

INVESTMENT POTENTIAL OF CATTLE FEEDING

by

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Investing in Stocks, Bonds, Treasury Bills and Cattle Feeding

Introduction

The returns from investing in stocks and bonds are often compared with investing in other media such as works of art, precious metals, land and real estate. This article compares returns on stocks, Treasury bonds and Treasury bills with the returns earned from cattle feeding in the Texas Panhandle.

In order to obtain a reliable sample, six different cattle feeding operations from eight feedyards were chosen for comparative purposes. These data were taken directly from accounting reports and are believed to be similar to the results of other cattle feeding operations during the time of study.

The period from Jan. 1, 1985 through Dec. 31, 1990 was chosen as a representative time frame that would not bias the results in favor of cattle feeding. Since the base year, 1985, was generally a loss year in cattle feeding and was profitable for stocks and bonds, the results of this analysis should be viewed as a fair comparison of recent returns in these investment media. However, the returns over the six-year period will tend to favor stocks rather than cattle feeding.

Methodology

Cattle feeding operations typically involve a 120 to 150-day period in which the cattle are purchased and feed is bought and fed to the cattle. At the end of the 120 to 150-day feeding period, the cattle are sold.

Therefore, an investor would have an average investment consisting primarily of the cost of the cattle plus the feed bill. The corresponding return on investment would be the sale price of the cattle minus the initial cost of the cattle plus the feeding costs over the 150 days all divided by the average investment. When this return is annualized, one has an estimate of a monthly return on investment in this industry.

An appropriate way to evaluate returns from cattle feeding is to consider that a fixed sum of money is invested for the year regardless of the return circumstances each month. For example, if \$100,000 is the initial investment in January 1985 and \$2,000 is earned during the month, the \$100,000 original investment would be reinvested in February. At the end of the year, the residual equity (\$100,000 initial investment plus profits or minus losses) would be committed for 1986; therefore, a system of annual compounding would be employed for cattle feeding operations.

Since cattle feeding will result in annual compounding with monthly adjustments for profits or losses, stock and bond returns also need to be evaluated on an annual compounding basis in order for the returns to be comparable. The Standard and Poor's 500 Stock Index was utilized as the proxy for return on investment for stocks. Monthly dividends were simply accumulated and at the end of each year were assumed to be reinvested in stocks.

Therefore, each January, additional units of the Standard and Poor's Index were acquired with the accumulated dividends. Monthly changes in value were determined by multiplying the index price by the shares acquired and then adding in the dividends.

Treasury bonds and Treasury bills were also used to compare returns with cattle feeding operations. Price changes in Treasury bonds were determined by using a 10% coupon bond with a 10-year maturity as the proxy to determine price changes given in Moody's Industrial Manual and Barron's. Interest payments were assumed to be accumulated and used to buy more bonds at the end of each year in deriving the total returns from bond commitments. Treasury bill yields were also utilized in deriving the total return with interest compounded monthly based on Treasury bill yields in Moody's and Barron's.

Results of the Study

An initial investment of \$100,000 in cattle feeding from Jan. 1, 1985 through Dec. 31, 1990 would have grown to \$221,206, for a compound rate of return of 14.15%. During the 72-month period, 56 months produced profits while 16 months experienced losses.

The largest profit month of \$7,616 was recorded in December 1985 while the largest loss of \$4,710 occurred in August of the same year. The last two months of each year produced 31.6% of the six-year gain. November and December were profitable each month over the six-year period. The five summer months of May through September provided generally less profit than the other months with losses experienced 12 times during the six-year period.

A commitment of \$100,000 in the Standard and Poor's 500 on Jan. 1, 1985 would have grown to \$245,961 by Dec. 31, 1990, for a compound rate of return of 16.18%. During this 72-month period, 47 months resulted in higher total values while 25 months experienced declines.

As can be observed from Graph I, returns from investing in the Standard and Poor's 500 Index were steadily produced in 1985, 1986, and most of 1987 until the market crash in October of 1987. For a brief period in 1987, investors who fed cattle from 1985 through that period would have experienced overall gains higher than those produced by investing in common stocks. With the stock market recovery in 1988 and 1989, stocks again provided higher returns than feeding cattle.

However, longer term returns (1926 through 1990) in common stocks averaged only 7.0% when adjusted for inflation. If one assumed inflation were estimated at 5% today, a 12% return for common stocks (7% real return plus 5% inflation) would place cattle feeding for these six years above the long-term returns expected from common stocks.

The returns from fixed income investments such as Treasury bonds and Treasury bills provided a return margin over cattle feeding through much of 1985 and 1986. Then cattle feeding profits in 1987 created a positive return advantage for cattle feeding compared with these more certain investment media.

Returns from Treasury bonds and Treasury bills were:

	<u>Initial Investment</u>	<u>Ending Investment</u>	<u>Compound Annual Return</u>
Treasury Bills	\$100,000	151,277	7.14%
Treasury Bonds	100,000	204,495	12.66%

The Treasury bills were assumed to be invested in one month maturities each period and were not exposed to market losses due to their short maturity schedule. However, when interest rates increased, the longer bonds experienced price declines. In fact, losses were realized in 21 of the 72 months in Treasury bonds. It must be said, however, that the month-to-month changes for the bonds were typically smaller than changes in total value for either cattle feeding or common stocks.

