.5	86.7647	43.3824	32.3938	10.9886	65.2542	1<
55	14.75	29.13	85.6765	43.3824	31.6832	11.6992	67.3532	1<
56	15.75	31.13	91.5588	46.3235	35.5840	10.7395	59.8137	1<
57	14.88	29.75	87.5	43.7647	32.6768	10.8879	64.3025	1<
58	13.88	27.88	82.00	40.8235	29.3213	11.5022	71.736	1<
59	13.75	27.75	81.6176	40.4412	29.0792	11.3620	72.0721	1<
60	13.88	28.25	83.0882	40.8235	30.0141	10.8095	69.4867	1<
61	13	25.5	75	38.2353	25	13.2353	84.3137	1<
62	12.88	25.75	75.7353	37.8824	25.4426	12.4398	62.0583	1<
63	12.88	27.5	80.8824	37.8824	28.6155	9.26682	70.4727	1<
64	13.13	28.25	83.0882	38.6176	30.0141	8.60359	66.8319	1<
65	13.5	28.38	83.4706	39.7059	30.2587	9.44715	67.3714	1<
66	13.13	28.38	83.4706	38.6176	30.2587	8.35891	66.0677	1<
67	13.88	29.75	87.5	40.8235	32.8768	7.94671	60.9412	1<
68	13.75	28.13	82.7353	40.4412	29.7888	10.6524	69.7476	1<
69	14.5	30.25	88.9706	42.6471	33.8498	8.79727	60.3306	1<
70	13.38	28.88	84.9412	39.3529	31.2060	8.14699	64.0582	1<
71	13.88	30	88.2353	40.8235	33.3622	7.46137	59.6	1<
72	14.88	31.63	93.0294	43.7647	36.5814	7.18333	54.5368	1<
73	14.75	30.88	90.8235	43.3824	35.0885	8.29382	57.8692	1<
74	15.25	32.38	95.2353	44.8529	38.0933	6.75964	52.1001	1<
75	16.75	34.13	100.382	49.2647	41.6920	7.57273	48.6962	1<
76	16.38	33.5	98.5294	48.1765	40.3853	7.79113	50.3881	1<
77	16	33.75	99.2647	47.0588	40.9024	6.15644	48.1481	1<
78	15.38	31.88	93.7647	45.2353	37.0833	8.15204	54.8934	1<
79	15.38	32.5	95.5882	45.2353	38.3369	6.89835	51.9385	1<
80	15.38	32.5	95.5882	45.2353	38.3369	6.89835	51.9385	1<
81	15.63	33.5	98.5294	45.9706	40.3853	5.56524	48.1493	1<
82	17.88	35.75	105.147	52.5882	45.1065	7.48171	45.1189	1<
83	17.75	35.63	104.794	52.2059	44.8510	7.3549	45.2428	1<
84	16.88	34.88	102.588	49.6471	43.2632	6.38386	45.8716	1<
85	16.5	33.75	99.2647	48.5294	40.9024	7.62703	49.6296	1<
86	16.25	34.38	101.118	47.7941	42.2138	5.58027	46.1606	1<
87	16.25	33.5	98.5294	47.7941	40.3853	7.48877	50.0	1<

88	15.63	33.13	97.4412	45.9706	39.6237	6.34687	49.8038	1<
89	15.5	31.75	93.3824	45.5882	36.822	8.76622	55.9055	1<
90	14.5	31.63	93.0294	42.6471	36.5814	6.06569	53.3354	1<
91	14.25	29.88	87.8824	41.9118	33.1289	8.78285	61.4793	1<
92	14.25	29.88	87.8824	41.9118	33.1289	8.76265	61.4793	1<
93	15.25	31.5	92.6471	44.8529	36.3212	8.53171	56.3492	1<
94	15.13	30.38	89.3529	44.5	34.1042	10.3958	61.7182	1<
95	15.13	30.38	89.3529	44.5	34.1042	10.3958	61.7182	1<
96	14.5	29.13	85.6765	42.6471	31.6832	10.4639	66.495	1<
97	15.5	32.62	95.9412	45.5882	38.5811	7.00718	51.7474	1<
98	15	31.63	93.0294	44.1176	36.5814	7.53628	54.9162	1<
99	15	32.88	96.7059	44.1176	39.1116	5.00608	49.0268	1<
100	14.38	31.88	93.7647	42.2941	37.0833	5.21066	51.7566	1<
101	14.5	31.38	92.2941	42.6471	36.0816	6.56545	54.557	1<
102	13.88	30.88	90.8235	40.8235	35.0885	5.73499	55.0518	1<
103	14	31.38	92.2941	41.1765	36.0816	5.04486	52.9637	1<
104	13.75	31.38	92.2941	40.4412	36.0816	4.35957	52.1670	1<
105	13.13	30.13	88.6176	38.6176	33.6154	5.0022	56.4222	1<
106	13	29.63	87.1471	38.2353	32.6447	5.54062	58.623	1<

10 DIVERSIFIED INDUSTRIES

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
58	3.5	7.75	83.7838	37.8378	30.4597	7.37818	64.5161	1<
59	3.38	7.88	85.1892	36.5405	31.3667	5.17369	60.2792	1<
60	3.25	7.88	85.1892	35.1351	31.3667	3.76848	58.6294	1<
61	2.75	7	75.6757	29.7297	25.4066	4.32316	71.4286	1<
62	2.38	6.5	70.2703	25.7297	22.2207	3.50898	78.9231	1<
63	3	7.13	77.0811	32.4324	26.2596	6.17261	71.8093	1<
64	2.88	7.38	79.7838	31.1351	27.9275	3.20761	64.3631	1<
65	3.25	7.63	82.4865	35.1351	29.6303	5.50461	63.8270	1<
66	4.13	8.38	90.5946	44.6486	34.9347	9.71392	59.6659	1<
67	4.38	8.88	96.00	47.3514	38.6218	8.72957	53.4910	1<
68	4.25	8.5	91.8919	45.9459	35.8091	10.1368	58.8235	1<
69	3.75	7.63	82.4865	40.5405	29.6303	10.9102	70.3801	1<
70	3.63	7.88	85.1892	39.2432	31.3667	7.87659	63.4518	1<
71	3.25	7	75.6757	35.1351	25.4066	9.72857	78.5714	1<
72	3.38	6.75	72.9730	36.5405	23.7944	12.7461	87.1111	1<
73	3	5.88	63.5676	32.4324	18.494	13.4364	108.333	1<
74	3.38	6.63	71.6757	36.5405	23.0342	13.5064	90.4977	1<
75	3.38	6.75	72.9730	36.5405	23.7944	12.7461	87.1111	1<
76	3	6.38	68.9730	32.4324	21.4795	10.9529	92.0063	1<
77	2.88	6.5	70.2703	31.1351	22.2207	8.91439	86.6154	1<
78	2.63	6	64.8649	28.4324	19.195	9.23742	98.0	1<
79	2.5	5.5	59.4595	27.027	16.3419	10.6852	113.636	1<
80	2.13	4.5	48.6486	23.027	11.2056	11.8214	152.889	1<
81	2.63	5.38	58.1622	28.4324	15.6842	12.7462	120.818	1<
82	2.38	5.5	59.4595	25.7297	16.3419	9.36788	111.455	1<
83	2.25	5	54.0541	24.3243	13.6743	10.6501	130.00	1<
84	2.25	5	54.0541	24.3243	13.6743	10.6501	130.00	1<
85	2.5	5	54.0541	27.027	13.6743	13.3528	135.00	1<
86	2.38	4.63	50.0541	25.7297	11.8276	13.9021	151.188	1<
87	2.25	4.5	48.6486	24.3243	11.2056	13.1187	155.556	1<
88	2.25	4.5	48.6486	24.3243	11.2056	13.1187	155.556	1<
89	2	4.25	45.9459	21.6216	10.0501	11.5715	164.706	1<
90	2	4.63	50.0541	21.6216	11.8276	9.79404	142.981	1<
91	1.88	4.5	48.6486	20.3243	11.2056	9.1187	147.333	1<
92	1.75	4.5	48.6486	18.9189	11.2056	7.71330	144.444	1<
93	1.75	3.63	39.2432	18.9189	7.42454	11.4944	203.03	1<
94	1.88	3.88	41.9459	20.3243	8.44105	11.6833	166.856	1<
95	1.88	4	43.2432	20.3243	8.44943	11.3749	178.25	1<
96	1.75	3.75	40.5405	18.9189	7.90521	11.0137	193.333	1<
97	1.5	3.88	41.9459	16.2162	8.44105	7.77516	177.062	1<
98	1.63	3.63	39.2432	17.6216	7.42454	10.1971	199.725	1<
99	2	4.38	47.3514	21.6216	10.6443	10.9774	156.849	1<
100	2	3.88	41.9459	21.6216	8.44105	13.1806	189.948	1<
101	1.5	3.75	40.5405	16.2162	7.90521	8.311	186.667	1<
102	1.88	3.75	40.5405	20.3243	7.90521	12.4191	196.80	1<
103	1.63	3.63	39.2432	17.6216	7.42454	10.1971	199.725	1<
104	1.63	3.75	40.5405	17.6216	7.90521	9.71641	190.133	1<
105	1.63	3.38	36.5405	17.6216	6.46695	11.1547	221.893	1<
106	1.5	3.38	36.5405	16.2162	6.46695	9.74927	218.047	1<

11 EQUITY FUNDING

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
41	26.75	39.88	157.941	105.941	86.9364	19.0042	30.3912	>1.25-1.5<00
42	26.75	41.38	163.881	105.941	91.9819	13.9587	25.6646	1<
43	27	40.5	160.396	106.931	89.0156	17.9151	29.0123	>1-1.25<0
44	26	40.5	160.396	102.97	89.0156	13.9547	26.5432	1<
45	25.75	42.25	167.327	101.98	94.9314	7.04884	20.7101	1<
46	24.25	38.5	152.475	96.0396	82.3423	13.6973	28.5714	1<
47	22	34.13	135.168	87.1287	66.1383	18.9905	38.4413	>1.25-1.5<00
48	27.5	41.38	163.881	108.911	91.9819	16.929	27.477	>1-1.25<0
49	29	44	174.257	114.851	100.912	13.9394	23.2955	1<
50	27.25	42.63	168.832	107.921	96.2247	11.6961	23.1527	1<
51	29.88	44.75	177.228	118.337	103.494	14.8430	23.1955	>1-1.25<0
52	28	43.63	172.792	110.891	99.6424	11.2487	22.0491	1<
53	27.25	42.63	168.832	107.921	96.2247	11.6961	23.1527	1<
54	28	40.63	160.911	110.891	89.4527	21.4384	31.0608	>1.25-1.5<00
55	27.25	41.75	165.347	107.921	93.2342	14.6865	25.7485	1<
56	25.75	39.5	156.436	101.98	85.6667	16.3135	29.1139	>1-1.25<0
57	25.13	37.88	150.020	99.5248	80.294	19.2307	32.9989	>1.25-1.5<00
58	24	35.63	141.109	95.0495	72.9501	22.0994	38.2262	>1.5-1.75<000
59	23	33.25	131.683	91.0891	65.3495	25.7396	45.1128	>1.75-2<0000
60	23.75	35.63	141.109	94.0594	72.9501	21.1093	37.5246	>1.25-1.5<00
61	21.25	31.5	124.752	84.1584	59.8849	24.2735	47.619	>1.5-1.75<000
62	18.13	28.63	113.386	71.8020	51.1834	20.6166	51.5194	>1.25-1.5<00
63	22.13	32.63	129.228	87.6436	63.4007	24.2428	45.2038	>1.5-1.75<000
64	22.13	32.25	127.723	87.6436	62.2131	25.4304	46.9147	>1.5-1.75<000
65	24.88	36.13	143.089	98.5347	74.5694	23.9652	38.7490	>1.5-1.75<000
66	24.5	36.25	143.564	97.0297	74.9592	22.0705	37.2414	>1.5-1.75<000
67	24.5	36.25	143.564	97.0297	74.9592	22.0705	37.2414	>1.5-1.75<000
68	23	33.88	134.178	91.0891	67.3433	23.7458	42.4144	>1.5-1.75<000
69	23.25	34.75	137.624	92.0792	70.1165	21.9607	39.5683	>1.25-1.5<00
70	25.25	39	154.455	100	84.0013	15.9987	29.4872	>1-1.25<0
71	24.13	37.25	147.525	95.5644	78.2233	17.341	32.5638	>1-1.25<0
72	26.25	40.5	160.396	103.96	89.0156	14.9448	27.1605	>1-1.25<0
73	24.63	37.63	149.030	97.5446	79.471	18.0735	32.5538	>1-1.25<0
74	24.88	38.5	152.475	98.5347	82.3423	16.1924	30.2078	>1-1.25<0
75	24.13	38.13	151.010	95.5644	81.1187	14.4456	29.5043	1<
76	24.38	39.63	156.95	96.5545	86.1007	10.4538	25.2334	1<
77	26.88	41.88	165.861	106.455	93.6750	12.7805	24.4747	1<
78	25.88	40.63	160.911	102.495	89.4527	13.0424	25.8430	1<
79	23.88	39.5	156.436	94.5743	85.6667	8.90759	24.3797	1<
80	23.88	38.5	152.475	94.5743	82.3423	12.2320	27.6104	1<
81	25	39.75	157.426	99.0099	86.5016	12.5083	26.4151	1<
82	25.5	43	170.297	100.99	97.4869	3.50319	18.0233	1<
83	28.5	46	182.178	112.871	107.819	5.05189	16.8478	1<
84	26.75	43.25	171.287	105.941	98.3413	7.59927	20.2312	1<
85	25.75	42.88	169.822	101.98	97.0772	4.90296	18.9366	1<
86	23.75	40.5	160.396	94.0594	89.0156	5.04383	20.9877	1<
87	24.5	40.75	161.386	97.0297	89.8565	7.17322	22.0859	1<
88	24.75	42.88	169.822	98.0198	97.0772	.942567	16.6045	1<
89	24.75	42.63	168.832	98.0198	96.2247	1.79509	17.2883	1<
90	23.88	41.63	164.871	94.5743	92.8277	1.74651	18.0159	1<

91	22	37.63	149.030	87.1287	79.471	7.65768	25.5647	1<
92	22.75	38.75	153.465	90.099	83.1710	6.92802	23.8710	1<
93	21.5	36.88	146.059	85.1485	77.0123	8.13623	26.7625	1<
94	21.75	37.38	148.040	86.1386	70.6497	7.48889	25.7357	1<
95	20.63	34.5	136.634	81.7030	69.3185	12.3845	32.9855	1<
96	21.13	36.75	145.545	83.6832	76.5677	7.09546	26.2041	1<
97	22.25	38.75	153.465	88.1188	83.1710	4.94782	22.5806	1<
98	22	39.5	156.436	87.1287	85.6667	1.46205	19.6203	1<
99	22.88	39	154.455	90.6139	84.0013	6.61255	23.4103	1<
100	23.5	41.25	163.366	93.0693	91.5426	1.52673	18.1818	1<
101	22.25	38.5	152.475	88.1188	82.3423	5.77655	23.3766	1<
102	20.75	37.25	147.525	82.1782	78.2233	3.95490	23.4899	1<
103	21.13	37.5	146.515	83.6832	79.0437	4.63943	23.68	1<
104	19.88	36.25	143.564	78.7327	74.9592	3.77347	24.4966	1<
105	19.75	36.88	146.059	78.2178	77.0123	1.20554	22.0174	1<
106	18.25	35	138.614	72.2772	70.9205	1.35677	24.2857	1<

12 FEDERATED DEVELOPMENT

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PRMUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	1.5	9	56.25	9.375	14.7347	-5.35975	94.4444	1<
2	1.5	9.13	57.0625	9.375	15.1353	-5.76026	91.6758	1<
3	3.5	9.13	57.0625	21.875	15.1353	6.73974	113.582	1<
4	3	8.75	54.6875	18.75	13.9769	4.77315	117.143	1<
5	2.75	9	56.25	17.1875	14.7347	2.45275	108.333	1<
6	2.88	8.88	55.5	18.0	14.3689	3.63108	112.613	1<
7	2.75	8.88	55.5	17.1875	14.3689	2.81858	111.149	1<
8	2.5	8.63	53.9375	15.625	13.6189	2.0061	114.368	1<
9	1.88	8.5	53.125	11.75	13.2354	-1.48544	110.353	1<
10	1.63	8.5	53.125	10.1875	13.2354	-3.04794	107.412	1<
11	1.75	8.8	55.0	10.9375	14.1271	-3.14962	101.705	1<
12	1.88	8.13	50.8125	11.75	12.1691	-4.19113	119.926	1<
13	1.75	7.63	47.6875	10.9375	10.7885	.148974	132.634	1<
14	1.63	7.38	46.125	10.1875	10.1250	.062501	138.889	1<
15	1.63	8	50	10.1875	11.8034	-1.61590	120.375	1<
16	1.63	8	50	10.1875	11.8034	-1.61590	120.375	1<
17	1.88	9.5	59.375	11.75	16.2987	-4.54871	88.2105	1<
18	1.88	8.5	53.125	11.75	13.2354	-1.48544	110.353	1<
19	2.75	9.63	60.1875	17.1875	16.7156	.471885	94.7041	1<
20	3	10.13	63.3125	18.75	18.3574	.392607	87.5617	1<
21	3.5	10.25	64.0625	21.875	18.7603	3.11472	90.2439	1<
22	3.38	10.75	67.1875	21.125	20.4747	.650272	80.2791	1<
23	3.25	9.5	59.375	20.3125	16.2987	4.01379	102.632	1<
24	3	10	62.5	18.75	17.9248	.825236	90	1<
25	2.75	9	56.25	17.1875	14.7347	2.45275	108.333	1<
26	2.75	9.25	57.8125	17.1875	15.5088	1.67869	102.703	1<
27	2.75	9	56.25	17.1875	14.7347	2.45275	108.333	1<
28	2.75	9.25	57.8125	17.1875	15.5088	1.67869	102.703	1<
29	2.75	9	56.25	17.1875	14.7347	2.45275	108.333	1<
30	2.75	10.13	63.3125	17.1875	18.3574	-1.16989	85.0938	1<
31	2.88	10	62.5	18.0	17.9248	.075236	88.80	1<
32	2.75	10	62.5	17.1875	17.9248	-.737264	87.5	1<
33	3	9.25	57.8125	18.75	15.5088	3.24119	105.405	1<
34	2.75	9.25	57.8125	17.1875	15.5088	1.67869	102.703	1<
35	2.88	9.63	60.1875	18.0	16.7156	1.26438	96.0540	1<
36	2.75	10	62.5	17.1875	17.9248	-.737264	87.5	1<
37	2.88	10.75	67.1875	18.0	20.4747	-2.47473	75.6279	1<
38	3.13	9.63	60.1875	19.5625	16.7156	2.84688	98.6501	1<
39	2.88	9.88	61.75	18.0	17.5290	.471015	91.0931	1<
40	3	9.88	61.75	18.75	17.5290	1.22102	92.3077	1<
41	3	10	62.5	18.75	17.9248	.825236	90	1<
42	2.88	9.75	60.9375	18.0	17.1041	.895863	93.641	1<
43	2.88	10.5	65.625	18.0	14.6104	-1.61037	79.8095	1<
44	2.75	10.25	64.0625	17.1875	18.7603	-1.57278	82.9268	1<
45	2.75	9.75	60.9375	17.1875	17.1041	-.083364	92.3077	1<
46	2.75	9.88	61.75	17.1875	17.5290	-.341485	89.7773	1<
47	2.5	9.25	57.8125	15.625	15.5088	.116191	100	1<
48	2.5	9.5	59.375	15.625	16.2987	-.673713	94.7368	1<
49	2.5	9.75	60.9375	15.625	17.1041	-1.47914	89.7436	1<
50	2.38	9.5	59.375	14.875	16.2987	-1.42371	93.4737	1<

51	2.5	9.88	61.75	15.625	17.5290	-1.90399	87.2470	1<
52	2.38	9.63	60.1875	14.875	16.7156	-1.84062	90.8619	1<
53	2.38	9.5	59.375	14.875	16.2987	-1.42371	93.4737	1<
54	2.38	9.5	59.375	14.875	16.2987	-1.42371	93.4737	1<
55	2.25	10.25	64.0625	14.0625	18.7603	-4.69778	78.0488	1<
56	2.25	10	62.5	14.0625	17.9248	-3.86226	82.5	1<
57	2.13	10	62.5	13.3125	17.9248	-4.61226	81.30	1<
58	2.13	9.63	60.1875	13.3125	16.7156	-3.40312	88.2658	1<
59	2.13	9.63	60.1875	13.3125	16.7156	-3.40312	88.2658	1<
60	1.88	8.88	55.5	11.75	14.3689	-2.61892	101.351	1<
61	1.88	8.88	55.5	11.75	14.3689	-2.61892	101.351	1<
62	1.75	8.5	53.125	10.9375	13.2354	-2.29794	108.824	1<
63	1.75	8.75	54.6875	10.9375	13.9769	-3.03935	102.857	1<
64	2	8.5	53.125	12.5	13.2354	-3.735443	111.765	1<
65	1.88	8.5	53.125	11.75	13.2354	-1.48544	110.353	1<
66	1.75	8.38	52.375	10.9375	12.8855	-1.94802	111.814	1<
67	1.75	8	50	10.9375	11.8034	-3.865698	121.875	1<
68	1.75	8.5	53.125	10.9375	13.2354	-2.29794	108.824	1<
69	3.25	8.63	53.9375	20.3125	13.6189	6.6936	123.059	1<
70	2.88	8.5	53.125	18.0	13.2354	4.76456	122.118	1<
71	2.63	8	50	16.4375	11.8034	4.6341	132.875	1<
72	2.75	8.25	51.5625	17.1875	12.5109	4.67665	127.273	1<
73	2.88	10	62.5	18.0	17.9248	0.075236	88.80	1<
74	2.63	9.75	60.9375	16.4375	17.1041	-6.66637	91.0769	1<
75	2.75	9.25	57.8125	17.1875	15.5088	1.67669	102.703	1<
76	3.13	10.63	66.4375	19.5625	20.0581	-4.99574	79.9624	1<
77	2.75	10.63	66.4375	17.1875	20.0581	-2.87057	76.3876	1<
78	2.88	11.5	71.875	18.0	23.1504	-5.15038	64.1739	1<
79	2.38	11	68.75	14.875	21.353	-6.47805	67.0909	1<
80	2.75	10.75	67.1875	17.1875	20.4747	-3.26723	74.4186	1<
81	2.75	10.88	68.00	17.1875	20.9297	-3.74223	72.3346	1<
82	2.5	10.75	67.1875	15.625	20.4747	-4.84973	72.093	1<
83	2.38	10.38	64.8750	14.875	19.2005	-4.32553	77.0713	1<
84	2	9.75	60.9375	12.5	17.1041	-4.60414	84.6154	1<
85	2	9.25	57.8125	12.5	15.5088	-3.00881	94.5946	1<
86	1.75	8.75	54.6875	10.9375	13.9769	-3.03935	102.857	1<
87	1.63	8.75	54.6875	10.1875	13.9769	-3.78935	101.486	1<
88	1.75	9	56.25	10.9375	14.7347	-3.79725	97.2222	1<
89	1.63	9.25	57.8125	10.1875	15.5088	-5.32131	90.5946	1<
90	1.88	8.75	54.6875	11.75	13.9769	-2.22685	104.343	1<
91	1.75	8.25	51.5625	10.9375	12.5109	-1.57335	115.152	1<
92	1.63	8.13	50.8125	10.1875	12.1691	-1.98161	116.851	1<
93	1.63	8.13	50.8125	10.1875	12.1691	-1.98161	116.851	1<
94	1.63	8.25	51.5625	10.1875	12.5109	-2.32335	113.697	1<
95	1.5	7.88	49.25	9.375	11.47	-2.09501	122.081	1<
96	1.38	7.88	49.25	8.625	11.47	-2.84501	120.558	1<
97	1.38	7.75	48.4375	8.625	11.1134	-2.48842	124.258	1<
98	1.13	7.63	47.6875	7.0625	10.7885	-3.72603	124.509	1<
99	1.38	8	50	8.625	11.8034	-3.17840	117.250	1<
100	1.25	8.13	50.8125	7.8125	12.1691	-4.35661	112.177	1<
101	1.25	8.38	52.375	7.8125	12.8855	-5.07302	106.847	1<
102	1.13	8	50	7.0625	11.8034	-4.74090	114.125	1<
103	1.13	8	50	7.0625	11.8034	-4.74090	114.125	1<
104	1.13	8.38	52.375	7.0625	12.8855	-5.82302	104.415	1<
105	1.13	7.75	48.4375	7.0625	11.1134	-4.05092	121.032	1<
106	0.87	8.25	51.5625	6.4375	12.6109	-7.07336	104.486	1<

13 FIDELCO GROWTH INVESTORS

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
41	7.25	27.88	111.520	29.0	49.7889	-20.7889	15.6743	>1.25-1.5<..
42	7.25	28.5	114.00	29.0	51.6443	-22.6443	13.1579	>1.5-1.75<....
43	7.38	27.88	111.520	29.52	49.7889	-20.2689	16.1406	>1.25-1.5<..
44	6.75	27.75	111.00	27.0	49.4021	-22.4021	14.4144	>1.5-1.75<....
45	6.25	27.63	110.520	25	49.0459	-24.0459	13.1017	>1.5-1.75<....
46	6.13	27.38	109.520	24.52	48.3059	-23.7859	13.6961	>1.5-1.75<....
47	5.63	27.25	109.00	22.52	47.9223	-25.4023	12.4037	>1.5-1.75<....
48	6.25	27.63	110.520	25	49.0459	-24.0459	13.1017	>1.5-1.75<....
49	6.38	28.38	113.520	25.52	51.2838	-25.7638	10.5708	>1.75-2<.....
50	6.75	29	116.00	27.0	53.1535	-26.1535	9.48276	>1.75-2<.....
51	8.63	31.13	124.520	34.52	59.7036	-25.1836	8.03084	>1.5-1.75<....
52	8.38	32.75	131.00	33.52	64.8059	-31.2859	1.92366	>2<.....
53	9.75	34	136.00	39.0	68.8076	-29.8076	2.20588	>2<.....
54	10.13	33.13	132.520	40.52	68.0167	-25.4967	6.03683	>1.5-1.75<....
55	12.13	35.75	143.00	48.52	74.4964	-25.9764	3.86014	>1.75-2<.....
56	12.25	36.5	146.00	49.0	76.9633	-27.9633	2.05480	>1.75-2<.....
57	12.5	36.63	146.520	50	77.3925	-27.3925	2.37511	>1.75-2<.....
58	11.75	36.5	146.00	47.0	76.9633	-29.9633	.684932	>2<.....
59	10.75	33.63	134.520	43.0	67.6175	-24.6175	6.30390	>1.5-1.75<....
60	12.25	36.25	145.00	49.0	76.1391	-27.1391	2.75862	>1.75-2<.....
61	11.5	36.5	146.00	46.0	76.9633	-30.9633	0	>2<.....
62	8.75	31.88	127.520	35.0	62.0535	-27.0535	5.86575	>1.75-2<.....
63	9.38	33.88	135.520	37.52	68.4211	-30.9011	1.47580	>2<.....
64	9.75	34.63	138.520	39.0	70.8443	-31.8443	.346521	>2<.....
65	9.75	34.63	138.520	39.0	70.8443	-31.8443	.346521	>2<.....
66	9.25	33.75	135.00	37.0	68.0030	-31.0030	1.48148	>2<.....
67	9.75	34.88	139.520	39.0	71.6561	-32.6561	-.372705	>2<.....
68	11.75	36.63	146.520	47.0	77.3925	-30.3925	.327601	>2<.....
69	11.88	36.75	147.00	47.52	77.7892	-30.2692	.353742	>2<.....
70	11.25	36.38	145.520	45.0	76.5675	-31.5675	-.357338	>2<.....
71	10.88	36	144.00	43.52	75.3169	-31.7969	-.333333	>2<.....
72	10.13	34.88	139.520	40.52	71.6561	-31.1361	.716744	>2<.....
73	10.25	35.5	142.00	41.0	73.6779	-32.6779	-.704225	>2<.....
74	10.38	35.5	142.00	41.52	73.6779	-32.1579	-.338028	>2<.....
75	10	35.38	141.520	40.0	73.2856	-33.2856	-1.07405	>2<.....
76	10.75	35.75	143.00	43.0	74.4964	-31.4964	0	>2<.....
77	10.75	36	144.00	43.0	75.3169	-32.3169	-.694444	>2<.....
78	10	35.38	141.520	40.0	73.2856	-33.2856	-1.07405	>2<.....
79	10.38	35	140.00	41.52	72.0465	-30.9265	1.08572	>2<.....
80	10.88	36.25	145.00	43.52	76.1391	-32.6191	-1.02069	>2<.....
81	10.88	36	144.00	43.52	75.3169	-31.7969	-.333333	>2<.....
82	9.88	34.88	139.520	39.52	71.6561	-32.1361	1.36706E-6	>2<.....
83	10.13	35.5	142.00	40.52	73.6779	-33.1579	-1.04225	>2<.....
84	10	35.38	141.520	40.0	73.2856	-33.2856	-1.07405	>2<.....
85	9.5	34.75	139.00	38.0	71.2338	-33.2338	-.719424	>2<.....
86	9.25	34	136.00	37.0	68.8076	-31.8076	.735294	>2<.....
87	9	34	136.00	36.0	66.8076	-32.8076	0	>2<.....
88	10.13	35.38	141.520	40.52	73.2856	-32.7656	-.706613	>2<.....
89	10.38	35.63	142.520	41.52	74.1033	-32.5833	-.701656	>2<.....
90	10.5	35.5	142.00	42.0	73.6779	-31.6779	0	>2<.....

91	10.5	35	140.00	42.0	72.0465	-30.0465	1.42857	>2.....
92	10.63	35.38	141.520	42.52	73.2856	-30.7656	.706615	>2.....
93	9.13	33.75	135.00	36.52	68.0030	-31.4830	1.12593	>2.....
94	8.75	33.75	135.00	35.0	68.0030	-33.0030	0	>2.....
95	9.25	34.13	136.520	37.0	69.2268	-32.2268	.351598	>2.....
96	9	32.75	131.00	36.0	69.8059	-28.8059	3.81679	>1.75-2<.....
97	8.5	32.5	130.00	34.0	64.0122	-30.0122	3.07692	>2.....
98	9	34.13	136.520	36.0	69.2268	-33.2268	-.380896	>2.....
99	9.75	34.08	139.520	39.0	71.6561	-32.6561	-.372705	>2.....
100	9.13	33.88	135.520	36.52	68.4211	-31.4011	.7379	>2.....
101	9.75	35	140.00	39.0	72.0465	-33.0465	-.714286	>2.....
102	10.13	35.5	142.00	40.52	73.6779	-33.1579	-1.04225	>2.....
103	10	35.5	142.00	40.0	73.6779	-33.6779	-1.40845	>2.....
104	10.63	35.75	143.00	42.52	74.4964	-31.9764	-.335664	>2.....
105	10.75	35.63	142.520	43.0	74.1033	-31.1033	.336795	>2.....
106	11	35.5	142.00	44.0	73.6779	-29.6779	1.40845	>2.....

14 FIRST DENVER MORTGAGE

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
41	4.63	17.38	86.90	23.15	32.4825	-9.33249	41.7146	1.0
42	4.88	18.13	90.650	24.4	34.9719	-10.5719	37.2311	1.0
43	5	19	95.00	25	37.9311	-12.9311	31.5789	1.0
44	4.63	18.88	94.40	23.15	37.5186	-14.3686	30.4555	1.0
45	4.88	19.25	94.250	24.4	36.795	-14.395	29.2468	1.0
46	4.38	18.88	94.40	21.9	37.5186	-15.6186	29.1314	>1-1.25<
47	4.25	18.25	91.250	21.25	35.3756	-14.1256	32.8767	1.0
48	4.5	19.38	94.90	22.6	39.2466	-16.7466	26.4190	>1-1.25<
49	4.25	18.75	93.75	21.25	37.0732	-15.6232	29.3333	>1-1.25<
50	4.25	18.63	93.150	21.25	36.6636	-15.4135	30.1664	>1-1.25<
51	5.5	20.38	101.90	27.5	42.7712	-15.2712	25.1227	>1-1.25<
52	5.25	20.75	103.750	26.25	44.0974	-17.6474	21.8867	>1-1.25<
53	5.25	20.88	104.40	26.25	44.5661	-18.3161	20.9291	>1-1.25<
54	5.5	22.5	112.5	27.5	50.5199	-23.0199	13.3333	>1.5-1.75<
55	6.75	22.88	114.40	28.75	51.9453	-23.1953	12.6437	>1.5-1.75<
56	5.25	21	105.00	26.25	45.00	-18.750	20.2381	>1.25-1.5<
57	5.13	21.38	106.90	25.65	46.3817	-20.7317	17.6398	>1.25-1.5<
58	5.13	21.88	109.40	25.65	48.2173	-22.5673	14.8538	>1.5-1.75<
59	5	20.25	101.250	25	42.3080	-17.3080	23.4568	>1-1.25<
60	5.13	21	105.00	23.65	45.00	-19.350	19.6667	>1.25-1.5<
61	4.63	19.63	98.150	23.15	40.1193	-16.9693	25.4712	>1-1.25<
62	3.75	17.75	88.750	18.75	33.7033	-14.9533	33.8028	>1-1.25<
63	3.88	18.25	91.250	19.4	35.3756	-15.9756	30.8493	>1-1.25<
64	3.88	18.5	92.50	19.4	36.2213	-16.8213	29.0811	>1-1.25<
65	3.75	18.75	93.75	18.75	37.0732	-18.3232	26.6667	>1-1.25<
66	3.5	18.13	90.650	17.5	34.9719	-17.4719	29.6194	>1-1.25<
67	3.75	18.38	91.90	18.75	35.8146	-17.0646	29.2145	>1-1.25<
68	3.75	18.75	93.75	18.75	37.0732	-18.3232	26.6667	>1-1.25<
69	4	19.75	98.750	20.0	40.5403	-20.5403	21.5190	>1.25-1.5<
70	4.13	20.13	100.650	20.65	41.8817	-21.2317	19.8708	>1.25-1.5<
71	4.13	20.25	101.250	20.65	42.3080	-21.6580	19.1405	>1.25-1.5<
72	4	20.5	102.50	20.0	43.2	-23.2	17.0732	>1.5-1.75<
73	3.88	20	100	19.4	41.4214	-22.0214	19.40	>1.25-1.5<
74	3.75	19.38	96.90	18.75	39.2466	-20.4966	22.549	>1.25-1.5<
75	3.63	19.5	97.50	18.15	39.6648	-21.5148	21.1795	>1.25-1.5<
76	3.63	18.88	94.40	18.15	37.5186	-19.3686	25.1589	>1.25-1.5<
77	4	19.13	95.650	20.0	38.3796	-18.3796	25.4574	>1.25-1.5<
78	3.75	20	100	18.75	41.4214	-22.6714	18.75	>1.5-1.75<
79	3.63	19.75	98.750	18.15	40.5403	-22.3903	19.6456	>1.5-1.75<
80	3.88	20.5	102.50	19.4	43.2	-23.8	16.4878	>1.5-1.75<
81	3.5	20.13	100.650	17.5	41.8817	-24.3817	16.7412	>1.5-1.75<
82	3.5	20	100	17.5	43.2	-23.9214	17.50	>1.5-1.75<
83	3.63	20.5	102.50	18.15	43.2	-25.05	15.2683	>1.5-1.75<
84	3.5	20.63	103.150	17.5	43.666	-26.166	13.9118	>1.75-2.00<
85	3.25	20.13	100.650	16.25	41.8817	-25.6317	15.4993	>1.5-1.75<
86	3	20	100	15.0	41.4214	-26.4214	15.00	>1.75-2.00<
87	3.13	20	100	15.65	41.4214	-25.7714	16.650	>1.75-2.00<
88	2.88	19.75	98.750	14.4	40.5403	-26.1403	16.8481	>1.75-2.00<
89	2.75	19.88	99.40	13.75	40.9977	-27.2477	14.4366	>1.75-2.00<

90	2.63	19.38	96.90	13.15	39.2466	-26.0966	16.7699	>1.75-2<.....
91	2.75	19.13	95.650	13.75	38.3796	-24.6296	18.9232	>1.5-1.75<....
92	2.5	19.13	95.650	12.5	38.3796	-25.6796	17.6163	>1.75-2<.....
93	2.5	19.38	96.90	12.5	39.2466	-26.7466	16.0991	>1.75-2<.....
94	2.25	19	95.00	11.25	37.9311	-26.6811	17.1053	>1.75-2<.....
95	2.5	18.25	91.250	12.5	35.3756	-22.8756	23.2877	>1.5-1.75<....
96	2.25	19.63	98.150	11.25	40.1193	-28.8693	13.3469	>1.75-2<.....
97	2.13	19	95.00	10.65	37.9311	-27.2811	16.4737	>1.75-2<.....
98	2.13	19.25	96.250	10.65	38.795	-28.145	14.961	>1.75-2<.....
99	2.25	19.38	96.90	11.25	39.2466	-27.4966	14.8091	>1.75-2<.....
100	2.25	19.38	96.90	11.25	39.2466	-27.4966	14.8091	>1.75-2<.....
101	2.13	19.5	97.50	10.65	39.6648	-29.0148	13.4872	>1.75-2<.....
102	2.13	19.38	96.90	10.65	39.2466	-28.5966	14.1899	>1.75-2<.....
103	2.13	19.25	96.250	10.65	38.795	-28.145	14.961	>1.75-2<.....
104	2.13	19.5	97.50	10.65	39.6648	-29.0148	13.4872	>1.75-2<.....
105	2.13	19.63	98.150	10.65	40.1193	-29.4693	12.7356	>2<.....
106	2.25	19.75	98.750	11.25	40.5403	-29.2903	12.6582	>1.75-2<.....

