T&D MANAGEMENT

Vernon Tanner, president of T&D Management Company, eyed the telephone thoughtfully. Vernon was considering whether or not to commit a substantial portion of T&D=s assets to a futures contract spread. His personal analysis had convinced him that the investment would be a profitable one, but the considerable volatility of futures contract prices still gave him pause for concern.

HISTORY OF T&D MANAGEMENT

T&D Management began as a loose partnership between Vernon and his father-in-law Karl Drake in 1977. They had been collaborating as investment partners in commodity futures contracts with Vernon serving as the primary decision-maker for investments. As Vernon and Karl began discussing the profit potential with friends and neighbors, many of them asked Vernon to manage their funds as well.

As they began to recognize the demand for high-return investments, Vernon and Karl determined to aggressively market their investment services in 1979. Within 24 months customers had delivered over $5 million to T&D and in the last weeks new funds had been arriving at the rate of over $100,000 per week.

This represented a doubling in size every six months and in the last summary of operations, Vernon had expressed his feeling that he anticipated reaching the $100 million mark within a couple of years.

To protect themselves from heavy personal tax burdens, Vernon and Karl incorporated T&D Management in March of 1981. They incorporated simultaneously under two different names to facilitate the registration process. The first entity, T&D Management Company, was registered with the Commodity Futures Trading Commission (CFTC) as a Commodities Pool Operator (CPO) and as a Commodities Trading Advisor (CTA). The second entity carried the name of Tanner-Drake Management Corporation and had begun the lengthy process of registering with the Securities Exchange Commission.

Originally an accountant by profession, Vernon had never actually completed his degree in accounting although he only lacked a few credits from doing so. He had gained his experience in commodities while working at a jewelry store which used futures contracts to hedge large inventories of silver, gold, and other precious metals. (See exhibit 1 for a brief description of the commodities futures market and contracts.) In as much as prices of these metals fluctuated dramatically, a jewelry store runs substantial price risks when it carries inventories of such items. Since this risk is not directly related to the store=s main line of business, the owners chose to reduce this risk by taking an offsetting short position in a futures contract. Thus, when the store lost money on its inventory position when the price of the commodity fell, the position in the futures market would make money and offset the loss. Unfortunately, this also meant that if the

price of the commodity rose and the inventory would increase in value, the gain would be offset by a loss on the futures contract. Rather than completely eliminating the risk, the store chose to accept some risk by not hedging its position completely.

Vernon used a technical forecasting technique called the Gann system in making his investment decisions. This system relied on the use of historical price charts of the commodity to predict the future price of the commodity. (See exhibit 2 for a more detailed explanation of the technique). The marketing brochures for T&D stated that Vernon had successfully developed a modification of the Gann system that provided an average return 65 to 75 percent per annum over the previous eight years. The summary declared that the AGann system of commodities trading has never had a loss year since it was developed over seventy years ago. This success was achieved in spite of depressions, world wars, change of presidents natural disasters, and other variables which greatly affected most other types of investment.@

MARKETING

T&D used a direct sales force in their marketing efforts. There were both account executives, who received a base salary plus commissions, and Afinders@ who received a 10% commission of funds raised and were usually part-time.

Two products were offered. The first was a debt instrument which offered a rate of 2% per month for short-term funds or 30% per year for funds that were committed for at least a year. This represented a substantial premium over the 15-16% return offered by U.S. Treasury securities. This product had been sold to several hundred investors in over forty states. Exhibit 3 is a letter given to prospective investors and exhibit 4 is a sample copy of the investment agreement for this product. When, this money would be transferred in to the cash account and also appear as a debt liability on T&D=s balance sheet.

The second product was purely a service agreement in which T&D agreed to manage a client=s existing account at a brokerage firm for an annual service fee. T&D, known as the advisor, could then initiate orders for commodity trades on behalf of the client. Exhibits 5 and 6 are the Advisory Agreements for these clients.

Of course, such agreements would not appear on T&D=s balance sheet since they did not represent a direct asset or liability of T&D management.

THE SITUATION IN JUNE, 1981

From the company=s inception, losses on commodity trades significantly exceed the gains. Losses for 1979 and 1980 were $310,000 and $143,000 respectively. So far in 1981, net losses exceeded $1,500,000. See exhibit 7 for an estimated balance sheet. By June of 1981, interest obligations were heavily straining T&D=s operations.

Vernon was considering a Aspread@ position in porkbellies of 500 contracts. He would take a long position (buy) the February contracts currently at 67 cents per pound and take a short position (sell) the August contract currently at 48 cents per pound. The offsetting position of the contracts would eliminate the overall risk of price changes since an increase in prices would mean a gain on the long position but an equal loss in the short position. Similarly a fall in prices would mean a loss on the long position, but an offsetting gain the short position. This was a substantial risk reduction inasmuch as the price of the two contracts tended to move together (see exhibit 8a and 8b).

Money would be gained or lost depending on whether the difference between the two prices narrowed or widened. In recent days the difference in price between the two contracts had steadily widened (see exhibits 8c). After extensive study, Vernon felt confident that the trend would continue.

The standard porkbelly contract was for delivery of 38,000 lbs so that the 500 contract position represented over $9 million dollars for the August contract ($0.48 x 38,000 lbs. x 500 contracts) and over $11 million for the February contract. However, the typical margin requirement[1] for the contracts was only 5% so T&D would actually only have to transfer a few thousand dollars to initiate the position.

[1]The margin requirement represented the equity ownership of the investor. The remaining amount was in essence borrowed or lent by the investor on the other side of the contract. For example, if investor A believes that prices will rise and investor B believes they will fall, investor B will sell the contract to investor A. Since the commodity will not be delivered for several months, in principle it is not necessary that any money trade hands until deliver. However, to ensure compliance with the contract each investor must demonstrate the financial ability to meet his contractual agreement by placing at least 5% of the value of the contract with the broker. Each day, as the price changes, balance are Amarked to market@ by transferring the gains and losses to and from investors= accounts to reflect the new market conditions.

Exhibit 1

NOTE ON FUTURE CONTRACTS

by David E. Bell

A farmer is growing 100,000 bushels of wheat. He is concerned about the price that will prevail at harvest time. At the same time, a flour miller, who normally buys 100,000 bushels of wheat at harvest time, is also worried about the harvest price. What can they do? Both the farmer and the miller would be happy to settle for today=s cash price but the farmer=s wheat hasn=t grown yet and the miller doesn=t want to pay holding costs. If they know of each other they could write a forward contract in which the farmer agrees to deliver his wheat to the miller at a price to be determined now, but paid at the time of delivery. In practice the farmer would not usually be able to find such a perfect match; even if he finds a miller needing at least 100,000 bushels, the miller may want a slightly different variety of wheat, may be geographically distant, which increases transportation costs, and whose reputation is unknown, thereby introducing legal costs and administrative effort.