In conclusion, investments in cattle feeding operations from 1985 through 1990 produced somewhat higher returns than fixed investment media such as bonds and bills and somewhat lower returns than common stocks. If 1986 were the base year for this study, cattle feeding would offer annual returns of 17.37%, while common stocks would produce returns of 13.46%.

Leveraging the Returns from Cattle Feeding

The overall return from committing capital to cattle feeding resulted in a 14.15% return compounded annually. Most investors would believe that a higher overall return could be realized through leveraging, since the bank prime lending rate ranged between 7.5% and 11.5% over this six-year period. Typical cattle feeding loans would be somewhat higher than the prime rate but a favorable leverage would likely result as the average borrowing cost would be well below the 14.15% return from feeding cattle with pure equity capital.

In order to evaluate the leveraged returns, investment scenarios were evaluated with equity percentages varying between 20% and 60% over the six-year period. Graph II contrasts the monthly equity, assuming \$100,000 equity is committed on Jan. 1, 1985 with 20%, 30%, 40%, 50%, and 60% equity investments.

The borrowing rate was assumed to be the bank prime rate plus 1%. Bank prime rates are listed in Exhibit I.

The result is that some degree of leverage does enhance the overall returns from feeding cattle. In fact, a 40% equity position results in a higher return than the other leverage positions with the compound annual return being 17.09% over the six years. Further, this high equity position of 40% would probably enable the borrower to acquire funds at 50 to 75 basis points lower than the highly leveraged (20% equity) borrower which may well raise the compound annual return by 1.0% over the six-year period.

One may question if a 40% equity position will result in higher returns on a consistent basis in cattle feeding. The answer is that it depends on the future returns.

Obviously, higher returns would result in higher leverage positions offering higher returns. This can be dramatically illustrated from the data in Graph II with the 20% equity position. If we began our investment in cattle feeding with a 20% equity (80% debt) at the end of October 1985 and liquidated at the end December in 1987, the equity would have grown from \$7,505 to \$232,990 in a 26-month period for a gain of \$225,485, which is a compound annual rate of return of 387.43%.

However, leverage is a two-sided sword and significant losses occurred in the first 10 months of 1985 and again in 1989. Nonetheless, a moderate amount of debt in financing cattle feeding investments would be prudent (30% to 70%). Levels of debt at 80% or more would result in such volatile returns that an investor may have resources depleted to the extent that weakened equity may prevent an investor from capitalizing on a highly profitable venture such as feeding cattle on a long-term basis.

Conclusion

This study provides potential investors with insight into returns from different investment media. While common stock returns were superior to cattle feeding, Treasury bonds, and Treasury bills during this six-year period, the volatility of stocks in October 1987 provides caution from this single investment media. Many highly leveraged stock investors were wiped out during this sharp contraction of stock prices.

Cattle feeding is an alternative that deserves attention by serious investors. With a moderate degree of leverage (70% or less), investors should be able to weather the cyclical downturns and capture excellent profits during the good times in this industry.

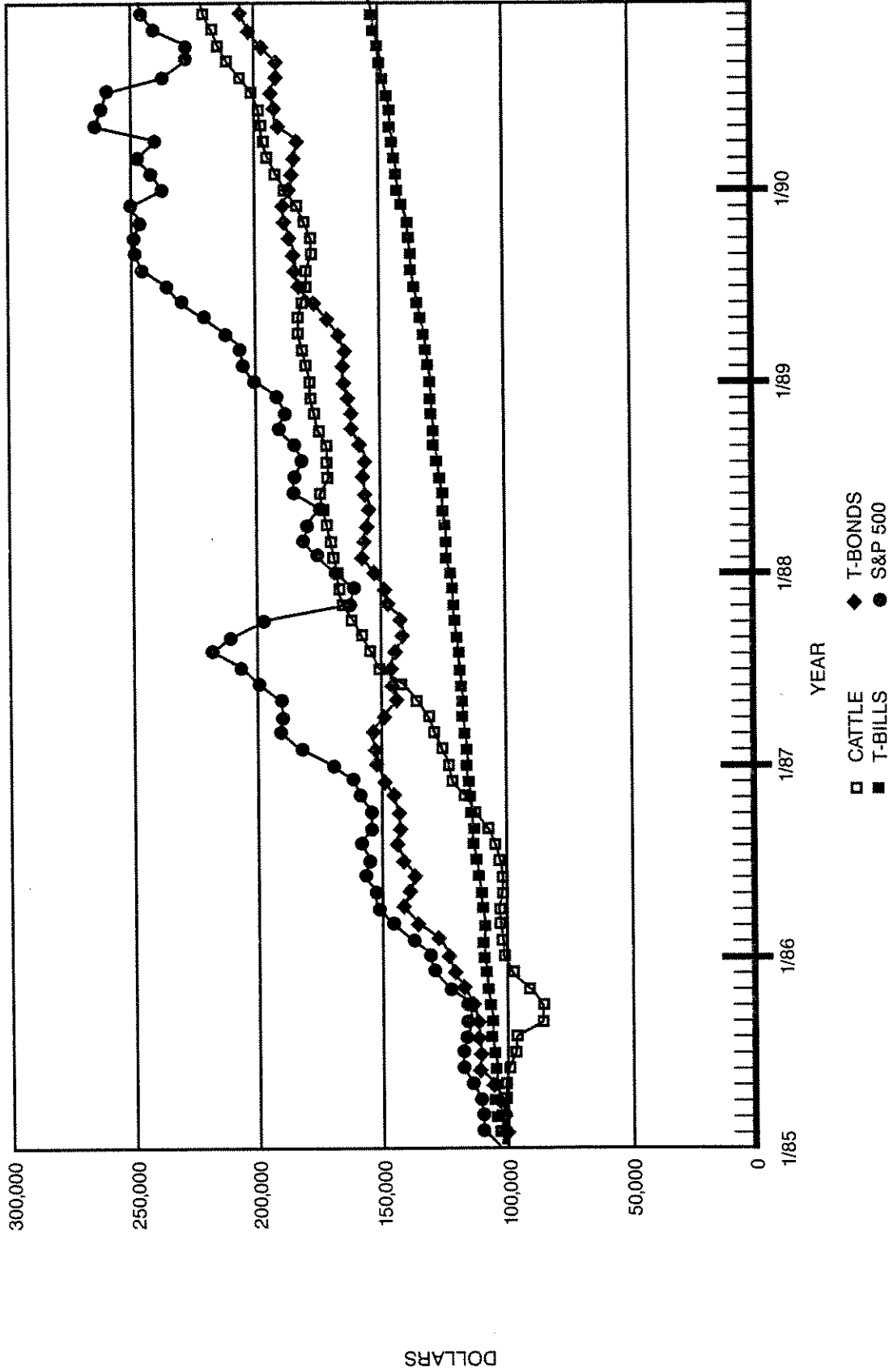
The feedyards in Texas, Oklahoma and New Mexico have developed sophisticated approaches to feeding rations, health management, and financial management of cattle feeding operations. The result is that reasonable expectations about returns in the industry are warranted. It is believed that a more permanent approach to cattle feeding investing will assist in providing efficient returns from this industry.