15 FLYING TIGER

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
16	10	26	83.8710	30.7220	30.5157	.206301	55.8608	1<
17	10.13	26.63	85.9032	31.1214	31.8308	.704463	52.6385	1<
18	13.25	28.5	91.9355	40.7066	35.8386	4.86798	53.0493	1<
19	17.63	34.75	112.097	54.1628	50.2188	3.94403	37.5266	1<
20	18.75	35.25	113.710	57.6037	51.4262	6.1775	38.6018	1<
21	20.25	38	122.581	62.2120	56.1961	4.01566	32.3308	1<
22	25	40.75	131.452	76.8049	65.1651	11.6398	34.5019	1<
23	24.25	38.63	124.613	74.5008	59.776	14.7248	40.0343	>1-1.25<
24	26.88	41.5	133.871	82.5806	67.0971	15.4836	36.3855	>1-1.25<
25	28.5	43.25	139.516	87.5574	71.6530	15.9046	34.4344	>1-1.25<
26	26	40.63	131.065	79.8771	64.8572	15.0199	37.2432	>1-1.25<
27	28.13	41.5	133.871	86.4209	67.0971	19.3238	34.2542	>1.25-1.5<...
28	26.38	39	125.806	81.0445	60.7086	20.3359	43.4072	>1.25-1.5<...
29	27.5	42.5	137.097	84.4854	69.6924	14.7930	34.5658	>1-1.25<
30	28.38	44.25	142.742	87.1869	74.2850	12.9039	31.138	1<
31	29	46.38	149.613	89.0937	79.9556	9.13610	26.3886	1<
32	30.25	47.88	154.452	92.9339	83.9981	8.93585	24.9155	1<
33	29.13	45.5	146.774	89.4931	77.6025	11.8905	29.1052	1<
34	28.63	45.5	146.774	87.9570	77.6025	10.3544	28.0586	1<
35	27.75	46.13	148.806	85.2535	79.2857	5.96777	24.4929	1<
36	25.5	41.75	134.677	78.341	67.7439	10.5971	32.4209	1<
37	27.13	44.63	143.968	83.3487	75.2904	8.05834	27.354	1<
38	28.25	46.88	151.226	86.7846	81.2986	5.49078	23.5170	1<
39	26.25	41.5	133.871	80.6452	67.0971	13.5481	34.9398	1<
40	24.13	40	129.032	74.1321	63.2462	10.8859	34.9524	1<
41	23.75	39	125.806	72.9647	60.7086	12.256	37.4847	1<
42	23.75	33.75	108.871	72.9647	47.8272	25.1375	58.8713	>1.5-1.75<...
43	22.88	38.13	123.00	70.2919	58.5213	11.7706	38.4487	1<
44	23.5	36.75	118.548	72.1966	55.0926	17.104	45.2543	>1-1.25<
45	24	37.38	120.581	73.7327	56.6515	17.0812	44.0801	>1-1.25<
46	20.25	33.75	106.871	62.2120	47.8272	14.3848	48.9947	1<
47	19.25	33	106.452	59.1398	46.0546	13.0852	49.4949	1<
48	20	33.75	108.871	61.4439	47.8272	13.6167	48.2892	1<
49	23.63	36.63	118.161	72.596	54.7969	17.7991	46.0681	>1-1.25<
50	24.25	38.38	123.806	74.5008	59.1478	15.3529	40.9464	>1-1.25<
51	25.38	39	125.806	77.9724	60.7086	17.2637	41.4652	>1-1.25<
52	23.88	37.5	120.968	73.3641	56.9497	16.4144	43.3143	>1-1.25<
53	23.63	37	119.355	72.596	55.7099	16.6861	44.6075	>1-1.25<
54	23	36.5	117.742	70.6605	54.4771	16.1835	44.9446	>1-1.25<
55	23.5	38.75	125	72.1966	60.0781	12.1185	37.7573	1<
56	26.88	41.88	135.097	82.5806	66.0807	14.4999	35.148	1<
57	24	37.25	120.161	73.7327	56.3289	17.4038	44.5829	>1-1.25<
58	24	36.25	116.935	73.7327	53.8633	19.8694	48.5714	>1.25-1.5<...
59	22.75	34.5	111.29	69.8925	49.6180	20.2745	52.657	>1.25-1.5<...
60	22.25	34.5	111.29	68.3564	49.6180	18.7364	51.2767	>1.25-1.5<...
61	20.63	30.25	97.5806	63.3794	39.7211	23.6583	67.4301	>1.5-1.75<...
62	17.5	27.63	89.129	53.7634	33.9552	19.4083	72.5178	>1.25-1.5<...
63	21	32.13	103.645	64.5161	44.0219	20.4942	58.7302	>1.25-1.5<...
64	23.38	36.25	116.935	71.8280	53.8633	17.9647	46.9425	>1-1.25<
65	24.88	36.63	118.161	76.4363	54.7969	21.6393	49.3182	>1.25-1.5<...

66	25.25	38	122.581	77.5730	58.1961	19.3768	44.8622	>1.25-1.5<..
67	24.88	38.13	123.00	76.4363	58.5213	17.9150	43.4441	>1-1.25<.
68	24.5	38.38	123.806	75.2688	59.1478	16.1210	41.5668	>1-1.25<.
69	24	36.13	116.548	73.7327	53.5693	20.1634	49.0649	>1.25-1.5<..
70	25.38	36.25	116.935	77.9724	53.8633	24.1091	52.197	>1.5-1.75<...
71	24.75	40.13	129.452	76.0369	63.5779	12.4590	35.9866	1<
72	17.5	28.5	91.9355	53.7634	35.8386	17.9248	67.2515	>1-1.25<.
73	18.38	29.63	95.5806	56.4670	38.3317	18.1353	63.7015	>1-1.25<.
74	26.25	43.75	141.129	80.6452	72.4665	7.67868	28.0	1<
75	18	29.88	96.3871	55.2995	38.8901	16.4094	61.1207	>1-1.25<.
76	18	28.88	93.1613	55.2995	36.6712	18.6283	66.6996	>1.25-1.5<..
77	19.88	30.13	97.1935	61.0753	39.451	21.6243	65.7263	>1.25-1.5<..
78	21.13	31.13	100.419	64.9155	41.7182	23.1973	64.2268	>1.5-1.75<...
79	20.25	30	96.7742	62.2120	39.1591	23.0529	67.619	>1.5-1.75<...
80	21	31.63	102.032	64.5161	42.8656	21.6505	61.2393	>1.25-1.5<..
81	20.75	31.88	102.839	63.7481	43.4427	20.3054	59.2281	>1.25-1.5<..
82	22.63	34.5	111.29	69.5238	49.6180	19.4058	52.3257	>1.25-1.5<..
83	24.25	36.75	118.548	74.5008	55.0926	19.4082	47.1979	>1.25-1.5<..
84	24.5	37.38	120.581	75.2688	56.6515	18.6173	45.354	>1.25-1.5<..
85	23.13	35.25	113.710	71.0599	51.4262	19.6337	50.4357	>1.25-1.5<..
86	22.5	34.88	112.516	69.1244	50.5320	18.5924	50.3113	>1.25-1.5<..
87	24.25	36.38	117.355	74.5008	54.1822	20.3185	48.6950	>1.25-1.5<..
88	24.63	37.88	122.194	75.6682	57.8964	17.7718	43.7623	>1-1.25<.
89	24.88	38.13	123.00	76.4363	58.5213	17.9150	43.4441	>1-1.25<.
90	25.5	38.75	125	78.341	60.0781	18.2629	42.6728	>1-1.25<.
91	24.88	37.5	120.968	76.4363	56.9497	19.4866	45.8540	>1.25-1.5<..
92	25.13	38.38	123.806	77.2043	59.1478	18.0565	43.1301	>1-1.25<.
93	25.63	39.38	127.032	78.7404	61.67	17.0704	40.7047	>1-1.25<.
94	24.88	39	125.806	76.4363	60.7086	15.7276	40.2442	>1-1.25<.
95	23.5	36.13	116.548	72.1966	53.5693	18.6273	47.7469	>1.25-1.5<..
96	22.75	34.13	110.097	69.8925	48.7323	21.1602	54.3119	>1.25-1.5<..
97	24.13	36.5	117.742	74.1321	54.4771	19.655	47.893	>1.25-1.5<..
98	23.25	34.88	112.516	71.4286	50.5320	20.8966	52.3591	>1.25-1.5<..
99	24.75	37.13	119.774	76.0369	56.0316	20.0053	46.9740	>1.25-1.5<..
100	23.38	36.25	116.935	71.8280	53.8633	17.9647	46.9425	>1-1.25<.
101	23.13	34.63	111.710	71.0599	49.9302	21.1298	53.1290	>1.25-1.5<..
102	20.38	31.75	102.419	62.6114	43.1423	19.469	58.7702	>1.25-1.5<..
103	22.13	34.25	110.484	67.9877	49.0191	18.9686	52.0473	>1.25-1.5<..
104	21	33.13	106.871	64.5161	46.3605	18.1556	53.939	>1-1.25<.
105	20.75	33.88	109.29	63.7481	48.1363	15.6117	49.8285	>1-1.25<.
106	21.75	35.25	113.710	66.8203	51.4262	15.3941	46.7072	>1-1.25<.

16 GOULD

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	6.13	29.75	54.0909	11.1455	13.6918	-2.54635	105.479	1K
2	6.75	30.5	55.4545	12.2727	14.3469	-2.07414	102.459	1K
3	7.38	31.75	57.7273	13.4182	15.4662	-2.04799	96.4724	1K
4	6.75	30	54.5455	12.2727	13.9088	-1.63604	105.833	1K
5	6.75	31	56.3636	12.2727	14.7905	-2.51777	99.1935	1K
6	6.75	31	56.3636	12.2727	14.7905	-2.51777	99.1935	1K
7	6.25	29.38	53.4182	11.3636	13.3733	-2.00965	108.475	1K
8	6.13	29.13	52.9636	11.1455	13.1598	-2.01437	109.852	1K
9	6.25	29	52.7273	11.3636	13.0494	-1.60576	111.207	1K
10	6.5	31	56.3636	11.8182	14.7905	-2.97232	98.3871	1K
11	7	32.63	59.3273	12.7273	16.2744	-3.54708	90.0092	1K
12	7.25	33.5	60.9091	13.1818	17.0894	-3.90754	85.8209	1K
13	6.75	33	60.00	12.2727	16.619	-4.34631	87.1212	1K
14	6.63	31.25	56.8182	12.0545	15.0144	-2.95963	97.216	1K
15	6.38	30.88	56.1455	11.6	14.6835	-3.08353	98.7694	1K
16	6.25	31.25	56.8182	11.3636	15.0144	-3.65074	96.0	1K
17	6.5	32.25	58.6364	11.8182	15.9233	-4.10517	90.6977	1K
18	6.75	33.5	60.9091	12.2727	17.0894	-4.81663	84.3284	1K
19	7	34.13	62.0545	12.7273	17.6893	-4.96201	81.6584	1K
20	7	33.25	60.4545	12.7273	16.8535	-4.12628	86.4662	1K
21	7.25	33.75	61.3636	13.1818	17.3264	-4.14463	84.4444	1K
22	8.5	36.5	66.3636	15.4545	20.0172	-4.56267	73.9726	1K
23	8.88	36.63	66.60	16.1455	20.1481	-4.00262	74.3926	1K
24	8.63	36.5	66.3636	15.6909	20.0172	-4.32631	74.3288	1K
25	9.25	38.38	69.7818	16.8182	21.9406	-5.12239	67.4049	1K
26	9.25	37.88	68.8727	16.8182	21.4226	-4.60444	69.6146	1K
27	8.75	35.25	64.0909	15.9091	18.7756	-2.86651	80.8511	1K
28	8.88	35.5	64.5455	16.1455	19.0215	-2.87604	79.9437	1K
29	8.5	35.88	65.2364	15.4545	19.3976	-3.94304	76.9788	1K
30	8.5	35.38	64.3273	15.4545	18.9033	-3.44877	79.4799	1K
31	8.13	35.75	65.00	14.7818	19.2686	-4.48679	76.5874	1K
32	8.38	37.25	67.7273	15.2364	20.7766	-5.54022	70.1477	1K
33	9.25	37.5	68.1818	16.8182	21.0321	-4.21388	71.3333	1K
34	8.88	36.5	66.3636	16.1455	20.0172	-3.87176	75.0137	1K
35	8.63	37	67.2727	15.6909	20.5223	-4.83137	71.9730	1K
36	8.25	35.13	63.8727	15.0	18.658	-3.65802	80.0455	1K
37	8.25	34.75	63.1818	15.0	18.2875	-3.28754	82.0144	1K
38	9	37.75	68.6364	16.3636	21.2887	-4.92507	69.5364	1K
39	8.63	36.75	66.8182	15.6909	20.2692	-4.57825	73.1429	1K
40	8.13	36	65.4545	14.7818	19.5169	-4.73511	75.3611	1K
41	8.13	35.75	65.00	14.7818	19.2686	-4.48679	76.5874	1K
42	10.38	39.13	71.1455	18.8727	22.726	-3.85329	67.0841	1K
43	10.5	41	74.5455	19.0909	24.7278	-5.63669	59.7561	1K
44	11	42.75	77.7273	20.0	26.6552	-6.65516	54.3860	1K
45	11	43.13	78.4182	20.0	27.0803	-7.08033	53.0257	1K
46	10.5	41	74.5455	19.0909	24.7278	-5.63669	59.7561	1K
47	9.75	40.38	73.4182	17.7273	24.0574	-6.33009	60.3517	1K
48	11.5	43.13	78.4182	20.9091	27.0803	-6.17124	54.185	1K
49	10.88	43.13	78.4182	19.7818	27.0803	-7.29852	52.7475	1K

50	11.38	43	78.1818	20.6909	26.9346	-6.24371	54.3721	1<
51	11.5	43.5	79.0909	20.9091	27.4966	-6.58747	52.8736	1<
52	12	44.5	80.9091	21.8182	28.6323	-6.81417	50.5618	1<
53	11	43.88	79.7818	20.0	27.9263	-7.92630	50.4102	1<
54	11.38	43.5	79.0909	20.6909	27.4966	-6.80565	52.5977	1<
55	11.38	43.75	79.5455	20.6909	27.779	-7.08811	51.7257	1<
56	12.63	46	83.6364	22.9636	30.365	-7.40139	47.0217	1<
57	11.88	43.63	79.3273	21.6	27.6433	-6.04332	53.289	1<
58	11.75	44.5	80.9091	21.3636	28.6323	-7.26871	50.0	1<
59	10.38	42.5	77.2727	18.8727	26.3767	-7.50399	53.8353	1<
60	10.38	40.88	74.3273	18.8727	24.5975	-5.72460	59.9315	1<
61	9.63	38.88	70.6909	17.5091	22.4631	-4.95398	66.2294	1<
62	8.63	38.63	70.2364	15.6909	22.2013	-6.51035	64.7165	1<
63	9.75	38.63	70.2364	17.7273	22.2013	-4.47398	67.6158	1<
64	10.25	40	72.7273	18.6364	23.6497	-5.01337	63.125	1<
65	10.38	41.88	76.1455	18.8727	25.6906	-6.81789	56.1127	1<
66	10.88	44	80.00	19.7818	28.0625	-8.28067	49.7273	1<
67	11	44	80.00	20.0	28.0625	-8.06248	50.0	1<
68	10.88	44.5	80.9091	19.7818	28.6323	-8.45053	48.0449	1<
69	11.13	44.5	80.9091	20.2364	28.6323	-8.39598	48.6067	1<
70	12.38	46.5	84.5455	22.5091	30.9501	-8.44103	44.9032	1<
71	11.63	45.63	82.9636	21.1455	29.9345	-8.78901	46.0224	1<
72	13.88	50.25	91.3636	25.2364	35.4523	-10.2159	37.0746	1<
73	14.88	52	94.5455	27.0545	37.6185	-10.5639	34.3846	1<
74	13.75	48.88	88.8727	25	33.7848	-8.78476	40.6506	1<
75	14.88	52.25	95.00	27.0545	37.9311	-10.8766	33.7416	1<
76	14.5	51.63	93.8727	26.3636	37.1572	-10.7935	34.6117	1<
77	9.5	34.5	62.7273	17.2727	18.0454	-7.72648	86.9565	1<
78	13.75	51.5	93.6364	25	36.9955	-11.9955	33.4951	1<
79	10.13	36.75	66.8182	18.4182	20.2692	-1.85097	77.2245	1<
80	10	35.38	64.3273	18.1818	18.9033	-7.21495	83.7196	1<
81	10	36	65.4545	18.1818	19.5169	-1.33511	80.5556	1<
82	10.38	35.88	65.2364	18.8727	19.3976	-5.524856	82.2185	1<
83	13.75	40.5	73.6364	25	24.1866	.813392	69.7531	1<
84	13.13	38.75	70.4545	23.8727	22.3268	1.54594	75.8194	1<
85	12.75	38.38	69.7818	23.1818	21.9406	1.24125	76.5242	1<
86	12	37.25	67.7273	21.8182	20.7766	1.04160	79.8658	1<
87	12.5	37.5	68.1818	22.7273	21.0321	1.64521	80.0	1<
88	12.75	38	69.0909	23.1818	21.5465	1.63531	78.2895	1<
89	12.75	37.75	68.6364	23.1818	21.2887	1.89311	79.4702	1<
90	11.5	36.63	66.60	20.9091	20.1481	1.761018	81.5452	1<
91	10.88	34.25	62.2727	19.7818	17.8045	1.97735	92.3504	1<
92	11	33.38	60.6909	20.0	16.976	3.02399	97.7232	1<
93	11.13	33.38	60.6909	20.2364	16.976	3.26036	96.1126	1<
94	10.5	32.88	59.7818	19.0909	16.5069	2.58398	99.2092	1<
95	11	36.38	66.1455	20.0	19.8967	.10329	81.4184	1<
96	9.75	34.13	62.0545	17.7273	17.6893	.037994	89.7158	1<
97	10.5	34.62	62.9455	19.0909	18.1615	.924452	89.1970	1<
98	10.13	33.86	61.60	18.4182	17.4502	.967939	92.2373	1<
99	9.88	34	61.8182	17.9636	17.5648	.398814	90.8235	1<
100	10	33.88	61.60	18.1818	17.4502	.731575	91.8536	1<
101	10	33.75	61.3636	18.1818	17.3264	.853369	92.5926	1<
102	9.25	32.88	59.7818	16.8182	16.5069	.311249	95.4075	1<
103	9	32.75	59.5455	16.3636	16.3858	-.022192	95.4198	1<
104	8.25	32.75	59.5455	15.0	16.3858	-1.38583	93.1298	1<
105	8.13	32.5	59.0909	14.7818	16.1539	-1.37211	94.2462	1<
106	7.88	31.5	57.2727	14.3273	15.2396	-.912326	99.619	1<

17 HOLIDAY INN

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	14.5	29.88	120.727	58.5859	56.7644	1.82147	31.3588	1<
2	16	32	129.293	64.6465	63.4523	1.19414	27.3437	1<
3	16.75	36	145.455	67.6768	76.5135	-8.83676	15.2778	1<
4	17.5	34.25	138.384	70.7071	70.7340	-0.026894	23.3577	1<
5	16.5	33.13	133.859	66.6667	67.0872	-0.420498	24.5095	1<
6	16.75	34	137.374	67.6768	69.9163	-2.23951	22.0588	1<
7	16.5	33.75	136.364	66.6667	69.1007	-2.43402	22.2222	1<
8	15.5	34.5	139.394	62.6263	71.5537	-8.92743	16.6667	1<
9	15.5	34	137.374	62.6263	69.9163	-7.29002	18.3824	1<
10	15	35	141.414	60.6061	73.1992	-12.5931	13.5714	1<
11	15.5	36.25	146.465	62.6263	77.3468	-14.7206	11.0345	>1-1.25<
12	16.75	37.5	151.515	67.6768	81.5402	-13.8634	10.6667	1<
13	16.25	37.25	150.505	65.6566	80.698	-15.0414	10.0671	>1-1.25<
14	16.13	37	149.495	65.1717	79.8576	-14.6858	10.4865	1<
15	15.75	36.5	147.475	63.6364	78.1619	-14.5456	10.9589	1<
16	16.75	37.7	152.323	67.6768	82.2152	-14.5384	10.0796	1<
17	15.5	36	145.455	62.6263	76.5135	-13.8873	11.8056	1<
18	15.5	37.38	151.03	62.6263	81.1357	-18.5095	7.6779	>1.25-1.5<=
19	15.75	36.38	146.990	63.6364	77.7808	-14.1445	11.3249	1<
20	17	38.5	155.556	68.6869	84.9257	-16.2389	8.44156	>1-1.25<
21	17.5	39.5	159.596	70.7071	88.3371	-17.63	6.96203	>1-1.25<
22	19.5	42	169.697	78.7879	96.9697	-18.1818	5.35714	>1-1.25<
23	22	39.63	160.121	88.8889	88.7824	.106471	17.9662	1<
24	23	40.88	165.172	92.9293	93.0847	-0.15391	16.8053	1<
25	25.5	44.75	180.808	103.03	106.619	-3.58906	12.2905	1<
26	23.75	44.75	180.808	95.9596	106.619	-10.6598	8.37989	1<
27	25.25	42.63	172.242	102.02	99.1669	2.85331	17.2883	1<
28	25	43.13	174.263	101.01	100.917	.093549	15.3489	1<
29	24.5	41.38	167.192	98.9849	94.8156	4.17425	19.0189	1<
30	22.5	42.5	171.717	90.9091	98.7128	-7.80373	11.1765	1<
31	22.75	42.5	171.717	91.9192	98.7128	-6.79363	11.7647	1<
32	22.75	43.38	175.273	91.9192	101.793	-9.87409	9.49747	1<
33	25	45.63	184.364	101.01	109.738	-8.72771	9.02915	1<
34	26.5	47.63	192.444	107.071	116.875	-9.80452	7.60025	1<
35	26.5	48.13	194.465	107.071	118.670	-11.5991	6.48244	1<
36	24.5	47.63	192.444	98.9849	116.875	-17.8853	3.40122	>1-1.25<
37	25	47.38	191.434	101.01	115.979	-14.9693	5.00211	>1-1.25<
38	26	49.25	198.990	105.051	122.704	-17.6533	3.04569	>1-1.25<
39	23.5	46.5	187.879	94.9495	112.834	-17.8848	3.76344	>1-1.25<
40	24.75	47	189.899	100	114.620	-14.6197	5.31915	1<
41	23.5	47.88	193.455	94.9495	117.772	-22.8225	.772766	>1.5-1.75<=
42	25	48.88	197.495	101.01	121.369	-20.3589	1.77987	>1.25-1.5<=
43	25.75	50	202.02	104.04	125.416	-21.3751	1.0	>1.25-1.5<=
44	25.75	50.5	204.04	104.04	127.228	-23.1874	9.34790E-7	>1.5-1.75<=
45	25	46.88	189.414	101.01	114.191	-13.1807	6.12201	1<
46	22.5	45.88	185.374	90.9091	110.626	-19.7172	2.98605	>1.25-1.5<=
47	22.5	45.13	182.343	90.9091	107.964	-17.0552	4.69754	>1-1.25<
48	20.75	46.75	188.889	83.8384	113.726	-29.8881	-2.67380	>2.0000
49	21	44.75	180.808	84.8485	106.619	-21.7709	2.23464	>1.25-1.5<=
50	21.5	44.88	181.333	86.8687	107.079	-20.2105	3.05259	>1.25-1.5<=

51	21.5	45.5	183.838	86.8687	109.276	-22.4076	1.64835	>1.5-1.75<...
52	20.25	44.75	180.808	81.8182	106.619	-24.6012	.558658	>1.5-1.75<...
53	20.75	44.5	179.798	83.8384	105.736	-21.6976	2.24719	>1.25-1.5<...
54	20.25	43.75	176.768	81.8182	103.093	-21.2749	2.85714	>1.25-1.5<...
55	20	44.38	179.313	80.8081	105.312	-24.5044	.833711	>1.5-1.75<...
56	20	43.63	176.283	80.8081	102.671	-21.6632	2.56704	>1.25-1.5<...
57	18.5	42.5	171.717	74.7475	96.7128	-23.9654	1.76471	>1.5-1.75<...
58	17.75	40.75	164.646	71.7172	92.6356	-20.9184	4.29448	>1.25-1.5<...
59	17.5	40.5	163.636	70.7071	91.7729	-21.0659	4.32099	>1.25-1.5<...
60	17	41.13	166.182	68.6869	93.9495	-25.2626	1.50742	>1.5-1.75<...
61	16.5	39.5	159.596	66.6667	88.3371	-21.6705	4.43038	>1.25-1.5<...
62	16.5	40	161.616	66.6667	90.0521	-23.3854	3.125	>1.5-1.75<...
63	16.75	41	165.657	67.6768	93.4996	-25.8228	1.21951	>1.75-2<...
64	19.5	43.75	176.768	78.7879	103.093	-24.3052	1.14286	>1.5-1.75<...
65	21	44.38	179.313	84.8485	105.312	-20.4640	3.08698	>1.25-1.5<...
66	21.75	44.63	180.323	87.8788	106.195	-18.3164	4.19001	>1-1.25<...
67	21.75	46.25	186.869	87.8788	111.943	-24.0644	.540541	>1.5-1.75<...
68	23	45.88	185.374	92.9293	110.626	-17.6970	4.07585	>1-1.25<...
69	21	45	181.818	84.8485	107.504	-22.6554	1.66667	>1.5-1.75<...
70	21	45	181.818	84.8485	107.504	-22.6554	1.66667	>1.5-1.75<...
71	22.5	47.88	193.455	90.9091	117.772	-26.8629	-1.31579	>1.75-2<...
72	24.5	48.5	195.960	98.9899	120.0	-21.0105	1.54639	>1.25-1.5<...
73	26.75	51.5	208.081	108.081	130.863	-22.7820	0	>1.5-1.75<...
74	27.5	52.63	212.646	111.111	134.986	-23.8751	-.72202	>1.5-1.75<...
75	27.25	51.13	206.586	110.101	129.516	-19.4153	1.70155	>1.25-1.5<...
76	26.75	52	210.101	108.081	132.685	-24.6045	-.961538	>1.5-1.75<...
77	28	52.88	213.657	113.131	135.901	-22.7694	-.245838	>1.5-1.75<...
78	29.75	54.75	221.212	120.202	142.765	-22.5629	-.45662	>1.5-1.75<...
79	29.5	53	214.141	119.192	133.340	-17.1460	2.35849	>1-1.25<...
80	27.5	52.63	212.646	111.111	134.986	-23.8751	-.72202	>1.5-1.75<...
81	28	51.75	209.091	113.131	131.774	-18.6423	1.93237	>1.25-1.5<...
82	30.25	54.75	221.212	122.222	142.765	-20.5427	.456621	>1.25-1.5<...
83	29	52	210.101	117.172	132.685	-15.5135	3.36539	>1-1.25<...
84	26.5	51.63	208.606	107.071	131.336	-24.2656	-.736006	>1.5-1.75<...
85	25	49.75	201.01	101.01	124.511	-23.5006	9.48882E-7	>1.5-1.75<...
86	26.5	49.88	201.535	107.071	124.981	-17.4104	2.74659	>1-1.25<...
87	27.75	52.5	212.121	112.121	134.511	-22.3898	8.99179E-7	>1.5-1.75<...
88	29.5	54	218.182	119.192	140.007	-20.8150	.462964	>1.25-1.5<...
89	29.5	53.25	215.152	119.192	137.256	-18.0636	1.87794	>1-1.25<...
90	29.5	54.13	218.707	119.192	140.484	-21.2926	.22169	>1.25-1.5<...
91	29	53.75	217.172	117.172	139.089	-21.9173	0	>1.25-1.5<...
92	29	53.38	215.677	117.172	137.732	-20.5602	.693145	>1.25-1.5<...
93	28	52.75	213.131	113.131	135.425	-22.2937	0	>1.5-1.75<...
94	28	53	214.141	113.131	136.340	-23.2086	-.471698	>1.5-1.75<...
95	28	51.63	208.606	113.131	131.336	-18.2050	2.16928	>1-1.25<...
96	23	49.25	198.990	92.9293	122.704	-29.7745	-3.04569	>2<...
97	26	50	202.02	105.051	125.416	-20.365	1.5	>1.25-1.5<...
98	20.5	41.88	169.212	82.8283	96.5521	-13.7238	8.0468	1<
99	21	43.13	174.263	84.8485	100.917	-16.0681	6.07466	>1-1.25<...
100	19.5	40.38	163.152	78.7879	91.3594	-12.5715	9.58395	1<
101	19	40.25	162.626	76.7677	90.9118	-14.1441	8.69565	1<
102	17	37	149.495	68.6869	79.8576	-11.1707	12.8378	1<
103	17	37	149.495	68.6869	79.8576	-11.1707	12.8378	1<
104	17	38.88	157.091	68.6869	86.2191	-17.5322	7.38169	>1-1.25<...
105	16.5	39.5	159.596	66.6667	88.3371	-21.6705	4.43038	>1.25-1.5<...
106	18	41.75	168.687	72.7273	96.1001	-23.3729	2.39521	>1.5-1.75<...

18 IOWA BEEF PROCESSORS

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
2	10.75	26.63	106.520	43.0	46.1044	-3.10445	34.2471	1<
3	11	26.38	105.520	44.0	45.3770	-1.37699	36.467	1<
4	10.88	24	96.00	43.52	36.6218	4.89821	49.5	1<
5	10.5	23	92.00	42.0	35.8623	6.1177	54.3478	1<
6	9.75	21.63	86.520	39.0	32.2335	4.76646	60.6565	1<
7	9.5	21.5	86.00	38.0	31.8439	6.10611	60.4651	1<
8	9.25	21.25	85.00	37.0	31.244	5.75595	61.1765	1<
9	9.25	21.25	85.00	37.0	31.244	5.75595	61.1765	1<
10	9.13	21.25	85.00	36.52	31.244	5.27595	60.6118	1<
11	9.75	23.38	93.520	39.0	36.9160	2.06401	48.6313	1<
12	9.75	24	96.00	39.0	38.6218	.376213	44.7917	1<
13	9.25	22.5	90.00	37.0	34.5362	2.46376	52.2222	1<
14	9	23.5	94.00	36.0	37.2443	-1.24431	44.6809	1<
15	9	23.88	95.520	36.0	38.2698	-2.26981	42.3786	1<
16	12.63	28.88	115.520	50.52	52.7903	-2.27028	30.2978	1<
17	13.5	31.75	127.00	54.0	61.6447	-7.64467	21.2598	1<
18	11.75	30	120.00	47.0	56.2050	-9.20499	22.5	1<
19	14.75	31.5	126.00	59.0	60.8602	-1.86019	26.1905	1<
20	14.25	32.5	130.00	57.00	64.0122	-7.01219	20.7692	1<
21	17.75	33.75	135.00	71.00	68.0030	2.97703	26.6667	1<
22	16.75	34.13	136.520	67.00	69.2268	-2.22680	22.3264	1<
23	15.38	31.25	125	61.52	60.0781	1.44189	29.2160	1<
24	14.75	31	124.00	59.0	59.2985	-.29846	28.2258	1<
25	15.25	29.38	117.520	61.0	54.3080	6.69203	36.9980	1<
26	15.75	30.63	122.520	63.0	56.1491	4.85086	33.0395	1<
27	13.63	29.38	117.520	54.52	54.3080	.212029	31.484	1<
28	13.5	28	112.00	54.0	50.1466	3.85341	37.5	1<
29	13.5	28	112.00	54.0	50.1466	3.85341	37.5	1<
30	13.38	29.75	119.00	53.52	55.4381	-1.91809	29.0084	1<
31	13.5	28.5	114.00	54.0	51.6443	2.35568	35.0877	1<
32	13.88	29.88	119.520	55.52	55.8365	-.316548	30.1205	1<
33	14.75	30.75	123.00	59.0	58.5213	.47871	29.2683	1<
34	13.38	28.5	114.00	53.52	51.6443	1.87568	34.6667	1<
35	14	28.75	115.00	56.00	52.3975	3.60249	35.6522	1<
36	13	28.25	113.00	52.0	50.894	1.1060	34.5133	1<
37	12.88	29.13	116.52	51.52	53.5477	-2.02775	30.0378	1<
38	12.13	27.38	109.520	48.52	48.3059	.214135	35.6099	1<
39	12.25	25.75	103.00	49.0	43.5583	5.44165	44.6602	1<
40	12.5	25.25	101.00	50	42.1302	7.86978	48.5149	1<
41	12.5	24.63	98.520	50	40.3787	9.62126	52.2534	1<
42	12.75	27.25	109.00	51.0	47.9223	3.07773	38.5321	1<
43	14.25	28.38	113.520	57.00	51.2836	5.71619	38.3016	1<
44	14.25	27	108.00	57.00	47.1870	9.81305	45.3704	1<
45	14.5	28.13	112.520	58.0	50.5349	7.46512	40.4195	1<
46	14.25	26.75	107.00	57.00	46.4548	10.5452	46.7290	1<
47	13.38	25.63	102.520	53.52	43.2144	10.3057	49.7464	1<
48	12.5	26.25	105.00	50	45.00	5.0	42.8571	1<
49	12.13	23.75	95.00	48.52	37.9311	10.5869	56.3368	1<
50	12.25	24.25	97.00	49.0	39.3162	9.68382	53.6082	1<
51	11.25	24.75	99.00	45.0	40.716	4.28398	46.4646	1<

52	12.63	27.63	110.520	50.52	49.0459	1.47414	36.1925	1<
53	12.5	27.13	108.520	50	47.5689	2.43107	38.2234	1<
54	11.38	25.63	102.520	45.52	43.2144	2.30565	41.943	1<
55	11.13	25.63	102.520	44.52	43.2144	1.30565	40.9676	1<
56	10.5	25.13	100.520	42.0	41.7895	.210474	41.2654	1<
57	10.25	24	96.00	41.0	38.6218	2.37821	46.875	1<
58	9	20.63	82.520	36.0	29.6516	6.34635	64.8085	1<
59	7.75	21.5	86.00	31.0	31.8939	-.893894	52.3256	1<
60	7.38	20	80.00	29.52	28.0625	1.45752	61.9	1<
61	7.38	19	76.00	29.52	25.6025	3.91745	70.4211	1<
62	7.38	18.25	73.00	29.52	23.8103	5.70966	77.4247	1<
63	7.38	20	80.00	29.52	28.0625	1.45752	61.9	1<
64	7.5	19.75	79.00	30.0	27.4402	2.55982	64.5570	1<
65	9.75	22.63	90.520	39.0	34.8847	4.11535	53.5572	1<
66	9.5	23.25	93.00	38.0	36.5613	1.43866	48.3871	1<
67	10	23.63	94.520	40.0	37.6010	2.39902	48.1168	1<
68	9.88	24	96.00	39.52	38.6218	.896213	45.3333	1<
69	10	24	96.00	40.0	38.6218	1.37821	45.8333	1<
70	9	22	88.00	36.0	33.2066	2.79340	54.5455	1<
71	8.5	20.63	82.520	34.0	29.6516	4.34835	62.3849	1<
72	9	23.88	95.520	36.0	38.2698	-2.28981	42.3786	1<
73	9	24	96.00	36.0	38.6218	-2.62179	41.6667	1<
74	11.38	26.25	105.00	45.52	45.00	.520001	38.5905	1<
75	11.75	26.75	107.00	47.0	46.4548	.54523	37.3832	1<
76	11.25	26.38	105.520	45.0	45.3770	-.376992	37.4147	1<
77	12	27.75	111.00	48.0	49.4021	-1.40214	33.3333	1<
78	12.63	28.63	114.520	50.52	52.0356	-1.51562	31.4356	1<
79	12.88	30.38	121.520	51.52	57.3757	-5.85570	24.6873	1<
80	13.38	29.63	118.520	53.52	55.0709	-1.55092	29.5309	1<
81	12.38	28.25	113.00	49.52	50.894	-1.374	32.3186	1<
82	12	28.5	114.00	48.0	51.6443	-3.64432	29.8246	1<
83	13.13	30.13	120.520	52.520	56.6048	-4.06462	26.5516	1<
84	12.38	29.13	116.52	49.52	53.5477	-4.02775	28.3213	1<
85	12.5	29.38	117.520	50	54.3080	-4.30797	27.6379	1<
86	11.75	28.63	114.520	47.0	52.0356	-5.03562	28.3619	1<
87	12.75	31.75	127.00	51.0	61.6447	-10.6447	18.8976	1<
88	14	32.5	130.00	56.00	64.0122	-8.01219	20.0	1<
89	14.5	33.13	132.520	58.0	66.0167	-8.01671	19.2273	1<
90	14.25	32	128.00	57.00	62.4315	-5.43152	22.6563	1<
91	13.75	31.38	125.520	55.0	60.4845	-5.48448	23.4863	1<
92	12.75	29.13	116.52	51.0	53.5477	-2.54775	29.5915	1<
93	12.5	30	120.00	50	56.2050	-6.20499	25.0	1<
94	12.13	30.13	120.520	48.52	56.6048	-8.08462	23.2327	1<
95	12	28.75	115.00	48.0	52.3975	-4.39751	28.6957	1<
96	11.38	28.62	114.480	45.52	52.0055	-6.46549	27.1139	1<
97	12.25	29.38	117.520	49.0	54.3080	-5.30797	26.7869	1<
98	12.5	30.75	123.00	50	58.5213	-8.52129	21.9512	1<
99	12.5	30.13	120.520	50	56.6048	-6.60462	24.4607	1<
100	12.75	31.75	127.00	51.0	61.6447	-10.6447	18.8976	1<
101	12.88	30.88	123.520	51.52	58.9251	-7.40511	22.6684	1<
102	12.25	29.75	119.00	49.0	55.4381	-6.43809	25.2101	1<
103	12.25	29.75	119.00	49.0	55.4381	-6.43809	25.2101	1<
104	12	30	120.00	48.0	56.2050	-8.20499	23.3333	1<
105	13.75	32	128.00	55.0	62.4315	-7.43152	21.0938	1<
106	13.63	31.25	125	54.52	60.0781	-5.55811	23.6160	1<

19 LOUISIANA LAND & EXPLORATION

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
41	15	42.25	104.321	37.037	44.5091	-7.47202	31.3609	1<
42	15.88	44	108.642	39.2099	47.6587	-8.44878	28.1364	1<
43	18	48.5	119.753	44.4444	56.0154	-11.5709	20.6186	1<
44	17.88	48.38	119.457	44.1481	55.7881	-11.6399	20.6697	1<
45	17.88	48.5	119.753	44.1481	56.0154	-11.6672	20.3711	1<
46	16.38	45.25	111.728	40.4444	49.9441	-9.49966	25.7017	1<
47	17	45	111.111	41.9753	49.4847	-7.5094	27.7778	1<
48	17.38	48.63	120.074	42.9136	56.2619	-13.3483	19.0212	1<
49	16	46.63	115.136	39.5062	52.5	-12.9938	21.1666	1<
50	16	46.75	115.432	39.5062	52.7238	-13.2177	20.8556	1<
51	16.63	45.25	111.728	41.0617	49.9441	-8.88237	26.2541	1<
52	15.88	44	108.642	39.2099	47.6587	-8.44878	28.1364	1<
53	15.63	45.63	112.667	38.5926	50.6445	-12.0519	23.0112	1<
54	14.75	43.5	107.407	36.4198	46.7527	-10.3329	27.0115	1<
55	15	43.13	106.494	37.037	46.0854	-9.04833	28.6807	1<
56	14	42	103.704	34.5679	44.0641	-9.49617	29.7619	1<
57	15.13	45	111.111	37.358	49.4847	-12.1267	23.6222	1<
58	14.13	43.5	107.407	34.8889	46.7527	-11.8638	25.5862	1<
59	14.63	44.13	108.963	36.1235	47.8950	-11.7715	24.9264	1<
60	14.13	43.38	107.111	34.8889	46.5360	-11.6471	25.9336	1<
61	14.5	44.88	110.815	35.8025	49.2646	-13.4621	22.549	1<
62	15.13	45.63	112.667	37.358	50.6445	-13.2865	21.9154	1<
63	14.38	43.75	108.025	35.5062	47.2051	-11.6969	25.44	1<
64	15.5	46.5	114.815	38.2716	52.2578	-13.9862	20.4301	1<
65	17.5	48.88	120.691	43.2099	56.7367	-13.5269	18.6579	1<
66	18.38	50.88	125.630	45.3827	60.5702	-15.1875	15.7233	>1-1.25<<
67	18.13	51.13	126.247	44.7654	61.0537	-16.2882	14.6685	>1-1.25<<
68	17.75	50.88	125.630	43.8272	60.5702	-16.7431	14.4851	>1-1.25<<
69	21	55	135.802	51.8519	68.6485	-16.7966	11.8182	>1-1.25<<
70	20.63	54	133.333	50.9383	66.6667	-15.7284	13.2037	>1-1.25<<
71	19	52.13	128.716	46.9136	62.9964	-16.0828	14.1377	>1-1.25<<
72	19.5	52.88	130.568	48.1481	64.4627	-16.3145	13.4645	>1-1.25<<
73	19	53.25	131.481	46.9136	65.1889	-18.2753	11.7371	>1-1.25<<
74	19	53.25	131.481	46.9136	65.1889	-18.2753	11.7371	>1-1.25<<
75	19.13	53.25	131.481	47.2346	65.1889	-17.9544	12.9812	>1-1.25<<
76	18.75	52.75	130.247	46.2963	64.2080	-17.9117	12.3223	>1-1.25<<
77	19	53.13	131.185	46.9136	64.9532	-18.0396	11.9895	>1-1.25<<
78	18.25	51.75	127.778	45.0617	62.2565	-17.1947	13.5266	>1-1.25<<
79	16.75	49	120.988	41.358	56.965	-15.6070	16.8367	>1-1.25<<
80	16.25	47	116.049	40.1235	53.1909	-13.0675	20.7447	1<
81	16	47.5	117.284	39.5062	54.1283	-14.6221	18.9474	1<
82	17.88	51.38	126.864	44.1481	61.5380	-17.3898	13.6240	>1-1.25<<
83	17.88	51.5	127.16	44.1481	61.7708	-17.6226	13.3592	>1-1.25<<
84	16.25	49	120.988	40.1235	56.965	-16.8415	15.8163	>1-1.25<<
85	16	48.13	118.840	39.5062	55.3153	-15.8091	17.3904	>1-1.25<<
86	15.63	48.88	120.691	38.5926	56.7367	-18.1441	14.8322	>1-1.25<<
87	15	46	113.58	37.037	51.329	-14.2920	20.6522	1<
88	15.5	47.63	117.605	38.2716	54.3727	-16.1011	17.5730	>1-1.25<<
89	14.75	46.75	115.432	36.4198	52.7238	-16.3041	18.1818	>1-1.25<<
90	13.88	43.75	108.025	34.2716	47.2051	-12.9335	24.2971	1<