The futures market is a location which brings together buyers and sellers so that the farmer may find the miller. To make trading easier there are only a few possible contracts that may be agreed upon through the exchange. (Buyer and seller may always write a forward contract without going through the market.) The advantage of a small number of contracts is that there is more trading on each one, which provides stability of prices since high volume helps to create market efficiency.

To avoid distrust, the farmer sells a contract to the exchange, the miller buys an equal and opposite contract form the exchange. The exchange is responsible for the finances and reliability of the individual parties. Since buyers and sellers are always balanced (not only in numbers but also in price), the default risk is the only risk the exchange bears. To reduce this, the exchange Aclears the market@ everyday. At the end of each business day no one owes anyone anything: all buyers must settle up *as if* they had sold their positions at the close of the day=s trading. All sellers must settle up *as if* they had bought back all their contracts at the close of trading.

In fact, the exchange doesn=t run the risk of default due to fluctuations in price even during a single day. It requires each buyer and seller to post a 10% (the limit on price change is actually set in terms of cents rather than percentages), the exchange halts trading until the next business day. At the end of each a margin that has been depleted must be made up. A margin account that has grown during the day may be drawn down.

So if our miller buys 100,000 bushels of wheat at $3.00 he must immediately pay $30,000 in cash or securities to the exchange. If the price of this futures contract grows over time to $5.00 the exchange will have paid$200,000 into the miller=s account. Therefore, whenever the miller chooses to buy back his contract (Aclearing his position@), no additional money needs to change hands. The miller then buys wheat on the open market at about $5.00. Since he made a cash gain of $2.00 a bushel on the futures market, the effective price pays is only $3.00, the amount he Alocked in@ originally. This is how the hedge works.

Of course the farmer is less fortunate. He must pay a total of $200,000 to meet the margin calls and must do so before being able to sell any of the crop, which is still growing. For this reason, farmers who wish to make use of the futures market usually write a forward contract with a bank. The bank can hedge its own position in the futures market if it wishes.

THE STANDARD CONTRACT

An exchange will trade contracts for a specific quantity of a commodity (e.g., 5,000 bushels) for a few delivery dates (e.g., May, September, and January), which vary by commodity.

The contract that is traded is very specific. When the farmer sells a contract he is agreeing to deliver exactly 5,000 bushels of a particular grade and variety of wheat, with moisture content in a specified range, at a specific time (e.g., a three-day period at the end of May), at a specific place (e.g., particular location in Kansas City), delivered in an acceptable form (e.g., railroad box car). Certain deviations with respect to grade and variety are permitted with pre-specified penalties. This latitude is necessary for commodities such as live cattle where the exact composition of the delivery (in particular, weight) cannot reasonably be guaranteed. Because of the standardization, everyone knows what they are getting or selling and all they need agree on is price.

The small number of contracts, and this standardization of them, encourages speculators to enter the market. A peculator need not have a knowledge of the intricate varieties of wheat when trading. Since the contract is with the exchange he need not worry about default or liquidity. [With a forward contract the other party may choose not to cancel at any price.] The speculators help the farmers and millers because the day the farmer wishes to sell the miller may not be there to buy. The speculator, sensing more sellers than buyers, buys cheaply and waits for there to be more buyers than sellers. [The time frame is minutes, not days.] The speculators also have the incentive to be well informed on value so that farmers can be reasonably sure of getting a fair price for their crop. Of course that price may not reflect the true price at harvest time, but it was fair at the time of the contract.

Less than 1% of the contracts result in delivery. The remainder are closed out (reversed) before the expiration date. This is because most buyers do not want the particular grade and amount of wheat (say) specified in contract and almost certainly don=t want it at the regulated delivery point. This disincentive is equally true for sellers.

EXAMPLE

A miller needs 10,000 bushels of wheat in 100 days= time. He is worried about the price that will prevail at that time. The current cash price is $2.60. The futures price $2.70 for delivery in 150 days time. He could buy the wheat now, but holding costs would exceed the 10 cents a bushel premium he would pay with futures contract.

Exhibit 1 (continued)

Day 1 Miller buys two futures contracts.

Day 100 The cash prices is $3.50. The futures price for delivery in 50 days is $3.54. The miller has received a net of 10,000 x (3.54-2.70)=$8,400 in margin payments during the course of the 100 days.

The miller sells two futures contracts thus canceling out his earlier position. He buys 10,000 bushels of wheat in the usual way from a local supplier.

To summarize the miller=s cash flow:

Day 1 He puts up 10% of 10,000 x 2.70 or $2,700 in a margin account. He is paid interest on this. Alternatively, he could have put up securities worth at least $2,700.

Day 2

Day 99 He pays or is paid amounts that reflect the profit or loss he has made on his contract since buying it. In this case he receives $8,400.

Day 100 He sells his two contracts. No money changes hands except that he receives his margin money back. He pays $35,000 for 10,000 bushels of wheat. Thus his true price paid is ($35,000-$8,400)/10,000 or $2.66.

Note that the effective price paid was not exactly the original cash price ($2.60)Nor the original futures price ($2.70). This is because the difference or basis between the futures and cash price changed during the 100 days and was reduced to 4 cents from 10 cents by the time the miller got out. Hedgers in the futures market are still exposed to basis risk.

Exhibit 2

W.D. GANN, ATIME AND SPACE@

(This extract was taken from: COMMODITY TRADING SYSTEMS AND METHODS, P.J. Kaufman, Wiley and Sons, New York, 1978, pp. 202-205).

The works of W.D. Gann cannot be explained with any thoroughness in a few words, but some of his main ideas have been selected and presented in this section. Gann was a pure technician using charts for all his analyses. His methods varied substantially from our conventional charting techniques, but his philosophy was one of a professional trader: conserve your capital and wait for the right time. Gann traded the markets, primarily grains, for many years and in his writing s he attempted to summarize these dominant observations; some of them are reminiscent of other well-known market lore.

Price moves are never exact. Gann was a believer in support and resistance lines, but expected some violation of the objectives because of Alost motion,@ his way of accounting for the momentum that carries prices higher or lower than their likely goals. Nearly a cross between Elliot=s Awaves@ and AAngas=cycles,@ Gann classifies bull and bear moves into four Astages,@ each one compared to a trending move and a subsequent reversal, culminating in a major top or bottom. He observed that bull markets last longer than bear markets. He concluded that reversal patterns must reduce in magnitude as the move develops and persists. A similar argument is expressed in the Atheory of contrary thinking.@ Much of Gann=s work is related in 1940 cents--if you intend to study it on your own, find an economic inflator to keep close at hand.