Exhibit II contains monthly returns from committing capital to common stocks, Treasury bonds, Treasury bills, and cattle feeding. These data should prove helpful in planning a portfolio mix for the future; however, the six-year time horizon must be viewed with a degree of caution when projecting returns in the future.

Nevertheless, cattle feeding investments in the future offer a degree of diversification from other investment alternatives and is recommended as part of a modern investment portfolio strategy for today.

GRAPH 1

VALUE OF \$100,000 INVESTMENT



GRAPH 2

VALUE OF \$100,000 INVESTMENT

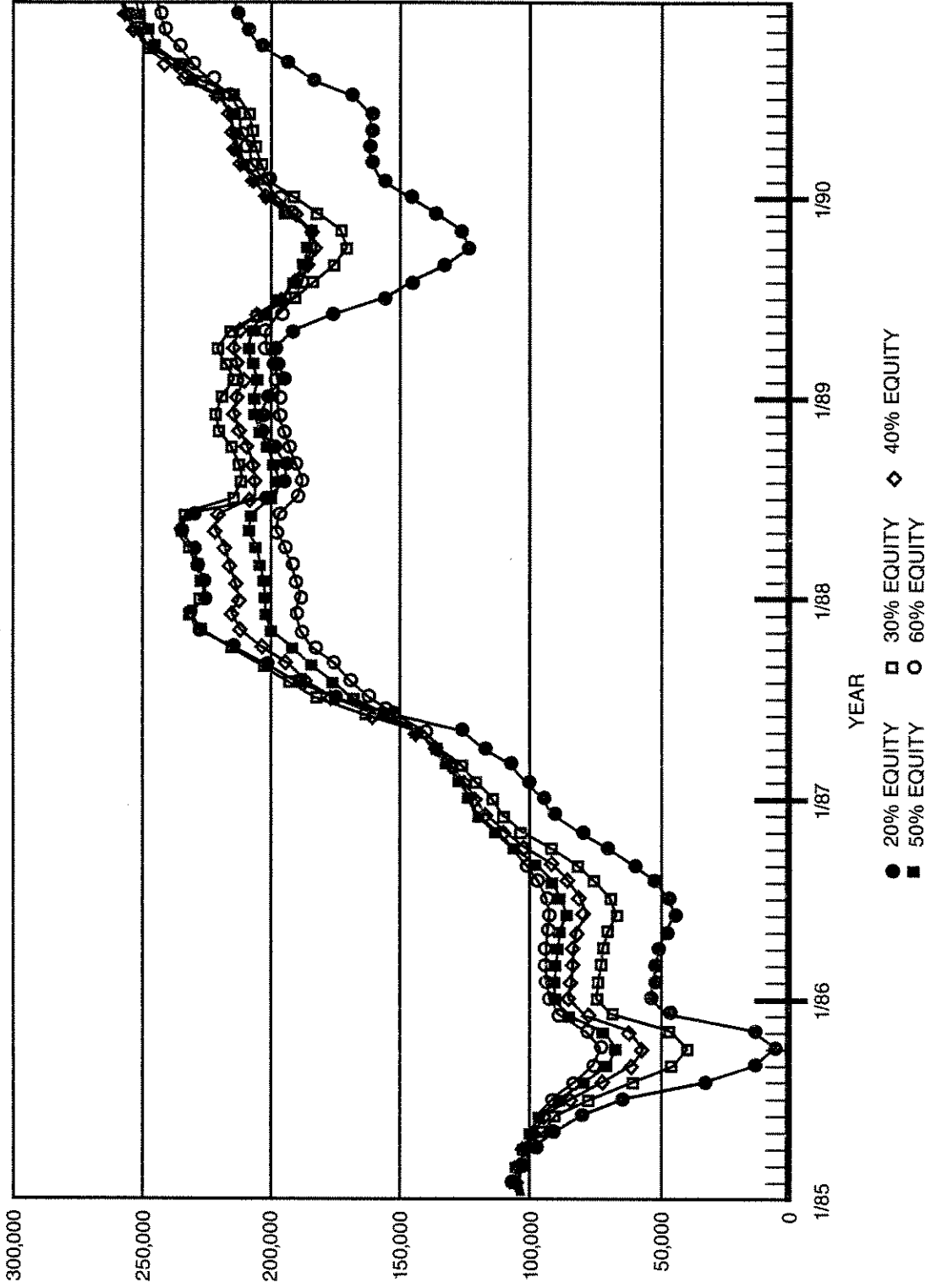


Exhibit I

Beginning of Month Bank Prime Rates

Date	Prime Rate	Date	Prime Rate
1/1/85	10.75%	1/1/88	8.75%
2/1/85	10.50%	2/1/88	8.75%
3/1/85	10.50%	3/1/88	8.50%
4/1/85	10.50%	4/1/88	8.50%
5/1/85	10.50%	5/1/88	8.50%
6/1/85	10.00%	6/1/88	9.00%
7/1/85	10.00%	7/1/88	9.00%
8/1/85	9.50%	8/1/88	9.50%
9/1/85	9.50%	9/1/88	10.00%
10/1/85	9.50%	10/1/88	10.00%
11/1/85	9.50%	11/1/88	10.00%
12/1/85	9.50%	12/1/88	10.50%
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1/1/86	9.50%	1/1/89	10.50%
2/1/86	9.50%	2/1/89	10.50%
3/1/86	9.50%	3/1/89	11.50%
4/1/86	9.00%	4/1/89	11.50%
5/1/86	8.50%	5/1/89	11.50%
6/1/86	8.50%	6/1/89	11.50%
7/1/86	8.50%	7/1/89	11.00%
8/1/86	8.00%	8/1/89	10.50%
9/1/86	7.50%	9/1/89	10.50%
10/1/86	7.50%	10/1/89	10.50%
11/1/86	7.50%	11/1/89	10.50%
12/1/86	7.50%	12/1/89	10.50%
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1/1/87	7.50%	1/1/90	10.50%
2/1/87	7.50%	2/1/90	10.00%
3/1/87	7.50%	3/1/90	10.00%
4/1/87	7.50%	4/1/90	10.00%