91	13.38	44	108.642	33.037	47.6587	-14.6216	22.4545	1<
92	14.38	44.63	110.198	35.5062	48.8069	-13.3007	22.9666	1<
93	13.75	43.38	107.111	33.9506	46.5360	-12.5854	25.0576	1<
94	14.5	45.63	112.667	35.8025	50.6445	-14.6421	20.5347	>1-1.25<0
95	7.63	22.75	56.1728	18.8395	14.6969	4.14257	111.56	1<
96	15	46.38	114.519	37.037	52.0345	-14.9975	19.6637	>1-1.25<0
97	15.25	46.5	114.815	37.6543	52.2578	-14.6035	19.8925	1<
98	13.38	44.38	109.58	33.037	48.3504	-15.3133	21.406	>1-1.25<0
99	12.63	41.5	102.469	31.1852	43.1779	-11.9928	28.0241	1<
100	14.25	45.63	112.667	35.1852	50.6445	-15.4594	19.9869	>1-1.25<0
101	14.5	45.5	112.346	35.8025	50.4046	-14.6022	20.8791	1<
102	14.38	47.13	116.37	35.5062	53.4342	-17.9281	16.4439	>1-1.25<0
103	16.13	49.38	121.926	39.8272	57.6693	-17.4622	14.6821	>1-1.25<0
104	13.25	43.38	107.111	32.716	46.5360	-13.8199	23.905	1<
105	13.25	44.13	108.963	32.716	47.8950	-15.1789	21.7992	>1-1.25<0
106	12.5	43.75	108.025	30.8642	47.2051	-16.3409	21.1429	>1-1.25<0

20 MOBIL OIL

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	15	49.25	103.684	31.5789	44.05	-12.4711	26.9036	1<
2	16.25	52.13	109.747	34.2105	46.4738	-14.2633	22.2904	1<
3	17.5	55.38	116.589	36.8421	53.6005	-16.7564	17.3709	>1-1.25<
4	17.63	53.75	113.158	37.1158	51.0123	-13.8965	21.1721	1<
5	17.63	53.75	113.158	37.1158	51.0123	-13.8965	21.1721	1<
6	17.5	55	115.789	36.8421	52.9941	-16.152	18.1818	>1-1.25<
7	17.63	53.75	113.158	37.1158	51.0123	-13.8965	21.1721	1<
8	18	53.75	113.158	37.8947	51.0123	-13.1175	21.8605	1<
9	16.5	52.5	110.526	34.7368	49.0505	-14.3137	21.9048	1<
10	17.75	54.63	115.011	37.3684	52.4054	-15.037	19.4399	>1-1.25<
11	18.75	55.75	117.368	39.4737	54.1926	-14.7169	18.8341	>1-1.25<
12	17.75	55.75	117.368	37.3684	54.1926	-16.8241	17.0404	>1-1.25<
13	18	56	117.895	37.8947	54.5936	-16.6968	16.9643	>1-1.25<
14	17.13	53.88	113.432	36.0632	51.2175	-15.1543	19.9517	>1-1.25<
15	17	54.13	113.958	35.7895	51.6127	-15.8232	19.1576	>1-1.25<
16	17.63	57.38	120.80	37.1158	56.8204	-19.7046	13.5064	>1-25-1.5<
17	17	53.25	112.105	35.7895	50.2251	-14.4357	21.1268	1<
18	16.75	52	109.474	35.2632	48.2717	-13.0085	23.5577	1<
19	16.38	52.38	110.274	34.4842	48.8633	-14.3791	21.9549	1<
20	16.5	53	111.579	34.7368	49.8328	-15.0959	20.7547	>1-1.25<
21	17.25	53.75	113.158	36.3158	51.0123	-14.6965	20.4651	>1-1.25<
22	16.75	53.25	112.105	35.2632	50.2251	-14.9620	20.6573	>1-1.25<
23	18.25	55.25	116.316	38.4211	53.3928	-14.9718	19.0045	>1-1.25<
24	18.63	54.5	114.737	39.2211	52.199	-12.9780	21.3394	1<
25	22.63	57.88	121.853	47.6421	57.6327	-9.99058	21.1645	1<
26	22.63	57.88	121.853	47.6421	57.6327	-9.99058	21.1645	1<
27	22	56.13	118.168	46.3158	54.8024	-8.48659	23.8197	1<
28	21.3	55.75	117.368	44.8421	54.1926	-9.35046	23.4081	1<
29	20.63	54.63	115.011	43.4316	52.4054	-8.97367	24.7117	1<
30	22	58	122.105	46.3158	57.8281	-11.5123	19.8276	1<
31	22	58.5	123.158	46.3158	58.6438	-12.328	18.8034	1<
32	22.5	59	124.211	47.3684	59.4624	-12.0940	18.6441	1<
33	21.88	57.75	121.579	46.0632	57.4212	-11.3581	20.1385	1<
34	20	56.36	118.695	42.1053	55.2045	-13.0992	19.7233	1<
35	20.13	56.5	118.947	42.3789	55.3978	-13.0189	19.6991	1<
36	20	54.63	115.011	42.1053	52.4054	-10.3002	23.5585	1<
37	19.63	54.25	114.211	41.3263	51.8026	-10.4763	23.7419	1<
38	20.38	56.25	118.421	42.9053	54.9953	-12.09	20.6756	1<
39	21.5	57.25	120.526	45.2632	56.6097	-11.3465	20.524	1<
40	18.25	53.88	113.432	38.4211	51.2175	-12.7964	22.0304	1<
41	18.38	54.75	115.263	38.6947	52.5962	-13.9014	20.3288	1<
42	19.63	55.63	117.116	41.3263	54.0003	-12.674	20.6723	1<
43	21	57.75	121.579	44.2105	57.4212	-13.2107	18.6147	1<
44	20.5	56.13	118.168	43.1579	54.8024	-11.6445	21.1473	1<
45	20	55.25	116.316	42.1053	53.3928	-11.2876	22.1719	1<
46	19.13	52.5	110.526	40.2737	49.0505	-8.77686	26.9143	1<
47	18	51.38	108.168	37.8947	47.3106	-9.41584	27.4815	1<
48	17.25	48.75	102.632	36.3158	43.2942	-6.97845	32.8205	1<
49	18.5	50	105.263	38.9474	45.1907	-6.24331	32.00	1<
50	18	49.38	103.958	37.8947	44.2472	-6.35242	32.6448	1<

51	18.25	50.5	106.316	38.4211	45.9556	-7.53458	30.198	1<
52	18.25	50	105.263	38.4211	45.1907	-6.76962	31.5	1<
53	17.13	50.5	106.316	36.0632	45.9556	-9.89247	27.9802	1<
54	16.63	48.38	101.853	35.0105	42.7374	-7.72685	32.5548	1<
55	16.75	49	103.158	35.2632	43.6717	-8.40852	31.1224	1<
56	16.75	49.25	103.684	35.2632	44.05	-8.78689	30.4569	1<
57	16.63	49.5	104.211	35.0105	44.4293	-9.41881	29.5556	1<
58	16.5	51.5	108.421	34.7368	47.4962	-12.7593	24.2718	1<
59	15.13	48.25	101.579	31.8526	42.5422	-10.6896	29.8031	1<
60	14.75	47.13	99.2211	31.0526	40.8716	-9.819	32.0815	1<
61	15	47.38	99.7474	31.5789	41.2428	-9.66388	31.9122	1<
62	15.13	47.68	100.379	31.8526	41.6896	-9.83693	31.3549	1<
63	14.75	49.63	104.484	31.0526	44.6269	-13.5743	25.4282	1<
64	16.13	51.5	108.421	33.9579	47.4962	-13.5383	23.5534	1<
65	16.75	52.75	111.053	35.2632	49.4412	-14.1781	21.8009	1<
66	18.38	55.13	116.063	38.6947	53.2014	-14.5066	19.4994	1<
67	17.38	53.13	111.853	36.5895	50.0367	-13.4472	22.1156	1<
68	17.75	54.5	114.737	37.3684	52.199	-14.8306	19.7248	>1-1.25<
69	17.75	55.13	116.063	37.3684	53.2014	-15.8329	18.3566	>1-1.25<
70	17.5	55	115.789	36.8421	52.9941	-16.152	18.1818	>1-1.25<
71	17.5	55	115.789	36.8421	52.9941	-16.152	18.1818	>1-1.25<
72	16.88	53.88	113.432	35.5368	51.2175	-15.6806	19.4878	>1-1.25<
73	16.13	52.5	110.526	33.9579	49.0505	-15.0927	21.2	>1-1.25<
74	16.5	52.75	111.053	34.7368	49.4412	-14.7044	21.327	>1-1.25<
75	15.38	51.75	108.947	32.3789	47.8835	-15.5046	21.5072	>1-1.25<
76	17.5	55.25	116.316	36.8421	53.3928	-16.5507	17.6471	>1-1.25<
77	17	55.75	117.368	35.7895	54.1926	-18.4031	15.6951	>1-1.25<
78	16.13	54.38	114.484	33.9579	52.0087	-18.0508	17.0099	>1-1.25<
79	15.63	51.5	108.421	32.9053	47.4962	-14.5909	22.5825	1<
80	15.75	51.88	109.221	33.1579	48.0852	-14.9273	21.9160	>1-1.25<
81	15.63	51.38	108.168	32.9053	47.3106	-14.4053	22.8688	1<
82	14.75	51.13	107.642	31.0526	46.9245	-15.8719	21.7485	>1-1.25<
83	14.38	50.13	105.537	30.2737	45.3892	-15.1155	23.4391	>1-1.25<
84	14.63	50.25	105.789	30.8	45.5727	-14.7727	23.6418	>1-1.25<
85	15.13	51.63	108.695	31.8526	47.6975	-15.8448	21.3054	>1-1.25<
86	14.75	50.38	106.063	31.0526	45.7717	-14.7191	23.5609	>1-1.25<
87	14.93	50.63	106.589	31.4316	46.1551	-14.7235	23.3063	>1-1.25<
88	16	55.13	116.063	33.6842	53.2014	-19.5171	15.1823	>1-1.25<
89	16.88	55.88	117.642	35.5368	54.4010	-18.8641	15.2112	>1-1.25<
90	15.13	54	113.684	31.8526	51.4071	-19.5544	15.9815	>1-1.25<
91	15.5	53.88	113.432	32.6316	51.2175	-18.5859	16.9265	>1-1.25<
92	16.5	56.13	118.168	34.7368	54.8024	-20.0655	14.021	>1-1.25<
93	15.5	54.88	115.537	32.6316	52.803	-20.1714	14.7959	>1-1.25<
94	17.25	57.25	120.526	36.3158	56.6097	-20.2939	13.1004	>1-1.25<
95	18	58.5	123.158	37.8947	58.6438	-20.7491	11.9658	>1-1.25<
96	17.38	57.5	121.053	36.5895	57.0151	-20.4256	12.8348	>1-1.25<
97	18.38	59.25	124.737	38.6947	59.8727	-21.1780	11.1899	>1-1.25<
98	18	59.5	125.263	37.8947	60.2837	-22.3889	10.084	>1-1.25<
99	18.25	59.75	125.789	38.4211	60.6953	-22.2743	10.0418	>1-1.25<
100	22	65.380	137.642	46.3158	70.1333	-23.8175	6.30162	>1-1.25<
101	23.75	66.380	139.747	50	71.8410	-21.8410	7.33655	>1-1.25<
102	23.25	66.380	139.747	48.9474	71.8410	-22.6936	6.58331	>1-1.25<
103	25	67.880	142.905	52.6316	74.4188	-21.7872	6.80613	>1-1.25<
104	24.13	67.880	142.905	50.80	74.4188	-23.6188	5.52446	>1-1.25<
105	23.75	65	136.842	50	69.4868	-19.4868	9.61539	>1-1.25<
106	24.13	65.880	138.695	50.80	70.9861	-20.1861	8.72799	>1-1.25<

21 RYDER SYSTEMS

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
40	27.25	45.88	183.520	109.00	108.997	3.3741E-3	13.884	1<
41	24.5	45.38	181.520	98.00	107.243	-9.24263	9.07889	1<
42	24.75	48.25	193.00	99.00	117.368	-18.3683	3.10881	>1.25-1.5<00
43	28.25	52.13	208.520	113.00	131.259	-18.2587	2.14848	>1-1.25<0
44	24.5	52.38	209.520	114.00	132.161	-18.1608	2.13822	>1-1.25<0
45	29.25	53	212.00	117.00	134.401	-17.4014	2.35849	>1-1.25<0
46	25.25	48.63	194.520	101.00	118.719	-17.7191	3.33128	>1-1.25<0
47	25.75	48.38	193.520	103.00	117.83	-14.8302	4.89872	>1-1.25<0
48	30	53.38	213.520	120.00	135.777	-15.7770	3.03485	>1-1.25<0
49	33.98	57.25	229.00	135.520	149.682	-14.3620	2.84716	1<
50	35.5	59.5	238.00	142.00	156.155	-16.1550	1.68067	>1-1.25<0
51	35.75	59.25	237.00	143.00	157.233	-14.2334	2.53165	1<
52	34.88	57.38	229.520	139.520	150.359	-10.8366	4.35692	1<
53	32.63	56.5	226.00	130.520	147.136	-16.6156	2.00	>1-1.25<0
54	32.5	55.88	223.520	130.00	144.670	-14.6697	2.89907	>1-1.25<0
55	36.75	60.88	243.520	147.00	163.253	-16.2527	1.42904	>1-1.25<0
56	40.75	63.25	253.00	163.00	172.046	-9.04595	3.95257	1<
57	37.5	61.5	246.00	150	165.548	-15.5485	1.62602	>1-1.25<0
58	37.25	61	244.00	149.00	163.697	-14.6968	2.04918	>1-1.25<0
59	33.75	58.75	235.00	135.00	155.392	-20.3919	0	>1.25-1.5<00
60	34.75	58.5	234.00	139.00	154.472	-15.472	2.13675	>1-1.25<0
61	32.5	56.75	227.00	130.00	148.05	-18.0504	1.32159	>1-1.25<0
62	34	58.13	232.520	136.00	153.112	-17.1117	1.49665	>1-1.25<0
63	36.75	60	240.00	147.00	160.00	-13.00	2.91667	1<
64	40.25	65	260.00	161.00	178.568	-17.5678	.384615	>1-1.25<0
65	41.88	67.25	269.00	167.520	186.986	-19.4661	-.550186	>1.25-1.5<00
66	43	68.130	272.520	172.00	190.288	-18.288	-.19081	>1-1.25<0
67	44.25	69.25	277.00	177.00	194.498	-17.4979	0	>1-1.25<0
68	43.75	69	276.00	175	193.557	-18.5575	-.362317	>1.25-1.5<00
69	42.5	67.880	271.520	170.00	189.349	-19.3495	-.55981	>1.25-1.5<00
70	43.25	68.75	275	173.00	192.617	-19.6175	-.727274	>1.25-1.5<00
71	41	66.25	265.00	164.00	183.24	-19.2402	-.377358	>1.25-1.5<00
72	46	71	284.00	184.00	201.091	-17.0913	0	>1-1.25<0
73	49.5	74.5	298.00	198.00	214.331	-16.331	0	>1-1.25<0
74	48.75	74	296.00	195.00	212.436	-17.4356	-.337838	>1-1.25<0
75	49	74.630	298.520	196.00	214.824	-18.8241	-.844163	>1.25-1.5<00
76	51.25	76.380	305.520	205.00	221.469	-16.4692	-.170201	>1-1.25<0
77	50.5	76	304.00	202.00	220.025	-18.0250	-.657895	>1-1.25<0
78	46	70.880	283.520	184.00	200.639	-16.6386	.169301	>1-1.25<0
79	44	68.25	273.00	176.00	190.739	-14.7387	1.0989	>1-1.25<0
80	46.75	72.380	289.520	187.00	206.303	-19.3035	-.870405	>1.25-1.5<00
81	47.25	71.25	285.00	189.00	202.035	-13.0348	1.40351	1<
82	50	75.130	300.520	200	216.721	-16.7211	-.173031	>1-1.25<0
83	48.38	73.75	295.00	193.520	211.488	-17.9664	-.501695	>1-1.25<0
84	44	68.880	275.520	176.00	193.106	-17.1062	.174217	>1-1.25<0
85	44.25	69.5	278.00	177.00	195.439	-18.4367	-.359712	>1.25-1.5<00
86	42.75	67.25	269.00	171.00	186.986	-15.9861	.743494	>1-1.25<0
87	43.25	68.75	275	173.00	192.617	-19.6175	-.727274	>1.25-1.5<00

88	56	81.24	324.960	224.00	237.999	-15.9985	-0.295421	>1-1.25<0
89	58	83.5	334.00	232.00	248.649	-16.6488	-0.598802	>1-1.25<0
90	56.25	81.5	326.00	225	240.993	-15.9927	-0.306747	>1-1.25<0
91	53.5	79.25	317.00	214.00	232.399	-18.3989	-0.946372	>1.25-1.5<00
92	57	82.25	329.00	228.00	243.862	-15.8619	-0.303951	>1-1.25<0
93	54.5	80.25	321.00	218.00	236.216	-18.2157	-0.434579	>1-1.25<0
94	58.5	83.5	334.00	234.00	248.649	-14.6488	0	1<
95	60.5	86.25	345.00	242.00	259.2	-17.2005	-0.869565	>1-1.25<0
96	55.5	80.25	321.00	222.00	238.216	-14.2157	-0.311526	1<
97	61.75	87.25	349.00	247.00	263.044	-16.0441	-0.573066	>1-1.25<0
98	59	84.75	339.00	236.00	253.442	-17.4416	-0.884956	>1-1.25<0
99	61	86	344.00	244.00	258.24	-14.2401	0	1<
100	58	82.25	329.00	232.00	243.862	-11.8619	-0.911854	1<
101	57.75	78	312.00	231.00	227.634	-3.36606	-0.08974	1<
102	52.5	73	292.00	210.00	208.649	-1.35134	-0.16438	1<
103	53	77.75	311.00	212.00	226.682	-14.6818	-0.321543	1<
104	49.5	72.75	291.00	198.00	207.703	-9.70277	-0.40550	1<
105	51.5	75.5	302.00	206.00	218.126	-12.1258	-0.13245	1<
106	48	73.25	293.00	192.00	209.595	-17.5949	-0.341297	>1-1.25<0

22 TAMPA ELECTRIC

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	7.25	22.88	99.4783	31.5217	41.0529	-9.53117	32.2115	1<
2	7.25	22	95.6522	31.5217	38.3811	-6.85939	37.5	1<
3	7.25	22	95.6522	31.5217	38.3811	-6.85939	37.5	1<
4	6.75	21.5	93.4783	29.3478	36.8875	-7.53966	38.3721	1<
5	6.25	20	86.9565	27.1739	32.5196	-5.34566	46.25	1<
6	6.25	20.75	90.2174	27.1739	34.6818	-7.50785	40.9639	1<
7	5.75	21	91.3043	25	35.4123	-10.4123	36.9048	1<
8	5.63	22.5	97.8261	24.4783	39.8926	-15.4144	27.2444	>1-1.25<
9	5.75	23	100	25	41.4214	-16.4214	25	>1-1.25<
10	5.75	24.13	104.913	25	44.937	-19.937	19.1463	>1-1.25<
11	6.25	24.63	107.087	27.1739	46.5183	-19.3444	16.7576	>1-1.25<
12	7	25.38	110.348	30.4348	48.9182	-18.4835	18.2033	>1-1.25<
13	7.38	25	108.696	32.0870	47.6982	-15.6112	21.52	>1-1.25<
14	7.38	25.25	109.783	32.0870	48.4999	-16.4129	20.3168	>1-1.25<
15	8.5	26.63	115.783	36.9565	52.9889	-16.0324	18.2876	>1-1.25<
16	10.13	27	117.391	44.0435	54.210	-10.1665	22.7037	1<
17	10.5	27	117.391	45.6522	54.210	-8.55781	24.0741	1<
18	10.5	27.63	120.13	45.6522	56.3052	-10.653	21.245	1<
19	10.75	26.75	116.304	46.7391	53.3842	-6.64503	26.1682	1<
20	9.75	26	113.043	42.3913	50.9266	-8.53526	25.9615	1<
21	9.5	27.38	119.043	41.3043	55.4714	-14.167	18.6998	1<
22	9.5	27.75	120.652	41.3043	56.7066	-15.4022	17.1171	>1-1.25<
23	9.25	26.5	115.217	40.2174	52.5616	-12.3442	21.6981	1<
24	9	27	117.391	39.1304	54.210	-15.0795	18.5185	>1-1.25<
25	8.63	25.5	110.870	37.5217	49.3053	-11.7835	24.0392	1<
26	8.63	25.75	111.957	37.5217	50.1142	-12.5924	22.8350	1<
27	9	27.38	119.043	39.1304	55.4714	-16.3409	16.8736	>1-1.25<
28	8.88	27.25	118.478	38.6087	55.039	-16.4303	16.9908	>1-1.25<
29	9	26	113.043	39.1304	50.9266	-11.7961	23.0769	1<
30	9.5	25.25	109.783	41.3043	48.4999	-7.19555	28.7129	1<
31	9	26	113.043	39.1304	50.9266	-11.7961	23.0769	1<
32	9.5	25.25	109.783	41.3043	48.4999	-7.19555	28.7129	1<
33	9.25	23.63	102.739	40.2174	43.3713	-3.1539	36.4791	1<
34	8.75	24	104.348	38.0435	44.5284	-6.48496	32.2917	1<
35	8.75	24	104.348	38.0435	44.5284	-6.48496	32.2917	1<
36	8.5	23	100	36.9565	41.4214	-4.46484	36.9565	1<
37	8.5	24.63	107.087	36.9565	46.5183	-9.56179	27.8928	1<
38	8.75	24	104.348	38.0435	44.5284	-6.48496	32.2917	1<
39	7.38	24	104.348	32.0870	44.5284	-12.4415	26.5833	1<
40	8.25	24.13	104.913	35.8696	44.937	-9.06748	29.5068	1<
41	8.25	24.86	108.174	35.8696	47.3146	-11.445	25.6029	1<
42	8.75	26.38	114.696	38.0435	52.1680	-14.1245	20.3563	1<
43	9	26.5	115.217	39.1304	52.5616	-13.4312	20.7547	1<
44	9	26.88	116.870	39.1304	53.8132	-14.6827	19.0476	1<
45	9	25.13	109.261	39.1304	48.1146	-8.98417	27.3378	1<
46	8.5	24.13	104.913	36.9565	44.937	-7.98052	30.5429	1<
47	8.5	24.13	104.913	36.9565	44.937	-7.98052	30.5429	1<
48	8	24.5	106.522	34.7826	46.1057	-11.3231	26.5306	1<
49	7.75	22	95.6522	33.6957	38.3811	-4.68548	39.7727	1<
50	8	22.38	97.3043	34.7826	39.5283	-4.74565	38.5165	1<

51	7.75	21.75	94.5652	33.6957	37.632	-3.93639	41.3793	1
52	7.75	21.38	92.9565	33.6957	36.5317	-2.83608	43.826	1
53	7.75	22.63	98.3913	33.6957	40.2884	-6.59280	35.8816	1
54	8.25	23.25	101.087	35.8696	42.192	-6.32246	34.4086	1
55	7.75	23.13	100.565	33.6957	41.8216	-8.12593	32.9442	1
56	8.5	24.75	107.607	36.9565	46.9001	-9.94355	27.2727	1
57	8.5	24	104.348	36.9565	41.5284	-7.57191	31.25	1
58	8	23.5	102.174	34.7826	42.9668	-8.1442	31.9149	1
59	8	23.25	101.087	34.7826	42.192	-7.40942	33.3333	1
60	8	23.88	103.826	34.7826	41.1522	-9.36959	29.8157	1
61	8	22.25	96.7391	34.7826	39.1347	-4.35207	39.3258	1
62	7.5	22	95.6522	32.6087	38.3811	-5.77244	38.6364	1
63	7.25	22.5	97.8261	31.5217	39.8926	-8.37087	34.4444	1
64	7.25	23.13	100.565	31.5217	41.8216	-10.2998	30.7825	1
65	7.25	23.6	102.174	31.5217	42.9668	-11.4451	28.7234	1
66	6.5	25	108.696	28.2609	47.6982	-19.4373	18.0	1
67	7	24.88	108.174	30.4348	47.3146	-16.6798	20.6788	1
68	7.5	25.88	112.522	32.6087	50.5362	-17.7275	17.8516	1
69	7.75	25.5	110.870	33.6957	49.3083	-15.6096	20.5882	1
70	7.75	25.25	109.783	33.6957	48.4999	-14.6042	21.7822	1
71	6.75	24.25	105.435	29.3478	46.3161	-15.4673	22.6804	1
72	6.75	24.25	105.435	29.3478	46.3161	-15.4673	22.6804	1
73	6.25	23.13	100.565	27.1739	41.8216	-14.6477	26.4591	1
74	6	22.38	97.3043	26.0870	39.5283	-13.4413	29.580	1
75	6	22.63	98.3913	26.0870	40.2884	-14.2015	28.1485	1
76	6	22.5	97.8261	26.0870	39.5283	-13.8057	28.8889	1
77	6	23.13	100.565	26.0870	41.8216	-15.7346	25.3783	1
78	6.63	23.63	102.739	28.8261	43.3713	-14.5452	25.3915	1
79	6.63	23.25	101.087	28.8261	42.192	-13.3659	27.4409	1
80	6.5	22.25	96.7391	28.2609	39.1347	-10.6738	32.5843	1
81	6.5	22.63	98.3913	28.2609	40.2884	-12.0276	30.3579	1
82	6.5	23.5	102.174	28.2609	42.9668	-14.7059	25.5319	1
83	6.5	23.38	101.652	28.2609	42.5944	-14.3335	26.1762	1
84	6.75	23.88	103.826	29.3478	44.1522	-14.6044	24.5812	1
85	6.5	23.88	103.826	28.2609	44.1522	-15.8913	23.5343	1
86	6.5	22.75	98.913	28.2609	40.6549	-12.3940	29.6703	1
87	6.5	22.25	96.7391	28.2609	39.1347	-10.6738	32.5843	1
88	6.25	21.63	94.0435	27.1739	37.2741	-10.1002	35.2288	1
89	6	21	91.3043	26.0870	35.4123	-9.32532	38.0952	1
90	5.88	19.75	85.8696	25.5652	31.8089	-6.24367	46.2278	1
91	5.88	20	86.9565	25.5652	32.5196	-6.95435	44.4	1
92	5.5	19	82.6087	23.913	29.7081	-5.79508	50	1
93	5.5	19	82.6087	23.913	29.7081	-5.79508	50	1
94	5.5	19.75	85.8696	23.913	31.8089	-7.89584	44.3038	1
95	5.25	19.75	85.8696	22.8261	31.8089	-8.9280	43.0380	1
96	5.13	16.88	82.0870	22.3043	29.3765	-7.07211	48.9936	1
97	4.25	18.88	82.0870	18.4783	29.3765	-10.8962	44.3326	1
98	4.38	19.25	83.6957	19.0435	30.4031	-11.3596	42.2338	1
99	4.25	19	82.6087	18.4783	29.7081	-11.2299	43.4211	1
100	4.75	19.5	84.7826	20.6522	31.1034	-10.4512	42.3077	1
101	5	20.63	89.6957	21.7391	34.3328	-12.5937	35.7247	1
102	5.38	20.38	88.6087	23.3913	33.6095	-10.2182	39.2542	1
103	5.38	20.28	88.6087	23.3913	33.6095	-10.2182	39.2542	1
104	5.25	19.88	86.4348	22.8261	32.1778	-9.35172	42.1026	1
105	5	20	86.9565	21.7391	32.5196	-10.7804	40.0	1
106	5	20	86.9565	21.7391	32.5196	-10.7804	40.0	1

23 TESORO PETROLEUM

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
52	15.25	28.13	101.810	55.1936	42.7067	12.4869	52.4351	1<
53	14.88	27.13	98.1904	53.8545	40.1476	13.7069	56.69	1<
54	14.88	27.63	100	53.8545	41.4214	12.4331	53.8545	1<
55	19.25	33.63	121.716	69.6706	57.5267	12.1439	39.3993	1<
56	27.5	38.13	138.002	99.5295	70.4248	29.1047	44.5843	>1.75-2<0000
57	23.5	36.88	133.478	85.0525	66.7825	18.270	38.6388	>1-1.25<0
58	24.88	36.38	131.668	90.0471	65.3378	24.7093	44.3375	>1.5-1.75<000
59	23.63	34.63	125.335	85.5230	60.3397	25.1833	48.0219	>1.5-1.75<000
60	24.63	36	130.293	89.1422	64.2447	24.0976	45.1667	>1.5-1.75<000
61	23	33.88	122.62	83.2429	58.2269	25.0160	49.4392	>1.5-1.75<000
62	18.75	30.63	110.858	67.861	49.2965	18.5645	51.4202	>1.25-1.5<00
63	21.63	32.63	118.096	78.2845	54.7473	23.5372	50.9654	>1.5-1.75<000
64	23	34.13	123.525	83.2429	58.9241	24.3137	48.3446	>1.5-1.75<000
65	23.75	35	126.674	85.9573	61.3686	24.5687	46.80	>1.5-1.75<000
66	24.5	35.75	129.388	88.6717	63.5278	25.1439	45.8182	>1.5-1.75<000
67	24.5	36.5	132.103	88.6717	65.6839	22.9879	42.8219	>1.5-1.75<000
68	25.88	37.63	136.193	93.6663	68.9627	24.7036	42.2004	>1.5-1.75<000
69	27	41	148.389	97.7199	78.9397	18.7802	33.2439	>1.25-1.5<000
70	27	43	155.628	97.7199	84.9866	12.7332	27.0465	1<
71	25.63	41.5	150.199	92.7615	80.4432	12.3183	28.3373	1<
72	27.38	46	166.486	99.0952	94.2099	4.88527	19.5870	1<
73	26.25	45	162.866	95.0054	91.1164	3.88903	19.7333	1<
74	26.88	43.88	158.813	97.2856	87.674	9.61156	24.2252	1<
75	27.38	44.38	160.623	99.0952	89.2078	9.88739	23.9522	1<
76	29.13	48.38	175.10	105.429	101.643	3.78602	17.3212	1<
77	29.75	48.75	176.439	107.673	102.807	4.86602	17.7026	1<
78	27.75	47	170.105	100.434	97.3213	3.11301	17.8298	1<
79	27	44.75	161.962	97.7199	90.3459	7.37395	22.0782	1<
80	27.38	44.5	161.057	99.0952	89.5766	9.51855	23.6180	1<
81	27	46	166.486	97.7199	94.2099	3.50996	16.7609	1<
82	29.75	50.38	182.338	107.673	107.960	2.286694	13.8944	1<
83	30.75	50.13	181.433	111.292	107.167	4.12544	16.4572	1<
84	30.13	48.5	175.534	109.048	102.02	7.02802	19.0928	1<
85	27.75	44.75	161.962	100.434	90.3459	10.0884	23.7542	1<
86	26.75	43.63	157.908	96.8151	86.9090	9.90610	24.639	1<
87	27.75	44.38	160.623	100.434	89.2078	11.2265	24.7859	1<
88	27.63	45	162.866	100	91.1164	8.88360	22.8	1<
89	27.63	46.25	167.391	100	94.9861	5.01369	19.4811	1<
90	26.63	43.63	157.908	96.3807	86.9090	9.47179	24.3640	1<
91	25.38	41.38	149.765	91.8567	80.0819	11.7748	28.1054	1<
92	26.13	42.63	154.289	94.5711	83.8615	10.7097	26.1084	1<
93	27.88	45	162.866	100.905	91.1164	9.78841	23.3556	1<
94	26.75	44.5	161.057	96.8151	89.5766	7.23842	22.2022	1<
95	26.5	45.5	164.676	95.9102	92.6609	3.24938	18.967	1<
96	22.88	40.13	145.241	82.8085	76.3373	6.47121	25.8659	1<
97	23.25	40	144.77	84.1477	75.95	8.19766	27.2	1<
98	22.63	39.25	142.056	81.9037	73.7234	8.18029	28.0510	1<
99	24.38	41.88	151.574	88.2374	81.5896	6.64780	24.1882	1<
100	25.75	43.75	158.342	93.1958	87.276	5.91978	22.0114	1<

101	26.25	45.13	163.337	95.0054	91.5175	3.48791	19.3884	1<
102	24.25	39.88	144.336	87.7669	75.5928	12.1741	30.0903	1<
103	24.25	41.63	150.670	87.7669	80.8351	6.93187	24.6217	1<
104	23.25	40	144.77	84.1477	75.95	8.19766	27.2	1<
105	23.88	40	144.77	86.4278	75.95	10.4778	28.7750	1<
106	23	39.5	142.961	83.2429	74.4641	8.77876	28.1772	1<

24 DEL E WEBB

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	6	10	160.00	96.00	86.6796	7.32038	22.5	1<
2	6.25	9.88	158.080	100	87.0542	12.9458	26.5182	1<
3	6	10	160.00	96.00	86.6796	7.32038	22.5	1<
4	5.75	9.13	146.080	92.00	77.0293	14.9707	31.4348	>1-1.25<<
5	5	9.25	146.00	80.00	76.6169	1.38309	21.6216	1<
6	5.5	9	144.00	88.00	75.3169	12.6831	30.5556	1<
7	4.75	8.5	136.00	76.00	68.8076	7.19242	29.4118	1<
8	4.5	8.5	136.00	72.00	68.8076	3.19242	26.4706	1<
9	4.25	7.25	116.00	68.00	53.1535	14.6465	44.8276	>1-1.25<<
10	4	8	128.00	64.00	62.4315	1.56848	28.125	1<
11	4.5	9.25	148.00	72.00	78.6169	-6.61691	16.2162	1<
12	4.5	9	144.00	72.00	75.3169	-3.31685	19.4444	1<
13	4.25	8.13	130.080	68.00	64.0756	3.92439	29.1513	1<
14	4.25	8.13	130.080	68.00	64.0756	3.92439	29.1513	1<
15	4.5	8.38	134.080	72.00	67.2646	4.7354	28.2816	1<
16	4.5	8.88	142.080	72.00	73.7433	-1.74328	21.0586	1<
17	5.75	9.88	158.080	92.00	87.0542	4.94577	21.4575	1<
18	5.25	10	160.00	84.00	86.6796	-4.67962	15.0	1<
19	6.75	10.5	168.00	108.00	95.5096	12.4904	23.8095	1<
20	6.75	10.5	168.00	108.00	95.5096	12.4904	23.8095	1<
21	6.5	10.88	174.080	104.00	100.758	3.24182	17.1875	1<
22	7.25	11.38	182.080	116.00	107.733	8.26670	18.6292	1<
23	7	10.13	162.080	112.00	90.4466	21.5534	30.7996	>1-25-1.5<<<
24	6.75	10.38	166.080	108.00	93.8622	14.1378	25.2408	1<
25	8	12.5	200	128.00	123.607	4.3932	14.00	1<
26	7.75	12.63	202.080	124.00	125.469	-1.46912	10.8472	1<
27	7.5	11.88	190.080	120.00	114.780	5.22010	15.7407	1<
28	7.75	11.75	188.00	124.00	112.941	11.0587	19.1489	1<
29	7.5	11.63	186.080	120.00	111.248	8.75188	18.2287	1<
30	8.25	12.75	204.00	132.00	127.192	4.80845	13.7255	1<
31	8.5	13.13	210.080	136.00	132.666	3.3337	12.3382	1<
32	8	12.38	198.080	128.00	121.891	6.10864	15.105	1<
33	7	11.13	178.080	112.00	104.236	7.76365	19.0476	1<
34	6	10	160.00	96.00	86.6796	7.32038	22.5	1<
35	6.25	9.75	156.00	100	85.2998	14.7002	28.2051	>1-1.25<<
36	5.75	9.75	156.00	92.00	85.2998	6.70025	23.0769	1<
37	5.63	10	160.00	90.080	86.6796	1.40038	18.8	1<
38	6	10.5	168.00	96.00	95.5096	4.90413	16.6667	1<
39	5.25	9.88	158.080	84.00	87.0542	-3.05423	16.3968	1<
40	5.25	9.5	152.00	84.00	81.945	2.05496	21.0526	1<
41	5.25	9.5	152.00	84.00	81.945	2.05496	21.0526	1<
42	5.25	9.75	156.00	84.00	85.2998	-1.29975	17.9487	1<
43	5.13	9.25	148.00	82.080	78.6169	3.46309	23.027	1<
44	5	9	144.00	80.00	75.3169	4.68315	25.0	1<
45	4.75	8.38	134.080	76.00	67.2646	8.7354	31.2649	1<
46	4.75	8	128.00	76.00	62.4315	13.5685	37.5	1<
47	4.5	7.75	124.00	72.00	59.2985	12.7015	38.7097	1<
48	4.25	8.5	136.00	68.00	68.8076	-8.80758	23.5294	1<
49	4.25	7.88	126.080	68.00	60.9229	7.07714	33.2487	1<
50	4.38	8	128.00	70.080	62.4315	7.64848	32.875	1<