Gann=s techniques combine mathematics and geometry with time and space; he finds duration as important as the distance covered. One of his principles reflects the idea of a longer consolidation period resulting in a longer resulting price move after a breakout. One of the approaches to price objectives in bar charting is exactly this idea.

Time and Prices

Gann=s idea was that there are certain natural divisions, expressed as percents. Zero and 100% are the most important of these. Based on behavioral awareness, he considered a potential resistance level at 100% of the original point of the move or 100% of the highest or lowest (the best guide) price of that commodity. In a reversal, 100% was a full retracement of the original move. The rationale for this theory is behavioral, as is his conclusion that most traders like even numbers; for this reason order in grains are most placed at 5-10 cent levels.

After the 100% level, decreased importance goes to increments of 50%, 25%, 12 1/2%, and so on. For a grain this would mean that major resistance could be expected at the even dollar levels, with the next resistance at 50 cent intervals, then every 25 cents, and son; after a bull move of $1, the major support would be $1 lower, than 50 cents, 25 cents, and 75 cents, and son. The use of successive halving of intervals was also extended to time. A year is a full cycle of 360 that makes a half of a year (26 weeks), a quarter of a year (13 weeks), an eighth of a year 45 days), and a sixteenth of a year (22 2 days) of similar significance. In cases of conflict, time always took

precedence over price. The combination of a key price level (percentage move) occurring at a periodic time interval is the basis for much of Gann=s work.

Geometric Angles

One approach that Gann used for relating price and time was geometric angles. By using square graph paper it was not necessary to know the exact angle, because the construction was based on boxes up versus boxes to the right. A 1 x 1 angle (45 degree) was drawn diagonally from the bottom of the lowest point of a price move through the intersection 1 box up and 1 box to the right. This is the primary bullish support line. A bearish resistance line is drawn down from left to right from the highest price using the 1 x 1 angle. The next most important angles in order of significance are 2 x 1, 4 x 1, and 8 x 1; for lower support areas there is also 1 x 2, 1 x 4, and 1 x 8. Places where the support and resistance lines cross are of special significance, indicating a major congestion area.

Diagram 13-6 is taken from Gann's private papers and shows the use of geometric angles in an actual trading situation. Lines were first drawn where Gain expected a bottom, then redrawn again. The initial upward move followed the primary 45 degree line; the second important line, 1 x 2, met the primary downward line at the point of wide congestion at the center of the chart. The highest point on this congestion phase became the pivot point for the next 445 degree downward angle, defining the next breakout.

Behavioral Techniques

Gain combined this method with a more remarkable technique, the squaring of price and time. We were fortunate to find a chart that complimented Diagram 13-6, based on the lowest recorded case price of soybeans, 44 cents per bushel. Diagram 13-7 shows how Gann constructed this square, beginning with the lowest price at the center and moving one square to the right, circling counterclockwise and continuing the process. The basic geometric lines (the horizontal, vertical and diagonal) indicate the major support and resistance price levels, the most important one being 44, the junction of all lines. Relating the square to the price chart showing geometric lines, we see the first support level exactly at 2400 (upper left diagonal), the major resistance at 2726 (right horizontal), the next minor support at 268 (lower right diagonal), congestion area support at 254 and 262 (1 box off), and back down to support at 240. Notice that the distance between the lines on the square become wider as prices increase, conforming to our current notion of volatility. We also would expect soybeans at $at 10 to have some Alost motion@ near these key support levels.

The Hexagon Chart

Gain generalized his Asquaring method@ to include both geometric angles and the main cyclic divisions of 360 degrees. By combining these different behavioral concepts we can isolate the strongest levels of support and resistance where all three coincide. The generalized construction for this purpose is ' the master calculator,@ based on aligning the chart at a point representing a multiple of the lowest historic price for that commodity; crisscrossing angles will then designate support and resistance for the specific commodity. Other time charts of importance are the square

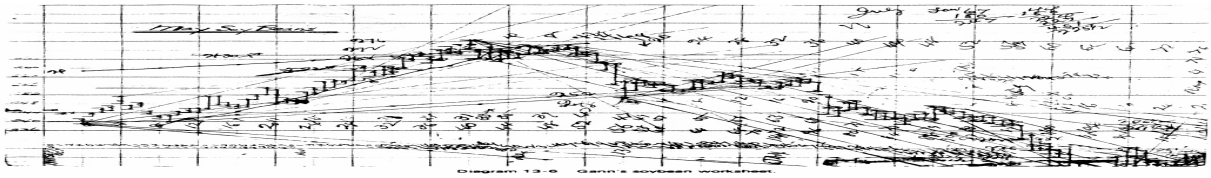
of twelve, one corner of the master calculator, the hexagon chart, and the master chart of 360 degrees. As an example of a combined effect, we will look at the hexagon chart.

As you can see in Diagram 13-8, the inner point is represented by the number one, and it is surrounded by another circle of six. Each circle gains six additional numbers as we proceed outwards, which relates to the overall continuity of the construction. In using the hexagon, the degrees represent time and the numbers in the circle are price; a major support or resistance point exists when both time and price occur simultaneously.

For example, consider the 360 degrees of the hexagon relating to the calendar year, or perhaps the crop year for grains. In his own work on grain, Gann equated 0 degrees to March 20, near to the first day of spring, when the sun crosses the equator going north. Then the 45 degree line is on May 6, 90 degrees on June 21 9 the first day of summer), 180 degrees on September 23 (fall), and 270 on December 21 (winter). These primary divisions also represent the most significant places for price support or resistance. The other lines represent secondary levels.

When looking at the prices and time together on the hexagon chart we see that the distance between the major degree lines becomes greater as prices increase, showing the importance of volatility. Using the price of November 77 Soybeans, we can interpret the chart to say that between 90 degrees and 180 degrees, or June 21 to September 23, 1977, the price of soybeans should support at 567 and then move its major support level to 507 and its major resistance to 588 with next higher and lower support and resistance at 432 and 675, respectively. As it turned out, this was a very accurate prediction, but one observation does not make the method infallible.