5/1/87	7.75%	5/1/90	10.00%
6/1/87	8.25%	6/1/90	10.00%
7/1/87	8.25%	7/1/90	10.00%
8/1/87	8.25%	8/1/90	10.00%
9/1/87	8.25%	9/1/90	10.00%
10/1/87	8.75%	10/1/90	10.00%
11/1/87	9.00%	11/1/90	10.00%
12/1/87	8.75%	12/1/90	10.00%

Exhibit II

Returns from Cattle Feeding, Common Stock, Treasury Bonds,
and Treasury Bills from 1985 through 1990

Cattle Feeding Returns

Date	Beg. of Month Investment	Income (Loss)	Cumulative Value at End of Month
1/31/85	100,000	\$1,960	\$101,960
2/28/85	100,000	1,160	103,120
3/31/85	100,000	(120)	103,000
4/30/85	100,000	(37)	102,963
5/31/85	100,000	(765)	102,203
6/30/85	100,000	(1,147)	101,056
7/31/85	100,000	(2,955)	98,101
8/31/85	100,000	(4,710)	93,391
9/30/85	100,000	(3,510)	89,881
10/31/85	100,000	(660)	89,221
11/30/85	100,000	2,497	91,718
12/31/85	100,000	7,616	99,334
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1/31/86	99,334	2,806	102,140
2/28/86	99,334	339	102,479
3/31/86	99,334	263	102,742
4/30/86	99,334	179	102,921
5/31/86	99,334	(256)	102,665
6/30/86	99,334	(783)	101,882
7/31/86	99,334	1,632	103,514
8/31/86	99,334	2,811	106,325
9/30/86	99,334	3,381	109,706
10/31/86	99,334	4,490	114,196
11/30/86	99,334	4,940	119,136
12/31/86	99,334	4,461	123,597
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1/31/87	123,597	1,709	125,306
2/28/87	123,597	2,707	128,013
3/31/87	123,597	2,488	130,501
4/30/87	123,597	3,485	133,986
5/31/87	123,597	3,021	137,007
6/30/87	123,597	7,512	144,519
7/31/87	123,597	6,868	151,387
8/31/87	123,597	4,344	155,731
9/30/87	123,597	3,789	159,520
10/31/87	123,597	4,191	163,711
11/30/87	123,597	3,940	167,651
12/31/87	123,597	1,442	169,093