51	4.25	8.5	136.00	68.00	66.0076	-1.80758	23.5294	1<
52	4.25	7.88	126.080	68.00	60.9229	7.07714	33.2487	1<
53	4.13	7.5	120.00	66.080	56.87501	9.87501	38.4	1<
54	4.25	7.5	120.00	68.00	56.2050	11.795	40.0	1<
55	4.25	7.13	114.08	68.00	51.7045	16.2955	47.2651	>1-1.25<
56	4.75	8.38	134.080	76.00	67.2646	8.7354	31.2649	1<
57	4.5	7.63	122.080	72.00	57.8085	14.1915	40.8912	1<
58	4.25	7.75	124.00	68.00	59.2985	8.70154	35.4839	1<
59	4.13	7.25	116.00	66.080	53.1535	12.9265	43.1724	1<
60	4.13	7.12	113.920	66.080	51.5842	14.4958	45.7865	1<
61	4	7	112.00	64.00	50.1466	13.8534	46.4286	1<
62	3.75	6.25	100	60.00	41.4214	18.5786	60.00	>1.25-1.5<*
63	3.63	6.88	110.080	58.080	48.7199	9.36011	43.6047	1<
64	3.88	6.88	110.080	62.080	48.7199	13.3601	47.2384	1<
65	4.13	7.63	122.080	66.080	57.8085	8.27149	36.0419	1<
66	4.13	7.75	124.00	66.080	59.2985	6.78154	33.9355	1<
67	4.38	8.38	134.080	74.080	67.2646	2.8154	26.8496	1<
68	4.63	8.5	136.00	74.080	66.8076	5.27242	28	1<
69	6	9.13	146.080	96.00	77.0293	18.4707	34.1731	>1.25-1.5<*
70	5.75	9.13	146.080	92.00	77.0293	14.49707	31.4348	>1-1.25<
71	5.5	9.13	146.080	88.00	77.0293	10.9707	28.6966	1<
72	5.5	8.63	138.080	88.00	70.4878	17.5122	36.1530	>1-1.25<
73	5.63	8.63	138.080	90.080	70.4878	19.5922	37.6593	>1.25-1.5<*
74	5.63	10	160.00	90.080	68.6796	1.40036	18.8	1<
75	6.5	10	160.00	104.00	68.6796	15.3204	27.5	>1-1.25<
76	5.88	10.75	172.00	94.080	98.9573	-4.87728	12.8372	1<
77	6.13	10.63	170.080	98.080	97.2948	-7.80213	16.4628	1<
78	5.5	9.5	152.00	88.00	61.945	6.05496	23.6842	1<
79	6.25	9.13	146.080	100	77.0293	22.9707	33.2202	>1.5-1.75<*
80	5	9.13	146.080	80.00	77.0293	2.97072	26.9113	1<
81	4.68	9.38	150.080	78.080	40.3441	-2.26413	18.6567	1<
82	4.63	9.13	146.080	74.080	77.0293	-2.94928	19.1676	1<
83	4.5	8.88	142.080	72.00	73.7433	-1.74328	21.0586	1<
84	4.38	9.38	150.080	70.080	60.3441	-10.2641	13.3262	1<
85	4.63	9.5	152.00	74.080	61.945	-7.86505	19.5263	1<
86	4.38	9.13	146.080	70.080	77.0293	-6.94928	16.4294	1<
87	4.38	9.13	146.080	70.080	77.0293	-6.94928	16.4294	1<
88	4.38	9.13	146.080	70.080	77.0293	-6.94928	16.4294	1<
89	4.75	10	160.00	76.00	68.6796	-12.6796	10.0	1<
90	4.5	9.75	156.00	72.00	65.2998	-13.4998	10.2564	1<
91	4.5	9.5	152.00	72.00	61.945	-9.94505	13.1579	1<
92	4.63	10	160.00	74.080	68.6796	-14.5996	6.8	1<
93	4.5	9.5	152.00	72.00	61.945	-9.94505	13.1579	1<
94	4.38	9.25	148.00	70.080	78.6169	-8.53691	14.9189	1<
95	4.38	9	144.00	70.080	75.3169	-5.23685	18.1111	1<
96	4.25	8.63	138.080	68.00	70.4878	-2.48779	21.6686	1<
97	4.38	9.38	150.080	70.080	60.3441	-10.2641	13.3262	1<
98	4.38	9.75	156.00	70.080	65.2998	-15.2198	9.02564	>1-1.25<
99	4.13	9.13	146.080	66.080	77.0293	-10.4993	13.6911	1<
100	4	9	144.00	64.00	75.3169	-11.3169	13.6889	1<
101	4	8.88	142.080	64.00	73.7433	-9.74328	15.4279	1<
102	4.13	8.5	136.00	66.080	68.8076	-2.72758	22.1176	1<
103	4.13	8.5	136.00	66.080	68.8076	-2.72758	22.1176	1<
104	3.68	8.37	133.920	62.080	67.1364	-5.05637	21.0275	1<
105	3.88	8.13	130.080	62.080	64.0756	-1.99561	24.6002	1<
106	3.75	8.13	130.080	60.00	64.0756	-4.07561	23.0012	1<

25 WESTERN PACIFIC INDUSTRIES

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
66	5.88	16.75	81.7073	28.6829	29.1359	-452991	57.4925	1<
67	6.75	19.13	93.3171	32.9268	36.7775	-3.85064	42.4464	1<
68	7.68	19.38	94.5366	38.439	37.6124	.826651	46.4396	1<
69	8.5	21	102.439	41.4634	43.1564	-1.69298	38.0952	1<
70	8.38	20.38	99.4146	40.878	41.008	-1.129997	41.7076	1<
71	8	19.5	95.1220	39.0244	38.0152	1.00923	46.1538	1<
72	8.75	20.63	100.634	42.6829	41.8705	.812455	41.7838	1<
73	8.75	19.13	93.3171	42.6829	36.7775	5.90546	52.9012	1<
74	10	22.13	107.951	48.7805	47.1512	1.62932	37.8220	1<
75	9.5	21.88	106.732	46.3415	46.2589	.082596	37.1115	1<
76	8.75	21.25	103.659	42.6829	44.0316	-1.34864	37.6471	1<
77	8.88	20.63	100.634	43.3171	41.8705	1.4466	42.4140	1<
78	8.63	19.38	94.5366	42.0976	37.6124	4.48519	50.3096	1<
79	8.5	19.63	95.7561	41.4634	38.4530	3.01043	47.7331	1<
80	8.5	19.25	93.9024	41.4634	37.1775	4.26591	50.6494	1<
81	8.38	19	92.6829	40.878	36.3456	4.53244	52.0	1<
82	9.63	20.75	101.220	46.9756	42.2863	4.66932	45.2048	1<
83	9.25	19.88	96.9756	45.1220	39.2992	5.82275	49.6479	1<
84	9.13	18.5	90.2439	44.5366	34.6995	9.83706	60.1622	1<
85	8.5	19.5	95.1220	41.4634	38.0152	3.44825	48.7179	1<
86	8	18.5	90.2439	39.0244	34.6995	4.32487	54.0541	1<
87	9.25	20	97.5610	45.1220	39.7073	5.4146	48.75	1<
88	8.25	18.13	88.439	40.2439	33.497	6.74686	58.5769	1<
89	7.75	17.5	85.3659	37.8049	31.4813	6.32359	61.4286	1<
90	7.38	17	82.9268	36.0	29.9110	6.06904	64.00	1<
91	7	16.5	80.4878	34.1463	28.3678	5.77856	66.6667	1<
92	6.5	16.38	79.9024	31.7073	28.0016	3.70576	64.8352	1<
93	7	16.38	79.9024	34.1463	28.0016	6.14478	67.8877	1<
94	7.25	16.38	79.9024	35.3659	28.0016	7.36430	69.4139	1<
95	6.75	16	78.0488	32.9268	26.8527	6.07411	70.3125	1<
96	6	14.5	70.7317	29.2683	22.4866	6.78166	82.7586	1<
97	6.88	15.63	76.2439	33.5610	25.7503	7.81070	75.1759	1<
98	5.75	14.63	71.3659	28.0488	22.8539	5.19486	79.4258	1<
99	6	15	73.1707	29.2683	23.9111	5.35721	76.6667	1<
100	5.5	14.13	68.9268	26.8293	21.4533	5.37595	84.0057	1<
101	6.5	16.13	78.6829	31.7073	27.2439	4.46345	67.390	1<
102	5.63	14.38	70.1463	27.4634	22.1495	5.31368	81.7107	1<
103	5.63	14.38	70.1463	27.4634	22.1495	5.31368	81.7107	1<
104	5.13	13.63	66.4878	25.0244	20.0859	4.93847	88.0411	1<
105	4.88	13.13	64.0488	23.8049	18.7529	5.052	93.2978	1<
106	4.88	13	63.9146	23.8049	18.4121	5.39282	95.2308	1<

26 WILLIAMS COMPANIES

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
16	16.5	33.75	168.75	82.50	96.1544	-13.6544	8.14815	1<
17	15.75	31.13	155.650	78.750	85.0052	-6.25519	14.8410	1<
18	20	34.75	173.750	100	100.472	-4.72095	15.1079	1<
19	24	37	185.00	120.00	110.297	9.70259	18.9189	1<
20	23	37.38	186.90	115.00	111.971	3.02923	15.0348	1<
21	25.88	42.5	212.5	129.40	134.854	-5.45368	7.95294	1<
22	25.25	40.38	201.90	126.250	125.308	.942192	12.0604	1<
23	22.25	37	185.00	111.250	110.297	.952594	14.1892	1<
24	22.25	37.25	186.250	111.250	111.398	-1.17876	13.4228	1<
25	25	39.88	199.40	125	123.67	1.9297	12.8385	1<
26	25.25	40.63	203.150	126.250	126.429	-1.17625	11.3709	1<
27	28	41.25	206.25	140.00	129.214	10.7860	16.3636	1<
28	27.75	43.5	217.50	138.750	139.387	-6.37238	9.77012	1<
29	27.63	43.38	216.90	138.150	138.642	-6.69225	9.79714	1<
30	31	47.88	239.40	155.00	159.446	-4.44625	6.51629	1<
31	29.5	47	235.00	147.50	155.392	-7.89186	5.31915	1<
32	28.88	46	230.00	144.40	150.799	-6.39872	6.26087	1<
33	27.88	44.88	224.40	139.40	145.673	-6.27328	6.68449	1<
34	28	44.75	223.750	140.00	145.080	-5.07971	7.26257	1<
35	26	42.13	210.650	130.00	133.181	-3.18109	9.18586	1<
36	26.13	42.25	211.250	130.650	133.723	-3.07326	9.18343	1<
37	27.75	44.75	223.750	138.750	145.080	-6.32971	6.70391	1<
38	26.75	42.75	213.750	133.750	135.985	-2.2353	9.35673	1<
39	25.5	42	210.00	127.50	132.594	-5.09407	8.33333	1<
40	25.75	41.75	208.750	128.750	131.466	-2.71611	9.58084	1<
41	24	38.38	191.90	120.00	116.392	3.60774	14.643	1<
42	26	42	210.00	130.00	132.594	-2.59407	9.52381	1<
43	25.75	42.25	211.250	128.750	133.723	-4.97326	8.28402	1<
44	25	41.75	208.750	125	131.466	-6.46611	7.78443	1<
45	24.25	41.5	207.50	121.250	130.339	-9.06942	6.62651	1<
46	23.13	38.63	193.150	115.650	117.502	-1.85154	11.6490	1<
47	24.13	38.63	193.150	120.650	117.502	3.14646	14.2376	1<
48	26.63	43.25	216.250	133.150	138.252	-5.10210	7.81503	1<
49	28.25	46	230.00	141.250	150.799	-9.54872	4.8913	1<
50	28.75	46.88	234.40	143.75	154.840	-11.0699	3.98891	1<
51	29.25	47	235.00	146.250	155.392	-9.14166	4.78723	1<
52	27.25	46.38	231.90	136.250	152.542	-16.2923	1.87581	>1-1.25<
53	26.5	45.38	226.90	132.50	147.959	-15.4569	2.46805	>1-1.25<
54	27.25	46	230.00	136.250	150.799	-14.5487	2.71739	1<
55	28	45.5	227.50	140.00	148.508	-8.50805	5.49451	1<
56	28.63	46.63	233.150	143.150	153.691	-10.5406	4.28909	1<
57	25.63	44.38	221.90	128.150	143.392	-15.2419	2.81658	>1-1.25<
58	25.75	43.25	216.250	128.750	138.252	-9.50210	5.78035	1<
59	23.5	41.5	207.50	117.50	130.339	-12.8394	4.81928	1<
60	23.75	40.25	201.250	118.75	124.726	-5.97553	8.69565	1<
61	19	35.5	177.50	95.00	103.731	-8.73082	9.85916	1<
62	18.75	34.75	173.750	93.75	100.472	-6.72210	11.5108	1<
63	21.5	36.5	182.50	107.50	108.102	-6.601536	13.6986	1<
64	23	39	195.00	115.00	119.146	-4.14607	10.2564	1<
65	21.63	36.75	183.750	108.150	109.199	-1.04862	13.2789	1<

66	22.5	38.25	191.250	112.5	115.816	-3.31604	11.1111	1<
67	23.75	38.25	191.250	118.75	115.816	2.93396	14.3791	1<
68	26.13	42.5	212.5	130.650	134.854	-4.20368	8.54118	1<
69	25.25	41.88	209.40	126.250	132.052	-5.80249	0.0468	1<
70	25.38	41.88	209.40	126.90	132.052	-5.15249	8.35721	1<
71	26.75	42.5	212.5	133.750	134.854	-1.10368	10.00	1<
72	28.88	44.25	221.250	144.40	142.799	1.60057	10.4633	1<
73	28.38	44.5	222.50	141.90	143.939	-2.03903	8.7191	1<
74	27.63	45	225	136.150	146.221	-8.07145	5.84444	1<
75	29.38	46.5	232.50	146.90	153.093	-6.19336	6.19355	1<
76	30	47.88	239.40	150	159.446	-9.44625	4.42774	1<
77	31.63	50.13	250.650	150.150	169.862	-11.7119	2.99222	1<
78	29.5	48.25	241.250	147.50	161.154	-13.6543	2.59067	1<
79	29.5	47.13	235.650	142.50	155.99	-13.4901	2.90685	1<
80	27.88	46.25	231.25	139.40	151.946	-12.5456	3.52432	1<
81	28.88	47.13	235.650	144.40	155.99	-11.5901	3.71314	1<
82	30.75	49.25	246.250	153.750	165.78	-12.0301	3.04569	1<
83	29	48.13	240.650	145.00	160.6	-15.6001	1.80761	>1-1.25<
84	28.88	47.5	237.5	144.40	157.694	-13.2941	2.90526	1<
85	28.75	47.75	238.750	143.75	158.447	-15.0966	2.09474	>1-1.25<
86	31.63	50	250	156.150	169.258	-11.1082	3.260	1<
87	30.5	49.25	246.250	152.50	165.78	-13.2801	2.53807	1<
88	31.12	50	250	155.60	169.258	-13.6582	2.240	1<
89	34.38	52.75	263.750	171.90	182.071	-10.171	3.09005	1<
90	29.63	48.5	242.50	148.150	162.309	-14.1595	2.32990	1<
91	28.25	46.5	232.50	141.250	153.093	-11.8434	3.76344	1<
92	29.25	47.25	236.250	146.250	156.543	-10.2925	4.2328	1<
93	27.75	45.5	227.50	138.750	148.508	-9.75805	4.94506	1<
94	27.75	44.25	221.250	138.750	142.799	-4.04943	7.90961	1<
95	28.5	44.38	221.90	142.50	143.392	-8.91884	9.26346	1<
96	27.75	43	215.00	138.750	137.118	1.63189	11.0465	1<
97	26.25	40.38	201.90	131.25	125.308	5.94219	14.5369	1<
98	25	38.88	194.40	125	118.612	6.38766	15.7407	1<
99	26	40.88	204.40	130.00	127.551	2.44922	12.5245	1<
100	25.13	40.38	201.90	125.650	125.308	.342193	11.7633	1<
101	26.38	42.25	211.250	131.90	133.723	-1.82326	9.77515	1<
102	25.25	41.75	208.750	126.250	131.466	-5.21611	8.38324	1<
103	25.63	40.75	203.750	128.150	126.967	1.18291	11.9755	1<
104	23.5	37.5	187.5	117.50	112.5	5.00	16.00	1<
105	23.13	36	180.00	115.650	105.913	9.73740	19.8056	1<
106	24.5	38.38	191.90	122.50	116.392	6.10775	15.9458	1<

27 ZAYRE

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
49	13.13	38.88	97.20	32.825	39.4555	-6.63051	36.6512	1<
50	13.13	38.88	97.20	32.825	39.4555	-6.63051	36.6512	1<
51	12.88	38.75	96.875	32.20	39.2292	-7.02918	36.4645	1<
52	13.25	38.25	95.6250	33.125	38.3624	-5.23735	39.2157	1<
53	13.5	39	97.50	33.75	39.6648	-5.91478	37.1795	1<
54	13.63	39.5	98.750	34.0750	40.5403	-6.46525	35.7722	1<
55	13.5	39.88	99.70	33.75	41.2094	-7.45938	34.1525	1<
56	13.88	41.63	104.075	34.7	44.3316	-9.63158	29.4259	1<
57	13.88	41	102.50	34.7	43.2	-8.50003	31.4146	1<
58	13.5	39.5	98.750	33.75	40.5403	-6.74025	35.443	1<
59	13.25	38.25	95.6250	33.125	38.3624	-5.23735	39.2157	1<
60	12.25	37.5	93.75	30.625	37.0732	-6.4482	39.3333	1<
61	12.25	35.13	87.8250	30.625	33.0911	-2.46606	48.7333	1<
62	12	34.75	86.8750	30.0	32.4661	-2.46609	49.6403	1<
63	12	37.25	93.1250	30.0	36.6465	-6.64650	39.5973	1<
64	12.38	37.5	93.75	30.95	37.0732	-6.1232	39.680	1<
65	11.75	37.38	93.450	29.375	36.8682	-7.44319	38.443	1<
66	11.63	37.63	94.0750	29.075	37.2957	-8.22069	37.2044	1<
67	11.5	37.38	93.450	28.75	36.8682	-8.11819	37.7742	1<
68	11	36.5	91.250	27.5	35.3756	-7.87563	39.726	1<
69	11	35.5	88.750	27.5	33.7033	-6.20326	43.6620	1<
70	10.5	34	85.00	26.25	31.244	-4.99405	48.5294	1<
71	9.63	34	85.00	24.075	31.244	-7.16905	45.9706	1<
72	9.5	35	87.5	23.75	32.8768	-9.12662	41.4286	1<
73	9.5	31.5	78.750	23.75	27.2854	-3.53536	57.1429	1<
74	9.13	32.5	81.25	22.825	26.8471	-6.02205	51.1692	1<
75	9.13	33	82.50	22.825	29.6389	-6.81392	48.8788	1<
76	8.63	32.5	81.25	21.575	28.8471	-7.27205	49.6308	1<
77	8.75	31	77.50	21.875	26.5158	-4.64061	57.2581	1<
78	8.75	34.88	87.20	21.875	32.6795	-10.8045	39.7649	1<
79	9.75	33.75	84.375	24.375	30.8401	-6.46513	47.4074	1<
80	9.38	32.75	81.8750	23.45	29.2421	-5.79208	50.7786	1<
81	9.38	35	87.5	23.45	32.8768	-9.42602	41.0857	1<
82	11.38	38	95.00	28.45	37.9311	-9.46114	35.2105	1<
83	11.75	39	97.50	29.375	39.6648	-10.2898	32.6923	1<
84	11.25	37.25	93.1250	28.125	36.6465	-8.52150	37.5839	1<
85	10.75	35.5	88.750	26.875	33.7033	-6.82826	42.9577	1<
86	9.36	36.25	90.625	23.4	34.9551	-11.5551	36.1655	1<
87	9.38	35.25	88.1250	23.45	33.2892	-9.83922	40.0851	1<
88	9.5	34.5	86.250	23.75	32.057	-8.30704	43.4783	1<
89	9.38	33.75	84.375	23.45	30.8401	-7.39013	46.3111	1<
90	9.75	35.75	89.3750	24.375	34.1189	-9.74394	39.1608	1<
91	9.75	35.75	89.3750	24.375	34.1189	-9.74394	39.1608	1<
92	9.75	36.5	91.250	24.375	35.3756	-11.0006	36.3014	1<
93	9.75	36.63	91.5750	24.375	35.5949	-11.2199	35.8176	1<
94	9.75	36.63	91.5750	24.375	35.5949	-11.2199	35.8176	1<
95	9.38	33.5	83.750	23.45	30.4380	-6.96796	47.4030	1<
96	8.63	31.25	78.125	21.575	26.8996	-5.32463	55.6160	1<
97	8	32	80.00	20.0	28.0625	-8.06248	50.0	1<
98	7.25	31	77.50	18.125	26.5158	-8.39081	52.4194	1<

99	7.5	30.63	76.5750	18.75	25.9513	-7.2013	55.0767	1<
100	6.88	30.75	76.8750	17.2	26.1339	-8.93392	52.4553	1<
101	6.62	30.75	76.8750	16.55	26.1339	-9.58392	51.6098	1<
102	6.88	31.5	78.750	17.2	27.2854	-10.0854	48.8254	1<
103	6.88	31.5	78.750	17.2	27.2854	-10.0854	48.8254	1<
104	6.63	30.5	76.250	16.575	25.7540	-9.17898	52.8852	1<
105	6.13	28.5	71.250	15.325	22.7867	-7.46165	61.8597	1<
106	6.13	29.5	73.750	15.325	24.254	-8.92902	56.3729	1<

SAMPLE B

1 APL

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	6.75	17.25	61.6071	24.1071	17.4540	6.65315	101.449	1<
2	7.25	18.75	66.9643	25.8929	20.3504	5.54247	88	1<
3	7	18.68	67.4286	25	20.6093	4.39066	85.3814	1<
4	7.25	18.75	66.9643	25.8929	20.3504	5.54247	88	1<
5	6.75	18	64.2857	24.1071	19.8808	5.22631	93.0556	1<
6	6.75	18.38	65.6429	24.1071	19.6202	4.46698	89.0642	1<
7	6.75	19	67.8571	24.1071	20.8495	3.25768	82.8947	1<
8	7	20.63	73.6786	25	24.2116	.78636	69.6558	1<
9	7	19.38	69.2143	25	21.6167	3.38332	80.5986	1<
10	6.5	20	71.4286	23.2143	22.8904	.323926	72.5	1<
11	6.5	20.38	72.7857	23.2143	23.6841	-.469828	69.2836	1<
12	7.25	20.88	74.5714	25.8929	24.7433	1.14953	68.8218	1<
13	7.25	21.38	76.3571	25.8929	25.8190	.073868	64.8737	1<
14	7.25	21.38	76.3571	25.8929	25.8190	.073868	64.8737	1<
15	7.25	21.25	75.8929	25.8929	25.5377	.355112	65.8824	1<
16	7.25	20.25	72.3214	25.8929	23.4115	2.46140	74.0741	1<
17	7.25	21.38	76.3571	25.8929	25.8190	.073868	64.8737	1<
18	7.25	21.13	75.4643	25.8929	25.2791	.613736	66.8244	1<
19	8.25	22.75	81.25	29.4643	28.8471	.617236	59.3407	1<
20	8.25	22	78.5714	29.4643	27.1750	2.28933	64.7727	1<
21	8.5	22.88	81.7143	30.3571	29.1403	1.21682	59.5280	1<
22	8.75	24	85.7143	31.25	31.7078	-.457775	53.125	1<
23	8.75	23.25	83.0357	31.25	29.9605	1.26951	58.0645	1<
24	8.5	23.25	83.0357	30.3571	29.9605	.376647	56.9892	1<
25	8.5	23.25	83.0357	30.3571	29.9605	.376647	56.9892	1<
26	8.5	23.38	83.50	30.3571	30.2776	.079556	56.1163	1<
27	10	24.63	87.9643	35.7143	33.163	2.53127	54.2834	1<
28	9.38	24	85.7143	33.5	31.7078	1.79222	55.750	1<
29	10.75	25	89.2857	38.3929	34.0595	4.33340	55	1<
30	10.75	24	85.7143	38.3929	31.7078	6.66508	61.4583	1<
31	11	23.63	84.3929	39.2857	30.8516	8.43407	65.0444	>1-1.25<
32	10.75	24.25	86.6071	38.3929	32.2906	6.10228	59.7938	1<
33	10.75	25	89.2857	38.3929	34.0595	4.33340	55	1<
34	10	23.88	85.2857	35.7143	31.4293	4.26502	59.1290	1<
35	10.75	23.88	85.2857	38.3929	31.4293	6.96359	62.2697	1<
36	9.5	23.5	83.9286	33.9286	30.5527	3.37588	59.5745	1<
37	9.5	23	82.1429	33.9286	29.4119	4.51664	63.0435	1<
38	9.5	23.63	84.3929	33.9286	30.8516	3.07692	58.6966	1<
39	9.25	23.25	83.0357	33.0357	29.9805	3.05522	60.2151	1<
40	9.25	23.75	84.8214	33.0357	31.1285	1.90725	56.8421	1<
41	9	22.63	80.8214	32.1429	28.5772	3.56563	63.4998	1<
42	9.25	24	85.7143	33.0357	31.7078	1.32794	55.2083	1<
43	9.25	23.13	82.6071	33.0357	29.7071	3.32858	61.0463	1<
44	8.5	22	78.5714	30.3571	27.1750	3.16219	65.9091	1<
45	8.5	21.25	75.8929	30.3571	25.5377	4.81940	71.7647	1<
46	8	20	71.4286	28.5714	22.8904	5.66107	80.0	1<
47	8	19.88	71.00	28.5714	22.6418	5.92968	81.0865	1<
48	7.38	20.25	72.3214	26.3571	23.4115	2.94568	74.716	1<
49	8.25	20.25	72.3214	29.4643	23.4115	6.05262	79.0123	1<
50	8.25	19.63	70.1071	29.4643	22.127	7.33726	84.6663	1<

51	8.25	20.5	73.2143	29.4643	23.9368	5.52748	76.8293	1C
52	9.25	23.13	82.6071	33.0357	29.7071	3.324858	61.0463	1C
53	9.75	24.25	86.6071	34.8214	32.2906	2.53065	55.6701	1C
54	9.25	22.75	81.25	33.0357	28.8471	4.18866	63.7363	1C
55	9	22.63	80.8214	32.1429	28.5772	3.56563	63.4998	1C
56	9	23.13	82.6071	32.1429	29.7071	2.43573	59.9654	1C
57	8.5	22.25	79.4643	30.3571	27.7285	2.62863	64.0449	1C
58	8.5	20.13	71.8929	30.3571	23.1606	7.19634	61.3214	1C
59	8.5	20.13	71.8929	30.3571	23.1608	7.19634	81.3214	1C
60	8.5	20.25	72.3214	30.3571	23.4115	6.94568	80.2469	1C
61	8.25	19.38	69.2143	29.4643	21.6167	7.8476	87.0485	1C
62	8	18.63	66.5357	28.5714	20.1125	8.45898	93.2367	1C
63	8	19.38	69.2143	28.5714	21.6167	6.95475	85.7585	1C
64	8.25	20.5	73.2143	29.4643	23.9368	5.52748	76.8293	1C
65	8.25	20.75	74.1071	29.4643	24.4663	4.9795	74.6988	1C
66	8.5	21.5	76.7857	30.3571	26.0795	4.27762	69.7674	1C
67	8.25	20	71.4286	29.4643	22.6904	6.57393	81.25	1C
68	8.25	21.25	75.8929	29.4643	25.5377	3.92654	70.5882	1C
69	9	23.13	82.6071	32.1429	29.7071	2.43573	59.9654	1C
70	9	23.13	82.6071	32.1429	29.7071	2.43573	59.9654	1C
71	9.25	23.75	84.8214	33.0357	31.1285	1.90725	56.8421	1C
72	9.25	23.68	85.2857	33.0357	31.4293	1.60645	55.9883	1C
73	9.5	24.25	86.6071	33.9286	32.2906	1.63799	54.6392	1C
74	9	23.38	83.50	32.1429	30.2776	1.86527	58.2549	1C
75	8.5	23.38	76.3571	30.3571	25.8190	4.53817	70.7203	1C
76	10	25.13	89.750	35.7143	34.3691	1.34516	51.2137	1C
77	10.5	27.63	98.6786	37.5	40.4901	-2.99007	39.3413	1C
78	10.25	28.63	102.250	36.6071	43.0212	-6.41405	33.6011	1C
79	11	29.38	104.929	39.2857	44.9483	-5.66257	32.7434	1C
80	11.13	29.63	105.821	39.75	45.5959	-5.84593	32.0621	1C
81	11.25	30	107.143	40.1786	46.5592	-6.3806	30.8333	1C
82	11.25	29.63	105.821	40.1786	45.5959	-5.41736	32.4671	1C
83	11	29.38	104.929	39.2857	44.9483	-5.66257	32.7434	1C
84	10.5	27.25	97.3214	37.5	39.5402	-2.04017	41.2844	1C
85	9.75	25.75	91.9643	34.8214	35.8581	-1.03669	46.6019	1C
86	9.5	24.63	87.9643	33.9286	33.183	.745557	52.2533	1C
87	9.25	24.75	88.3929	33.0357	33.4665	-4.30749	50.5051	1C
88	8.75	24.63	87.9643	31.25	33.183	-1.93301	49.2083	1C
89	8.5	24.88	88.8571	30.3571	33.7744	-3.41726	46.7042	1C
90	8	23.63	84.3929	28.5714	30.8516	-2.28022	52.3467	1C
91	8	25	89.2857	28.5714	34.0595	-5.44803	44.0	1C
92	8.75	24.38	87.0714	31.25	32.5950	-1.3450	50.7383	1C
93	8.75	23.88	85.2857	31.25	31.4293	-1.79268	53.8945	1C
94	8.75	22.75	81.25	31.25	28.8471	2.40295	61.5385	1C
95	8.5	22.13	79.0357	30.3571	27.4623	2.89462	64.9345	1C
96	7.25	19.63	70.1071	25.8929	22.127	3.76583	79.5721	1C
97	7.25	19.63	70.1071	25.8929	22.127	3.76583	79.5721	1C
98	6.75	21.38	76.3571	25.8929	22.127	3.76583	79.5721	1C
99	6.75	21.38	76.3571	24.1071	25.8190	-1.71183	62.5351	1C
100	6.75	20.38	72.7857	24.1071	23.6841	.423029	70.5103	1C
101	6.5	20.13	71.8929	23.2143	23.1608	.053487	71.3860	1C
102	6	20.25	72.3214	21.4286	23.4115	-1.98289	67.4012	1C
103	6.25	21	75	22.3214	25	-2.67857	63.0952	1C
104	6.5	20.75	74.1071	23.2143	24.4663	-1.25205	66.2651	1C
105	6.5	20.38	72.7857	23.2143	23.6841	-4.69828	69.2836	1C
106	6.5	20.38	72.7857	23.2143	23.6841	-4.69828	69.2836	1C

>1-1.25<

2 ALLEGHANY

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	5.5	8	213.333	146.667	135.608	11.0587	15.6250	>1.25-1.5<..
2	6	8.75	233.333	160.00	153.859	6.14090	11.4286	1<
3	7	9.88	263.467	186.667	181.806	4.86056	8.80567	1<
4	6.68	8.88	236.80	183.467	157.049	26.4176	19.7072	>2.....
5	6.5	8.63	230.133	173.333	150.921	22.4123	18.7717	>2.....
6	6.5	9	240.00	173.333	160.00	13.3333	13.8889	>1.5-1.75<...
7	6.75	9.25	246.667	180.00	166.166	13.8338	13.5135	>1.5-1.75<...
8	7.25	9.63	256.80	193.333	175.583	17.7499	14.2264	>2.....
9	6.5	9.5	253.333	173.333	172.356	.977358	7.89474	1<
10	7.13	9.75	260.00	190.133	178.568	11.5656	11.5897	>1.25-1.5<..
11	7.5	10.38	276.80	200	194.310	5.69024	8.38151	1<
12	7.68	10.5	280.00	210.133	197.321	12.8120	10.7619	>1.5-1.75<...
13	8	10.13	270.133	213.333	188.049	25.2647	15.9921	>2.....
14	8	10.5	280.00	213.333	197.321	16.0120	11.9048	>1.75-2<.....
15	8.38	11.13	296.80	223.467	213.194	10.2731	8.98473	>1.25-1.5<..
16	9	11.25	300	240.00	216.228	23.7722	13.3333	>2.....
17	9.13	11.75	313.333	243.467	228.904	14.5628	9.61702	>1.75-2<.....
18	9.25	11.88	316.80	246.667	232.208	14.4585	9.42761	>1.75-2<.....
19	9.63	12.88	343.467	256.80	257.728	-.926043	3.88199	1<
20	10.13	13	346.667	270.133	260.802	9.33176	6.76923	>1-1.25<..
21	10.75	13.75	366.667	286.667	280.058	6.60820	5.45455	1<
22	11.25	14.25	380.00	300	292.938	7.06235	5.26316	1<
23	10.25	13	346.667	273.333	260.802	12.5318	7.69231	>1.5-1.75<...
24	10.38	13.5	360.00	276.80	273.631	3.16917	4.66667	1<
25	11.38	14.13	376.80	303.467	289.844	13.6228	7.07714	>1.5-1.75<...
26	11.25	14.25	380.00	300	292.938	7.06235	5.26316	1<
27	10.88	14.38	383.467	290.133	296.291	-6.15783	1.73853	1<
28	11.38	14.28	380.80	303.467	293.711	9.75531	5.95238	>1-1.25<..
29	12.88	16	426.667	343.467	338.229	5.23791	3.9375	1<
30	13.25	16.13	430.133	353.333	341.605	11.7267	5.39368	>1.25-1.5<..
31	13.88	17	453.333	370.133	364.232	5.90160	3.70588	1<
32	13.88	17	453.333	370.133	364.232	5.90160	3.70588	1<
33	14.5	18	480.00	386.667	390.306	-3.63936	1.38889	1<
34	12.63	15.75	420.00	336.80	331.741	5.05934	4.0	1<
35	11.13	13.75	366.667	296.80	280.058	16.7415	8.21818	>2.....
36	11.13	13.88	370.133	296.80	283.404	13.3959	7.20461	>1.5-1.75<...
37	11	14	373.333	293.333	286.494	6.83912	5.35714	1<
38	12.38	14.88	396.80	330.133	309.207	20.9265	8.40054	>2.....
39	11.25	14.13	376.80	300	289.844	10.1561	6.15711	>1.25-1.5<..
40	10.5	13.38	356.80	280.00	270.549	9.45144	6.50224	>1-1.25<..
41	10.13	13.13	350.133	270.133	264.134	5.99963	5.71211	1<
42	11.38	14.25	380.00	303.467	292.938	10.529	6.17544	>1.25-1.5<..
43	11.88	14.38	383.467	316.80	296.291	20.5088	8.69263	>2.....
44	11	14	373.333	293.333	286.494	6.83912	5.35714	1<
45	10.63	13.13	350.133	283.467	264.134	19.3330	9.52018	>2.....
46	10	12.75	340.00	266.667	254.401	12.2658	7.84314	>1.5-1.75<...
47	9.38	11.25	300	250.133	216.228	33.9056	16.7111	>2.....
48	11.13	13.5	360.00	296.80	273.631	23.1692	10.2222	>2.....
49	11	13.5	360.00	293.333	273.631	19.7025	9.25926	>2.....