Gann's work is more difficult to grasp than most methods; his tools are unique to the field. If we were able to ask Gann for a word of advice, there is no doubt that he would caution to patience, stating, AWhen price meets time, a change is imminent.@



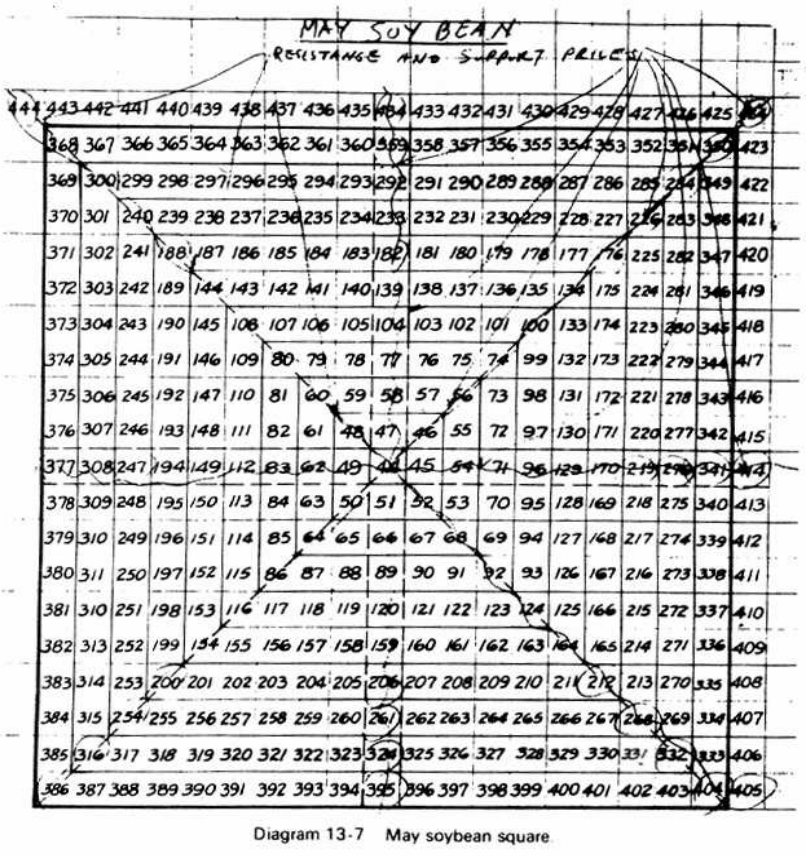


Diagram 13-7 May soybean square

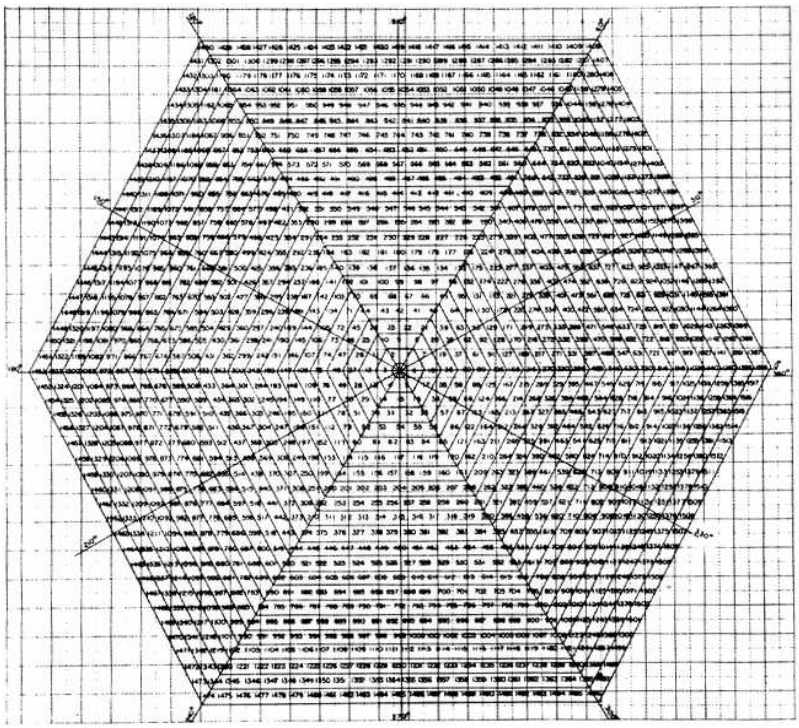


Diagram 13-8 The hexagon chart.

Exhibit 3

Marketing Brief for
T & D MANAGEMENT COMPANY

Dear Client:

This letter will supply information concerning the different types of programs we offer and give you a brief overview of the systems that govern them. Our programs are designed to give the highest possible return, while at the same time providing security; this is a rare combination. The percentage of our money in commodities is relatively small because it is not the sole vehicle for producing high returns. For example: Twenty percent (20%) of the money in you account is used to purchase money market funds through a brokerage house. Funds in this area consistently yield a 12-18% return and provide security and liquidity. Eighty percent (80%) is used to purchase positions in either U.S. Treasury Bills, U.S. Treasury Bonds, or Government Mortgage Money, yielding an average return of approximately 18%. Forty to fifty percent of the money which is in Treasury Bills is used to trade commodities such as wheat, lumber, cattle, gold, silver, etc., as individual commodities frequently provide a higher return than Treasury Bills.

There are, in fact, very specific and proven strategies which our company has implemented throughout the years to successfully trade commodities. By using these strategies, Vernon Tanner and Company have earned an average annualized rate of 65-70% on every dollar invested over the past eight years.

We guarantee a 30% annual return on your money with interest paid semi-annually, or if you prefer, we will pay interest monthly at 24% per annum guaranteed. Accounts are opened on an annual basis and may be renewed each year. At the present time, deposits are accepted in $1,000.00 increments only. Both principal and interest may be withdrawn from your account upon a sixty (60) day written notice. Long-term positions in commodities are most profitable and early withdrawal would result in short-term positions which are less profitable. Therefore, interest will be paid at the rate of 6% per annum on all funds withdrawn early.

The guarantee is backed by a promissory note issued by the owners and officers of T & D Management Company, Vernon Tanner, and Karl Drake. This is a key element which differentiates our management company from others. Many companies form corporations and then by means of high corporate salaries, dividends, and other practices siphon money away form general corporate funds. Then, should the corporation get into financial difficulties, it becomes virtually impossible to recover capital because of the laws protecting corporate entities.

Because you receive a promissory note from the owners of the company, you would have legal recourse against all company and personal assets. This gives added protection to you as a client because the company has sufficient liquid assets available to cover all monies on deposit, together with interest.

Our record speaks for itself. We presently have several hundred clients who are involved in our guaranteed program and references will be furnished upon request.

The following is a brief summary description of the history of our company.