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Exhibit II, continued

Cattle Feeding Returns

Date	Beg. of Month Investment	Income (Loss)	Cumulative Value at End of Month
1/31/88	169,093	(25)	169,068
2/28/88	169,093	1,153	170,221
3/31/88	169,093	1,496	171,717
4/30/88	169,093	1,321	173,038
5/31/88	169,093	2,122	175,160
6/30/88	169,093	428	175,588
7/31/88	169,093	(3,465)	172,123
8/31/88	169,093	289	172,412
9/30/88	169,093	1,395	173,807
10/31/88	169,093	1,892	175,699
11/30/88	169,093	2,142	177,841
12/31/88	169,093	1,253	179,094
1/31/89	179,094	829	179,923
2/28/89	179,094	276	180,199
3/31/89	179,094	2,004	182,203
4/30/89	179,094	1,809	184,012
5/31/89	179,094	313	184,325
6/30/89	179,094	(1,261)	183,064
7/31/89	179,094	(2,069)	180,995
8/31/89	179,094	(767)	180,228
9/30/89	179,094	(501)	179,727
10/31/89	179,094	215	179,942
11/30/89	179,094	1,803	181,745
12/31/89	179,094	3,233	184,978
1/31/90	184,978	4,470	189,448
2/28/90	184,978	3,653	193,101
3/31/90	184,978	2,492	195,593
4/30/90	184,978	1,838	197,431
5/31/90	184,978	1,175	198,606
6/30/90	184,978	1,263	199,869
7/31/90	184,978	2,922	202,791
8/31/90	184,978	5,556	208,347
9/30/90	184,978	3,884	212,231
10/31/90	184,978	4,046	216,277
11/30/90	184,978	2,382	218,659
12/31/90	184,978	2,547	221,206

Exhibit II

S & P 500

Date	Index	Yield	\$ Dividends	Value	Shares
12/31/84	164.48			\$100,000.00	608.0
1/31/85	171.61	4.51	\$392.13	104,727.00	608.0
2/28/85	180.88	4.30	394.06	110,757.00	608.0
3/31/85	179.42	4.37	397.24	110,226.60	608.0
4/30/85	180.62	4.37	399.90	111,396.80	608.0
5/31/85	184.90	4.31	403.76	114,401.97	608.0
6/30/85	188.89	4.21	402.90	117,230.70	608.0
7/31/85	192.54	4.14	403.86	119,853.67	608.0
8/31/85	188.31	4.23	403.57	117,685.50	608.0
9/30/85	184.06	4.32	402.86	115,504.45	608.0
10/31/85	186.18	4.28	403.72	117,197.09	608.0
11/30/85	197.45	4.06	406.15	124,455.14	608.0
12/31/85	207.26	3.88	407.43	130,826.82	608.0
1/31/86	209.19	3.90	429.15	132,474.22	631.2
2/28/86	219.37	3.72	429.26	139,329.31	631.2
3/31/86	232.33	3.50	427.73	147,937.66	631.2
4/30/86	237.98	3.43	429.37	151,933.43	631.2
5/31/86	238.46	3.42	428.98	152,665.40	631.2
6/30/86	245.30	3.36	433.55	157,416.50	631.2
7/31/86	240.18	3.43	433.34	154,617.99	631.2
8/31/86	245.10	3.36	433.19	158,156.79	631.2
9/30/86	238.27	3.43	429.90	154,275.45	631.2
10/31/86	237.36	3.49	435.75	154,136.79	631.2
11/30/86	245.19	3.40	438.51	159,517.76	631.2
12/31/86	248.61	3.38	442.01	162,118.54	631.2
1/31/87	264.51	3.17	455.65	172,942.59	652.1
2/28/87	280.93	3.02	461.04	184,111.10	652.1
3/31/87	292.47	2.93	465.67	192,102.01	652.1
4/30/87	289.37	2.99	470.17	190,550.67	652.1
5/31/87	289.12	3.02	474.48	190,862.13	652.1
6/30/87	301.38	2.92	478.22	199,335.10	652.1
7/31/87	310.09	2.83	476.88	205,491.76	652.1
8/31/87	329.36	2.69	481.46	218,539.18	652.1
9/30/87	318.66	2.78	481.40	212,043.11	652.1
10/31/87	280.16	3.25	494.79	187,432.06	652.1
11/30/87	245.01	3.66	487.30	164,998.05	652.1
12/31/87	240.96	3.71	485.79	162,842.84	652.1

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Exhibit II, continued

S & P 500

Date	Index	Yield	\$ Dividends	Value	Shares
1/31/88	250.48	3.66	\$516.29	\$169,792.83	675.8
2/28/88	258.13	3.56	517.52	175,480.29	675.8
3/31/88	265.74	3.48	520.81	181,144.01	675.8
4/30/88	262.61	3.57	527.99	179,556.71	675.8
5/31/88	256.12	3.80	548.11	175,718.82	675.8
6/30/88	270.68	3.50	533.54	186,092.14	675.8
7/31/88	269.05	3.65	553.06	185,543.62	675.8
8/31/88	263.73	3.75	556.97	182,505.29	675.8
9/30/88	267.97	3.69	556.87	185,927.59	675.8
10/31/88	277.40	3.61	563.97	192,864.44	675.8
11/30/88	271.02	3.70	564.74	189,117.52	675.8
12/31/88	276.51	3.68	573.66	193,400.17	675.8
1/31/89	285.41	3.64	605.53	200,231.27	699.4
2/28/89	294.01	3.59	615.21	206,861.62	699.4
3/31/89	292.71	3.68	627.84	206,580.20	699.4
4/30/89	302.25	3.59	632.45	213,885.26	699.4
5/31/89	313.93	3.52	644.08	222,698.74	699.4
6/30/89	323.73	3.44	649.09	230,202.30	699.4
7/31/89	331.93	3.38	653.93	236,591.59	699.4
8/31/89	346.61	3.28	662.65	247,521.94	699.4
9/30/89	347.33	3.29	666.05	248,691.58	699.4
10/31/89	347.40	3.30	668.21	249,408.75	699.4
11/30/89	340.22	3.38	670.26	245,057.06	699.4
12/31/89	348.57	3.32	674.52	251,571.87	699.4
1/31/90	330.92	3.52	700.58	239,533.99	321.7
2/28/90	335.54	3.50	706.32	243,574.68	321.7
3/31/90	339.94	3.49	713.54	247,463.81	321.7
4/30/90	329.11	3.62	716.54	240,364.07	321.7
5/31/90	363.16	3.33	727.33	265,666.15	321.7
6/30/90	358.02	3.39	729.96	262,686.44	321.7
7/31/90	353.44	3.45	733.37	260,114.31	321.7
8/31/90	322.56	3.78	733.32	238,560.75	321.7
9/30/90	306.05	4.01	738.12	227,383.18	321.7
10/31/90	304.71	4.01	734.89	227,150.96	321.7
11/30/90	322.22	3.82	740.30	240,528.67	321.7
12/31/90	328.72	3.75	741.39	245,961.28	321.7