50	10.75	14	373.333	286.667	286.494	.172459	3.57143	1<
51	10.75	13.88	370.133	286.667	263.404	3.26260	4.46686	1<
52	10.88	14	373.333	290.133	266.494	3.63913	4.5	1<
53	10.88	14.13	376.80	290.133	269.844	.289471	3.53857	1<
54	10.38	13.88	370.133	276.80	283.404	-6.60407	1.80115	1<
55	10.5	13.25	353.333	280.00	267.212	.127883	7.54717	>1.5-1.75<...
56	10	12.88	343.467	266.667	257.728	8.93863	6.75466	>1-1.25<...
57	9.88	13	346.667	263.467	260.802	2.66509	4.84616	1<
58	9.25	12.25	326.667	246.667	241.63	5.03659	6.12245	1<
59	9.25	11.63	310.133	246.667	225.857	20.8098	11.7799	>2.....
60	8.75	11.5	306.667	233.333	222.559	10.7741	8.69565	>1.25-1.5<...
61	8.5	10.7	285.333	226.667	202.349	24.3174	14.4860	>2.....
62	7.75	10	266.667	206.667	184.8	21.8665	15.0	>2.....
63	7.88	11.13	296.80	210.133	213.194	-3.06028	4.49236	1<
64	9.5	12.25	326.667	253.333	241.63	11.7033	8.16327	>1.25-1.5<...
65	9.38	12.38	330.133	250.133	244.946	5.16694	6.05816	1<
66	9.25	12.75	340.00	246.667	254.401	-7.73424	1.96078	1<
67	9.63	12.88	343.467	256.80	257.728	-.928043	3.88199	1<
68	10	13.75	366.667	266.667	280.058	-13.3918	0	>1.5-1.75<...
69	10.5	13.38	356.80	280.00	270.549	9.45144	6.50224	>1-1.25<...
70	10.38	14	373.333	276.80	286.494	-9.69421	.928572	>1-1.25<...
71	10	13.13	350.133	266.667	264.134	2.53297	4.72201	1<
72	9.88	13.13	350.133	263.467	264.134	-.667034	3.80807	1<
73	9.75	13.13	350.133	260.00	264.134	-4.1337	2.81797	1<
74	9.75	13	346.667	260.00	260.802	-.801575	3.84616	1<
75	9.75	13	346.667	260.00	260.802	-.801575	3.84616	1<
76	10.13	13.13	350.133	270.133	264.134	5.99963	5.71211	1<
77	11.25	14.75	393.333	300	305.846	-5.84616	1.69492	1<
78	10.63	13.88	370.133	283.467	283.404	.062595	3.60231	1<
79	10.75	13.5	360.00	286.667	273.631	13.0358	7.40741	>1.5-1.75<...
80	9.38	13.13	350.133	250.133	264.134	-14.0004	0	>1.5-1.75<...
81	9.25	12.75	340.00	246.667	254.401	-7.73424	1.96078	1<
82	9.63	13.25	353.333	256.80	267.212	-10.4117	.981131	>1.25-1.5<...
83	9.5	13.63	363.467	253.333	276.972	-23.6388	-2.78797	>2.....
84	9.75	12.88	343.467	260.00	257.728	2.27196	4.81366	1<
85	9	12.25	326.667	240.00	241.63	-1.63008	4.08163	1<
86	9	12.13	323.467	240.00	238.572	1.42847	5.11129	1<
87	9	11.75	313.333	240.00	228.904	11.0961	8.51064	>1.25-1.5<...
88	9.38	11.75	313.333	250.133	228.904	21.2294	11.7447	>2.....
89	8.63	11.5	306.667	230.133	222.559	7.57413	7.65217	1<
90	8.88	12	320.00	236.80	235.261	1.53891	5.25	1<
91	8.63	11.13	296.80	230.133	213.194	16.9397	11.2309	>2.....
92	8.38	11.13	296.80	223.467	213.194	10.2731	8.98473	>1.25-1.5<...
93	8	10.13	270.133	213.333	188.049	25.2847	15.9921	>2.....
94	7.38	10.63	283.467	196.80	200.588	-3.76834	4.70367	1<
95	7.88	10.5	280.00	210.133	197.321	12.8120	10.7619	>1.5-1.75<...
96	7.63	10.5	280.00	203.467	197.321	6.14530	8.38095	1<
97	7.37	10.87	289.867	196.533	206.631	-10.0978	2.29991	>1-1.25<...
98	7.75	10.63	283.467	206.667	200.588	6.07833	8.18438	1<
99	7.5	10.75	286.667	200	203.608	-3.60793	4.65116	1<
100	7.38	10.38	276.80	196.80	194.310	2.49024	7.22544	1<
101	7.25	10.25	273.333	193.333	191.052	2.28161	7.31708	1<
102	7	10.38	276.80	186.667	194.310	7.64310	3.56455	1<
103	7.13	10.13	270.133	190.133	188.049	2.0847	7.40375	1<
104	7.13	10.13	270.133	190.133	188.049	2.0847	7.40375	1<
105	6.75	9.75	260.00	180.00	178.568	1.43224	7.69231	1<
106	6.88	9.63	256.80	183.467	175.583	7.86322	10.3842	1<

3 FIREBOARD

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	9.88	23.5	104.444	43.9111	44.5982	-6.687097	37.7872	1<
2	10.75	24.5	108.889	47.7778	47.8404	-6.062643	35.7143	1<
3	10.88	25.38	112.80	48.3556	50.7443	-2.38873	31.5209	1<
4	9.25	25.38	112.80	41.1111	50.7443	-9.63317	25.0985	>1-1.25<
5	8.13	22.68	101.689	36.1333	42.6206	-6.48725	33.8724	1<
6	8.38	22.5	100	37.2444	41.4214	-4.17691	37.2444	1<
7	8.38	23.5	104.444	37.2444	44.5982	-7.35376	31.4043	1<
8	9.38	25	111.111	41.6889	49.4847	-7.79562	27.52	1<
9	8.88	23.88	106.133	39.4667	45.8228	-6.35612	31.407	1<
10	8.88	24.13	107.244	39.4667	46.6335	-7.16679	30.0456	1<
11	9.25	24.38	108.356	41.1111	47.448	-6.33693	30.2297	1<
12	9.75	25.5	113.333	43.3333	51.1438	-7.81045	26.4706	1<
13	10	26	115.556	44.4444	52.8172	-8.37272	25.0	>1-1.25<
14	10	26.5	117.778	44.4444	54.5044	-10.0599	22.6415	>1-1.25<
15	9.5	26	115.556	42.2222	52.8172	-10.5949	23.0769	>1.25-1.5<
16	10.13	26.25	116.667	45.0222	53.6591	-8.63685	24.3048	>1-1.25<
17	10.38	26.75	118.689	46.1333	55.353	-9.21971	22.9159	>1-1.25<
18	11.88	28.38	126.133	52.8	60.4646	-8.16465	21.1417	>1-1.25<
19	14.25	31.63	140.578	63.3333	72.5170	-9.16365	16.1872	>1-1.25<
20	13.63	30.13	133.911	60.5778	67.1292	-6.55147	19.9137	1<
21	16.13	32	142.222	71.6889	73.8596	-2.17071	20.7188	1<
22	17.75	35	155.556	78.8889	84.9257	-6.03685	15.0	1<
23	15.13	33.38	148.356	67.2444	78.9116	-11.6672	12.7322	>1.25-1.5<
24	15.5	32.25	143.333	68.8889	74.7697	-5.88060	17.8295	1<
25	16.75	33	146.667	74.4444	77.5137	-3.06925	18.9394	1<
26	14.88	31.13	138.356	66.1333	70.711	-4.57771	20.0771	1<
27	15.63	32.13	142.80	69.4667	74.3326	-4.86589	18.6741	1<
28	14.88	31	137.778	66.1333	70.2431	-4.10978	20.5806	1<
29	14.75	31	137.778	65.5556	70.2431	-4.66755	20.1613	1<
30	15.5	30	133.333	68.8889	66.6667	2.22222	26.6667	1<
31	15	29.13	129.467	66.6667	63.5898	3.07689	28.7333	1<
32	14	28.13	125.022	62.2222	60.0955	2.12676	29.7547	1<
33	13.75	27.13	120.578	61.1111	56.6493	4.46182	33.6159	1<
34	13.5	26.25	116.667	60.00	53.6591	6.34093	37.1429	1<
35	14.13	27	120.00	62.8	56.2050	6.59501	35.6667	1<
36	12.75	27.13	120.578	56.6667	56.6493	.017378	29.930	1<
37	12.63	26.88	119.467	56.1333	55.7956	.337666	30.6920	1<
38	13	27	120.00	57.7778	56.2050	1.57279	31.4815	1<
39	12.38	24.75	110.00	55.0222	48.6607	6.36154	40.9293	1<
40	10.63	23.5	104.444	47.2444	44.5982	2.64624	40.9787	1<
41	11.13	24.5	108.889	49.4667	47.8404	1.62625	37.2653	1<
42	11.88	24.63	109.467	52.8	48.2665	4.53351	39.5859	1<
43	12.38	26.38	117.244	55.0222	54.0982	.92401	32.2214	1<
44	12.25	26.25	116.667	54.4444	53.6591	.785373	32.3810	1<
45	12.13	25.75	114.444	53.9111	51.9767	1.93240	34.4854	1<
46	11.63	24.63	109.467	51.6889	48.2665	3.4224	38.5708	1<
47	10.63	23.75	105.556	47.2444	45.4028	1.84164	39.4947	1<
48	11.63	25.13	111.689	51.6889	49.9147	1.77422	35.8138	1<
49	10.5	22.75	101.111	46.6667	42.2092	4.45747	45.0549	1<
50	11.13	23.88	106.133	49.4667	45.8228	3.64388	40.8291	1<

51	10.75	24	106.667	47.7778	46.2114	1.56637	38.5417	1<
52	11.25	24.75	110.00	50	48.6607	1.33931	36.3636	1<
53	10.88	24.38	108.356	48.3556	47.448	.907512	36.9155	1<
54	10.63	24.38	108.356	47.2444	47.448	-.2036	35.8901	1<
55	11.25	25.25	112.222	50	50.3124	-.312429	33.6634	1<
56	10.13	23.5	104.444	45.0222	44.5982	.424014	38.8511	1<
57	9.75	22.38	99.4667	43.3333	41.0447	2.28860	44.1019	1<
58	10.25	24.13	107.244	45.5556	46.6335	-1.0779	35.7232	1<
59	9.25	23.63	105.022	41.1111	45.0161	-3.90498	34.3631	1<
60	8.88	22.75	101.111	39.4667	42.2092	-2.74253	37.9341	1<
61	8	20	88.8889	35.5556	33.7955	1.76006	52.50	1<
62	7.75	19	84.4444	34.4444	30.8849	3.55952	59.2105	1<
63	8.75	19.63	87.2444	38.8889	32.7087	6.18021	59.1951	1<
64	8.88	19	84.4444	39.4667	30.8849	8.58174	65.1579	>1-1.25<=
65	9	22.5	100	40.0	41.4214	-1.42136	40.00	1<
66	9.25	23.25	103.333	41.1111	43.7977	-2.68658	36.5591	1<
67	10.38	24	106.667	46.1333	46.2114	-.07808	37.00	1<
68	10.38	24.25	107.778	46.1333	47.0240	-.890641	35.5876	1<
69	10.88	24.75	110.00	48.3556	48.6607	-.305131	34.8687	1<
70	11.5	25	111.111	51.1111	49.4647	1.6264	36.0	1<
71	10.38	23.25	103.333	46.1333	43.7977	2.33564	41.4194	1<
72	10	22.5	100	44.4444	41.4214	3.02309	44.4444	1<
73	10.25	22.13	98.3556	45.5556	40.2634	5.29218	47.9892	1<
74	10.25	23	102.222	45.5556	43.0013	2.55422	42.3913	1<
75	10.5	23.13	102.80	46.6667	43.4149	3.25175	42.6719	1<
76	10.88	24.13	107.244	48.3556	46.6335	1.7221	38.334	1<
77	12.5	26.5	117.778	55.5556	54.5044	1.05117	32.0755	1<
78	13	26.25	116.667	57.7778	53.6591	4.11871	35.2381	1<
79	13.38	26.75	118.889	59.4667	55.353	4.11363	34.1308	1<
80	12.75	26.25	116.667	56.6667	53.6591	3.00760	34.2857	1<
81	12.88	27.25	121.111	57.2444	57.0602	.184263	29.8349	1<
82	13.75	26.75	118.889	61.1111	55.353	5.75807	35.514	1<
83	13.75	28.38	126.133	61.1111	60.9646	.146465	27.7308	1<
84	13.13	28.13	125.022	58.3556	60.0955	-1.7399	26.6619	1<
85	12.5	26	115.556	55.5556	52.8172	2.73839	34.6154	1<
86	12.38	25.25	112.222	55.0222	50.3124	4.70979	38.1386	1<
87	12.25	25.75	114.444	54.4444	51.9787	2.46573	34.9515	1<
88	11.88	25	111.111	52.8	49.4847	3.31529	37.52	1<
89	11.88	24.38	108.356	52.8	47.448	5.35196	41.0172	1<
90	10.75	22.75	101.111	47.7778	42.2092	5.56858	46.1538	1<
91	11.38	23.75	105.556	50.5778	45.4028	5.17498	42.6526	1<
92	10.88	22.75	101.111	48.3556	42.2092	6.14636	46.7253	1<
93	10.63	22.75	101.111	47.2444	42.2092	5.03524	45.6264	1<
94	10.38	22.75	101.111	46.1333	42.2092	3.92413	44.5275	1<
95	10.13	21.5	95.5556	45.0222	38.3144	6.70786	51.7674	1<
96	9.88	22	97.7778	43.9111	39.8588	4.05228	47.1818	1<
97	10	22.75	101.111	44.4444	42.2092	2.23524	42.8571	1<
98	9.75	21.63	96.1333	43.3333	38.7142	4.61918	49.0985	1<
99	9.13	21.25	94.4444	40.5778	37.5491	3.02869	48.8471	1<
100	8.63	20.25	90.00	38.3556	34.5362	3.81932	53.7284	1<
101	8.25	20.25	90.00	36.6667	34.5362	2.13043	51.8519	1<
102	9.5	20.38	90.5778	42.2222	34.9234	7.29879	57.0167	1<
103	8.75	19.5	86.6667	38.8889	32.3296	6.55934	60.2564	1<
104	8.38	18.75	83.3333	37.2444	30.1708	7.07362	64.6933	1<
105	8.25	18.5	82.2222	36.6667	29.4623	7.20434	66.2162	1<
106	8	17.5	77.7778	35.5556	26.6862	8.86940	74.2857	>1-1.25<=

4 GENERAL DEVELOPMENT

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
48	7.75	25.63	90.7257	27.4336	35.0228	-7.58913	40.4604	1<
49	7	24.38	86.3009	24.7788	32.0903	-7.31152	44.5857	1<
50	8.88	26.75	94.6903	31.4336	37.7180	-6.26437	38.8037	1<
51	8.75	27	95.5752	30.9735	38.3280	-7.3545	37.037	1<
52	11.25	30	106.195	39.823	45.8674	-6.04444	31.6667	1<
53	10.5	29.63	104.885	37.1681	44.9167	-7.74857	30.7796	1<
54	10.25	29.38	104.00	36.2832	44.2775	-7.99432	31.0415	1<
55	11.25	30	106.195	39.823	45.8674	-6.04444	31.6667	1<
56	12	32.5	115.044	42.4779	52.4309	-9.95302	23.8462	>1-1.25<=
57	11.53	30.5	107.965	40.8142	47.1610	-6.34682	30.4262	1<
58	11.25	29.13	103.115	39.823	43.6409	-3.8179	35.599	1<
59	9.75	26.75	94.6903	34.5133	37.7180	-3.20472	42.0561	1<
60	10	28.63	101.345	35.3982	42.3757	-6.97746	33.6011	1<
61	9.88	26	92.0354	34.9735	35.9063	-0.932818	46.6538	1<
62	7	24.38	86.3009	24.7788	32.0903	-7.31152	44.5857	1<
63	9.63	26.88	95.1504	34.0885	36.0348	-3.94631	40.9226	1<
64	8.88	25.13	88.9558	31.4336	33.8399	-2.40630	47.7517	1<
65	9.75	26.75	94.6903	34.5133	37.7180	-3.20472	42.0561	1<
66	9.13	26.5	93.8053	32.3186	37.111	-4.79245	41.0566	1<
67	9	25.38	89.8407	31.8584	34.4297	-2.57132	46.7691	1<
68	9.13	26.25	92.9204	32.3186	36.5071	-4.18853	42.4	1<
69	9	26.13	92.4956	31.8584	36.2183	-4.35991	42.5565	1<
70	10.88	28.25	100	38.5133	41.4214	-2.90808	38.5133	1<
71	9.25	27.75	98.2301	32.7434	40.1754	-7.43206	35.1351	1<
72	10.13	26.5	93.8053	35.8584	37.111	-1.25263	44.8302	1<
73	9.63	26.13	92.4956	34.0885	36.2183	-2.12983	44.9675	1<
74	9.25	26.5	93.8053	32.7434	37.111	-4.36767	41.5094	1<
75	9.5	26.75	94.6903	33.6283	37.7180	-4.06968	41.1215	1<
76	9.88	26.75	94.6903	34.9735	37.7180	-2.74454	42.5421	1<
77	11.5	30.38	107.540	40.7080	46.8496	-6.14166	30.8427	1<
78	11	29	102.655	38.9381	43.3109	-4.37287	35.3448	1<
79	10.13	28.13	99.5752	35.8584	41.1213	-5.2629	36.4380	1<
80	9.88	28.5	100.885	34.9735	42.0485	-7.07504	33.7895	1<
81	10.38	28.88	102.23	36.7434	43.0070	-6.26360	33.7604	1<
82	11.63	31.63	111.965	41.1681	50.1202	-8.95205	26.0828	>1-1.25<=
83	10.75	31	109.735	38.0531	46.4643	-10.4113	25.8065	>1.25-1.5<=
84	11	31.63	111.965	38.9381	50.1202	-11.1821	24.0911	>1.25-1.5<=
85	10.13	29.5	104.425	35.8584	44.584	-8.72560	30.1017	>1-1.25<=
86	9.63	28.88	102.23	34.0885	43.0070	-8.91846	31.1634	>1-1.25<=
87	10.25	30.25	107.080	36.2832	46.5130	-10.2298	27.2727	>1.25-1.5<=
88	10	28.5	100.885	35.3982	42.0485	-6.65026	34.2105	1<
89	13	35	123.894	46.0177	59.2158	-13.1981	17.8571	>1.5-1.75<=
90	12.13	33.63	119.044	42.9381	55.4720	-12.5339	20.0714	>1.5-1.75<=
91	12.5	32.25	114.159	44.2478	51.7641	-7.51632	26.3566	1<
92	12.13	32.5	115.044	42.9381	52.4309	-9.49264	24.2462	>1-1.25<=
93	11.88	32.88	116.389	42.0531	53.4486	-11.3956	22.0499	>1.25-1.5<=
94	12.25	33.38	118.159	43.3628	54.7954	-11.4326	21.3301	>1.25-1.5<=
95	12.13	32.25	114.159	42.9381	51.7641	-8.82605	25.2093	>1-1.25<=
96	10.88	30.75	108.850	38.5133	47.8115	-9.29818	27.252	>1-1.25<=
97	9	25.88	91.6106	31.8584	35.6190	-3.76056	43.9335	1<

98	6.5	20.63	73.0265	23.0088	23.8240	-0.817143	68.444	1<
99	6	18.63	65.9469	21.2389	19.7873	1.45165	83.8433	1<
100	6	18.63	65.9469	21.2389	19.7873	1.45165	83.8433	1<
101	5.88	18.63	65.9469	20.8142	19.7873	1.02687	83.1991	1<
102	5.5	18.25	64.6018	19.469	17.052	0.416986	84.9315	1<
103	4.75	17.63	62.4071	16.8142	17.8755	-1.06138	87.1809	1<
104	4.88	16.38	57.9823	17.2743	15.5939	1.68045	102.259	1<
105	4.38	15.88	56.2124	15.5044	14.7163	0.786112	105.479	1<
106	4.5	15.63	55.3274	15.9292	14.2853	1.64393	109.533	1<

5 GREYHOUND

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
26	7.25	20.25	86.1702	30.8511	32.0049	-1.15388	51.8519	1<
27	8	20.75	88.2979	34.0426	33.4036	.638978	51.6072	1<
28	8.63	21.5	91.4894	36.7234	35.5371	1.16631	49.4419	1<
29	8.63	21.13	89.9149	36.7234	34.4793	2.24408	52.0587	1<
30	8	20.75	88.2979	34.0426	33.4036	.638978	51.8072	1<
31	8.25	21.38	90.9787	35.1064	35.1929	-.086544	48.5033	1<
32	8.38	21.13	89.9149	35.6596	34.4793	1.18025	50.8755	1<
33	8.5	21.13	89.9149	36.1702	34.4793	1.69089	51.4434	1<
34	7.88	20.75	88.2979	33.5319	33.4036	.12834	51.2289	1<
35	7.38	20.13	85.6596	31.4043	31.6722	-.267921	53.4029	1<
36	7.63	19.88	84.5957	32.4681	30.9826	1.46549	56.5895	1<
37	7.63	19.38	82.4681	32.4681	29.6186	2.84947	60.6295	1<
38	9	22.25	94.6809	38.2979	37.7115	.586351	46.0674	1<
39	8.88	21.38	90.9787	37.7872	35.1929	2.59431	51.450	1<
40	8.25	20.63	87.7872	35.1064	33.0661	2.04024	53.9021	1<
41	8.63	21.38	90.9787	36.7234	35.1929	1.53048	50.2806	1<
42	8.75	22.25	94.6809	37.234	37.7115	-.477479	44.9438	1<
43	9.88	23.88	101.617	42.0426	42.5693	-.526793	39.7822	1<
44	10.25	24.5	104.255	43.617	44.4617	-.84464	37.7551	1<
45	10	23.88	101.617	42.5532	42.5693	-.016154	40.2848	1<
46	9.38	23	97.8723	39.9149	39.9250	-.010066	42.9565	1<
47	8.63	22.25	94.6809	36.7234	37.7115	-.986117	44.4045	1<
48	9.88	24.63	104.809	42.0426	44.8614	-.2.81884	35.5258	1<
49	9.75	24.5	104.255	41.4894	44.4617	-.2.97230	35.7143	1<
50	9.25	23.63	100.553	39.3617	41.8131	-.2.45136	38.595	1<
51	9.88	24.38	103.745	42.0426	44.0936	-.2.05102	36.9155	1<
52	9.25	23.88	101.617	39.3617	42.5693	-.3.20764	37.1441	1<
53	9.13	23.63	100.553	38.8511	41.8131	-.2.9620	38.0872	1<
54	8.75	22.88	97.3617	37.234	39.5683	-.2.33422	40.9528	1<
55	8.75	23.63	100.553	37.234	41.8131	-.4.57902	36.4791	1<
56	8.75	23	97.8723	37.234	39.9250	-.2.69092	40.2174	1<
57	8.13	22.13	94.1702	34.5957	37.3609	-.2.76520	42.9282	1<
58	7.75	21.38	90.9787	32.9787	35.1929	-.2.2142	46.1646	1<
59	7.75	21.38	90.9787	32.9787	35.1929	-.2.2142	46.1646	1<
60	7.63	21.5	91.4894	32.4681	35.5371	-.3.06901	44.7907	1<
61	6.88	20	85.1064	29.2766	31.3130	-.2.03637	51.90	1<
62	6.75	19.13	81.4043	28.7234	28.9444	-.220972	58.1286	1<
63	7.5	20.63	87.7872	31.9149	33.0661	-.1.15125	50.2666	1<
64	7.13	19.5	82.9787	30.3404	29.9441	.39633	57.0769	1<
65	7.88	19.38	82.4681	33.5319	29.6186	3.9133	61.9195	1<
66	7.88	20.38	86.7234	33.5319	32.3667	1.16520	53.9745	1<
67	7.63	21.38	90.9787	32.4681	35.1929	-.2.72484	45.6034	1<
68	7.38	20.25	86.1702	31.4043	32.0049	-.600687	52.4938	1<
69	7.5	20.75	88.2979	31.9149	33.4036	-.1.46868	49.3976	1<
70	7.75	21	89.3617	32.9787	34.1101	-.1.13136	48.8095	1<
71	8	21.88	93.1064	34.0426	36.6338	-.2.59126	43.9671	1<
72	8.13	22.5	95.7447	34.5957	38.4451	-.3.84935	40.5778	1<
73	8.13	23	97.8723	34.5957	39.9250	-.5.32922	37.5217	1<
74	7.5	22.38	95.234	31.9149	38.0924	-.6.17755	38.5165	1<
75	7.38	21.63	92.0426	31.4043	35.9111	-.4.50686	42.7647	1<

76	7.25	21.5	91.4894	30.8511	35.5371	-4.68603	43.0233	1<
77	7.5	21.88	93.1064	31.9149	36.6338	-4.71692	41.6819	1<
78	6.75	20.38	86.7234	28.7234	32.3667	-3.64331	48.4298	1<
79	4.75	19.75	84.0426	28.7234	30.6260	-1.90259	53.1646	1<
80	6.68	19.5	82.9787	29.2766	29.9441	-.6675	55.7949	1<
81	6.63	19.75	84.0426	28.2128	30.6260	-2.41323	52.5570	1<
82	6.75	20.25	86.1702	28.7234	32.0049	-3.26154	49.3827	1<
83	6.25	19.38	82.4681	26.5957	29.6186	-3.02287	53.5088	1<
84	6.38	18.63	79.2766	27.1489	27.6118	-.46289	60.3865	1<
85	6	18.63	79.2766	25.5319	27.6118	-2.07991	58.3468	1<
86	5.88	18.5	78.7234	25.0213	27.2689	-2.24763	58.8108	1<
87	5.75	18.25	77.6596	24.4681	26.6136	-2.14554	60.2740	1<
88	5.63	18.38	78.2128	23.9574	26.9537	-2.99623	58.4875	1<
89	5.88	18.25	77.6596	25.0213	26.6136	-1.59235	60.9863	1<
90	5.63	18	76.5957	23.9574	25.9639	-2.00647	61.8333	1<
91	5.63	18.25	77.6596	23.9574	26.6136	-2.65618	59.6164	1<
92	5.88	18.63	79.2766	25.0213	27.6118	-2.59055	57.7026	1<
93	5.5	17.88	76.0851	23.4043	25.6541	-2.24981	62.1924	1<
94	5.25	17.75	75.5319	22.3404	25.3199	-2.97945	61.9718	1<
95	5	17.75	75.5319	21.2766	25.3199	-4.04328	60.5634	1<
96	5	17.63	75.0213	21.2766	25.0128	-3.73617	61.6563	1<
97	5.13	17.88	76.0851	21.8296	25.6541	-3.82427	60.123	1<
98	5	17.63	75.0213	21.2766	25.0128	-3.73617	61.6563	1<
99	5	17.75	75.5319	21.2766	25.3199	-4.04328	60.5634	1<
100	4.88	17.63	75.0213	20.7660	25.0128	-4.24681	60.9756	1<
101	5	18.38	78.2128	21.2766	26.9537	-5.67708	55.0598	1<
102	5.13	18	76.5957	21.8298	25.9639	-4.13413	59.0556	1<
103	4.88	17.63	75.0213	20.7660	25.0128	-4.24681	60.9756	1<
104	4.75	17.38	73.9574	20.2128	24.3773	-4.16450	62.5432	1<
105	4.63	17.63	75.0213	19.7021	25.0128	-5.31064	59.5576	1<
106	4.5	17.5	74.4681	19.1489	24.6816	-5.53264	60	1<

6 GULF+WESTERN INDUSTRIES

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	4.25	17.38	31.60	7.52412	4.87402	2.6501	240.266	1<
2	4.63	17.88	32.5091	8.19687	5.15151	3.04535	232.82	1<
3	5.25	18.75	34.0909	9.2945	5.65127	3.64324	220.597	1<
4	4.88	16.75	30.4545	8.63946	4.53458	4.10488	256.727	1<
5	4.13	16	29.0909	7.31168	4.14548	3.16620	268.884	1<
6	4.13	16.5	30.0	7.31168	4.40306	2.90861	257.706	1<
7	4.13	16	29.0909	7.31168	4.14548	3.16620	268.884	1<
8	4.13	17	30.9091	7.31168	4.66791	2.64376	247.185	1<
9	4	15.75	28.6364	7.08153	4.01943	3.06210	273.935	1<
10	4	16.13	29.3273	7.08153	4.21175	2.86978	265.126	1<
11	4.25	16.38	29.7818	7.52412	4.34058	3.18354	261.039	1<
12	4.38	17.75	32.2727	7.75427	5.07868	2.67559	233.886	1<
13	4.38	18.75	34.0909	7.75427	5.65127	2.10301	216.079	1<
14	4.25	18.25	33.1818	7.52412	5.36144	2.16268	224.045	1<
15	4.63	19.5	35.4545	8.19687	6.09913	2.00774	205.171	1<
16	4.75	19.38	35.2364	8.40931	6.02642	2.38290	207.663	1<
17	5.63	20.88	37.9636	9.96725	6.96372	3.00353	189.665	1<
18	5.88	21.13	38.4182	10.4098	7.12589	3.26395	187.390	1<
19	6.5	23.13	42.0545	11.5075	6.48311	3.02437	165.150	1<
20	7	23.88	43.4182	12.3927	9.01698	3.37369	158.861	1<
21	7	23.63	42.9636	12.3927	6.83875	3.55392	161.60	1<
22	8.13	26	47.2727	14.3932	10.6106	3.78258	141.986	1<
23	7.25	23.63	42.9636	12.8353	6.83875	3.99651	162.630	1<
24	8.5	24.75	45.0	15.0482	9.65856	5.30968	155.663	1<
25	8.88	25.75	46.8182	15.7210	10.4171	5.30366	147.171	1<
26	8.88	26.13	47.5091	15.7210	10.7116	5.00914	143.577	1<
27	9.88	27.5	50	17.4914	11.8034	5.68797	134.983	1<
28	10.63	28.75	52.2727	18.8192	12.8381	5.98105	127.306	1<
29	10.38	28	50.9091	18.3766	12.2129	6.16366	132.525	1<
30	10.13	28.13	51.1455	17.9340	12.3203	5.61363	130.585	1<
31	10.38	29.75	54.0909	18.3766	13.6918	4.68476	118.847	1<
32	10.5	29.63	53.8727	18.589	13.5882	5.00084	120.126	1<
33	9.63	28.13	51.1455	17.0468	12.3203	4.72844	128.855	1<
34	9.5	27.88	50.6909	16.8186	12.1141	4.70454	130.453	1<
35	9.5	28.75	52.2727	16.8186	12.8381	3.98052	123.479	1<
36	8.75	27.25	49.5455	15.4908	11.6009	3.88998	133.101	1<
37	8.25	26.88	48.8727	14.6056	11.3038	3.30181	134.498	1<
38	10	29.63	53.8727	17.7038	13.5882	4.11565	118.485	1<
39	9.75	28.5	51.8182	17.2612	12.6283	4.63297	126.294	1<
40	9	26.5	48.1818	15.9334	11.0022	4.93124	140.617	1<
41	9.25	27.13	49.3273	16.376	11.5042	4.87186	135.926	1<
42	9.5	28.5	51.8182	16.8186	12.6283	4.19037	125.439	1<
43	9.5	28.13	51.1455	16.8186	12.3203	4.49829	128.405	1<
44	9.25	27.63	50.2364	16.376	11.9093	4.46673	131.657	1<
45	9.25	27	49.0909	16.376	11.3998	4.97622	137.062	1<
46	8.38	25.5	46.3636	14.8358	10.2252	4.61063	147.685	1<
47	7.88	24.5	44.5455	13.9506	9.47282	4.47779	155.807	1<
48	9.75	28.25	51.3636	17.2612	12.4199	4.84137	128.296	1<
49	9.75	29	52.7273	17.2612	13.0494	4.21183	122.392	1<
50	9.38	28.63	52.0545	16.6062	12.7372	3.88898	124.008	1<

51	9.88	28.63	52.0545	17.4914	12.7372	4.75417	125.708	1<
52	9	27.63	50.2364	15.9334	11.9093	4.02413	130.776	1<
53	8.88	27	49.0909	15.7210	11.3998	4.32118	135.728	1<
54	8.38	26	47.2727	14.8358	10.6106	4.22517	142.922	1<
55	8.88	27.38	49.7818	15.7210	11.7060	4.01499	132.456	1<
56	8.88	26.63	48.4182	15.7210	11.1050	4.61599	139.003	1<
57	8.5	27.13	49.3273	15.0482	11.5042	3.54407	133.235	1<
58	8.25	26.63	48.4182	14.6056	11.1050	3.50065	136.70	1<
59	7.63	24.75	45.0	13.508	9.65856	3.84945	152.24	1<
60	7.75	24.75	45.0	13.7205	9.65856	4.06190	152.712	1<
61	7	22.5	40.9091	12.3927	8.04422	4.34645	174.738	1<
62	6.63	21.25	38.6364	11.7376	7.20433	4.5333	189.203	1<
63	7.75	23.5	42.7273	13.7205	8.74567	4.97479	166.154	1<
64	8.5	26.75	48.6364	15.0462	11.2003	3.84799	136.548	1<
65	8.25	26.38	47.9636	14.6056	10.9077	3.69798	138.943	1<
66	8.75	27.63	50.2364	15.4908	11.9093	3.56154	129.895	1<
67	8.75	27.63	50.2364	15.4908	11.9093	3.56154	129.895	1<
68	8.75	28.25	51.3636	15.4908	12.4199	3.07099	124.849	1<
69	9.75	30	54.5455	17.2612	13.9088	3.35246	114.979	1<
70	10.13	31.88	57.9636	17.9340	15.5845	2.34944	103.462	1<
71	9.68	32.63	59.3273	17.4914	16.2744	1.21702	98.0394	1<
72	10.75	35.5	64.5455	19.0316	19.0215	.010109	84.4152	1<
73	10.38	35	63.6364	18.3766	18.5310	-.154392	86.0203	1<
74	9.75	34.75	63.1818	17.2612	18.2875	-.102632	85.5933	1<
75	9.75	34.25	62.2727	17.2612	17.8045	-.543247	88.3027	1<
76	9.88	34.5	62.7273	17.4914	18.0454	-.554006	87.3051	1<
77	11.63	38.88	70.6909	20.5895	22.4631	-.187354	70.5871	1<
78	11.25	37.5	68.1818	19.9168	21.0321	-.111527	75.8780	1<
79	11.25	37.13	67.5091	19.9168	20.6544	-.737577	77.6306	1<
80	11.63	37.75	68.6364	20.5895	21.2687	-.699169	75.6934	1<
81	12.88	40	72.7273	22.8025	23.6497	-.847217	68.8535	1<
82	15	43.25	78.6364	26.5557	27.2151	-.659361	60.9379	1<
83	15.25	44.25	80.4545	26.9983	28.3469	-.134861	57.851	1<
84	14.63	42.25	76.8182	25.9007	26.0993	-.196616	63.8944	1<
85	14.13	41.25	75	25.0155	25	.015491	66.6873	1<
86	14	41.25	75	24.7853	25	-.214659	66.3805	1<
87	14.13	41.38	75.2364	25.0155	25.1420	-.126468	66.1637	1<
88	14.25	40.75	74.0909	25.2279	24.4567	.771268	69.0193	1<
89	15	42.75	77.7273	26.5557	26.6552	-.099434	62.8202	1<
90	14.13	40.5	73.6364	25.0155	24.1866	.826882	69.7741	1<
91	13.88	39.75	72.2727	24.5729	23.3829	1.18947	72.365	1<
92	13.63	39.5	71.8182	24.1303	23.1172	1.01308	72.8397	1<
93	13	38.75	70.4545	23.0150	22.3268	.686173	74.6019	1<
94	12.75	38	69.0909	22.5724	21.5465	1.02586	77.4074	1<
95	12.75	36.88	67.0545	22.5724	20.4006	2.17173	82.795	1<
96	12.25	34.25	62.2727	21.6872	17.8045	3.88271	95.4101	1<
97	13.25	36.62	66.5818	23.4576	20.1380	3.31956	85.4223	1<
98	12.25	35.13	63.8727	21.6872	18.658	3.02916	90.5151	1<
99	12.38	37	67.2727	21.9173	20.5223	1.39504	81.2285	1<
100	13.13	38.25	69.5455	23.2451	21.8055	1.43965	77.2152	1<
101	12.75	37.13	67.5091	22.5724	20.6544	1.9180	81.5642	1<
102	11.88	36	65.4545	21.0321	19.5169	1.5152	84.9102	1<
103	11.75	35.88	65.2364	20.8020	19.3976	1.4044	85.1758	1<
104	11.63	34.38	62.5091	20.5895	17.9296	2.65996	92.9152	1<
105	11.25	33.75	61.3636	19.9168	17.3264	2.59034	95.420	1<
106	10.75	33.38	60.6909	19.0316	16.976	2.05560	96.1276	1<

7 INSTRUMENTS SYSTEMS

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	1.63	8	20.0	4.075	1.98039	2.09461	420.375	1<
2	1.75	7.88	19.7	4.375	1.92198	2.45302	429.822	1<
3	1.88	8.13	20.325	4.7	2.04463	2.65538	415.129	1<
4	1.63	8	20.0	4.075	1.98039	2.09461	420.375	1<
5	1.38	6.88	17.2	3.45	1.46842	1.98158	501.453	1<
6	1.38	6.63	16.575	3.45	1.36435	2.08565	524.133	1<
7	1.5	6.25	15.625	3.75	1.21334	2.53666	564.00	1<
8	1.38	5.75	14.375	3.45	1.02792	2.42208	619.652	1<
9	1.38	5.5	13.75	3.45	.940886	2.50911	652.364	1<
10	1.25	5.25	13.125	3.125	.857649	2.26735	685.714	1<
11	1.25	5.38	13.45	3.125	.900457	2.22454	666.729	1<
12	1.5	5.5	13.75	3.75	.940886	2.80911	654.545	1<
13	1.25	5.25	13.125	3.125	.857649	2.26735	685.714	1<
14	1.38	5.13	12.825	3.45	.819048	2.63095	706.628	1<
15	1.25	5.88	14.7	3.125	1.07468	2.05033	601.531	1<
16	1.38	6.13	15.325	3.45	1.16746	2.26254	575.041	1<
17	1.75	7	17.5	4.375	1.5197	2.85530	496.429	1<
18	1.75	7.25	18.125	4.375	1.6293	2.74570	475.862	1<
19	1.75	7	17.5	4.375	1.5197	2.85530	496.429	1<
20	1.75	7.38	18.45	4.375	1.68777	2.66723	465.718	1<
21	1.88	7.88	19.7	4.7	1.92198	2.77802	431.472	1<
22	1.88	8.63	21.575	4.7	2.30093	2.39907	385.284	1<
23	2	7.25	18.125	5.0	1.6293	3.37070	479.31	1<
24	1.88	7.13	17.825	4.7	1.57623	3.12377	487.377	1<
25	3	11.88	29.7	7.5	4.31726	3.18274	261.953	1<
26	2.75	12	30.0	6.875	4.40306	2.47194	256.25	1<
27	2.63	10	25	6.575	3.07764	3.49736	326.30	1<
28	2.75	9.88	24.7	6.875	3.00529	3.86971	332.692	1<
29	2.63	10.13	25.325	6.575	3.15695	3.41805	320.829	1<
30	2.63	10	25	6.575	3.07764	3.49736	326.30	1<
31	2.63	10.38	25.95	6.575	3.31216	3.26284	310.694	1<
32	2.63	9.63	24.075	6.575	2.85721	3.71779	342.679	1<
33	2.63	10.13	25.325	6.575	3.15695	3.41805	320.829	1<
34	2.63	9.88	24.7	6.575	3.00529	3.56971	331.478	1<
35	2.63	9.63	24.075	6.575	2.85721	3.71779	342.679	1<
36	2.5	9.38	23.45	6.25	2.71272	3.53728	353.092	1<
37	2.5	9.5	23.75	6.25	2.78162	3.46838	347.368	1<
38	2.5	9.25	23.125	6.25	2.63901	3.61099	359.459	1<
39	2	8.88	22.2	5.0	2.43456	2.56544	372.973	1<
40	2	8.13	20.325	5.0	2.04463	2.95538	416.605	1<
41	2.13	8.75	21.875	5.325	2.36462	2.96038	381.486	1<
42	2.13	8.5	21.25	5.325	2.23288	3.09212	395.647	1<
43	2	8.25	20.625	5.0	2.1048	2.89520	409.091	1<
44	2	8	20.0	5.0	1.98039	3.01961	425.0	1<
45	2	7.5	18.75	5.0	1.74263	3.25737	460.00	1<
46	1.88	7.38	18.45	4.7	1.68777	3.01223	467.480	1<
47	1.88	6.75	16.875	4.7	1.41383	3.28617	520.444	1<
48	1.75	7.25	18.125	4.375	1.6293	2.74570	475.862	1<
49	1.88	6.88	17.2	4.7	1.46842	3.23158	508.721	1<
50	1.75	7.5	18.75	4.375	1.74263	2.63237	456.667	1<