SUMMARY

In 1973, Vernon Tanner began charting silver for a silver refinery. In this capacity he developed a system of trading which returned tremendous profits. He applied this system to the futures markets and has been a successful commodities trader ever since.

He approached trading with optimism and conservative money management principles. He used his accounting background and knowledge of the long standing W.D. Gann system of commodities trading. The result was the development of a modified system which has produced an average return from 65% to 70% per annum over the past eight years.

The Gann system was developed over seventy years ago. Even without the application of the modern technologies which are currently used to monitor market responses, this system has never had a loss year. This success was achieved in spite of depressions, world wars, change of presidents, natural disasters, and other variables which greatly affect most other types of investments.

Other investors soon became aware of Mr. Tanner=s consistently high returns and contracted with him to handle their funds in the markets. As his business steadily grew he was joined in 1978 by Mr. Karl Drake, a well-established C.P.A. and a specialist in taxes and other areas of money management. They merged and formed T&D Management Company. They now have over 400 clients in fifteen states and two foreign countries. The business is currently doubling in size every six months. At the current rate of growth, it is anticipated that the company will reach the $100,000,000 mark by 1983.

It became apparent that in order to broaden the base and grow to its full potential, as well as relieve the tremendous tax burden on the partnership, the company would have to incorporate. Incorporation procedures were completed with the State of Utah in March in 1981. The two partners now wholly own T & D Management Company and Tanner-Drake Management Corporation.

T & D Management Company is presently registered with the Commodity Futures Trading Commission (CFTC), as a Commodities Pool Operator (CPO), and as a Commodities Trading Advisor (CTA). The company also requires that its account executives be registered as Commodity Futures Representatives (CFR=s). Tanner-Drake Management Corporation is in the process of registering with the Securities Exchange Commission (SEC) to facilitate further expansions. The legal aspects of the registration are being handled by the firm of Parsons, Behle, and Lattimer of Salt Lake City, Utah. They have begun the very complex process of a N-1 SEC registration. As soon as registration is completed, the company will begin its operation of Tanner-Drake Management Corporation.

Exhibit 4

ADVISORY AGREEMENT

THIS ADVISORY AGREEMENT made and entered into this ___ day of _____, 19___, by and between_____
(herein called AClient@), and T & D Management Company (herein called AAdvisor@).
The Client has capital for the principal purpose of trading in commodity futures contracts and desires to buy, sell, trade and generally invest in commodity futures contracts on various commodity futures contracts on various commodity exchanges. The Client desires to retain the services of the Advisor for the purpose of serving as a commodity Trading Advisor. Therefore, the Client and the Advisor wish to enter into this Agreement setting forth the terms upon which the Advisor will perform certain advisory services for the Client. The Client represents that he has signed a Risk Disclosure Statement as required by Rule 1.55 of the Commodity Futures Trading Commission and in consideration of the mutual covenants contained herein, the Client and the Advisor agree as follows:

1. **SERVICES:** The advisor will furnish recommendations and advice to the Client, derived from such independent research as it may undertake with reference to the trading of commodity futures contracts. The Advisor shall formulate a comprehensive commodities trading program, utilizing diversified trading techniques, designed for the Client=s available capital and trading objectives, covering all of the following general areas:

   (a) The development of a buy-sell strategy;
   (b) The development of a money-management program designed to effectively deploy the Client=s commodity trading capital.

The Advisor shall furnish to the broker, which the Client has selected, orders for such commodity trades as may be necessary to carry out the trading plan developed for the Client by the Advisor. The broker will execute orders furnished by the Advisor at the best possible prices then attainable on the exchange upon which said order is to be executed.

2. **TERM:** This Agreement shall be for an initial term of twelve (12) months commencing on ___day of _____, 19___, and ending on _____ day of _____, 19___, and shall be automatically renewed for successive terms of twelve (12) months each subject to section 6, hereof.

3. **SERVICES NON-EXCLUSIVE:** The Advisor furnishes and will continue to furnish commodity advisory services for individuals and entities other than the Client. The Advisor shall be free to render such other advisory services and to use the same or similar information and strategy in connection therewith, provided that the Advisor=s ability to provide services in accordance with this Agreement is not impaired.

4. **STANDARD OF RESPONSIBILITY:** Trading in commodity futures contracts in acknowledged to be speculative, highly leveraged, and frequently is subject to and influenced by Government policies, actions, reports, and weather conditions, etc. Therefore, the Client represents that the Advisor=s level of past performance cannot be guaranteed in the future and that the Advisor and its officers, directors, and agents shall not be liable to the Client. Except that should be the Client=s equity with its own funds. The only exception being the ten percent (2 1/2% per quarter) annual management fee.

5. **ADVISORY FEE:** For the performance of its services under this Agreement, the Client will pay the Advisor a fee equal to 2 1/2% per quarter (10% per annum) of the Client=s funds deposited with the broker plus twenty-five percent (25%) of the annual net profits up to one hundred percent (100%) increase in the account=s equity. The advisor will also receive fifty percent (50%) of the net profits in excess of one hundred percent (100%) increase of the account=s equity. The net profit is arrived at by first computing all profits from trades, including returns from U.S. Treasury Bills, etc., then by subtracting all management fees, brokerage fees, and any costs from trades. Any additional funds deposited by the Client with the broker, other than on a quarterly basis, shall have advisory fees assessed on a prorated basis. Fees will be assessed as monies are withdrawn. There will be a settlement of fees completed at the end of each year. The advisory fee will be calculated for each quarterly period, dated from the commencement of the service period. If a net loss is realized in a quarterly period, the said net loss will be carried forward and subtracted against any future profits. The Client shall pay the advisory fee quarterly when billed and shall also authorize the broker to disperse from said account the advisory fee that is due.

6. **TERMINATION:** This Advisory Agreement may be canceled by the Client or the Advisor only upon sixty (60) day written notice to the other prior to any annual anniversary date of this agreement. Notice shall be sent by certified or registered mail, return receipt requested, to the address of the other party as set forth therein or to such other address as either party may give notice of to the other party. Notice shall be deemed effective as of the first business day after the day of receipt of notice.

7. **GOVERNING LAW:** This Agreement shall be governed by the laws of the State of Utah. In the event a dispute arises between the said parties and legal action should result, said action shall be brought in the Courts of the State of Utah and each of the said parties waives their right to trial by jury in all cases.

8. **TRANSFER:** This Agreement cannot be transferred by the Client or the Advisor to any other party and shall be binding upon the parties hereto and their respective legal representatives and successors.