Exhibit II

Treasury Bonds					
Date	Price	Yield	Interest	Value	Bonds
12/31/84	\$928.30			\$100,000.00	107.7
1/31/85	931.70	11.15	\$897.70	101,263.96	107.7
2/28/85	920.40	11.35	897.70	100,944.38	107.7
3/31/85	897.00	11.78	897.70	99,321.34	107.7
4/30/85	916.60	11.42	897.70	102,330.42	107.7
5/31/85	942.50	10.96	897.70	106,018.17	107.7
6/30/85	977.90	10.36	897.70	110,729.29	107.7
7/31/85	968.60	10.51	897.70	110,657.47	107.7
8/31/85	964.10	10.59	897.70	111,038.10	107.7
9/30/85	959.40	10.67	897.70	111,429.49	107.7
10/31/85	965.90	10.56	897.70	113,027.40	107.7
11/30/85	995.00	10.08	897.70	117,059.86	107.7
12/31/85	1,025.30	9.60	897.70	121,221.59	107.7
1/31/86	1,031.20	9.51	984.75	122,904.40	118.2
2/28/86	1,060.30	9.07	984.75	127,330.16	118.2
3/31/86	1,126.30	8.13	984.75	136,118.61	118.2
4/30/86	1,166.70	7.59	984.75	141,886.37	118.2
5/31/86	1,134.40	8.02	984.75	139,046.79	118.2
6/30/86	1,119.00	8.23	984.75	138,211.29	118.2
7/31/86	1,146.30	7.86	984.75	142,424.23	118.2
8/31/86	1,156.80	7.72	984.75	144,650.90	118.2
9/30/86	1,130.00	8.08	984.75	142,467.58	118.2
10/31/86	1,132.90	8.04	984.75	143,795.70	118.2
11/30/86	1,150.00	7.81	984.75	146,802.70	118.2
12/31/86	1,160.60	7.67	984.75	149,041.19	118.2
1/31/87	1,166.00	7.60	1,069.21	150,804.79	128.4
2/28/87	1,159.10	7.69	1,069.21	150,988.85	128.4
3/31/87	1,164.40	7.62	1,069.21	152,739.61	128.4
4/30/87	1,113.30	8.31	1,069.21	147,247.63	128.4
5/31/87	1,079.40	8.79	1,069.21	143,964.43	128.4
6/30/87	1,090.50	8.63	1,069.21	146,460.00	128.4
7/31/87	1,085.60	8.70	1,069.21	146,900.90	128.4
8/31/87	1,067.10	8.97	1,069.21	145,595.33	128.4
9/30/87	1,026.60	9.58	1,069.21	141,464.57	128.4
10/31/87	1,024.70	9.61	1,069.21	142,290.72	128.4
11/30/87	1,065.70	8.99	1,069.21	148,625.98	128.4
12/31/87	1,056.90	9.12	1,069.21	148,566.05	128.4