51	1.63	7.88	19.7	4.075	1.92198	2.15302	428.299	1<
52	1.63	7.63	19.075	4.075	1.80302	2.27198	445.609	1<
53	1.75	7.38	18.45	4.375	1.68777	2.68223	465.718	1<
54	1.88	6.88	17.2	4.7	1.46842	3.23158	508.721	1<
55	1.88	7	17.5	4.7	1.5197	3.18030	498.286	1<
56	1.75	6.13	15.325	4.375	1.16746	3.20754	581.077	1<
57	1.75	6	15.0	4.375	1.11874	3.25626	595.833	1<
58	1.5	5.63	14.075	3.75	.98567	2.76433	637.123	1<
59	1.5	5.38	13.45	3.75	.900457	2.84954	671.375	1<
60	1.38	5.38	13.45	3.45	.900457	2.54954	669.145	1<
61	1.38	5.13	12.825	3.45	.819048	2.63095	706.628	1<
62	1.25	4.75	11.875	3.125	.702609	2.42239	768.421	1<
63	1.25	5.25	13.125	3.125	.857649	2.26735	685.714	1<
64	1.63	5.63	14.075	4.075	.98567	3.06933	639.432	1<
65	1.63	5.38	13.45	4.075	.900457	3.17454	673.792	1<
66	1.63	5.5	13.75	4.075	.940886	3.13411	656.909	1<
67	1.75	5.25	13.125	4.375	.857649	3.51735	695.238	1<
68	2	6.38	15.95	5.0	1.26402	3.73598	558.307	1<
69	2	6.13	15.325	5.0	1.16746	3.83254	585.155	1<
70	2	6.13	15.325	5.0	1.16746	3.83254	585.155	1<
71	2	6.88	17.2	5.0	1.46842	3.53158	510.465	1<
72	2.13	6.75	16.875	5.325	1.41383	3.91117	524.148	1<
73	2	6.63	16.575	5.0	1.36435	3.63565	533.484	1<
74	2.25	7.13	17.825	5.625	1.57623	4.04877	492.567	1<
75	2.13	7	17.5	5.325	1.5197	3.80530	501.857	1<
76	2.13	6.88	17.2	5.325	1.46842	3.85658	512.355	1<
77	2.13	7	17.5	5.325	1.5197	3.80530	501.857	1<
78	2.13	7.13	17.825	5.325	1.57623	3.74877	490.884	1<
79	2.13	6.63	16.575	5.325	1.36435	3.96065	535.445	1<
80	2	6.63	16.575	5.0	1.36435	3.63565	533.484	1<
81	2	6.5	16.25	5.0	1.31171	3.68829	546.154	1<
82	1.88	6.25	15.625	4.7	1.21334	3.46666	570.080	1<
83	1.88	6.13	15.325	4.7	1.16746	3.53254	583.197	1<
84	1.88	5.75	14.375	4.7	1.02792	3.67208	628.348	1<
85	1.63	5.5	13.75	4.075	.940886	3.13411	656.909	1<
86	1.63	5.25	13.125	4.075	.857649	3.21735	692.952	1<
87	1.5	5.25	13.125	3.75	.857649	2.89235	690.476	1<
88	1.5	5	12.5	3.75	.778221	2.97178	730.00	1<
89	1.38	5.13	12.825	3.45	.619048	2.63095	706.628	1<
90	1.38	5.5	13.75	3.45	.940886	2.50911	652.364	1<
91	1.38	5	12.5	3.45	.778221	2.67178	727.60	1<
92	1.38	4.75	11.875	3.45	.702609	2.74739	771.158	1<
93	1.25	4.88	12.2	3.125	.74145	2.38355	745.287	1<
94	1.13	4.75	11.875	2.825	.702609	2.12239	765.895	1<
95	1.13	4.5	11.25	2.825	.630822	2.19418	814.0	1<
96	1.13	4.25	10.625	2.825	.562868	2.26213	867.765	1<
97	1.13	4.25	10.625	2.625	.562868	2.26213	867.765	1<
98	1.13	4.5	11.25	2.825	.630822	2.19418	814.0	1<
99	1.13	4.25	10.625	2.825	.562868	2.26213	867.765	1<
100	1.25	4.63	11.575	3.125	.667673	2.45733	790.929	1<
101	1	4.38	10.95	2.5	.597726	1.90227	836.073	1<
102	1	4.25	10.625	2.5	.562868	1.93713	864.706	1<
103	1	4.25	10.625	2.5	.562868	1.93713	864.706	1<
104	1	4	10.0	2.5	.498755	2.00125	925.0	1<
105	.88	4	10.0	2.2	.498755	1.70125	922.0	1<
106	.88	4.25	10.625	2.2	.562868	1.63713	861.882	1<

8 ITEL1978

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	8	14	224.00	128.00	145.308	-17.3080	1.78572	>2.0000
2	10	15.38	246.080	160.00	165.623	-5.62260	5.65670	1<
3	11.25	14.88	238.080	180.00	158.229	21.7713	17.6075	>2.0000
4	10	13.63	218.080	160.00	139.914	20.0857	19.2223	>2.0000
5	11.5	16.63	266.080	184.00	184.251	-25.0883	6.73482	1<
6	11	16.25	260.00	176.00	178.566	-2.56776	6.15385	1<
7	10.75	16.63	266.080	172.00	164.251	-12.2509	2.22489	>1.5-1.75<000
8	13	17.5	280.00	208.00	197.321	10.6766	10.0	>1.25-1.5<00
9	12.25	15.5	248.00	196.00	167.402	28.5977	19.3548	>2.0000
10	12	16.38	262.080	192.00	160.51	11.4899	11.4164	>1.25-1.5<00
11	13	17.38	278.080	208.00	195.514	12.4861	10.7595	>1.5-1.75<000
12	12.75	16.75	268.00	204.00	166.049	17.9511	13.4328	>2.0000
13	10	15.88	254.080	160.00	173.051	-13.0506	2.32998	>1.5-1.75<000
14	11.5	14.63	234.080	184.00	154.546	29.4544	21.326	>2.0000
15	12	15.88	254.080	192.00	173.051	18.9444	14.9244	>2.0000
16	12	15.5	248.00	192.00	167.402	24.5977	17.7419	>2.0000
17	12.5	16.5	264.00	200	182.305	17.6952	13.6364	>2.0000
18	13	16.63	266.080	208.00	164.251	23.7491	15.7547	>2.0000
19	14	17.75	284.00	224.00	201.091	22.9087	14.0845	>2.0000
20	14.5	18.25	292.00	232.00	208.649	23.3513	13.6986	>2.0000
21	15.5	19.38	310.080	248.00	275.806	22.1939	12.2291	>2.0000
22	13.75	19.13	306.080	220.00	222.001	-2.00149	4.54783	1<
23	12.25	17.38	278.080	196.00	195.514	.486071	6.44419	1<
24	13	17.63	282.080	208.00	199.281	8.71899	9.18888	>1-1.25<0
25	17.25	21.25	340.00	276.00	254.401	21.5991	10.5882	>2.0000
26	17	20.25	324.00	272.00	239.081	32.9189	14.8148	>2.0000
27	15.75	19.63	314.080	252.00	229.615	22.3847	12.0734	>2.0000
28	15.75	19.75	316.00	252.00	231.445	20.5547	11.3924	>2.0000
29	16	20.88	334.080	256.00	248.725	7.27454	6.5613	1<
30	16	21.75	348.00	256.00	262.083	-6.06286	2.29865	1<
31	16.25	22.75	364.00	260.00	277.486	-17.4864	-1.0989	>2.0000
32	15.75	22.25	356.00	252.00	269.778	-17.7783	-1.12360	>2.0000
33	15	19.88	318.080	240.00	233.429	6.57102	6.89135	1<
34	11.5	16.63	266.080	184.00	184.251	-25.0883	6.73482	1<
35	13	16.5	264.00	208.00	182.305	25.6667	16.6667	>2.0000
36	11.5	16.5	264.00	184.00	182.305	1.6952	7.57576	1<
37	10.5	15.25	244.00	168.00	163.697	4.30321	9.83607	1<
38	11.5	15.25	244.00	184.00	163.697	20.3032	16.3934	>2.0000
39	10.5	13.75	220.00	168.00	141.661	26.3391	21.8182	>2.0000
40	9.75	13.13	210.080	156.00	132.666	23.3337	21.8583	>2.0000
41	11	13.75	220.00	176.00	141.661	34.3391	25.4545	>2.0000
42	11	14	224.00	176.00	145.308	30.692	23.2143	>2.0000
43	10	13	208.00	160.00	130.790	29.2101	25	>2.0000
44	10	12.88	206.080	160.00	129.061	30.9389	26.1646	>2.0000
45	9.5	12	192.00	152.00	116.481	35.5191	31.25	>2.0000
46	8.75	12	192.00	140.00	116.481	23.5191	25.0	>2.0000
47	9	13.88	222.080	144.00	143.556	.443998	9.87032	1<
48	7.25	12.63	202.080	116.00	125.469	-9.46912	6.86836	>1-1.25<0
49	8	12.63	202.080	128.00	125.469	2.53088	12.8266	1<

50	8.25	12.75	204.00	132.00	127.192	4.86845	13.7255	1<
51	8	13	208.00	128.00	130.790	-2.76995	9.61539	1<
52	8	11.63	186.080	128.00	111.248	16.7519	22.5279	>2.00000
53	7.5	11.25	180.00	120.00	105.913	14.0874	22.2222	>1.5-1.75<0.00
54	7.25	10.75	172.00	116.00	98.9573	17.0427	25.5814	>2.00000
55	4.25	10.13	162.080	68.00	90.4466	-22.4466	3.65252	>2.00000
56	4.25	7.5	120.00	68.00	56.2050	11.795	40.0	>1.25-1.5<0.0
57	5	7.75	124.00	80.00	54.2985	20.7015	45.1613	>2.00000
58	5	7	112.00	80.00	50.1466	29.8534	60.7143	>2.00000
59	4.5	7	112.00	72.00	50.1466	21.8534	53.5714	>2.00000
60	5	6.63	106.080	80.00	45.7840	34.216	69.6833	>2.00000
61	5	6.75	108.00	80.00	47.1870	32.813	66.6667	>2.00000
62	5	6.75	108.00	80.00	47.1870	32.813	66.6667	>2.00000
63	5	6.88	110.080	80.00	48.7199	31.2801	63.5174	>2.00000
64	6.25	8.88	142.080	100	73.7433	26.2567	40.7658	>2.00000
65	6.5	9.88	158.080	104.00	87.0542	16.9458	29.0486	>2.00000
66	6.25	9.75	156.00	100	85.2998	14.7002	28.2051	>1.75-2<0.000
67	6	9.63	154.080	96.00	83.6663	12.3137	27.2066	>1.5-1.75<0.00
68	5.75	9.63	154.080	92.00	83.6863	8.31373	24.6106	>1-1.25<0
69	5.75	9.88	158.080	92.00	87.0542	4.94577	21.4575	1<
70	5.75	9.88	158.080	92.00	87.0542	4.94577	21.4575	1<
71	6.25	11.88	190.080	100	114.780	-14.7799	5.21886	>1.75-2<0.000
72	6.75	11.5	164.00	108.00	109.418	-1.41824	13.0435	1<
73	7.38	11	176.00	116.080	102.425	15.6547	23.9091	>1.75-2<0.000
74	6.75	10.5	168.00	108.00	95.5096	12.4904	23.8095	>1.5-1.75<0.00
75	6.75	10.5	168.00	108.00	95.5096	12.4904	23.8095	>1.5-1.75<0.00
76	6.75	10.5	168.00	108.00	95.5096	12.4904	23.8095	>1.5-1.75<0.00
77	6.75	12	192.00	108.00	116.481	-8.48095	8.33333	>1-1.25<0
78	7.13	10.75	172.00	114.08	98.9573	15.1227	24.4651	>1.75-2<0.000
79	6.75	10.25	164.00	108.00	92.0833	15.9167	26.8293	>1.75-2<0.000
80	6.75	10.5	168.00	108.00	95.5096	12.4904	23.8095	>1.5-1.75<0.00
81	6.63	10.13	162.080	106.080	90.4466	15.6334	27.1471	>1.75-2<0.000
82	6.63	10	160.00	106.080	86.6796	17.4004	28.8	>2.00000
83	6.75	9.88	158.080	108.00	87.0542	20.9458	31.5789	>2.00000
84	7.25	9.5	152.00	116.00	81.945	34.0550	42.1053	>2.00000
85	6.75	8.63	138.080	108.00	70.4878	37.5122	50.6373	>2.00000
86	6.25	9	144.00	100	75.3169	24.6831	38.8889	>2.00000
87	6.25	10	160.00	100	88.6796	11.3204	25.0	>1.25-1.5<0.0
88	6	9.25	148.00	96.00	78.6169	17.3831	32.4324	>2.00000
89	5.75	8.75	140.00	92.00	72.0465	19.9535	37.1429	>2.00000
90	5.75	9.13	146.080	92.00	77.0293	14.9707	31.4348	>1.75-2<0.000
91	5.75	8.88	142.080	92.00	73.7433	18.2567	35.1351	>2.00000
92	5.5	8.13	130.080	88.00	64.0756	23.9244	44.5264	>2.00000
93	5.25	7.63	122.080	84.00	57.8085	26.1915	50.7208	>2.00000
94	5	8	128.00	80.00	62.4315	17.5685	40.625	>2.00000
95	5.25	8.38	134.080	84.00	67.2646	16.7354	37.2315	>2.00000
96	5.25	8.38	134.080	84.00	67.2646	16.7354	37.2315	>2.00000
97	5.75	7.75	124.00	92.00	59.2985	32.7015	54.8367	>2.00000
98	6	7.5	120.00	96.00	56.2050	39.795	63.3333	>2.00000
99	6	7	112.00	96.00	50.1466	45.8534	75.0	>2.00000
100	6	9	144.00	96.00	75.3169	20.6831	36.1111	>2.00000
101	6	8.75	140.00	96.00	72.0465	23.9535	40.0	>2.00000
102	6.25	8.13	130.080	100	64.0756	35.9244	53.7515	>2.00000
103	6.25	8.13	130.080	100	64.0756	35.9244	53.7515	>2.00000
104	6	8.13	130.080	96.00	64.0756	31.9244	50.6765	>2.00000
105	6.5	8	128.00	104.00	62.4315	41.5685	59.375	>2.00000
106	6.25	7.88	126.080	100	60.9229	39.0771	58.6294	>2.00000

9 LEASCO

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	5.1	12.38	35.5747	14.6552	6.13934	8.51583	222.294	>1-1.25<
2	7.25	15.5	44.5402	20.8333	9.47069	11.3626	171.29	>1.25-1.5<00
3	7.63	15.75	45.2586	21.9253	9.76444	12.1603	169.397	>1.25-1.5<00
4	6.88	13.88	39.8851	19.7701	7.66066	12.1095	200.288	>1.25-1.5<00
5	4	12.75	36.6379	17.2414	6.50041	10.7410	220.00	>1.25-1.5<00
6	6.25	12.88	37.0115	17.9598	6.6295	11.3303	218.711	>1.25-1.5<00
7	6	12.63	36.2931	17.2414	6.38228	10.6591	223.04	>1.25-1.5<00
8	6	11.75	33.7644	17.2414	5.54635	11.695	247.234	>1.25-1.5<00
9	5.38	10.38	29.8276	15.4598	4.35365	11.1061	287.091	>1.25-1.5<00
10	5.13	10.5	30.1724	14.7414	4.45274	10.3866	280.286	>1.25-1.5<00
11	6	12.5	35.9195	17.2414	6.25542	10.9860	226.4	>1.25-1.5<00
12	6.25	13.25	38.0747	17.9598	7.00320	10.9566	209.811	>1.25-1.5<00
13	5.75	13.5	38.7931	16.5230	7.26092	9.26207	200.37	>1-1.25<
14	6.25	14.5	41.6667	17.9598	8.33333	9.62644	183.103	>1-1.25<
15	6.5	15.25	43.8218	18.6782	9.18037	9.49779	170.820	>1-1.25<
16	6.38	16.88	48.5057	18.3333	11.1432	7.19015	143.957	1<
17	7	17	48.8506	20.1149	11.2941	8.82083	145.882	>1-1.25<
18	6.38	16.88	48.5057	18.3333	11.1432	7.19015	143.957	1<
19	6.63	16.5	47.4138	19.0517	10.6710	8.38074	151.091	>1-1.25<
20	7.25	17.88	51.3793	20.8333	12.427	8.40632	135.179	>1-1.25<
21	7.75	19	54.5977	22.2701	13.9338	8.33632	123.947	>1-1.25<
22	7.88	19.38	55.6897	22.6437	14.4611	8.1826	120.227	>1-1.25<
23	7.25	18.5	53.1609	20.8333	13.2523	7.58104	127.297	1<
24	7.63	19	54.5977	21.9253	13.9338	7.99150	123.316	1<
25	9	21.88	62.8736	25.8621	18.1232	7.73869	100.183	1<
26	8.75	21.75	62.5	25.1437	17.9248	7.21891	100.230	1<
27	8.25	20.13	57.8448	23.7069	15.5250	8.18191	113.840	>1-1.25<
28	7.75	19	54.5977	22.2701	13.9338	8.33632	123.947	>1-1.25<
29	7.75	19	54.5977	22.2701	13.9338	8.33632	123.947	>1-1.25<
30	8.88	20.88	60.00	25.5172	16.619	8.89821	109.195	>1-1.25<
31	8.63	20.25	58.1897	24.7989	15.698	9.10081	114.469	>1-1.25<
32	8.63	21.63	62.1552	24.7989	17.7424	7.05648	100.786	1<
33	9.38	21	60.3448	26.954	16.7968	10.1572	110.81	>1.25-1.5<00
34	8.75	20.63	59.2816	25.1437	16.2511	8.89262	117.1	>1-1.25<
35	8.5	20.75	59.6264	24.4253	16.4273	7.99801	108.675	1<
36	8.25	19.75	56.7529	23.7069	14.9621	8.72477	117.925	>1-1.25<
37	8.63	20.25	58.1897	24.7989	15.698	9.10081	114.469	>1-1.25<
38	8.5	20.5	58.908	24.4253	16.061	8.36428	111.220	>1-1.25<
39	8.13	19.38	55.6897	23.3621	14.4611	8.90099	121.517	>1-1.25<
40	7.25	16.5	47.4138	20.8333	10.6710	10.1623	154.846	>1.25-1.5<00
41	7.25	17.88	51.3793	20.8333	12.427	8.40632	135.179	>1-1.25<
42	7.38	17.75	51.0057	21.2069	12.2568	8.95011	137.634	>1-1.25<
43	7.25	17.38	49.9425	20.8333	11.7777	9.05563	141.945	>1-1.25<
44	7.38	18.38	52.8161	21.2069	13.0908	8.11605	129.489	>1-1.25<
45	8.25	21.5	61.7816	23.7069	17.5456	6.1613	100.233	1<
46	7.5	20.38	58.5632	21.5517	15.8864	5.66536	107.556	1<
47	7.63	19.75	56.7529	21.9253	14.9821	6.94317	114.835	1<
48	8.63	22.38	64.3103	24.7989	18.8942	5.90470	94.0572	1<
49	9.75	24.88	71.4943	28.0172	22.9285	5.08869	79.0595	1<

50	8.25	22.5	64.6552	23.7069	19.081	4.62587	91.3333	1<
51	9.75	25.25	72.5575	28.0172	23.5499	4.46731	76.4356	1<
52	9.13	24.5	70.4023	26.2356	22.2967	3.93893	79.3061	1<
53	8.88	23.5	67.5287	25.5172	20.6654	4.85188	85.8723	1<
54	8.63	22.5	64.6552	24.7989	19.081	5.71782	93.0222	1<
55	8.68	24.5	70.4023	25.5172	22.2967	3.22054	78.2857	1<
56	8.68	25.13	72.2126	25.5172	23.3477	2.16950	73.8162	1<
57	8.63	23.38	67.1839	24.7989	20.4727	4.32613	85.7571	1<
58	8.5	22.88	65.7471	24.4253	19.6774	4.74767	89.2483	1<
59	7.38	20.5	58.908	21.2069	16.061	5.14589	105.756	1<
60	7.75	21.75	62.5	22.2701	17.9248	4.34535	95.6322	1<
61	7.13	19.38	55.6897	20.4885	14.4611	6.02743	116.357	1<
62	6.88	18.25	52.4425	19.7701	12.9169	6.85325	128.384	1<
63	7.75	21.25	61.0632	22.2701	17.1696	5.10051	100.235	1<
64	7.88	22.13	63.5920	22.6437	18.5071	4.13656	92.8604	1<
65	8.25	22.5	64.6552	23.7069	19.081	4.62587	91.3333	1<
66	7.63	21	60.3448	21.9253	16.7968	5.12846	102.048	1<
67	7.88	21	60.3448	22.6437	16.7968	5.84686	103.238	1<
68	7.25	19.75	56.7529	20.8333	14.9821	5.85121	112.911	1<
69	8.25	21.38	61.4368	23.7069	17.3647	6.34217	101.356	1<
70	7.88	20.38	58.5632	22.6437	15.8864	6.75731	109.421	1<
71	7.75	20.25	58.1897	22.2701	15.698	6.57208	110.123	1<
72	8.63	23.13	66.4655	24.7989	20.0736	4.72527	87.7648	1<
73	8	22.13	63.5920	22.9885	18.5071	4.46139	93.4026	1<
74	7.88	21.38	61.4368	22.6437	17.3647	5.27896	99.6258	1<
75	8	20.75	59.6264	22.9885	16.4273	6.56122	106.265	1<
76	7.75	22.38	64.3103	22.2701	18.8942	3.37596	90.1251	1<
77	8.63	24.13	69.3391	24.7989	21.6877	3.1111	79.9834	1<
78	7.88	23	66.0920	22.6437	19.8672	2.77648	85.5652	1<
79	7.75	22.38	64.3103	22.2701	18.8942	3.37596	90.1251	1<
80	7.75	21.75	62.5	22.2701	17.9248	4.34535	95.6322	1<
81	7.75	21.25	61.0632	22.2701	17.1696	5.10051	100.235	1<
82	7.75	21.5	61.7816	22.2701	17.5456	4.72452	97.9070	1<
83	8	23.38	67.1839	22.9885	20.4727	2.51578	83.0624	1<
84	7.5	21.75	62.5	21.5517	17.9248	3.62696	94.4828	1<
85	7.13	20.5	58.908	20.4885	16.061	4.42750	104.537	1<
86	6.75	19.75	56.7529	19.3966	14.9621	4.41443	110.380	1<
87	7	20.38	58.5632	20.1149	15.8864	4.22857	105.103	1<
88	6.63	20.25	58.1897	19.0517	15.698	3.35369	104.593	1<
89	7	21.25	61.0632	20.1149	17.1696	2.94534	96.7059	1<
90	6.5	20	57.4713	18.6782	15.3384	3.33976	106.5	1<
91	6.25	18.25	52.4425	17.9598	12.9169	5.0429	124.932	1<
92	6.25	19	54.5977	17.9598	13.9336	4.02598	116.053	1<
93	5.5	18.63	53.5345	15.8046	13.4281	2.37647	116.318	1<
94	5.63	18.75	53.8793	16.1782	13.5913	2.58688	115.627	1<
95	5.75	18.13	52.0977	16.5230	12.7571	3.76586	123.662	1<
96	5.38	17.13	49.2241	15.4598	11.4586	4.00119	134.559	1<
97	5.75	18	51.7241	16.5230	12.585	3.93797	125.278	1<
98	5.38	17.38	49.9425	15.4598	11.7777	3.68206	131.185	1<
99	5.88	18	51.7241	16.8966	12.585	4.31153	126.00	1<
100	6.63	20.75	59.6264	19.0517	16.4273	2.62444	99.6626	1<
101	6.88	21.88	62.8736	19.7701	18.1232	1.64694	90.4936	1<
102	6.75	21.25	61.0632	19.3966	17.1696	2.22695	95.5294	1<
103	6.5	21.63	62.1552	18.6782	17.7424	.935792	90.9385	1<
104	6	19	54.5977	17.2414	13.9338	3.30759	114.737	1<
105	6	19.63	56.408	17.2414	14.8123	2.42907	107.845	1<
106	5.75	18.63	53.5345	16.5230	13.4281	3.09466	117.660	1<

10 LERNER STORES

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
41	29.63	44.5	296.667	197.533	213.067	-15.5339	.292136	>1.75-2<0000
42	31	46.25	308.333	206.667	224.144	-17.4775	-.54054	>20000
43	32.5	47.75	318.333	216.667	233.671	-17.0040	-.523559	>20000
44	30.75	45.75	305.00	205.00	220.975	-15.9751	0	>1.75-2<0000
45	30.5	45.63	304.20	203.333	220.215	-16.8816	-.284898	>20000
46	28.5	43.25	288.333	190.00	205.182	-15.1821	.578034	>1.75-2<0000
47	27.5	42.5	283.333	183.333	200.463	-17.1293	1.34636E-6	>20000
48	32.25	47.88	319.20	215.00	234.498	-19.4976	-1.31579	>20000
49	33.13	48.25	321.667	220.867	236.852	-15.9856	-.248704	>1.75-2<0000
50	33.88	49.25	328.333	225.867	243.224	-17.3574	-.75127	>20000
51	35.5	51.13	340.867	236.667	255.232	-18.5658	-1.23215	>20000
52	34.5	49.88	332.533	230.00	247.244	-17.244	-.761828	>20000
53	33.88	48.75	325	225.867	240.037	-14.1701	.266665	>1.5-1.75<000
54	32.25	47.5	316.667	215.00	232.081	-17.0810	-.526316	>20000
55	33	48	320.00	220.00	235.261	-15.2611	0	>1.75-2<0000
56	33.38	48.75	325	222.533	240.037	-17.5034	-.758976	>20000
57	32.25	47.5	316.667	215.00	232.081	-17.0810	-.526316	>20000
58	29.5	44.13	294.20	196.667	210.731	-14.0641	.838432	>1.5-1.75<000
59	28	43.38	289.20	186.667	206.001	-19.3344	-.875978	>20000
60	27.88	42.13	280.867	185.867	198.138	-12.271	1.78021	>1.5-1.75<000
61	25.75	40.75	271.667	171.667	189.487	-17.0204	1.40418E-6	>20000
62	24.25	38.88	259.20	161.667	177.821	-16.1546	.951648	>1.75-2<0000
63	27.75	41.13	274.20	185.00	191.866	-6.86579	3.93873	1<
64	30.38	45	300	202.533	216.228	-13.6944	.844443	>1.5-1.75<000
65	28.25	42.88	285.867	188.333	202.853	-14.5193	.862875	>1.75-2<0000
66	28	43.25	288.333	186.667	205.182	-18.5154	-.578035	>20000
67	26.75	42	280.00	178.333	197.321	-18.988	-.595237	>20000
68	26	40.88	272.533	173.333	190.301	-16.9672	.293542	>20000
69	26	39.88	265.867	173.333	184.051	-10.7179	2.80843	>1.25-1.5<00
70	27.5	40	266.667	183.333	184.8	-1.46679	6.25	1<
71	26.63	39.75	265.00	177.533	183.24	-5.70684	4.72956	1<
72	25.75	40	266.667	171.667	184.8	-13.1335	1.875	>1.5-1.75<000
73	25.13	39	260.00	167.533	178.568	-11.0344	2.89744	>1.25-1.5<00
74	23.5	37.25	248.333	156.667	167.711	-11.0448	3.35571	>1.25-1.5<00
75	27	39.63	264.20	184.00	182.492	-2.49184	5.98032	1<
76	28.25	41	273.333	188.333	191.052	-2.71839	5.48781	1<
77	28.25	41.75	278.333	188.333	195.752	-7.419	3.59281	1<
78	28.5	42.75	285.00	190.00	202.035	-12.0348	1.75439	>1.25-1.5<00
79	28.25	42.88	285.867	188.333	202.853	-14.5193	.862875	>1.75-2<0000
80	27.25	42.13	280.867	181.667	198.138	-16.471	.284834	>20000
81	27.75	42.75	285.00	185.00	202.035	-17.0348	0	>20000
82	29.63	44.25	295.00	197.533	211.488	-13.955	.858757	>1.5-1.75<000
83	32.38	46.88	312.533	215.867	228.142	-12.2752	1.06655	>1.5-1.75<000
84	30.63	45.25	301.667	204.20	217.809	-13.6093	.839778	>1.5-1.75<000
85	28.5	42.5	283.333	190.00	200.463	-10.4626	2.35294	>1.25-1.5<00
86	27.38	41	273.333	182.533	191.052	-8.51839	3.36585	>1-1.25<0
87	26.88	40.38	269.20	179.20	187.174	-7.97353	3.71471	1<
88	28.88	43	286.667	192.533	203.608	-11.0746	2.04651	>1.25-1.5<00
89	28.75	42.75	285.00	191.667	202.035	-10.3681	2.33918	>1.25-1.5<00
90	31.75	45	300	211.667	216.228	-4.5611	3.88889	1<

91	30.38	43.75	291.667	202.533	208.333	-5.80	3.72571	1<
92	29.75	43.5	290.00	198.333	206.757	-8.42390	2.87356	>1-1.25<*
93	28.5	42.25	281.667	190.00	198.891	-8.89147	2.95858	>1-1.25<*
94	28.5	42.75	285.00	190.00	202.035	-12.0348	1.75439	>1.25-1.5<***
95	29.38	43.5	290.00	195.867	206.757	-10.8906	2.02299	>1.25-1.5<***
96	27.5	42	280.00	183.333	197.321	-13.988	1.19048	>1.5-1.75<***
97	26.75	40.25	268.333	178.333	186.361	-8.02793	3.72671	1<
98	26.38	40.38	269.20	175.867	187.174	-11.3069	2.47647	>1.25-1.5<***
99	25.88	39.5	263.333	172.533	181.681	-9.14812	3.49367	>1-1.25<*
100	27.38	41.25	275	182.533	192.617	-10.0842	2.73939	>1-1.25<*
101	27.25	41.75	278.333	181.667	195.752	-14.0857	1.1976	>1.5-1.75<***
102	27.38	42.38	282.533	182.533	199.708	-17.1750	0	>2.00000
103	27.33	41.75	278.333	182.20	195.752	-13.5523	1.38922	>1.5-1.75<***
104	26.75	41.25	275	178.333	192.617	-14.2842	1.21212	>1.75-2<***
105	25.13	39.13	260.867	167.533	179.377	-11.8435	2.55558	>1.25-1.5<***
106	24.5	38.63	257.533	163.333	176.267	-12.9336	2.25214	>1.5-1.75<***

11 NATIONAL GENERAL-NEW

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	3.5	15.88	39.7	8.75	7.59224	1.15776	173.929	1<
2	3.63	17	42.5	9.075	6.65657	.418431	156.647	1<
3	3.75	17	42.5	9.375	8.65657	.718431	157.353	1<
4	3.38	16.5	41.25	8.45	6.17376	.27624	162.909	1<
5	3.25	16.13	40.3250	8.125	7.82442	.300561	168.134	1<
6	3.38	17.25	43.125	8.45	8.90255	-.45255	151.478	1<
7	3.13	16.5	41.25	7.825	8.17376	-.34676	161.394	1<
8	3.13	16.63	41.5750	7.825	6.29611	-.473109	159.351	1<
9	2.88	15.38	36.450	7.2	7.13731	.062695	178.804	1<
10	3	15.13	37.825	7.5	6.91460	.585405	184.204	1<
11	3	15.5	38.75	7.5	7.24534	.254663	177.419	1<
12	2.88	15	37.5	7.2	6.80005	.399954	185.867	1<
13	2.63	14.63	36.575	6.575	6.47678	.09622	191.388	1<
14	2.5	13.75	34.375	6.25	5.74328	.506723	209.091	1<
15	2.88	15.25	38.125	7.2	7.02110	.178902	181.18	1<
16	3.13	16	40.0	7.825	7.70330	.121705	169.563	1<
17	3.75	18.88	47.20	9.375	10.5796	-1.20456	131.727	1<
18	4.63	21.38	53.450	11.575	13.3883	-1.81328	108.746	1<
19	4.75	21.75	54.375	11.875	13.8272	-1.95224	105.747	1<
20	4.88	22	55.0	12.2	14.1271	-1.92712	104.0	1<
21	5.88	23.75	59.375	14.7	16.2987	-1.59871	93.1789	1<
22	6.13	25	62.5	15.325	17.9248	-2.59976	84.520	1<
23	5.5	22.63	56.5750	13.75	14.6944	-1.14443	101.061	1<
24	5.75	23.38	58.450	14.375	15.8292	-1.45419	95.6801	1<
25	6.25	24.5	61.25	15.625	17.2671	-1.64206	88.7755	1<
26	6.5	26.13	65.3250	16.25	19.446	-3.19604	77.9564	1<
27	6.5	25.88	64.70	16.25	19.1054	-2.85537	79.6754	1<
28	6.13	24.38	60.950	15.325	17.1106	-1.78564	89.2125	1<
29	6.25	24.88	62.20	15.625	17.766	-2.14104	85.8923	1<
30	5.75	23.38	58.450	14.375	15.8292	-1.45419	95.6801	1<
31	6	23.5	58.75	15.0	15.9809	-.98087	95.7447	1<
32	6.75	25.75	64.3750	16.875	18.9291	-2.05414	81.5534	1<
33	7	25.75	64.3750	17.5	18.9291	-1.42914	82.5243	1<
34	7.88	27.88	69.70	19.7	21.8936	-2.19376	71.736	1<
35	7.25	25.63	64.0750	18.125	18.767	-.642021	84.3543	1<
36	6.88	24.38	60.950	17.2	17.1106	.089358	92.2888	1<
37	8	26.63	66.5750	20.0	20.1342	-1.134218	80.2478	1<
38	8.25	27.75	69.3750	20.625	21.7082	-1.08322	73.8739	1<
39	7.88	26	65.00	19.7	19.2686	.431396	84.1538	1<
40	6.88	24	60.00	17.2	16.619	.580963	95.3333	1<
41	7.13	23.88	59.70	17.825	16.4650	1.36003	97.3618	1<
42	7.5	24.63	61.5750	18.75	17.4371	1.31287	92.8542	1<
43	7.75	26	65.00	19.375	19.2686	.106396	83.6538	1<
44	7.5	25.25	63.1250	18.75	18.2572	.4928	88.1188	1<
45	7.63	27	67.50	19.075	20.6493	-1.57428	76.4074	1<
46	7	25.38	63.450	17.5	18.431	-.931002	85.1852	1<
47	6.13	26.75	66.8750	15.325	20.3007	-4.97573	72.4486	1<
48	7.38	26.75	66.8750	18.45	20.3007	-1.85073	77.1215	1<
49	8.38	28.75	71.875	20.95	23.1504	-2.20038	68.2783	1<
50	7.75	27.75	69.3750	19.375	21.7082	-2.33322	72.0721	1<

51	8.25	28.63	71.5750	20.625	22.9755	-2.35053	68.5295	1K
52	7.75	27.25	68.1250	19.375	21.0001	-1.62506	75.2294	1K
53	7.38	26.88	67.20	18.45	20.4817	-2.03170	76.2649	1K
54	7.38	26.38	65.950	18.45	19.7890	-1.33899	79.6058	1K
55	7.5	28	70.00	18.75	22.0656	-3.31556	69.6429	1K
56	7.38	27	67.50	18.45	20.6493	-2.19928	75.4815	1K
57	6.88	26.25	65.625	17.2	19.6104	-2.41037	78.5905	1K
58	6.5	25.25	63.1250	16.25	18.2572	-2.0072	84.1584	1K
59	5.88	23.13	57.8250	14.7	15.5151	-1.815065	98.3571	1K
60	6.38	24.25	60.625	15.95	16.9418	-1.991825	91.2577	1K
61	6.25	24.25	60.625	15.625	16.9418	-1.31683	90.7217	1K
62	5.13	20.5	51.25	12.825	12.3680	.457023	120.146	1K
63	6	23	57.5	15.0	15.3527	-.35272	100	1K
64	5.75	22.63	56.5750	14.375	14.8944	-.519431	102.165	1K
65	6.13	24.38	60.950	15.325	17.1106	-1.78564	89.2125	1K
66	6.5	25.38	63.450	16.25	18.431	-2.181	83.2151	1K
67	6.13	23.75	59.375	15.325	16.2987	-.973713	94.2316	1K
68	6.25	24.88	62.20	15.625	17.766	-2.14104	85.8923	1K
69	6.63	25.75	64.3750	16.575	18.9291	-2.35414	81.0874	1K
70	7	26.88	67.20	17.5	20.4817	-2.96170	74.8512	1K
71	6.63	25.5	63.75	16.575	18.5920	-2.0170	82.8627	1K
72	6.88	26.13	65.3250	17.2	19.446	-2.24604	79.4106	1K
73	7.75	28.38	70.950	19.375	22.6128	-3.23781	68.2523	1K
74	7.25	27.75	69.3750	18.125	21.7082	-3.58322	70.2703	1K
75	7.38	27.63	69.0750	18.45	21.5375	-3.08746	71.4803	1K
76	8	29.5	73.750	20.0	24.254	-4.25402	62.7119	1K
77	8.13	31	77.50	20.325	26.5158	-6.19081	55.2581	1K
78	7.25	27.63	69.0750	18.125	21.5375	-3.41246	71.0098	1K
79	7.25	27.88	69.70	18.125	21.8938	-3.76876	69.4763	1K
80	7.13	27.63	69.0750	17.825	21.5375	-3.71246	70.5755	1K
81	7.13	27.5	68.75	17.825	21.353	-3.52805	71.3818	1K
82	7.25	28.38	70.950	18.125	22.6128	-4.48781	66.4905	1K
83	7.13	27.5	68.75	17.825	21.353	-3.52805	71.3818	1K
84	6.88	26.5	66.250	17.2	19.9544	-2.75442	76.9057	1K
85	6.63	25.75	64.3750	16.575	18.9291	-2.35414	81.0874	1K
86	6.5	24.75	61.875	16.25	17.5947	-1.34471	87.8788	1K
87	7	25.38	63.450	17.5	18.431	-.931002	85.1852	1K
88	7	26.12	65.30	17.5	19.4324	-1.93237	79.9387	1K
89	6.75	26.5	66.250	16.875	19.9544	-3.07942	76.4151	1K
90	6.5	24.75	61.875	16.25	17.5947	-1.34471	87.8788	1K
91	6.63	24.88	62.20	16.575	17.766	-1.19104	87.4196	1K
92	6.5	24.38	60.950	16.25	17.1106	-.860642	90.7301	1K
93	6.25	23.63	59.0750	15.625	16.1458	-.520837	95.7258	1K
94	6	23	57.5	15.0	15.3527	-.35272	100	1K
95	5.88	23	57.5	14.7	15.3527	-.652719	99.4783	1K
96	5.88	22.63	56.5750	14.7	14.8944	-.194431	102.740	1K
97	6.62	26.62	66.550	16.55	20.1204	-3.57037	75.1315	1K
98	6.63	26.88	67.20	16.575	20.4617	-3.90670	73.4747	1K
99	6.38	26.63	66.5750	15.95	20.1342	-4.18422	74.1645	1K
100	6.75	27.13	67.8250	16.875	20.6314	-3.95641	72.3185	1K
101	7.25	29.75	74.3750	18.125	24.626	-6.561	58.8235	1K
102	7.75	30.88	77.20	19.375	26.3323	-6.95726	54.6308	1K
103	7.13	30	75	17.825	25	-7.175	57.10	1K
104	6	26.75	66.8750	15.0	20.3007	-5.30073	71.9626	1K
105	5.88	26.5	66.250	14.7	19.9544	-5.25442	73.1321	1K
106	6.13	27	67.50	15.325	20.6493	-5.32428	70.8519	1K