9. **ENTIRE AGREEMENT:** This Agreement contains the final and complete agreement between the Advisor and the Client and may not be altered or modified without the signed written consent of both parties.

EXHIBIT 5

T & D MANAGEMENT COMPANY
Statement of Condition
as of July 12, 1981
(Case writer Estimates)

ASSETS

CASH AND BANK DEPOSITS Ready Cash, available for returns and other demands	$245,000
MONEY MARKET FUNDS Treasury Bills, Ready Assets, etc. available for trading commodities.	$860,000
RECEIVABLES	$372,000
ACCRUED INTEREST RECEIVABLE	$75,000
INVESTMENTS AT VALUE Oil, silver, diamonds, stocks	$431,000
REAL ESTATE	$600,000
PERSONAL PROPERTY	$144,000
OTHER ASSETS	$136,000
TOTAL ADMITTED ASSETS	$2,683,000

LIABILITIES-CAPITAL AND SURPLUS

ACCOUNTS PAYABLE (Clients monies on account)	$2,600,000
ACCRUED RETURNS PAYABLE (Returns to Clients)	$850,000
OTHER LIABILITIES (Real Estate Mortgages)	$164,000
TOTAL LIABILITIES	$3,614,000
CAPITAL AND SURPLUS	$(751,000)
TOTAL LIABILITIES, CAPITAL AND SURPLUS	$2,683,000

EXHIBIT 6

Price Forecasting and Sales Management
Department of Agricultural Economics
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OUTLOOK UPDATE

OUTLOOK UPDATE: HOGS

T. A. Hieronymus

March 1981

Hog producers changed directions again and are now back to about the level of production indicated in the September survey. The 14-state Hogs and Pigs report released on March 20 by the USDA shows an output reduction of about 10 percent. To put this decrease into perspective, we should recall that the industry expanded about 20 percent from 1978 to 1979 and then held at a constant level though 1980. The result of the expansion has been major losses for the last seven quarters. A 10 percent cut in 1981 will not reduce pork production to low levels, but it should put hog prices up to breakeven levels if we produce a large corn crop this year.

The central facts from the 14-state report are given in the following table:

	1980 as a percentage of 1981	1981	1979
		(000)	
All hogs and pigs	91	50,105	54,805
Kept for breeding	89	7,219	8,085
Kept for market	92	42,886	46,720
Sows farrowing			
December-February	89	2,434	2,740
March-May	90	3,023	3,356
June-August	92	2,604	2,838
Pig crop			
December-February	90	17,597	19,650
Market hogs (pounds)			
Under 60	89	15,985	18,012
60-119	94	10,454	11,125
120-179	92	9,561	10,362
180 and over	95	6,886	7,220

Review of Our December Forecast. In the December issue of *Outlook Update* we forecast tow hog prices for the December-February period, one based on the reported size of the pig crop for June-August, 1980, and the other on the inventory of market hogs 60 pounds and over on December 1. We expressed doubt that the price would be as high as the computed price because of the large accumulation of pork products. Here is how the actual values of the input factors compared with the predicted values:

	Forecast	Actual
	(000)	
Pork production	3,250-3,798	4,076
Beef production	5,521	5,513
Broiler production	2,723	2,748
DPI (bil $)	1045.0	1039.7
Deflator (1972=1)	1.8510	1.8431

Both estimates of pork production were substantially below the actual production. Some of the extra

production was the result of heavier-than-ever slaughter weights. Some probably resulted from liquidation of breeding stock. However, these two factors do not account for all of the error. It appears that both the size of last summer=s pig crop and the December 1 inventory of market hogs were under-estimated. Other factor estimates were close. Applying the actual numbers to the demand equation yields a calculated price of $42.28. The actual price was $42.93. We have a new demand model (see below) which seems to be working well.

Sows Farrowing. Table 1 shows December-February show farrowing, second intentions to farrow during March-May, and first intentions to farrow in the June-August period. (Numbered tables appear at the end of this report.) The total number of sows farrowing in the 14 states during 1980 was down 3.7 percent from 1979, a small reduction in view of the losses sustained. If intentions through August materialize and September-November farrowing are cut the same amount as those for the June-August period, the 1981 total will be 10,747,000, a reduction of 9.4 percent from 1980 and 12.8 percent from 1979. The total in 1981 will be only slightly above the levels of 1977 and 1978. Production will have been scaled back to a level that was profitable at an earlier time. Whether this report heralds a return to profitability will depend on whether hog producers stay with their plans and on the size of the 1981 feed crops.

Actual farrowings in December-February were 2,434,000, down 11.3 percent from the year before and down 5.7 percent from the second intentions taken last December 1. First intentions for the June-August period show a decrease of 8.2 percent.

Profitability and Farrowings. Table 2 presents the same data on profitability and change in farrowings included in the last *Outlook Update* but extended to include data from the March Hogs and Pigs report. Farrowings and intentions to farrow are now much more in line with the calculated changes based on past profitability. The very large loss during the December-February period resulted in a calculated value for farrowings during next September-November that is 19.8 percent below the same period on 1980. We doubt that such a large decrease will materialize. A comparable calculated decrease for the first quarter of 1981 did not. First intentions for September-November will be released on June 22. We expect a decrease of about 10 percent.

Pork Production. Pork production through next February is projected from Table 3. The pig crop of last September-November was estimated at 21,263,000. This projection can be checked by using the number of market hogs 60 pound and over shown in the March 1 inventory. That inventory number and the March-May slaughter for the past five years were:

Market hogs 60 lbs. and over

Year	March 1	March-May slaughter	Ratio
1976	20,528	18,030	0.878
1977	22,919	20,346	0.888
1978	23,181	20,083	0.866
1979	25,502	22,198	0.870
1980	28,580	25,630	0.888
1981	26,901	(23,619)	M 0.878

The ratio of slaughter to inventory is fairly stable and shows no trend. Thus we can use the average value of 0.878 to project the March-May slaughter to be 23,619,000, which is quite close to the projection based on the pig crop data. Because the two projections are close, we have more confidence in them than if they were different, as was the case with similar projections made three months ago. The daily and weekly reports of federally inspected slaughters should show the slaughter to be about 8 percent below year-ago levels during the next 60 days.

The December-February pig crop was reported to be 17,597,000 head. The number of pigs saved per litter was 7.23, higher than the long-term average of 6.99. This increase probably reflects the favorable weather this past winter. The trend of the slaughter-to-pig-crop ratio indicates a slaughter during the June-August period that is 12 percent below the indicated March-May slaughter rate. The stage is set for a sharp increase in hog prices into summer.