continued on other side

Exhibit II, continued

Treasury Bonds

Date	Price	Yield	Interest	Value	Bonds
1/31/88	1,077.30	8.82	1,168.46	152,605.03	140.6
2/28/88	1,106.10	8.41	1,168.46	157,824.78	140.6
3/31/88	1,091.90	8.61	1,168.46	157,000.11	140.6
4/30/88	1,071.20	8.91	1,168.46	155,261.76	140.6
5/31/88	1,048.90	9.24	1,168.46	153,298.49	140.6
6/30/88	1,062.30	9.04	1,168.46	156,353.50	140.6
7/31/88	1,051.60	9.20	1,168.46	156,020.82	140.6
8/31/88	1,042.90	9.33	1,168.46	155,969.28	140.6
9/30/88	1,061.00	9.06	1,168.46	159,684.96	140.6
10/31/88	1,072.50	8.89	1,168.46	162,472.88	140.6
11/30/88	1,060.30	9.07	1,168.46	161,929.35	140.6
12/31/88	1,056.30	9.13	1,168.46	162,538.48	140.6
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1/31/89	1,060.30	9.07	1,278.66	164,325.38	153.9
2/28/89	1,054.20	9.16	1,278.66	164,669.03	153.9
3/31/89	1,042.90	9.13	1,278.66	164,212.54	153.9
4/30/89	1,052.90	9.18	1,278.66	167,033.59	153.9
5/31/89	1,068.40	8.95	1,278.66	170,700.95	153.9
6/30/89	1,106.80	8.40	1,278.66	177,892.05	153.9
7/31/89	1,121.90	8.19	1,278.66	181,497.86	153.9
8/31/89	1,116.90	8.26	1,278.66	182,010.78	153.9
9/30/89	1,113.30	8.31	1,278.66	182,739.12	153.9
10/31/89	1,124.90	8.15	1,278.66	185,806.37	153.9
11/30/89	1,133.70	8.03	1,278.66	188,442.77	153.9
12/31/89	1,134.40	8.02	1,278.66	189,832.78	153.9
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1/31/90	1,098.29	8.52	1,394.52	185,072.35	167.3
2/28/90	1,091.95	8.61	1,394.52	185,405.92	167.3
3/31/90	1,085.66	8.70	1,394.52	185,747.85	167.3
4/30/90	1,058.96	8.09	1,394.52	182,674.34	167.3
5/31/90	1,101.13	8.48	1,394.52	191,125.67	167.3
6/30/90	1,100.42	8.49	1,394.52	192,401.37	167.3
7/31/90	1,103.97	8.44	1,394.52	194,389.95	167.3
8/31/90	1,075.97	8.84	1,394.52	191,098.89	167.3
9/30/90	1,071.85	8.90	1,394.52	191,803.96	167.3
10/31/90	1,092.65	8.60	1,394.52	196,679.19	167.3
11/30/90	1,116.16	8.27	1,394.52	202,007.92	167.3
12/31/90	1,122.69	8.18	1,394.52	204,495.18	167.3

Exhibit II

Treasury Bills

Date	Index	Yield	Value
12/31/84	981.02		\$100,000.00
1/31/85	981.02	7.76	100,646.67
2/28/85	979.92	8.22	101,336.10
3/31/85	979.08	8.57	102,059.80
4/30/85	980.44	8.00	102,740.20
5/31/85	981.50	7.56	103,387.47
6/30/85	982.82	7.01	103,991.42
7/31/85	982.73	7.05	104,602.37
8/31/85	982.41	7.18	105,228.24
9/30/85	982.65	7.08	105,849.09
10/31/85	982.44	7.17	106,481.54
11/30/85	982.37	7.20	107,120.43
12/31/85	982.68	7.07	107,751.54
1/31/86	982.75	7.04	108,383.69
2/28/86	982.78	7.03	109,018.63
3/31/86	983.84	6.59	109,617.33
4/30/86	985.12	6.06	110,170.90
5/31/86	984.97	6.12	110,732.77
6/30/86	984.75	6.21	111,305.81
7/31/86	985.65	5.84	111,847.50
8/31/86	986.30	5.57	112,366.66
9/30/86	987.23	5.19	112,852.64
10/31/86	987.25	5.18	113,339.79
11/30/86	986.84	5.35	113,845.10
12/31/86	986.50	5.49	114,365.94
1/31/87	986.59	5.45	114,885.35
2/28/87	986.25	5.59	115,420.52
3/31/87	986.33	5.56	115,955.31
4/30/87	985.84	5.76	116,511.89
5/31/87	985.87	5.75	117,070.18
6/30/87	986.01	5.69	117,625.29
7/31/87	985.79	5.78	118,191.85
8/31/87	985.26	6.00	118,782.81
9/30/87	984.49	6.32	119,408.40
10/31/87	984.29	6.40	120,045.24
11/30/87	985.72	5.81	120,626.46
12/31/87	985.75	5.80	121,209.49

continued on other side

Exhibit II, continued

Treasury Bills

Date	Index	Yield	Value
1/31/88	985.50	5.90	121,805.43
2/28/88	986.01	5.69	122,382.99
3/31/88	986.01	5.69	122,963.29
4/30/88	985.46	5.92	123,569.91
5/31/88	984.61	6.27	124,215.57
6/30/88	984.05	6.50	124,888.40
7/31/88	983.50	6.73	125,588.82
8/31/88	982.80	7.02	126,323.51
9/30/88	982.29	7.23	127,084.61
10/31/88	982.03	7.34	127,861.94
11/30/88	981.21	7.68	128,680.26
12/31/88	980.23	8.09	129,547.78
1/31/89	979.75	8.29	130,442.74
2/28/89	979.30	8.48	131,364.53
3/31/89	978.46	8.83	132,331.16
4/30/89	978.77	8.70	133,290.56
5/31/89	979.49	8.40	134,223.59
6/30/89	979.92	8.22	135,143.02
7/31/89	980.64	7.92	136,034.97
8/31/89	980.66	7.91	136,931.67
9/30/89	981.12	7.72	137,812.59
10/31/89	981.33	7.63	138,688.59
11/30/89	981.28	7.65	139,572.99
12/31/89	981.31	7.64	140,461.61
1/31/90	980.90	7.81	141,375.78
2/28/90	981.02	7.76	142,290.01
3/31/90	980.92	7.80	143,214.89
4/30/90	980.92	7.80	144,145.79
5/31/90	981.16	7.70	145,070.73
6/30/90	981.04	7.75	146,007.64
7/31/90	981.57	7.53	146,923.84
8/31/90	981.91	7.39	147,828.64
9/30/90	982.51	7.14	148,708.23
10/31/90	982.51	7.14	149,593.04
11/30/90	982.80	7.02	150,468.16
12/31/90	984.17	6.45	151,276.92