12 NATIONAL INDUSTRIES

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
41	3.5	7.25	33.8785	16.3551	5.58292	10.7722	243.448	>1.25-1.5<<<
42	3.25	7	32.7103	15.1869	5.21389	9.97303	252.143	>1-1.25<<
43	3.38	7.25	33.8785	15.7944	5.58292	10.2115	241.793	>1.25-1.5<<<
44	3.13	7.13	33.3178	14.6262	5.40433	9.22184	244.039	>1-1.25<<
45	3.13	7	32.7103	14.6262	5.21389	9.41228	250.429	>1-1.25<<
46	2.75	6.38	29.8131	12.8505	4.34951	8.50096	278.527	>1-1.25<<
47	2.63	6.13	28.6449	12.2897	4.02177	8.26795	292.007	>1-1.25<<
48	3.38	7.13	33.3178	15.7944	5.40433	10.3901	247.546	>1.25-1.5<<<
49	3.25	7.13	33.3178	15.1869	5.40433	9.76259	245.722	>1-1.25<<
50	3	6.75	31.5421	14.0187	4.85657	9.16212	261.481	>1-1.25<<
51	3	6.63	30.9813	14.0187	4.68926	9.32943	268.024	>1-1.25<<
52	2.88	6.63	30.9813	13.4579	4.68926	8.76868	266.214	>1-1.25<<
53	3.38	7.5	35.0467	15.7944	5.96355	9.83085	230.4	>1-1.25<<
54	2.88	6.75	31.5421	13.4579	4.85657	8.60137	259.704	>1-1.25<<
55	2.88	7	32.7103	13.4579	5.21389	8.24406	246.857	>1-1.25<<
56	3	7.25	33.8785	14.0187	5.58292	8.43577	236.552	>1-1.25<<
57	2.88	6.75	31.5421	13.4579	4.85657	8.60137	259.704	>1-1.25<<
58	2.63	6.75	31.5421	12.2897	4.65657	7.43315	256.0	1<
59	2.63	6	28.0374	12.2897	3.85613	8.43360	300.5	>1-1.25<<
60	2.38	6.25	29.2056	11.1215	4.17758	6.94392	260.480	1<
61	2.25	6	28.0374	10.514	3.85613	6.65789	294.167	1<
62	2.13	5.75	26.8692	9.95327	3.54686	6.40641	309.217	1<
63	2.38	6.13	28.6449	11.1215	4.02177	7.09973	287.928	1<
64	2.25	6	28.0374	10.514	3.85613	6.65789	294.167	1<
65	2.25	6.38	29.8131	10.514	4.34951	6.16451	270.690	1<
66	2.63	6.5	30.3738	12.2897	4.51110	7.77862	269.692	1<
67	2.38	6.38	29.8131	11.1215	4.34951	6.77199	272.727	1<
68	3	7	32.7103	14.0187	5.21389	8.8046	248.571	>1-1.25<<
69	3.38	7.75	36.2150	15.7944	6.35564	9.43875	219.742	>1-1.25<<
70	3.38	7.63	35.6542	15.7944	6.16601	9.62838	224.771	>1-1.25<<
71	3.38	7.75	36.2150	15.7944	6.35564	9.43875	219.742	>1-1.25<<
72	3.63	8.88	41.4953	16.9626	8.26755	8.69507	181.869	>1-1.25<<
73	3.25	8.63	40.3271	15.1869	7.82521	7.36171	185.632	1<
74	3.13	8.25	38.5514	14.6262	7.17374	7.45243	197.333	1<
75	3.25	8.38	39.1589	15.1869	7.39375	7.74317	194.153	1<
76	3.5	9.13	42.6636	16.3551	8.72064	7.63450	172.727	1<
77	3.25	8.88	41.4953	15.1869	8.26755	6.91937	177.59	1<
78	3.25	8.13	37.9907	15.1869	6.97331	8.2136	203.198	>1-1.25<<
79	3.13	8.25	38.5514	14.6262	7.17374	7.45243	197.333	1<
80	3.25	8.38	39.1589	15.1869	7.39375	7.79317	194.153	1<
81	3	8.13	37.9907	14.0187	6.97331	7.04538	200.123	1<
82	3	8.5	39.7196	14.0187	7.59948	6.41921	187.059	1<
83	3.13	8.63	40.3271	14.6262	7.82521	6.80096	184.241	1<
84	3	8.13	37.9907	14.0187	6.97331	7.04538	200.123	1<
85	2.88	7.5	35.0467	13.4579	5.96355	7.44440	223.733	1<
86	2.75	7.38	34.4860	12.8505	5.77941	7.07106	227.236	1<
87	2.75	7.25	33.8785	12.8505	5.58292	7.26755	233.103	1<
88	2.75	7.38	34.4860	12.8505	5.77941	7.07106	227.236	1<
89	2.63	7.25	33.8785	12.2897	5.58292	6.7068	231.448	1<
90	2.38	6.75	31.5421	11.1215	4.85657	6.26492	252.296	1<

91	2.38	6.63	30.9813	11.1215	4.68926	6.43224	258.673	1<
92	2.25	6.75	31.5421	10.514	4.85657	5.65745	250.37	1<
93	2.38	6.88	32.1495	11.1215	5.04091	6.08059	245.640	1<
94	2.63	6.88	32.1495	12.2897	5.04091	7.24881	249.273	1<
95	2.38	6.25	29.2056	11.1215	4.17758	6.94392	280.480	1<
96	2.25	6	28.0374	10.514	3.85613	6.65789	294.167	1<
97	2.25	5.75	26.8692	10.514	3.54686	6.96716	311.304	1<
98	2.25	5.63	26.3084	10.514	3.40277	7.11125	320.071	1<
99	2.25	5.75	26.8692	10.514	3.54686	6.96716	311.304	1<
100	2.13	5.63	26.3084	9.95327	3.40277	6.5505	317.940	1<
101	2.13	5.63	26.3084	9.95327	3.40277	6.5505	317.940	1<
102	2.13	5.5	25.7009	9.95327	3.24988	6.70339	327.818	1<
103	2	5.38	25.1402	9.34579	3.11173	6.23407	334.944	1<
104	1.75	4.75	22.1963	8.17757	2.43375	5.74382	387.368	1<
105	1.88	5.13	23.9720	8.78505	2.83314	5.95191	353.801	1<
106	1.75	4.88	22.8037	8.17757	2.5671	5.61047	374.385	1<

13 PHOENIX STEEL

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	1	3.38	42.7848	12.6582	8.76829	3.86994	163.314	1<
2	1	3.38	42.7848	12.6582	8.76829	3.86994	163.314	1<
3	1.13	3.88	49.1139	14.3038	11.410	2.89385	132.732	1<
4	1.38	4.13	52.2785	17.4684	12.8408	4.62758	124.697	1<
5	1.25	4	50.6329	15.8228	12.0879	3.73491	128.75	1<
6	1.25	4	50.6329	15.8228	12.0879	3.73491	128.75	1<
7	1	3.13	39.6203	12.6582	7.56284	5.09539	184.345	1<
8	.88	2.63	33.2911	11.1392	5.39592	5.74332	233.84	1<
9	.75	2.75	34.8101	9.49367	5.88553	3.60814	214.545	1<
10	.63	2.63	33.2911	7.97468	5.39592	2.57877	224.335	1<
11	.63	2.63	33.2911	7.97468	5.39592	2.57877	224.335	1<
12	.63	2.5	31.6456	7.97468	4.84776	3.06693	241.20	1<
13	.5	2.25	28.481	6.32911	3.97677	2.35235	273.333	1<
14	.5	2.38	30.1266	6.32911	4.43951	1.86961	252.941	1<
15	.5	2.38	30.1266	6.32911	4.43951	1.86961	252.941	1<
16	.88	3.13	39.6203	11.1392	7.56284	3.5764	180.511	1<
17	1.13	4.13	52.2785	14.3038	12.8408	1.46303	118.644	1<
18	1.13	4.13	52.2785	14.3038	12.8408	1.46303	118.644	1<
19	1.25	4.13	52.2785	15.8228	12.8408	2.98202	121.550	1<
20	1	3.75	47.4684	12.6582	10.6944	1.96385	137.333	1<
21	1.13	4.25	53.7975	14.3038	13.5525	.75131	112.471	1<
22	1.38	4.13	52.2785	17.4684	12.8408	4.62758	124.697	1<
23	1.25	3.75	47.4684	15.8228	10.6944	5.12841	144.00	1<
24	1.25	3.75	47.4684	15.8228	10.6944	5.12841	144.00	1<
25	1.38	4.88	61.7722	17.4684	17.5406	-.07227	90.1639	1<
26	1.25	3.88	49.1139	15.8228	11.410	4.41283	135.825	1<
27	1.88	4.63	58.6076	23.7975	15.9088	7.88867	111.231	1<
28	2	4.75	60.1266	25.3165	16.6842	8.63224	108.421	>1-1.25<0
29	1.88	5.13	64.9367	23.7975	19.2341	4.56335	90.6433	1<
30	1.88	5	63.2911	23.7975	18.3460	5.4515	95.6	1<
31	2	5	63.2911	25.3165	18.3460	6.97049	98.00	1<
32	1.88	4.88	61.7722	23.7975	17.5406	6.25664	100.410	1<
33	1.75	4.63	58.6076	22.1519	15.9088	6.24310	108.423	1<
34	1.75	4.25	53.7975	22.1519	13.5525	8.54941	127.059	>1-1.25<0
35	1.75	4.5	56.962	22.1519	15.0855	7.0664	114.444	1<
36	1.63	4	50.6329	20.6329	12.0879	8.54504	138.25	>1-1.25<0
37	1.75	4.13	52.2785	22.1519	12.8408	9.31113	133.656	>1-1.25<0
38	1.63	3.75	47.4684	20.6329	10.6944	9.93854	154.133	>1-1.25<0
39	1.5	3.75	47.4684	18.9873	10.6944	8.29297	150.667	>1-1.25<0
40	1.5	3.63	45.9494	18.9873	10.0516	8.93579	158.953	>1-1.25<0
41	1.5	3.75	47.4684	18.9873	10.6944	8.29297	150.667	>1-1.25<0
42	1.63	3.63	45.9494	20.6329	10.0516	10.5814	162.534	>1-1.25<0
43	1.38	3.88	49.1139	17.4684	11.410	6.0584	139.175	1<
44	1.5	4.38	55.443	18.9873	14.3413	4.64605	114.612	1<
45	1.5	4	50.6329	18.9873	12.0879	6.89947	135	1<
46	1.63	3.88	49.1139	20.6329	11.410	9.22296	145.619	>1-1.25<0
47	1.88	4.13	52.2785	23.7975	12.8408	10.9567	136.804	>1-1.25-1.5<00

48	1.75	4.38	55.443	22.1519	14.3413	7.81061	120.320	1<
49	1.63	4	50.6329	20.6329	12.0879	8.54504	138.25	>1-1.25<
50	1.75	3.63	45.9494	22.1519	10.0516	12.1003	165.84	>1.25-1.5<...
51	1.75	4	50.6329	22.1519	12.0879	10.064	141.25	>1-1.25<
52	1.63	3.63	45.9494	20.6329	10.0516	10.5814	162.534	>1.25-1.5<...
53	1.5	3.75	47.4684	18.9873	10.6944	8.29297	150.667	>1-1.25<
54	1.5	3.5	44.3038	18.9873	9.37471	9.61264	168.571	>1-1.25<
55	1.38	3.38	42.7848	17.4684	8.76829	8.70007	174.556	>1-1.25<
56	1.38	3.25	41.1392	17.4684	8.13157	9.33678	185.538	>1-1.25<
57	1.25	3.13	39.6203	15.8228	7.56284	8.25995	192.332	>1-1.25<
58	1.13	3	37.9747	14.3038	6.96764	7.33616	201	1<
59	1.13	3	37.9747	14.3038	6.96764	7.33616	201	1<
60	1.13	3.13	39.6203	14.3038	7.56284	6.74096	188.498	1<
61	1.13	3.13	39.6203	14.3038	7.56284	6.74096	188.498	1<
62	1	2.88	36.4557	12.6582	6.43786	6.22037	209.028	1<
63	1	2.88	36.4557	12.6582	6.43786	6.22037	209.028	1<
64	1	3	37.9747	12.6582	6.96764	5.69059	196.667	1<
65	1.13	3.38	42.7848	14.3038	8.76829	5.53551	167.160	1<
66	1.13	3.38	42.7848	14.3038	8.76829	5.53551	167.160	1<
67	1.13	3	37.9747	14.3038	6.96764	7.33616	201	1<
68	1.25	3.13	39.6203	15.8228	7.56284	8.25995	192.332	>1-1.25<
69	2.25	4.13	52.2785	28.481	12.8408	15.6402	145.763	>1.75-2<...
70	2	4.38	55.443	25.3165	14.3413	10.9752	126.027	>1.25-1.5<...
71	1.88	3.88	49.1139	23.7975	11.410	12.3875	152.062	>1.5-1.75<...
72	1.88	3.88	49.1139	23.7975	11.410	12.3875	152.062	>1.5-1.75<...
73	1.75	3.75	47.4684	22.1519	10.6944	11.4575	157.333	>1.25-1.5<...
74	1.75	3.75	47.4684	22.1519	10.6944	11.4575	157.333	>1.25-1.5<...
75	1.75	3.63	45.9494	22.1519	10.0516	12.1003	165.84	>1.25-1.5<...
76	1.75	3.75	47.4684	22.1519	10.6944	11.4575	157.333	>1.25-1.5<...
77	2	4.25	53.7975	25.3165	13.5525	11.7640	132.941	>1.25-1.5<...
78	2	4.13	52.2785	25.3165	12.8408	12.4757	139.709	>1.5-1.75<...
79	2	4.25	53.7975	25.3165	13.5525	11.7640	132.941	>1.25-1.5<...
80	1.88	4	50.6329	23.7975	12.0879	11.7096	144.5	>1.25-1.5<...
81	1.75	3.88	49.1139	22.1519	11.410	10.7419	148.711	>1.25-1.5<...
82	1.75	4.25	53.7975	22.1519	13.5525	8.59941	127.059	>1-1.25<
83	2.38	5.75	72.7848	30.1266	23.6836	6.443	78.7826	1<
84	2	5.13	64.9367	25.3165	19.2341	6.08233	92.9825	1<
85	2	5.25	66.4557	25.3165	20.0681	5.24831	88.5714	1<
86	2.5	6.75	85.443	31.6456	31.5314	11.4157	54.0741	1<
87	2.5	6.25	79.1139	31.6456	27.5108	4.13474	66.4	1<
88	2.75	6.25	79.1139	34.8101	27.5108	7.29929	70.4	1<
89	2.63	6	75.9494	33.2911	25.5719	7.71922	75.5	1<
90	2.63	6.25	79.1139	33.2911	27.5108	5.78031	68.48	1<
91	2.63	6.25	79.1139	33.2911	27.5108	5.78031	68.48	1<
92	2.5	5.75	72.7848	31.6456	23.6836	7.96199	80.8696	1<
93	2.38	5.5	69.6203	30.1266	21.8482	8.2784	86.9091	>1-1.25<
94	2.5	5.38	68.1013	31.6456	20.9867	10.6589	93.3086	>1.25-1.5<...
95	2.5	5.38	68.1013	31.6456	20.9867	10.6589	93.3086	>1.25-1.5<...
96	2.38	5.25	66.4557	30.1266	20.0681	10.0584	95.8095	>1-1.25<
97	2.25	4.5	56.962	28.481	15.0855	13.3955	125.556	>1.5-1.75<...
98	1.5	3.75	47.4684	18.9873	10.6944	8.29297	150.667	>1-1.25<
99	1.88	4.25	53.7975	23.7975	13.5525	10.2450	130.118	>1.25-1.5<...
100	1.88	4.25	53.7975	23.7975	13.5525	10.2450	130.118	>1.25-1.5<...
101	1.5	4.63	58.6076	18.9873	15.9088	3.07854	103.024	1<
102	1.75	4.38	55.443	22.1519	14.3413	7.81061	120.320	1<
103	1.75	4.38	55.443	22.1519	14.3413	7.81061	120.320	1<
104	1.5	3.88	49.1139	18.9873	11.410	7.57739	142.268	1<

105 1.63
106 1.75

4
3.88

50.6329
49.1139

20.6329
22.1619

12.0879
11.410

8.54504
10.7419

138.25
148.711

>1-1.2500
>1.25-1.5000

14 TENNECO 1975A

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
16	5.63	23.88	74.2307	17.5008	24.5399	-7.03913	58.2915	1<
17	6.75	25.25	78.4893	20.9823	27.1242	-6.14193	54.1386	1<
18	6.88	25.88	80.4476	21.3864	28.3426	-6.9562	50.8887	1<
19	6.88	26.13	81.2247	21.3864	28.8311	-7.44474	49.4451	1<
20	7	26.5	82.3749	21.7544	29.5593	-7.79993	47.8113	1<
21	8	27.38	85.1104	24.8679	31.3155	-6.44765	46.7129	1<
22	8.5	27.25	84.7062	26.4221	31.0540	-4.63186	49.2477	1<
23	7.75	25.5	79.2664	24.0908	27.6055	-3.51473	56.549	1<
24	8.25	26.75	83.152	25.645	30.0548	-4.40981	51.1028	1<
25	9	27.75	86.2605	27.9764	32.0639	-4.06752	48.3604	1<
26	9.38	28.13	87.4417	29.1576	32.8384	-3.68065	47.7071	1<
27	9.75	28.13	87.4417	30.3077	32.8384	-2.53071	49.0224	1<
28	9.38	27.75	86.2605	29.1576	32.0639	-2.90629	49.7297	1<
29	9.38	27.38	85.1104	29.1576	31.3155	-2.15794	51.7531	1<
30	8.75	28.13	87.4417	27.1993	32.8384	-5.63920	45.4675	1<
31	10.88	29.25	90.9232	33.8203	35.1556	-1.33526	47.1795	1<
32	10.63	29.13	90.5502	33.0432	34.9049	-1.86172	46.9276	1<
33	10.25	29.38	91.3773	31.8620	35.4278	-3.56578	44.3839	1<
34	8.75	27.63	85.3875	27.1993	31.8206	-4.62130	48.0997	1<
35	9.13	26.75	83.152	28.3805	30.0548	-1.67434	54.3925	1<
36	8.63	26.88	83.5561	26.8262	30.3136	-3.46732	51.7857	1<
37	8.63	26.13	81.2247	26.8262	28.8311	-2.00489	56.1424	1<
38	9.38	27.5	85.4834	29.1576	34.5576	-2.40002	51.0909	1<
39	8.5	27	83.9291	26.4221	30.553	-4.13092	50.6296	1<
40	8.38	25.5	79.2664	26.0491	27.6055	-1.55638	59.0196	1<
41	8.38	26	80.8206	26.0491	28.5767	-2.52762	55.9615	1<
42	9.38	27.75	86.2605	29.1576	32.0639	-2.90629	49.7297	1<
43	9.75	28.75	89.3690	30.3077	34.1149	-3.80719	45.8087	1<
44	9	28.13	87.4417	27.9764	32.8384	-4.86207	46.3562	1<
45	8.88	28.25	87.8147	27.6034	33.0843	-5.48093	45.3097	1<
46	8.25	26.25	81.5978	25.645	29.0666	-3.42162	53.9810	1<
47	7.88	25.88	80.4476	24.4949	28.3426	-3.84772	54.7527	1<
48	9	27	83.9291	27.9764	30.553	-2.57667	52.4815	1<
49	8.75	27.13	84.3332	27.1993	30.8132	-3.61395	50.8293	1<
50	8	25.5	79.2664	24.8679	27.6055	-2.7376	57.5294	1<
51	8.5	26.38	82.0019	26.4221	29.3225	-2.90035	54.1698	1<
52	8.13	26	80.8206	25.2720	28.5767	-3.30474	55.0	1<
53	8	25.75	80.0435	24.8679	28.0897	-3.22179	56.00	1<
54	7.38	23.63	73.4535	22.9406	24.0783	-1.13766	67.3720	1<
55	7.75	24.88	77.3391	24.0908	26.4173	-2.32656	60.4502	1<
56	7.5	24.75	76.935	23.3136	26.1705	-2.85667	60.2628	1<
57	7.25	24.88	77.3391	22.5365	26.4173	-3.88081	58.4405	1<
58	6.75	24	74.6037	20.9823	24.7626	-3.78032	62.1667	1<
59	6.25	23	71.4952	19.428	22.9291	-3.50105	67.0435	1<
60	6.25	22.38	69.5679	19.428	21.8183	-2.39025	71.6711	1<

61	6.13	21.75	67.6096	19.055	20.7106	-1.6556	76.0920	1<
62	6.13	22	68.3867	19.055	21.1476	-2.07258	74.0909	1<
63	6.88	22.5	69.9409	21.3864	22.0317	-1.64531	73.5556	1<
64	7.38	23.75	73.8265	22.9406	24.2995	-1.35884	66.5263	1<
65	7.38	23.38	72.6764	22.9406	23.6198	-1.679192	69.1617	1<
66	7.5	24.63	76.562	23.3136	25.9434	-2.62976	61.0637	1<
67	7.5	24.5	76.1579	23.3136	25.6982	-2.38451	61.9184	1<
68	7.63	25.38	78.8934	23.7178	27.3741	-3.65636	56.8164	1<
69	8.25	26.38	82.0019	25.645	29.3225	-3.67748	53.2221	1<
70	7.68	26.63	82.7790	24.4949	29.8166	-5.32177	50.3943	1<
71	7.25	25.75	80.0435	22.5365	26.0897	-5.55315	53.0874	1<
72	7.38	25.75	80.0435	22.9406	26.0897	-5.14905	53.5922	1<
73	7.25	26.25	81.5978	22.5365	29.0666	-6.5401	50.1714	1<
74	7.13	25.88	80.4476	22.1635	28.3426	-6.17908	51.8547	1<
75	6.88	24.88	77.3391	21.3864	26.4173	-5.03095	56.9534	1<
76	6.75	24.5	76.1579	20.9823	25.6982	-4.71588	58.8571	1<
77	7.88	25.63	79.6705	24.4949	27.8569	-3.36204	56.2622	1<
78	7.63	25.5	79.2664	23.7178	27.6055	-3.80774	56.0784	1<
79	7	25.13	78.1163	21.7594	26.8942	-5.13484	55.8695	1<
80	7	24.5	76.1579	21.7594	25.6982	-3.93876	59.8776	1<
81	6.75	24.63	76.562	20.9823	25.9434	-4.96113	58.0187	1<
82	6.88	24.25	75.3808	21.3864	25.2288	-3.84246	61.0309	1<
83	7.5	25.63	79.6705	23.3136	27.8569	-4.54326	54.7796	1<
84	6.88	24.63	76.562	21.3864	25.9434	-4.55702	58.5465	1<
85	7	24.75	76.935	21.7594	26.1705	-4.41111	58.2626	1<
86	6.75	24.63	76.562	20.9823	25.9434	-4.96113	58.0187	1<
87	6.5	24.13	75.0078	20.2052	25.0047	-4.7995	60.2569	1<
88	6.38	23.75	73.8265	19.8321	24.2995	-4.46733	62.3158	1<
89	6.38	24	74.6037	19.8321	24.7626	-4.93046	60.625	1<
90	6	24	74.6037	18.6509	24.7626	-6.11169	59.0417	1<
91	5.75	23.75	73.8265	17.8738	24.2995	-6.42568	59.6632	1<
92	6.25	24.25	75.3808	19.428	25.2288	-5.80081	58.4330	1<
93	5.68	23.38	72.6764	18.2779	23.6198	-5.34192	62.7459	1<
94	5.88	23.5	73.0494	18.2779	23.8395	-5.56159	61.9149	1<
95	6.13	23.63	73.4535	19.055	24.0783	-5.02326	62.0821	1<
96	5.63	23.25	72.2723	17.5008	23.3827	-5.8819	62.5806	1<
97	6.25	24.62	76.5309	19.428	25.9245	-6.49647	56.0520	1<
98	6.13	24.25	75.3808	19.055	25.2288	-6.17382	57.9381	1<
99	6.25	24.38	75.7849	19.428	25.4725	-6.04447	57.5882	1<
100	6.63	25.38	78.8934	20.6093	27.3741	-6.76485	52.8763	1<
101	6.38	25.5	79.2664	19.8321	27.6055	-7.77335	51.1765	1<
102	6.75	26.38	82.0019	20.9823	29.3225	-8.34021	47.536	>1-1.25<
103	7	26.63	82.7790	21.7594	29.8166	-8.05724	47.0897	1<
104	6.5	25.75	80.0435	20.2052	28.0897	-7.88451	50.1748	1<
105	6.63	25.63	79.6705	20.6093	27.8569	-7.24764	51.3851	1<
106	6.38	25.5	79.2664	19.8321	27.6055	-7.77335	51.1765	1<

15 UNITED BRANDS

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	3.63	14.75	32.0652	7.8913	5.01513	2.87617	236.475	1<
2	4.63	16.75	36.413	10.0652	6.42326	3.64196	202.269	1<
3	5	17	36.9565	10.8696	6.61043	4.25913	200.0	1<
4	4.5	16	34.7826	9.78261	5.87648	3.90613	215.625	1<
5	4.13	14.5	31.5217	8.97826	4.85047	4.12780	245.724	1<
6	3.63	14.5	31.5217	7.8913	4.85047	3.04084	242.276	1<
7	3.25	13.25	28.8043	7.06522	4.06580	2.99942	271.698	1<
8	3.38	12.88	28.0	7.34783	3.84604	3.50179	283.385	1<
9	3.25	12.75	27.7174	7.06522	3.77020	3.29502	286.275	1<
10	3.25	12.63	27.4565	7.06522	3.70082	3.36440	289.945	1<
11	3.63	14.5	31.5217	7.8913	4.85047	3.04084	242.276	1<
12	3.75	14.88	32.3478	8.15217	5.10177	3.05041	234.341	1<
13	3.5	14.63	31.8043	7.60870	4.93577	2.67292	238.346	1<
14	3.75	15.25	33.1522	8.15217	5.35211	2.80007	226.230	1<
15	3.88	16	34.7826	8.43478	5.87648	2.5583	211.750	1<
16	4	16.13	35.0652	8.69565	5.96966	2.72599	209.981	1<
17	4.25	17.25	37.5	9.23913	6.80005	2.43908	191.304	1<
18	4.13	16.88	36.6957	8.97826	6.52028	2.45798	196.979	1<
19	4.5	18	39.1304	9.78261	7.38338	2.39923	180.556	1<
20	4.63	18.38	39.9565	10.0652	7.68716	2.37806	175.462	1<
21	5.25	19.63	42.6739	11.413	8.72471	2.68833	161.080	1<
22	5	19	41.3043	10.8696	8.19450	2.67507	168.421	1<
23	4.75	17.75	38.5870	10.3261	7.18653	3.13955	185.915	1<
24	4.88	18.88	41.0435	10.6087	8.09518	2.51352	169.492	1<
25	5.38	20.13	43.7609	11.6957	9.15591	2.53974	155.241	1<
26	5.63	20.38	44.3043	12.2391	9.37493	2.8642	153.337	1<
27	5.13	19.25	41.8478	11.1522	8.40314	2.74904	165.61	1<
28	5.25	18.88	41.0435	11.413	8.09518	3.31787	171.451	1<
29	5	18.75	40.7609	10.8696	7.98819	2.86138	172	1<
30	5	19.38	42.1304	10.8696	8.51255	2.35702	163.158	1<
31	5.13	18.88	41.0435	11.1522	8.09518	3.0570	170.816	1<
32	4.88	18.88	41.0435	10.6087	8.07518	2.51352	169.492	1<
33	6.25	19.75	42.9348	13.5870	8.82737	4.75959	164.557	1<
34	6.5	20	43.4783	14.1304	9.04292	5.08751	162.5	1<
35	5.38	17.38	37.7826	11.6957	6.8996	4.79605	195.627	1<
36	5.38	17.25	37.5	11.6957	6.80005	4.89561	197.855	1<
37	5.25	16.5	35.8696	11.413	6.23653	5.17451	210.606	1<
38	5	15.25	33.1522	10.8696	5.35211	5.51746	234.426	1<
39	5.25	14.88	32.3478	11.413	5.10177	6.31128	244.422	1<
40	4.75	14.25	30.9783	10.3261	4.68836	5.63773	256.14	1<
41	4.75	14.86	32.3478	10.3261	5.10177	5.22432	241.062	1<
42	4.75	14.5	31.5217	10.3261	4.85047	5.47562	250.00	1<
43	4.88	15	32.6087	10.6087	5.18235	5.42635	239.2	1<
44	4.38	13.75	29.8913	9.52174	4.37188	5.14986	266.40	1<
45	4.5	13.5	29.3478	9.78261	4.21754	5.56507	274.074	1<
46	3.88	12.88	28.0	8.43478	3.84604	4.56874	287.267	1<
47	3.75	12	26.0870	8.15217	3.34665	4.80553	314.583	1<
48	4.38	12.63	27.4565	9.52174	3.70082	5.82092	298.892	1<
49	4.38	14.13	30.7174	9.52174	4.61146	4.91028	256.546	1<

50	4.25	14.5	31.5217	9.23913	4.85047	4.38667	246.552	1C
51	4.25	13.63	29.6304	9.23913	4.29747	4.94166	268.672	1C
52	4.13	13.38	29.0870	8.97826	4.14438	4.83389	274.664	1C
53	3.88	13.5	29.3478	8.43478	4.21754	4.21725	269.481	1C
54	3.75	13.13	28.5435	8.15217	3.99389	4.15828	278.903	1C
55	3.5	12.63	27.4565	7.60870	3.70082	3.90767	291.924	1C
56	3.88	12.63	27.4565	8.43478	3.70082	4.73396	294.933	1C
57	3.5	12.63	27.4565	7.60870	3.70082	3.90767	291.924	1C
58	3.25	12.25	26.6304	7.60870	3.48517	4.12353	304.082	1C
59	3.25	11.38	24.7391	7.06522	3.01468	4.05054	332.777	1C
60	2.68	10.38	22.5652	6.26087	2.51434	3.74654	370.906	1C
61	2.88	10	21.7391	6.26087	2.33567	3.92520	388.80	1C
62	2.63	9.75	21.1957	5.71739	2.2216	3.49579	398.769	1C
63	3.13	10.75	23.3696	6.80435	2.69438	4.10996	357.023	1C
64	3	10.13	22.0217	6.52174	2.39608	4.12566	383.712	1C
65	3	9.75	21.1957	6.52174	2.2216	4.30014	402.564	1C
66	3	9.75	21.1957	6.52174	2.2216	4.30014	402.564	1C
67	3.25	10.75	23.3696	7.06522	2.69438	4.37083	358.140	1C
68	3.25	10.88	23.6522	7.06522	2.75906	4.30615	352.665	1C
69	3.63	11.88	25.8261	7.8913	3.28111	4.61020	317.761	1C
70	3.5	11.63	25.2826	7.60870	3.14655	4.46215	326.623	1C
71	3.38	10.75	23.3696	7.34783	2.69438	4.65344	359.349	1C
72	3.25	11.13	24.1957	7.06522	2.88552	4.1797	342.498	1C
73	3.63	12.13	26.3696	7.8913	3.41834	4.47296	309.151	1C
74	3.75	12.88	28.0	8.15217	3.84604	4.30614	286.258	1C
75	3.63	11.88	25.8261	7.8913	3.28111	4.61020	317.761	1C
76	3.63	13.5	29.3478	7.8913	4.21754	3.67377	267.630	1C
77	3.38	12.25	26.6304	7.34783	3.48517	3.86266	303.102	1C
78	3.38	12	26.0870	7.34783	3.34665	4.00118	311.5	1C
79	3.25	12.25	26.6304	7.06522	3.48517	3.58005	302.041	1C
80	3.13	11.63	25.2826	6.80435	3.14655	3.6578	322.442	1C
81	3.13	11.88	25.8261	6.80435	3.28111	3.52324	313.552	1C
82	3.38	12.5	27.1739	7.34783	3.62636	3.72147	295.04	1C
83	3.5	13.5	29.3478	7.60870	4.21754	3.39116	266.667	1C
84	3.25	13.38	29.0870	7.06522	4.14438	2.92084	268.087	1C
85	3.63	13.75	29.8913	7.6913	4.37168	3.51942	260.945	1C
86	3.25	12.75	27.174	7.06522	3.77020	3.29502	286.275	1C
87	3.38	14	30.4348	7.34783	4.52883	2.8190	252.714	1C
88	4.13	15.75	34.2391	8.97826	5.69919	3.27907	218.286	1C
89	3.88	15.63	33.9783	8.43478	5.61497	2.81981	219.130	1C
90	3.63	14.25	30.9783	7.8913	4.68836	3.26295	248.281	1C
91	3.5	13.63	29.6304	7.60870	4.29747	3.31123	263.169	1C
92	3.75	14.63	31.8043	8.15217	4.93577	3.2164	240.055	1C
93	3.38	13.68	30.1739	7.34783	4.45317	2.84466	255.764	1C
94	3.25	14	30.4348	7.06522	4.52883	2.53639	251.786	1C
95	3.25	13.38	29.0870	7.06522	4.14438	2.92084	268.087	1C
96	3.25	12.75	27.174	7.06522	3.77020	3.29502	286.275	1C
97	3.25	13.63	29.6304	7.06522	4.29747	2.76775	261.335	1C
98	3.13	13.25	28.8043	6.80435	4.06580	2.73855	270.792	1C
99	3.25	13.5	29.3478	7.06522	4.21754	2.84768	264.815	1C
100	3.38	13.75	29.8913	7.34783	4.37188	2.97594	259.127	1C
101	3.25	13.5	29.3478	7.06522	4.21754	2.84768	264.815	1C
102	3.25	12.75	27.174	7.06522	3.77020	3.29502	286.275	1C
103	3.13	12.5	27.1739	6.80435	3.62636	3.17799	293.04	1C
104	3	11.5	25	6.52174	3.07764	3.44410	326.087	1C
105	2.75	11.5	25	5.97826	3.07764	2.90062	323.913	1C
106	2.75	11.63	25.2826	5.97826	3.14655	2.83171	319.175	1C

16 US SMELTING

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	6.13	26.25	39.7727	9.28788	7.61910	1.66878	174.781	1<
2	6.13	25.13	38.0758	9.28788	7.00357	2.26431	187.027	1<
3	8	28.86	43.7576	12.1212	9.15459	2.96662	156.233	1<
4	7.25	26.75	40.5303	10.9848	7.90137	3.08348	173.832	1<
5	7	26.25	39.7727	10.6061	7.61910	2.96697	178.095	1<
6	6.75	27.63	41.8636	10.2273	8.40924	1.81803	163.301	1<
7	7	26.75	40.5303	10.6061	7.90137	2.70469	172.897	1<
8	5.88	24.75	37.5	8.90909	6.80005	2.10905	190.424	1<
9	5.38	22.78	34.5152	8.15152	5.78892	2.36260	213.345	1<
10	5.38	23	34.8485	8.15152	5.89814	2.25337	210.348	1<
11	5.75	24.63	37.3182	8.71212	6.73634	1.97576	191.311	1<
12	5.75	24	36.3636	8.71212	6.40636	2.30576	198.958	1<
13	5.75	23.75	35.9848	8.71212	6.27751	2.43461	202.105	1<
14	5.75	24	36.3636	8.71212	6.40636	2.30576	198.958	1<
15	5.63	24	36.3636	8.5303	6.40636	2.12394	198.458	1<
16	6.75	26.25	39.7727	10.2273	7.61910	2.60818	177.143	1<
17	6	25	37.8788	9.09091	6.93364	2.15727	188.0	1<
18	7.13	25.63	40.3485	10.803	7.8332	2.96983	174.615	1<
19	7.5	28.5	43.1818	11.3636	8.92506	2.43857	157.895	1<
20	7.5	29.75	45.0758	11.3636	9.68967	1.67397	147.059	1<
21	8.13	28.75	43.5606	12.3182	9.07578	3.2424	157.843	1<
22	9	31.13	47.1667	13.6364	10.5653	3.07102	140.925	1<
23	7.75	29.63	44.8939	11.7424	9.61508	2.12735	148.903	1<
24	8.25	30.38	46.0303	12.5	10.0854	2.41463	144.404	1<
25	8.63	31	46.9697	13.0758	10.4815	2.5943	140.742	1<
26	9	32.13	48.6818	13.6364	11.2201	2.41623	133.427	1<
27	8.25	29.63	44.8939	12.5	9.61508	2.88492	150.591	1<
28	8	29.88	45.2727	12.1212	9.77076	2.35045	147.657	1<
29	8.13	31	46.9697	12.3182	10.4815	1.83673	139.129	1<
30	9.25	32.25	48.8636	14.0152	11.2998	2.71531	133.333	1<
31	8.63	30.75	46.5909	13.0758	10.3210	2.75481	142.699	1<
32	8.25	30	45.4545	12.5	9.84587	2.65413	147.5	1<
33	8.75	30.25	45.8333	13.2576	10.0032	3.25442	147.107	1<
34	8.25	28.63	43.3788	12.5	9.00330	3.4967	159.343	1<
35	7.5	26.63	40.3485	11.3636	7.8332	3.53043	176.005	1<
36	7.25	27	40.9091	10.9848	8.04422	2.94063	171.296	1<
37	7.5	27.25	41.2879	11.3636	8.18821	3.17543	169.725	1<
38	7.75	27.75	42.0455	11.7424	8.47958	3.26284	165.766	1<
39	7.63	28	42.4242	11.6606	8.62696	2.93365	162.964	1<
40	6.63	25.5	38.6364	10.0455	7.20433	2.84113	184.824	1<
41	6.38	25	37.8788	9.66667	6.93364	2.73303	189.52	1<
42	6.75	26.88	40.7273	10.2273	7.97551	2.25176	170.647	1<
43	6.63	25.75	39.0152	10.0455	7.34143	2.70403	182.058	1<
44	6.25	25	37.8788	9.46970	6.93364	2.53606	189	1<
45	6.38	25	37.8788	9.66667	6.93364	2.73303	189.52	1<
46	6.38	23.88	36.1818	9.66667	6.34436	3.3223	203.099	1<
47	5.63	24.13	36.5606	8.5303	6.47384	2.05647	196.85	1<
48	6.75	25.25	38.2576	10.2273	7.06840	3.15887	188.119	1<
49	6.25	24.13	36.5606	9.46970	6.47384	2.99586	199.420	1<
50	7.38	27.38	41.4848	11.1818	8.26353	2.91829	168.006	1<
51	8	29.13	44.1364	12.1212	9.30699	2.81422	154.034	1<