If the number of sows farrowing in March-May is the 3,023,000 indicated by second intentions, *if* the number of pigs saved per litter is equal to its long-term average, and *if* the slaughter-to-pig-crop ratio is at its trend value, the slaughter next September-November will be 2,902,000, a decrease of 6 percent from last fall. The next opportunity to revise this estimate will be June 22 when the next Hogs and Pigs report is released. The same procedure with the same Aifs@ leads to a projected slaughter next December-February of 18,843,000, down 20 percent from the past winter.

The slaughter weights used in projecting pork production by quarters were equal to the 10-year average by quarters. The dressing percentages were held at the recent average of 0.712 percent.

Quarter	Slaughter (000)	Av. wt. (lb.)	Production (mil. lb.)
Mar.-May	23,687	239	4,031
June-Aug.	19,251	241	3,303
Sept.-Nov.	22,902	241	3,903
Dec.-Feb.	18,843	240	3,220

Other Factors. In the demand model, we use data on beef and broiler production, disposable income, and the implicit GNP deflator in addition to our projections of pork production. The beef production estimates are the ones made in the February issue of *Outlook Update: Cattle* but adjusted from calendar quarters to hog quarters. The total for the year is a 5 percent increase from 1980 because of the large increase in the 1980 calf crop. Slaughter weights for 1981 held at levels moderately below those of 1980 because of high feed costs and interest rates. Production during the first half of the year is below that for the second half because the bulk of the increase in the 1980 calf crop will be slaughtered in the second half. The decrease in the second quarter is based on the relatively small number of cattle on feed and a sharp cut in the slaughter of nonfed cattle as spring pastures become available.

The broiler production estimates are slightly larger than those used in the December issue of *Outlook Update: Hogs*. The industry has not shown signs of contraction in spite of unprofitability. We accepted the USDA estimates of broiler production for the first two calendar quarters and adjusted them to hog quarters. We then took that production level forward on a normal season pattern of change from quarter to quarter. The increase for 1981 is 5.7 percent. Part of the increase is based on the current size of the breeder supply flock and part results from the fact that we do not expect the kind of weather losses that occurred last summer.

Disposable personal income is projected to increase at an annual rate of 2 percent. This rate assumes a slow, gradual expansion of the economy through 1981. The economy has shown much resilience since the sharp decrease in output last summer. At the same time many structural problems will probably prevent rapid expansion. We have taken a middle course. The reader should make his own assumptions and put them through the demand model or should try alternative scenarios.

The Implicit GNP deflator was increased at an annual rate of 7 percent. The underlying inflation has been 9 percent for the past three years. We have reduced it moderately. The federal reserve system appears to have targeted a slower rate of increase in the money supply and acquired more skill in money management. It also appears that the rate of increase in government expenditures will be slowed.

The demand model factors are:

1981-82 Quarters	Pork (mil. lb.)	Beef	Broil.	DPI (bil. 1972 $)	Deflator (1972=1)
II	4,031	5,414	2,910	1044.9	1.8754
III	3,303	5,589	3,054	1050.1	1.9076
IV	3,930	5,761	2,901	1055.3	1.9399
I	3,220	5,650	2,754	1060.5	1.9721

Demand Model. Some revisions in the national income statistics used for the DPI and the deflator necessitated recalculation of the demand model. The changes and the model are described in the appendix.

Forecast and Judgment. Using the above factors in the demand equation (Table 4) for the next four quarters results in the following forecasts of hog prices, shown with the actual prices for the same periods of the previous year:

Period	1981-82	1980-81
March-May	$45.12	$30.10
June-August	58.40	42.21
September-November	50.43	47.26
December-February	68.62	42.93

The March-May forecast of $45.12 appears reasonable. As March ends, the largest part of the liquidation should be over, and the forecast increase is of moderate size.

At first glance the June-August forecast of $58.40 appears high. The main force in the forecast increase is an 18.7 percent reduction in the slaughter from March-May to June-August. The forecast price increase is a smaller percentage than actually occurred last summer. If the December-February pig crop was actually close to the 17,597,000 estimate, hog prices may move into the $55 to $60 range.

The forecast price of $50.43 for September-November is not high. As this is written December corn futures are $3.78 and October soybean meal futures are $236.50. Translating these prices into feed costs and using our stylized profitability formula indicates a loss of $2.31. The average profit for the decade of the 1970s was $3.94. It appears that the hog industry has not yet cut back to levels consistent with current feed costs. Whether hog production is profitable next fall with current feed costs. Whether hog production is profitable next fall will depend on the size of the 1981 corn and soybean crops.

The December-February forecast is conspicuously high at $68.62. Of course, a forecast for a period so far in the future is very tentative. Many things will change. The forecast price is $25.49 above the actual price for last December-February. Of this difference, $4.50 is from the 7 percent inflation rate. The prime mover is a 20 percent reduction in slaughter. If the March 1 farrowing intentions for June-August materialize, the price of hogs may go into the $60-70 range next winter.

In conclusion, the central consideration is that a corner has been turned. The hog industry is now positioned to produce an amount of pork that is in line with the long-run market size. The biggest open question is whether producers will follow through with current intentions.

Prepared by T. A. Hieronymus, Professor of Agricultural Economics, Emeritus

Issued by Darrel Good, Extension Economist, Prices and Outlook

Exhibit 6 (continued)

			Production						Hog Price, current $		
	period*	Hog Price 1972 $ ($/cwt.)	Pork (mil. lb.)	Beef (mil. lb.)	Broilers	DPI 1972 $ (bil. $)	GNP Deflator (1972=1.0)	Adjustment Factor	computed	Actual ($/cwt.)	error
1976	I	37.58	2860	6228	2035	893.7	1.2913	.937	46.38	48.53	-2.15
	II	36.71	3044	6300	2260	901.9	1.3029	1.015	44.16	47.83	-3.67
	III	36.24	2827	6504	2397	908.6	1.3161	.953	43.38	47.69	-4.31
	IV	26.02	3605	6572	2268	915.4	1.3336	1.056	35.39	34.70	.69
1977	I	28.99	3188	6253	2090	920.9	1.3538	.937	43.88	39.25	4.63
	II	28.21	3420	6169	2338	930.9	1.3740	1.015	40.95	38.76	2.19
	III	32.02	2965	6379	2460	945.0	1.3952	.953	45.94	44.67	1.27
	IV	28.64	3522	6295	2304	958.4	1.4147	1.056	44.07	40.52	3.55
1978	I	32.23	3172	6076	2250	966.6	1.4358	.937	48.96	46.27	2.69
	II	32.55	3397	6049	2502	976.0	1.4616	1.015	45.94	47.57	-1.63
	III	32.06	3109	5909	2608	981.7	1.4956	.953	49.50	47.95	1.55
	IV	32.89	3507	6113	2509	992.5	1.5261	1.056	48.50	50.20	-1.70
1979	I	33.35	3276	5669	2413	1002.1	1.5605	.937	53.60	52.04	1.56
	II	28.95	3797	5129	2809	1006.5	1.5916	1.015	43.51	46.07	-2.56
	III	24.10	3786	5325	2932	1015.4	1.6219	.953	39.44	39.08	.36
	IV	22.42	4230	5336	2803	1035.3	1.6872	1.056	38.87	37.82	1.05
1980	I	22.42	4064	5285	2630	1035.3	1.6872	.937	41.61	37.82	3.79
	II	17.44	4375	5177	2869	1030.1	1.7258	1.015	33.69	30.10	3.59
	III	23.92	3735	5282	2788	1032.3	1.7648	.953	48.83	42.21	6.62
	IV	26.14	4159	5558	2698	1039.7	1.8078	1.056	44.78	47.26	-2.48
1981	I										
	II										
	III										
	IV										