Exhibit III

Value of \$100,000 Investment From 1985 Through 1990 For Different Equity Positions in Cattle Feeding

Date	20% Equity	30% Equity	40% Equity	50% Equity	60% Equity
12/31/84	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
1/31/85	105,885	104,248	103,430	102,940	102,613
2/28/85	107,910	105,920	104,925	104,330	103,933
3/31/85	103,550	103,341	103,235	103,174	103,132
4/30/85	99,565	101,010	101,735	102,172	102,462
5/31/85	91,925	96,234	98,415	99,714	99,965
6/30/85	82,450	90,238	94,158	96,500	97,442
7/31/85	64,020	78,160	85,408	89,684	91,912
8/31/85	36,655	60,227	72,193	79,298	83,408
9/30/85	15,050	46,137	61,863	71,222	76,830
10/31/85	7,505	41,424	58,568	68,776	74,943
11/30/85	15,680	47,193	63,135	72,622	78,302
12/31/85	49,520	70,076	80,540	86,740	90,222
1/31/86	54,780	75,243	85,170	90,882	93,943
2/28/86	53,940	74,654	84,840	90,752	93,963
3/31/86	52,900	73,881	84,353	90,488	93,868
4/30/86	51,725	72,971	83,740	90,108	93,667
5/31/86	49,535	71,097	82,290	89,000	92,830
6/30/86	46,015	67,970	79,760	86,964	91,190
7/31/86	48,575	70,497	82,105	89,130	93,192
8/31/86	54,170	75,884	86,908	93,408	97,018
9/30/86	61,230	82,718	92,953	98,746	101,758
10/31/86	71,100	92,207	101,285	106,058	108,210
11/30/86	82,115	102,823	110,588	114,208	115,390
12/31/86	92,115	112,387	118,988	121,578	121,895
1/31/87	95,875	115,709	121,838	124,078	124,130
2/28/87	102,590	122,080	126,598	128,144	127,673
3/31/87	109,325	127,832	131,375	132,224	131,228
4/30/87	119,825	136,647	138,585	138,294	136,447
5/31/87	128,595	144,069	144,698	143,472	140,925
6/30/87	154,030	165,061	161,600	157,484	152,793
7/31/87	177,260	184,263	177,083	170,336	163,695
8/31/87	191,265	195,963	186,610	178,320	170,532
9/30/87	203,310	206,070	194,875	185,276	176,508
10/31/87	216,840	217,404	204,130	193,052	183,180
11/30/87	229,495	228,036	212,835	200,386	189,490
12/31/87	232,990	231,216	215,620	202,876	191,750

continued on other side

Exhibit III, continued

Value of \$100,000 Investment From 1985 Through 1990 For Different Equity Positions in Cattle Feeding

Date	20% Equity	30% Equity	40% Equity	50% Equity	60% Equity
1/31/88	225,245	226,719	212,913	201,168	190,665
2/28/88	225,555	227,554	213,940	202,274	191,798
3/31/88	228,430	230,073	216,135	204,254	193,615
4/30/88	230,115	231,814	217,788	205,826	195,115
5/31/88	237,335	237,220	222,010	209,336	198,140
6/30/88	232,550	234,725	220,733	208,726	197,937
7/31/88	200,910	214,465	207,033	198,770	190,375
8/31/88	194,465	210,915	205,050	197,652	189,792
9/30/88	195,180	212,141	206,435	199,092	191,238
10/31/88	199,325	215,645	209,418	201,738	193,638
11/30/88	205,235	220,320	213,225	205,008	196,532
12/31/88	204,670	220,756	214,098	206,090	197,720
1/31/89	201,565	219,226	213,498	206,022	197,982
2/28/89	195,265	215,409	211,240	204,480	197,228
3/31/89	198,090	218,222	213,855	207,130	199,537
4/30/89	199,830	220,263	215,913	209,158	201,512
5/31/89	193,040	216,178	213,523	207,766	200,755
6/30/89	177,185	205,584	206,403	202,734	197,093
7/31/89	156,905	191,780	196,933	195,880	191,962
8/31/89	144,220	183,415	191,400	192,044	189,233
9/30/89	132,930	176,063	186,608	188,780	186,965
10/31/89	125,625	171,581	183,910	187,134	185,993
11/30/89	127,325	173,581	185,933	185,128	187,937
12/31/89	137,210	181,477	192,245	194,430	192,528
1/31/90	148,528	192,037	201,095	201,964	199,052
2/28/90	157,149	200,198	208,024	207,930	204,272
3/31/90	161,543	204,637	212,000	211,510	207,526
4/30/90	163,552	206,979	214,314	213,748	209,675
5/31/90	163,120	207,174	214,926	214,613	210,694
6/30/90	163,010	207,658	215,773	215,671	211,875
7/31/90	169,052	213,572	220,937	220,226	215,945
8/31/90	184,919	228,154	232,993	230,360	224,621
9/30/90	194,730	237,402	240,814	237,072	230,477
10/31/90	205,232	247,264	249,128	244,186	236,667
11/30/90	209,659	251,775	253,195	247,867	240,027
12/31/90	214,738	256,867	257,728	251,929	243,704