52	7.5	27.38	41.4848	11.3636	8.26353	3.1001	168.444	1<
53	7.25	27.25	41.2879	10.9848	6.18821	2.79664	168.807	1<
54	6.63	25.63	38.8333	10.0455	7.27548	2.76999	183.379	1<
55	5.68	23.75	35.9848	8.90909	6.27751	2.63158	202.653	1<
56	6	22	33.3333	9.09091	5.40926	3.68165	227.273	1<
57	5.5	21.5	32.5758	8.33333	5.17214	3.16119	232.558	1<
58	5.63	21.5	32.5758	8.5303	5.17214	3.35816	233.163	1<
59	5	20.25	30.6818	7.57576	4.60102	2.97474	250.617	1<
60	5.25	21.38	32.3939	7.95455	5.11597	2.83658	233.255	1<
61	4.63	20	30.303	7.01515	4.44054	2.52461	253.15	1<
62	4.25	19.5	29.5455	6.43939	4.27336	2.16603	260.256	1<
63	4.63	21.25	32.1970	7.01515	5.05544	1.95972	232.376	1<
64	4.88	20.88	31.6364	7.39394	4.88498	2.50896	239.464	1<
65	4.75	20.38	30.8788	7.19697	4.65697	2.538	247.154	1<
66	5.65	22	33.3333	8.56061	5.40926	3.15135	225.682	1<
67	5.5	21.75	32.9545	8.33333	5.29008	3.04325	228.736	1<
68	5.88	22.75	34.4697	8.90909	5.77410	3.14499	215.956	1<
69	6.38	23.88	36.1818	9.66667	6.34436	3.3223	203.099	1<
70	6	24	36.3636	9.09091	6.40636	2.66455	200.0	1<
71	6.13	24.13	36.5606	9.28788	6.47384	2.81404	198.923	1<
72	6	24.25	36.7424	9.09091	6.53641	2.5545	196.907	1<
73	6.25	23.88	36.1818	9.46970	6.34436	3.12533	202.554	1<
74	6.63	24.25	36.7424	10.0455	6.53641	3.50905	199.505	1<
75	7.13	27.25	41.2879	10.603	8.18821	2.61462	168.367	1<
76	6.88	27.25	41.2879	10.4242	8.18821	2.23603	167.450	1<
77	7	26.88	40.7273	10.6061	7.97551	2.63055	171.577	1<
78	6.5	25.5	38.6364	9.84849	7.20433	2.64416	184.314	1<
79	6.63	26.88	40.7273	10.0455	7.97551	2.06995	170.201	1<
80	6.5	26.13	39.5909	9.84849	7.55203	2.29645	177.459	1<
81	6.75	26.38	39.9697	10.2273	7.69204	2.53523	175.777	1<
82	7.88	29.25	44.3182	11.9394	9.38053	2.55866	152.581	1<
83	7.75	28.88	43.7576	11.7424	9.15459	2.56763	155.367	1<
84	7.75	28.38	43.0	11.7424	8.85311	2.86931	159.866	1<
85	8.88	31	46.9697	13.4545	10.4815	2.97309	141.548	1<
86	7.88	29.25	44.3182	11.9394	9.38053	2.55866	152.581	1<
87	8.25	28.88	43.7576	12.5	9.15459	3.34541	157.098	1<
88	8.5	30	45.4545	12.8788	9.84567	3.03292	148.333	1<
89	8.38	30	45.4545	12.6970	9.84567	2.85110	147.933	1<
90	7.75	29	43.9394	11.7424	9.22761	2.51482	154.31	1<
91	7.5	27.25	41.2879	11.3636	8.18821	3.17543	169.725	1<
92	7	26.75	40.5303	10.6061	7.90137	2.70469	172.897	1<
93	6.88	26.5	40.1515	10.4242	7.75966	2.66458	175.019	1<
94	7.13	27	40.9091	10.803	8.04422	2.75881	170.852	1<
95	7.38	27	40.9091	11.1818	8.04422	3.13760	171.778	1<
96	6.88	25.88	39.2121	10.4242	7.41318	3.01107	181.607	1<
97	7	26.38	39.9697	10.6061	7.69204	2.91402	176.725	1<
98	7.13	25.88	39.2121	10.803	7.41318	3.36986	182.573	1<
99	7.5	27.88	42.2424	11.3636	8.55608	2.80756	163.630	1<
100	7.38	27.75	42.0455	11.1818	8.47956	2.70223	164.432	1<
101	7	27.88	42.2424	10.6061	8.55608	2.04998	161.836	1<
102	7.75	28.63	43.3788	11.7424	9.00330	2.73913	157.597	1<
103	7.5	28.88	43.7576	11.3636	9.15459	2.20904	154.501	1<
104	7	27.88	42.2424	10.6061	8.55608	2.04998	161.836	1<
105	6.88	26.25	39.7727	10.4242	7.61910	2.80515	177.638	1<
106	6.38	26	39.3939	9.66667	7.47968	2.18698	178.385	1<

17 WARD FOODS

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	2.75	11.88	19.8	4.58333	1.94136	2.64198	428.199	1<
2	3	11.75	19.5833	5.0	1.89949	3.10051	436.17	1<
3	3	12.63	21.05	5.0	2.19150	2.8085	398.812	1<
4	3.25	12.88	21.4667	5.41667	2.27814	3.13853	391.071	1<
5	3.25	12.63	21.05	5.41667	2.19150	3.22517	400.792	1<
6	3.13	12	20.0	5.21667	1.98039	3.23628	426.083	1<
7	2.88	10.5	17.5	4.8	1.5197	3.26030	498.857	1<
8	3	11.5	19.1667	5.0	1.82024	3.17974	447.826	1<
9	3	9.88	16.4667	5.0	1.34669	3.65331	537.652	1<
10	2.63	9.63	16.05	4.38333	1.27982	3.10351	550.363	1<
11	2.5	9.25	15.4167	4.16667	1.18139	2.98528	575.676	1<
12	2.5	10.75	17.9167	4.16667	1.59236	2.57431	481.395	1<
13	2.25	9.63	16.05	3.75	1.27982	2.47018	546.417	1<
14	2.25	9.38	15.6333	3.75	1.21463	2.53537	563.646	1<
15	2.63	10.25	17.0833	4.38333	1.44871	2.93463	511.024	1<
16	2.75	10.88	18.1333	4.58333	1.63079	2.95254	476.746	1<
17	3.13	11.88	19.8	5.21667	1.94136	3.27531	431.397	1<
18	3.13	11.88	19.8	5.21667	1.94136	3.27531	431.397	1<
19	3.38	12.25	20.4167	5.63333	2.06292	3.57041	417.388	1<
20	3.5	13.25	22.0833	5.83333	2.40934	3.42399	379.245	1<
21	4.25	14.68	24.8	7.08333	3.02932	4.05402	331.788	1<
22	4.13	13.63	22.7167	6.88333	2.54778	4.33556	370.506	1<
23	3.75	13.38	22.3	6.25	2.45628	3.79372	376.457	1<
24	3.88	13.5	22.5	6.46667	2.50	3.96667	373.185	1<
25	4.38	13.75	22.9167	7.3	2.59227	4.70773	368.218	1<
26	4.63	13	21.6667	7.71667	2.3203	5.39637	397.154	1<
27	5.13	14.5	24.1667	8.55	2.8787	5.67130	349.172	1<
28	5.88	15.88	26.4667	9.8	3.44315	6.35686	314.861	1<
29	5.63	14.88	24.8	9.38333	3.02932	6.35402	341.062	1<
30	5.38	14.5	24.1667	8.96667	2.8787	6.08796	350.897	1<
31	5.38	14.88	24.8	8.96667	3.02932	5.93735	339.382	1<
32	5	14	23.3333	8.33333	2.68614	5.64719	364.286	1<
33	4.88	13.13	21.8833	8.13333	2.3664	5.76693	394.136	1<
34	4.75	12.5	20.8333	7.91667	2.14709	5.76958	418	1<
35	4.63	12	20.0	7.71667	1.98039	5.73628	438.583	1<
36	4.13	11	18.3333	6.68333	1.66667	5.21667	483.0	1<
37	4	11.13	16.55	6.66667	1.70596	4.96071	475.022	1<
38	4.25	11.13	18.55	7.08333	1.70596	5.37737	477.269	1<
39	4.25	11	18.3333	7.08333	1.66667	5.41667	484.091	1<
40	3.88	10.75	17.9167	6.46667	1.59236	4.87431	494.233	1<
41	3.88	10.63	17.7167	6.46667	1.55728	4.90939	500.941	1<
42	4	11.38	18.9667	6.66667	1.78278	4.88389	462.39	1<
43	3.88	11	18.3333	6.46667	1.66667	4.8	480.727	1<
44	3.75	11.13	18.55	6.25	1.70596	4.54404	472.776	1<
45	4.25	11.63	19.3833	7.08333	1.86125	5.22209	452.451	1<
46	3.88	11.38	18.9667	6.46667	1.78278	4.68389	461.336	1<
47	3.75	11.75	19.5833	6.25	1.89949	4.35051	442.553	1<
48	3.75	10.88	18.1333	6.25	1.63079	4.61921	485.938	1<
49	3.63	11	18.3333	6.05	1.66667	4.38333	478.455	1<

50	3.88	11.75	19.5833	6.46667	1.89949	4.56717	443.660	1<
51	3.75	11.63	19.3833	6.25	1.86125	4.36875	448.151	1<
52	3.88	12.13	20.2167	6.46667	2.0231	4.44356	426.628	1<
53	3.75	12.13	20.2167	6.25	2.0231	4.22690	425.556	1<
54	3.75	11.5	19.1667	6.25	1.82024	4.42976	454.348	1<
55	3.75	11.75	19.5833	6.25	1.89949	4.35051	442.553	1<
56	4	12	20.0	6.66667	1.98039	4.68628	433.333	1<
57	3.75	11.75	19.5833	6.25	1.89949	4.35051	442.553	1<
58	3.88	11.63	19.3833	6.46667	1.86125	4.60542	449.269	1<
59	3.88	11	18.3333	6.46667	1.66667	4.8	480.727	1<
60	3.38	10.5	17.5	5.63333	1.5197	4.11363	503.619	1<
61	3.25	9.75	16.25	5.41667	1.31171	4.10496	548.718	1<
62	3	9.13	15.2167	5.0	1.15111	3.84889	590.033	1<
63	3.25	10	16.6667	5.41667	1.37938	4.03729	532.5	1<
64	3.13	10.88	18.1333	5.21667	1.63079	3.56508	480.239	1<
65	3.13	10.63	17.7167	5.21667	1.55728	3.65939	493.885	1<
66	3.13	10.75	17.9167	5.21667	1.59236	3.62431	487.256	1<
67	3.63	11.63	19.3833	6.05	1.86125	4.18875	447.120	1<
68	3.75	11.75	19.5833	6.25	1.89949	4.35051	442.553	1<
69	3.88	12	20.0	6.46667	1.98039	4.46628	432.333	1<
70	3.88	11.88	19.8	6.46667	1.94136	4.52531	437.71	1<
71	3.75	11.5	19.1667	6.25	1.82024	4.42976	454.348	1<
72	4.38	13.25	22.0833	7.3	2.40934	4.89066	385.887	1<
73	4.5	14.38	23.9667	7.5	2.83191	4.66809	348.540	1<
74	4.38	14	23.3333	7.3	2.68614	4.61366	359.857	1<
75	4.25	13.75	22.9167	7.08333	2.59227	4.49107	367.273	1<
76	3.88	14	23.3333	6.46667	2.68614	3.76052	356.286	1<
77	4	13.38	22.3	6.66667	2.45628	4.21038	378.326	1<
78	4.5	13	21.6667	7.5	2.3203	5.17970	396.154	1<
79	3.5	12.63	21.05	5.83333	2.19150	3.64184	402.771	1<
80	3.13	12.5	20.8333	5.21667	2.14709	3.06958	405.04	1<
81	3.25	11.75	19.5833	5.41667	1.89949	3.51717	438.298	1<
82	3.63	12.38	20.6333	6.05	2.10649	3.94352	413.974	1<
83	3.25	11.5	19.1667	5.41667	1.82024	3.59643	450	1<
84	3.38	11.75	19.5833	5.63333	1.89949	3.73384	439.404	1<
85	3.13	10.75	17.9167	5.21667	1.59236	3.62431	467.256	1<
86	3.13	10.25	17.0833	5.21667	1.44871	3.76796	515.902	1<
87	3.13	10.5	17.5	5.21667	1.5197	3.64697	501.238	1<
88	3.13	10.63	17.7167	5.21667	1.55728	3.65939	493.885	1<
89	3	10.5	17.5	5.0	1.5197	3.48030	500.0	1<
90	3	10.5	17.5	5.0	1.5197	3.48030	500.0	1<
91	3	10.13	16.8833	5.0	1.41522	3.58478	521.915	1<
92	3	9.88	16.4667	5.0	1.34669	3.65331	537.652	1<
93	2.88	10.38	17.3	4.8	1.48542	3.31458	505.78	1<
94	3	11	18.3333	5.0	1.66667	3.33333	472.727	1<
95	2.75	11	18.3333	4.66667	1.66667	2.91667	470.455	1<
96	2.5	10.13	16.8833	4.16667	1.41522	2.75145	516.979	1<
97	2.5	9.88	16.4667	4.16667	1.34669	2.81998	532.591	1<
98	2.38	9.13	15.2167	3.96667	1.15111	2.81556	583.242	1<
99	2.25	9.5	15.8333	3.75	1.24571	2.50429	555.263	1<
100	2.25	9.63	16.05	3.75	1.27982	2.47018	546.417	1<
101	2.38	10.63	17.7167	3.96667	1.55728	2.40939	486.830	1<
102	2	9.88	16.4667	3.33333	1.34669	1.98665	527.53	1<
103	2.5	11	18.3333	4.16667	1.66667	2.5	468.182	1<
104	2.5	13	21.6667	4.16667	2.3203	1.84637	380.769	1<
105	2.13	10.25	17.0833	3.55	1.44871	2.10129	506.146	1<
106	2.13	10.75	17.9167	3.55	1.59236	1.95764	477.953	1<

18 HITTAKER

WEEK	WARRANT PRICE(\$)	COMMON PRICE(\$)	COMMON TO EXERCISE PRICE(\$)	WARRANT TO EXERCISE PRICE(\$)	PREDICTED WARRANT PRICE(\$)	RESIDUAL	WARRANT PREMIUM(\$)	PREMIUM SUBSAMPLE BY STD DEV
1	3.5	8.5	17.0	7.0	1.43471	5.56529	529.412	1
2	4.25	10.88	21.76	8.5	2.34011	6.15989	398.621	1
3	4.75	10.63	21.26	9.5	2.23496	7.26504	415.052	1
4	4.5	9.75	19.5	9.0	1.88351	7.11649	458.974	1
5	3.63	8.25	16.5	7.26	1.35211	5.90769	550.061	1
6	3.88	8.63	17.26	7.76	1.47861	6.26140	524.334	1
7	3.5	8.13	16.26	7.0	1.31331	5.66669	558.057	1
8	3.5	7.63	15.26	7.0	1.15764	5.84236	601.180	1
9	3.38	7.13	14.26	6.76	1.01162	5.74838	648.668	1
10	2.75	6.25	12.5	5.5	.778221	4.72178	744.00	1
11	3.25	7	14.0	6.5	.975244	5.52476	660.714	1
12	3.13	7.5	15.0	6.26	1.11874	5.14126	608.4	1
13	2.88	6.88	13.76	5.76	.942248	4.81775	668.605	1
14	2.68	6.63	13.26	5.76	.875306	4.88469	697.587	1
15	3.13	7.5	15.0	6.26	1.11874	5.14126	608.4	1
16	3	7.25	14.5	6.0	1.04578	4.95422	631.034	1
17	3.63	8.13	16.26	7.26	1.31331	5.94669	559.656	1
18	3.25	7.75	15.5	6.5	1.19412	5.30588	587.097	1
19	3.75	8.13	16.26	7.5	1.31331	6.16669	561.132	1
20	4	8.75	17.5	8.0	1.5197	6.44030	517.143	1
21	4.38	9.88	19.76	8.76	1.93359	6.82641	450.405	1
22	4.13	9.38	18.76	8.26	1.74447	6.51553	477.079	1
23	3.88	8.38	16.76	7.76	1.39476	6.36524	542.959	1
24	3.75	8.63	17.26	7.5	1.47861	6.02140	522.827	1
25	4.63	10.25	20.5	9.26	2.07963	7.18038	432.976	1
26	4.13	9.25	18.5	8.26	1.69685	6.56315	465.189	1
27	3.88	8.75	17.5	7.76	1.5197	6.24030	515.771	1
28	4	9.38	18.76	8.0	1.74447	6.25553	475.693	1
29	6	11.38	22.76	12.0	2.55739	9.44261	392.091	>1-1.25<
30	6.38	11.75	23.5	12.76	2.72414	10.0359	379.830	>1-1.25<
31	7	12.88	25.76	14.0	3.26460	10.7354	342.547	>1-1.25-1.5<
32	6.75	13.13	26.26	13.5	3.39046	10.1095	332.216	>1-1.25-1.5<
33	6.88	12.75	25.5	13.76	3.20005	10.560	346.118	>1-1.25-1.5<
34	6.63	12	24.0	13.26	2.83968	10.4203	371.917	>1-1.25-1.5<
35	5.13	11	22.0	10.26	2.39141	7.86860	401.182	>1-1.25-1.5<
36	5.13	11.63	23.26	10.26	2.66951	7.59049	374.033	>1-1.25-1.5<
37	4.88	11.25	22.5	9.76	2.50	7.26	387.822	>1-1.25-1.5<
38	5.25	12	24.0	10.5	2.83968	7.66032	360.417	>1-1.25-1.5<
39	4.88	11.25	22.5	9.76	2.50	7.26	387.822	>1-1.25-1.5<
40	4.75	11.63	23.26	9.5	2.66951	6.83049	370.765	>1-1.25-1.5<
41	4.5	10.5	21.0	9.0	2.18121	6.81879	419.048	>1-1.25-1.5<
42	4.75	11	22.0	9.5	2.39141	7.10860	397.727	>1-1.25-1.5<
43	5	11.5	23.0	10.0	2.61091	7.38909	378.261	>1-1.25-1.5<
44	4.75	10.63	21.26	9.5	2.23496	7.26504	415.052	>1-1.25-1.5<
45	4.63	10.75	21.5	9.26	2.28514	6.77466	408.186	>1-1.25-1.5<
46	4.25	9.88	19.76	8.5	1.93359	6.56641	449.089	>1-1.25-1.5<
47	4	8.88	17.76	8.0	1.56484	6.43516	508.108	>1-1.25-1.5<
48	4.75	10.63	21.26	9.5	2.23496	7.26504	415.052	>1-1.25-1.5<
49	4.88	9.88	19.76	9.76	1.93359	7.26504	456.466	>1-1.25-1.5<
50	4.75	10.63	21.26	9.5	2.23496	7.26504	415.052	>1-1.25-1.5<
51	5.13	11.38	22.76	10.26	2.55739	7.70261	384.446	>1-1.25-1.5<
52	4.88	11.38	22.76	9.76	2.55739	7.70261	384.446	>1-1.25-1.5<

53	4.38	10.63	21.26	8.76	2.23496	6.52504	411.571	1<
54	4.38	9.88	19.76	8.76	1.93359	6.82641	450.405	1<
55	4.88	10.5	21.0	9.76	2.16121	7.57879	422.667	1<
56	4.75	10.63	21.26	9.5	2.23496	7.26504	415.052	1<
57	4.5	10	20.0	9.0	1.98039	7.01961	445.0	1<
58	4.25	9.75	19.5	8.5	1.88351	6.61649	456.41	1<
59	4	9	18.0	8.0	1.60709	6.39292	500.0	1<
60	4.25	9	18.0	8.5	1.60709	6.89292	502.778	1<
61	3.75	8.63	17.26	7.5	1.47861	6.02140	522.827	1<
62	3.25	8	16.0	6.5	1.27191	5.22809	565.625	1<
63	4.13	8.88	17.76	8.26	1.56484	6.69516	509.572	1<
64	4.25	9.25	18.5	8.5	1.69685	6.80315	486.986	1<
65	4.25	10	20.0	8.5	1.96039	6.51961	442.5	1<
66	4.38	10.25	20.5	8.76	2.07963	6.68038	430.537	1<
67	4.38	9.88	19.76	8.76	1.93359	6.82641	450.405	1<
68	4.38	10	20.0	8.76	1.98039	6.77961	443.8	1<
69	4.63	10.75	21.5	9.26	2.28514	6.97466	408.186	1<
70	5.13	11.5	23.0	10.26	2.61091	7.64909	379.391	1<
71	5.13	11.75	23.5	10.26	2.72414	7.53586	369.191	1<
72	5.63	13.5	27.0	11.26	3.56089	7.67912	312.074	1<
73	5.13	12.75	25.5	10.26	3.20005	7.05995	332.392	1<
74	5	12.38	24.76	10.0	3.01969	6.98031	344.265	1<
75	5	12.75	25.5	10.0	3.20005	6.74995	331.373	1<
76	4.75	12.13	24.26	9.5	2.90067	6.54933	351.36	1<
77	4.75	12.75	25.5	9.5	3.20005	6.24995	329.412	1<
78	5.38	14.5	29.0	10.76	4.12012	6.63988	281.931	1<
79	4.88	13.63	27.26	9.76	3.64696	6.11104	302.641	1<
80	4.75	13.38	26.76	9.5	3.51859	5.98142	309.193	1<
81	4.88	13.5	27.0	9.76	3.58089	6.17912	306.519	1<
82	5	13.75	27.5	10.0	3.71234	6.28766	300	1<
83	4.75	13.38	26.76	9.5	3.51859	5.98142	309.193	1<
84	4.5	12.63	25.26	9.0	3.14101	5.85899	331.512	1<
85	4.25	12.38	24.76	8.5	3.01969	5.46031	338.207	1<
86	3.88	10.63	21.26	7.76	2.23496	5.52504	406.867	1<
87	4.13	11.63	23.26	8.26	2.66951	5.59049	365.434	1<
88	3.75	10.38	20.76	7.5	2.13216	5.36764	417.823	1<
89	3.75	10.13	20.26	7.5	2.03170	5.4683	430.602	1<
90	3.5	9.75	19.5	7.0	1.88351	5.11649	448.718	1<
91	3.5	9.25	18.5	7.0	1.69685	5.30315	478.378	1<
92	3.25	9.13	18.26	6.5	1.65347	4.84653	483.242	1<
93	3.13	9	18.0	6.26	1.60709	4.65292	490.333	1<
94	3.25	8.75	17.5	6.5	1.5197	4.98030	508.571	1<
95	3.13	9	16.0	6.26	1.60709	4.65292	490.333	1<
96	3	8.63	17.26	6.0	1.47861	4.52140	514.137	1<
97	3	7.88	15.76	6.0	1.23427	4.76573	572.589	1<
98	2.75	7.88	15.76	5.5	1.23427	4.26573	569.416	1<
99	3.13	8.75	17.5	6.26	1.5197	4.74030	507.2	1<
100	3.13	9	18.0	6.26	1.60709	4.65292	490.333	1<
101	2.88	8.38	16.76	5.76	1.39476	4.36524	531.026	1<
102	2.88	8.63	17.26	5.76	1.47861	4.28140	512.746	1<
103	2.88	8.13	16.26	5.76	1.31331	4.44669	550.431	1<
104	2.88	7.63	15.26	5.76	1.15764	4.60236	593.054	1<
105	2.63	7.63	15.26	5.26	1.15764	4.10236	589.777	1<
106	2.75	7.75	15.5	5.5	1.19412	4.30588	580.645	1<

APPENDIX G

STATISTICS ON FIVE CURVES

APPLIED TO EACH SAMPLE

SAMPLE A

SAMPLE A

FUNCTION FOR TOTAL SAMPLE	EQUATION
LEAST SQUARES STRAIGHT LINE:	$W = -35.6995 + .742435 \cdot C$
LEAST SQUARES PARABOLA:	$W = -13.2229 + .393339 C + 1.13733E-3 C^2$
B=0.9 HYPERBOLA:	$W = \sqrt{0.9 \cdot C \cdot C + 10000} - 100$
B=1.1 HYPERBOLA:	$W = \sqrt{1.1 \cdot C \cdot C + 10000} - 100$
THEORETICAL HYPERBOLA:	$W = \sqrt{C \cdot C + 10000} - 100$

FUNCTION FOR TOTAL SAMPLE	STANDARD ERROR	SUM OF RESIDUALS	COEFFICIENT OF DETERMINATION
LEAST SQUARES STRAIGHT LINE:	14.2340	-8462858	.875032
LEAST SQUARES PARABOLA:	13.4318	-8139568	.88872
B=0.9 HYPERBOLA:	13.2819	-2196.05	.891191
B=1.1 HYPERBOLA:	17.5873	-21405.0	.809215
THEORETICAL HYPERBOLA:	14.6915	-11952.8	.86687

1 . AFFILIATED CAPITAL

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	17.0731	1083.56
LEAST SQUARES PARABOLA:	17.6719	1106.86
B=0.9 HYPERBOLA:	17.1379	1075.68
B=1.1 HYPERBOLA:	10.3146	627.098
THEORETICAL HYPERBOLA:	13.6415	848.573

2 . AMERICAN CENTURY INVESTORS

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	28.8003	-1453.67
LEAST SQUARES PARABOLA:	26.048	-1312.03
B=0.9 HYPERBOLA:	27.0711	-1364.77
B=1.1 HYPERBOLA:	36.0175	-1824.43
THEORETICAL HYPERBOLA:	31.6027	-1597.92

3 . AMERICAN MOTORS

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	12.4052	1247.65
LEAST SQUARES PARABOLA:	6.90210	684.607
B=0.9 HYPERBOLA:	6.26371	618.706
B=1.1 HYPERBOLA:	3.63375	269.934
THEORETICAL HYPERBOLA:	4.81542	443.048

4 . AMERICAN SHIPBUILDING

FUNCTION FOR TOTAL SAMPLE	STANDARD ERROR	SUM OF RESIDUALS
-----	-----	-----
LEAST SQUARES STRAIGHT LINE:	6.12362	-244.574
LEAST SQUARES PARABOLA:	4.07249	-91.6249
B=0.9 HYPERBOLA:	4.84749	-155.714
B=1.1 HYPERBOLA:	12.4984	-711.478
THEORETICAL HYPERBOLA:	8.41366	-437.596

5 . AT*T

FUNCTION FOR TOTAL SAMPLE	STANDARD ERROR	SUM OF RESIDUALS
-----	-----	-----
LEAST SQUARES STRAIGHT LINE:	12.8778	-1335.97
LEAST SQUARES PARABOLA:	13.6118	-1420.05
B=0.9 HYPERBOLA:	13.6974	-1428.60
B=1.1 HYPERBOLA:	19.4403	-2031.39
THEORETICAL HYPERBOLA:	16.5975	-1733.25

6 . BENEFICIAL STANDARD MORTGAGE

FUNCTION FOR TOTAL SAMPLE	STANDARD ERROR	SUM OF RESIDUALS
-----	-----	-----
LEAST SQUARES STRAIGHT LINE:	27.5752	-1742.24
LEAST SQUARES PARABOLA:	24.6364	-1556.78
B=0.9 HYPERBOLA:	25.8109	-1630.32
B=1.1 HYPERBOLA:	34.961	-2227.15
THEORETICAL HYPERBOLA:	30.4471	-1933.11

7 . CHI INVESTMENT

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	4.24490	68.6188
LEAST SQUARES PARABOLA:	5.55581	169.724
B=0.9 HYPERBOLA:	4.56693	15.2971
B=1.1 HYPERBOLA:	17.8338	-836.418
THEORETICAL HYPERBOLA:	9.98033	-418.856

8 . CARRIER

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	8.43986	-296.248
LEAST SQUARES PARABOLA:	6.10446	-275.688
B=0.9 HYPERBOLA:	6.75124	-313.398
B=1.1 HYPERBOLA:	13.6995	-747.577
THEORETICAL HYPERBOLA:	10.2097	-533.267

9 . CHRYSLER

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	13.0701	865.954
LEAST SQUARES PARABOLA:	12.5020	836.902
B=0.9 HYPERBOLA:	12.3746	827.417
B=1.1 HYPERBOLA:	6.7106	415.818
THEORETICAL HYPERBOLA:	9.44341	619.312

10 . DIVERSIFIED INDUSTRIES

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	19.8407	911.685
LEAST SQUARES PARABOLA:	13.2319	619.763
B=0.9 HYPERBOLA:	12.0389	644.486
B=1.1 HYPERBOLA:	9.0999	407.269
THEORETICAL HYPERBOLA:	10.5023	485.252

11 . EQUITY FUNDING

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	19.1176	1159.81
LEAST SQUARES PARABOLA:	23.0328	1430.67
B=0.9 HYPERBOLA:	20.5495	1255.85
B=1.1 HYPERBOLA:	9.93878	406.192
THEORETICAL HYPERBOLA:	14.6442	823.543

12 . FEDERATED DEVELOPMENT

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	8.10362	778.215
LEAST SQUARES PARABOLA:	3.14544	117.687
B=0.9 HYPERBOLA:	2.96397	30.0430
B=1.1 HYPERBOLA:	3.95494	273.820
THEORETICAL HYPERBOLA:	3.17497	122.852

13 . FIDELCO GROWTH INVESTORS

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	26.8325	-1731.65
LEAST SQUARES PARABOLA:	22.9421	-1480.56
B=0.9 HYPERBOLA:	24.9013	-1606.20
B=1.1 HYPERBOLA:	36.0104	-2325.99
THEORETICAL HYPERBOLA:	30.5435	-1971.94

14 . FIRST DENVER MORTGAGE

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	19.6307	-1228.33
LEAST SQUARES PARABOLA:	16.8011	-1176.25
B=0.9 HYPERBOLA:	19.1150	-1196.85
B=1.1 HYPERBOLA:	25.939	-1650.22
THEORETICAL HYPERBOLA:	22.5558	-1426.32

15 . FLYING TIGER

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	19.8969	1732.05
LEAST SQUARES PARABOLA:	22.5288	1975.54
B=0.9 HYPERBOLA:	21.4146	1870.54
B=1.1 HYPERBOLA:	12.8868	1043.4
THEORETICAL HYPERBOLA:	16.9822	1450.86

16 . GOULD

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	5.39379	270.350
LEAST SQUARES PARABOLA:	3.55224	-153.823
B=0.9 HYPERBOLA:	3.58965	-190.341
B=1.1 HYPERBOLA:	6.90857	-604.243
THEORETICAL HYPERBOLA:	5.13321	-399.018

17 . HOLIDAY INN

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	10.7386	-884.528
LEAST SQUARES PARABOLA:	8.81739	-579.714
B=0.9 HYPERBOLA:	11.2015	-910.637
B=1.1 HYPERBOLA:	25.9156	-2567.07
THEORETICAL HYPERBOLA:	18.4343	-1754.69

18 . IOWA BEEF PROCESSORS

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	6.22245	330.204
LEAST SQUARES PARABOLA:	6.66606	511.018
B=0.9 HYPERBOLA:	6.32063	432.291
B=1.1 HYPERBOLA:	6.91281	-403.053
THEORETICAL HYPERBOLA:	5.21535	8.89827

19 . LOUISIANA LAND & EXPLORATION

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	11.735	-714.859
LEAST SQUARES PARABOLA:	8.94073	-546.968
B=0.9 HYPERBOLA:	9.98574	-614.676
B=1.1 HYPERBOLA:	18.8271	-1193.04
THEORETICAL HYPERBOLA:	14.4497	-908.03

20 . MOBIL OIL

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	12.3456	-1225.66
LEAST SQUARES PARABOLA:	9.81606	-958.160
B=0.9 HYPERBOLA:	10.7913	-1059.14
B=1.1 HYPERBOLA:	19.363	-1977.99
THEORETICAL HYPERBOLA:	15.1055	-1525.13

21 . RYDER SYSTEMS

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	12.8456	569.899
LEAST SQUARES PARABOLA:	7.76821	-357.107
B=0.9 HYPERBOLA:	5.57785	-162.162
B=1.1 HYPERBOLA:	28.8309	-1871.90
THEORETICAL HYPERBOLA:	16.3321	-1035.87

22 . TAMPA ELECTRIC

FUNCTION FOR TOTAL SAMPLE	STANDARD ERROR	SUM OF RESIDUALS
-----	-----	-----
LEAST SQUARES STRAIGHT LINE:	9.00331	-836.436
LEAST SQUARES PARABOLA:	7.77590	-715.536
B=0.9 HYPERBOLA:	8.23436	-765.186
B=1.1 HYPERBOLA:	15.231	-1534.42
THEORETICAL HYPERBOLA:	11.7155	-1154.74

23 . TESORO PETROLEUM

FUNCTION FOR TOTAL SAMPLE	STANDARD ERROR	SUM OF RESIDUALS
-----	-----	-----
LEAST SQUARES STRAIGHT LINE:	18.3178	924.303
LEAST SQUARES PARABOLA:	21.9494	1133.57
B=0.9 HYPERBOLA:	14.7963	1002.32
B=1.1 HYPERBOLA:	10.4005	328.767
THEORETICAL HYPERBOLA:	14.4053	659.726

24 . DEL E WEBB

FUNCTION FOR TOTAL SAMPLE	STANDARD ERROR	SUM OF RESIDUALS
-----	-----	-----
LEAST SQUARES STRAIGHT LINE:	12.5058	912.701
LEAST SQUARES PARABOLA:	15.2122	1309.82
B=0.9 HYPERBOLA:	13.4034	1063.87
B=1.1 HYPERBOLA:	9.46602	-230.242
THEORETICAL HYPERBOLA:	9.72245	405.659

25 . WESTERN PACIFIC INDUSTRIES

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	8.99986	328.177
LEAST SQUARES PARABOLA:	7.69542	290.007
B=0.9 HYPERBOLA:	7.52280	281.653
B=1.1 HYPERBOLA:	3.53737	47.5525
THEORETICAL HYPERBOLA:	5.03313	163.310

26 . WILLIAMS COMPANIES

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	9.64619	740.868
LEAST SQUARES PARABOLA:	10.0460	704.884
B=0.9 HYPERBOLA:	7.6109	437.971
B=1.1 HYPERBOLA:	16.461	-1328.47
THEORETICAL HYPERBOLA:	8.31107	-463.403

27 . ZAYRE

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	4.62034	-230.348
LEAST SQUARES PARABOLA:	5.15002	-266.9
B=0.9 HYPERBOLA:	5.26012	-274.191
B=1.1 HYPERBOLA:	10.9555	-612.111
THEORETICAL HYPERBOLA:	8.08696	-445.016

SAMPLE B

SAMPLE 8

FUNCTION FOR TOTAL SAMPLE	EQUATION
LEAST SQUARES STRAIGHT LINE:	$W = -22.0999 + .781553 C$
LEAST SQUARES PARABOLA:	$W = -6.05498 + .409608 C + 1.06633E-3 C^2$
B=0.9 HYPERBOLA:	$W = \sqrt{0.9 \cdot C \cdot C + 10000} - 100$
B=1.1 HYPERBOLA:	$W = \sqrt{1.1 \cdot C \cdot C + 10000} - 100$
THEORETICAL HYPERBOLA:	$W = \sqrt{C \cdot C + 10000} - 100$

FUNCTION FOR TOTAL SAMPLE	STANDARD ERROR	SUM OF RESIDUALS	COEFFICIENT OF DETERMINATION
LEAST SQUARES STRAIGHT LINE:	12.6958	-242035	.968259
LEAST SQUARES PARABOLA:	8.69718	-015434	.985104
B=0.9 HYPERBOLA:	10.6505	10883.8	.977662
B=1.1 HYPERBOLA:	9.06298	-465.83	.983625
THEORETICAL HYPERBOLA:	8.11602	5100.94	.987028

1 . APL

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	11.1943	-1078.10
LEAST SQUARES PARABOLA:	4.62847	-352.943
B=0.9 HYPERBOLA:	5.61208	484.26
B=1.1 HYPERBOLA:	3.84542	-50.0925
THEORETICAL HYPERBOLA:	4.04508	214.409

2 . ALLEGHANY

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	20.3231	1734.02
LEAST SQUARES PARABOLA:	15.5370	421.722
B=0.9 HYPERBOLA:	25.3153	2453.74
B=1.1 HYPERBOLA:	13.9342	-896.045
THEORETICAL HYPERBOLA:	12.2712	740.473

3 . FIREBOARD

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	15.6632	-1547.31
LEAST SQUARES PARABOLA:	5.19314	-289.826
B=0.9 HYPERBOLA:	6.46213	478.180
B=1.1 HYPERBOLA:	6.62953	-397.813
THEORETICAL HYPERBOLA:	4.98371	34.0535

4 . GENERAL DEVELOPMENT

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	20.3468	-1130.81
LEAST SQUARES PARABOLA:	10.2772	-569.214
B=0.9 HYPERBOLA:	3.78033	-121.119
B=1.1 HYPERBOLA:	10.0180	-514.740
THEORETICAL HYPERBOLA:	6.75648	-320.368

5 . GREYHOUND

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	15.4369	-1221.54
LEAST SQUARES PARABOLA:	7.31217	-553.985
B=0.9 HYPERBOLA:	2.58616	86.8684
B=1.1 HYPERBOLA:	5.24376	-380.298
THEORETICAL HYPERBOLA:	2.91045	-149.280

6 . GULF+WESTERN INDUSTRIES

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	6.22928	-278.159
LEAST SQUARES PARABOLA:	3.22466	-232.643
B=0.9 HYPERBOLA:	4.45851	436.339
B=1.1 HYPERBOLA:	2.82345	165.820
THEORETICAL HYPERBOLA:	3.45236	300.211

7 . INSTRUMENTS SYSTEMS

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	13.7231	1416.49
LEAST SQUARES PARABOLA:	3.45688	344.59
B=0.9 HYPERBOLA:	3.15263	323.980
B=1.1 HYPERBOLA:	2.84605	292.469
THEORETICAL HYPERBOLA:	2.99826	308.210

8 . ITEL1978

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	15.9922	798.444
LEAST SQUARES PARABOLA:	23.2986	1935.26
B=0.9 HYPERBOLA:	28.8249	2667.47
B=1.1 HYPERBOLA:	18.0908	761.16
THEORETICAL HYPERBOLA:	21.8759	1695.06

9 . LEASCO

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	5.41082	-41.9092
LEAST SQUARES PARABOLA:	3.38316	98.6771
B=0.9 HYPERBOLA:	8.20717	819.274
B=1.1 HYPERBOLA:	5.87190	525.681
THEORETICAL HYPERBOLA:	6.97968	671.541

10 . LERNER STORES

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	11.8875	-726.781
LEAST SQUARES PARABOLA:	10.5847	-582.585
B=0.9 HYPERBOLA:	4.09266	63.2675
B=1.1 HYPERBOLA:	27.1431	-1733.5
THEORETICAL HYPERBOLA:	13.8789	-855.186

11 . NATIONAL GENERAL NEW

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	10.8777	-1036.35
LEAST SQUARES PARABOLA:	7.70092	-776.189
B=0.9 HYPERBOLA:	1.5610	-21.1695
B=1.1 HYPERBOLA:	4.04427	-358.233
THEORETICAL HYPERBOLA:	2.58570	-190.906

12 . NATIONAL INDUSTRIES

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	10.0857	639.691
LEAST SQUARES PARABOLA:	4.78263	299.953
B=0.9 HYPERBOLA:	8.42826	540.614
B=1.1 HYPERBOLA:	7.39888	473.714
THEORETICAL HYPERBOLA:	7.91093	507.078

13 . PHOENIX STEEL

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	5.00654	218.493
LEAST SQUARES PARABOLA:	3.81636	226.08
B=0.9 HYPERBOLA:	9.11088	889.451
B=1.1 HYPERBOLA:	6.89967	635.081
THEORETICAL HYPERBOLA:	7.96828	761.507

14 . TENNECO 1975A

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	16.877	-1507.09
LEAST SQUARES PARABOLA:	10.0920	-891.784
B=0.9 HYPERBOLA:	2.65686	-167.159
B=1.1 HYPERBOLA:	7.12717	-618.176
THEORETICAL HYPERBOLA:	4.77418	-394.868

15 . UNITED BRANDS

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	7.26178	685.678
LEAST SQUARES PARABOLA:	1.78756	92.3818
B=0.9 HYPERBOLA:	4.32848	444.38
B=1.1 HYPERBOLA:	3.43492	344.841
THEORETICAL HYPERBOLA:	3.87350	394.486

16 . US SMELTING

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	2.34293	143.393
LEAST SQUARES PARABOLA:	1.74222	-166.102
B=0.9 HYPERBOLA:	3.50867	365.279
B=1.1 HYPERBOLA:	2.02787	207.183
THEORETICAL HYPERBOLA:	2.75818	285.948

17 . WARD FOODS

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	12.9803	1356.7
LEAST SQUARES PARABOLA:	3.70182	377.76
B=0.9 HYPERBOLA:	4.33016	440.892
B=1.1 HYPERBOLA:	3.95089	401.155
THEORETICAL HYPERBOLA:	4.14008	421.004

18 . WHITTAKER

FUNCTION FOR TOTAL SAMPLE -----	STANDARD ERROR -----	SUM OF RESIDUALS -----
LEAST SQUARES STRAIGHT LINE:	15.0999	1574.89
LEAST SQUARES PARABOLA:	5.99249	618.830
B=0.9 HYPERBOLA:	6.80790	699.207
B=1.1 HYPERBOLA:	6.38693	655.967
THEORETICAL HYPERBOLA:	6.59689	677.563

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