* Quarter I = Dec-Feb, II = Mar-May, III = June-Aug, IV = Sept-Nov

REGRESSION EQUATION:

Price of Hogs = 70.910 - .01426 Pork Prod. - .00362 Beef Prod. - .01140 Broiler Prod. + .06034 DPI (72 $)

(72 $)

AT@ values (-9.86) (-3.16) (-2.68) (3.91)

r = .776 r after adjustment = .9025

Exhibit 6 (continued)

Farms Over 250 Litters*

ITEMS	1976	1977	1978	1979	1980	1981H
Number of Farms	52	47	48	57	70	
Tillable Acres	392	450	382	360	379	
Soil Productivity Rating	78	80-	79	78	76	
Number of Litters	340	392	390	416	409	
Cwt. Pork Produced	5,849	6,172	6,401	6,826	6,843	
Price Received Per Cwt.	$43.17	$39.97	$47.50	$41.28	$39.26	$43.50
PER 100 POUNDS PRODUCED:						
Nonfeed Cost:						
Buildings	$ 1.95	$ 2.26	$ 2.59	$ 2.65	$ 2.77	
Machinery & Equipment	2.88	3.15	3.55	3.45	3.53	
Labor	3.00	3.05	3.31	3.71	3.42	
Livestock Expense	1.05	1.40	1.51	1.52	1.48	
Taxes	.20	.16	.17	.25	.25	
Insurance & Miscellaneous	.56	.59	.62	.60	.70	
Interest	3.00	3.13	3.29	3.86	4.49	
TOTAL NONFEED	(12.64)	(13.74)	(15.04)	(16.04)	(16.64)	(17.00)
Feed Cost	24.30	23.23	23.51	26.35	27.85	28.50
TOTAL COST	$36.94	$36.97	$38.55	$42.39	$44.49	$45.50
TOTAL RETURNS	37.39	41.64	48.79	36.72	40.30	42.00
Management Returns	$ .45	$ 4.67	$10.24	$-5.67	$-4.19	$-3.50

* Special Summary of Illinois Farm Business Records, University of Illinois, Department of Agricultural Economics.
H Estimated.

EXHIBIT 7A

AUGUST PORKBELLY CONTRACTS

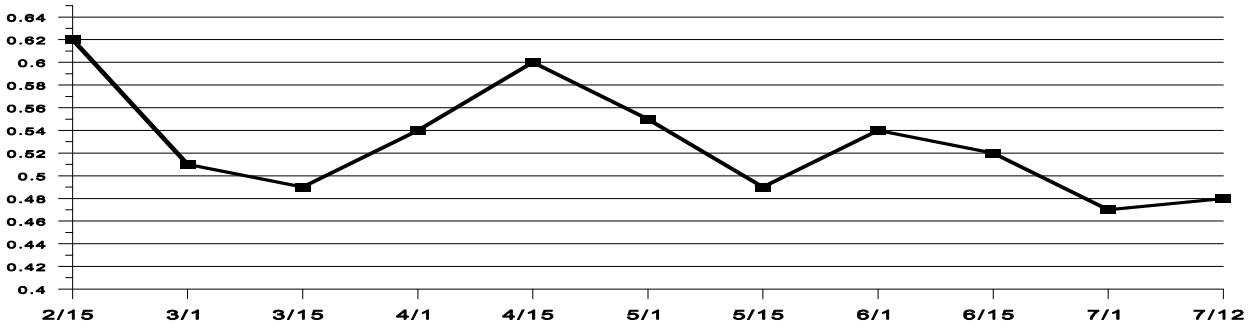

EXHIBIT 7B

FEBRUARY PORKBELLY CONTRACTS

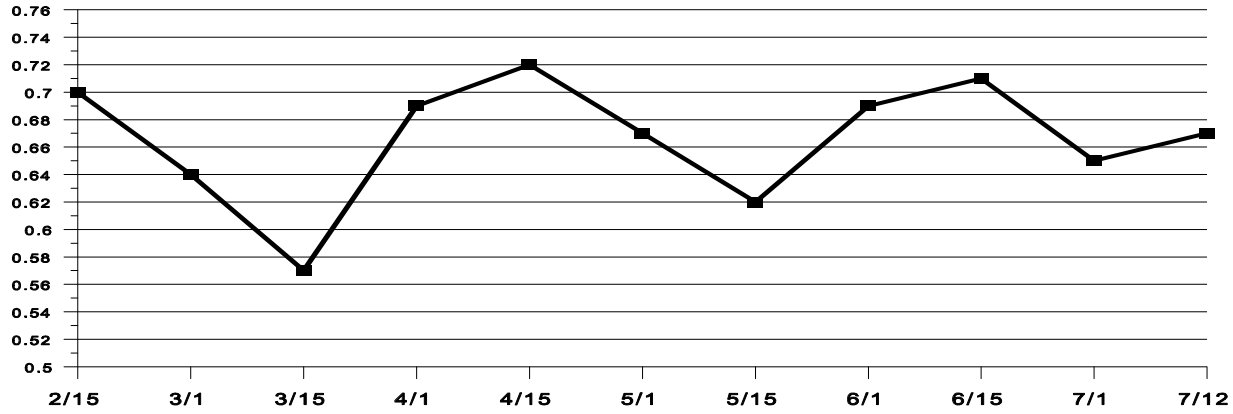

EXHIBIT 7C

AUGUST-FEBRUARY CONTRACT SPREAD