The Stock Market: What Ranchers Should Know

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Sharp declines in cattle prices since 1993 have financially devastated many ranchers in New Mexico and other western states. By December of 1996 live cattle prices were down to $54, or roughly a 35% drop from the 1993 high of $84. Conversely during 1995 the S&P 500 stock index gained 34% to log in one of the best years since 1950. It tacked on another 20% between January 1 and December of 1996. The fall in livestock prices and the meteoric rise in common stocks has generated interest among the ranching community to understand factors that drive the prices of both cattle and common stocks. Common stocks have often done well when cattle prices have done poorly and vice versa. However over the past 40 years returns from cattle ranching have been only 3% compared to 10% for common stocks. Cattle prices have been more volatile than those of common stocks. Generally cattle prices do best when inflationary conditions prevail such as during the various wars (World War I, World War II, Korean War, Vietnam War) or when climatic adversity reduces food supplies. Common stock prices have performed well during peace time when consumer prices are fairly stable (Table 1).

Ranchers might like to invest part of their discretionary income into common stocks, but fear sharp declines that have occurred in certain years such as 1929, 1974, and 1987. Another problem is the complexity of how to invest in the stock market. Stories of neophyte investors being fleeced by Wall Street hucksters are legion and often true. About 70% of the professional money managers fail to beat the market average (S&P 500 Index) in most years.

It is the wish of many people to be in the stock market when the probability of a good return (10% or more) is high,

Table 1. Returns (25 years) from bonds and stocks versus the United States economy for the 1970—1995 period.

Year	Money market[1]	Govt bonds[1]	S&P 500[1]	Consumer price index[2]	Prime interest rate[2]	Real interest rate[3]	$\bar{x}$ Discount rate[2,4]	Discount rate changes[5]	Real GDP[2,6]	Elec. cycle stage[7]
	(%)	(%)	(%)	(%)	(%)	(%)	(%)		(%)	
1970	7	9	-0.1	5.6	7.9	2.3	5.95	↓	-0.3	MT
1971	6	8	10.8	3.3	5.7	2.4	4.88	↑↓	2.8	PRE
1972	6	7	15.6	3.4	5.2	-1.8	4.50	0	5.0	E
1973	9	2	-17.4	8.7	8.0	-0.7	6.44	↑↑	5.2	POE
1974	11	0	-29.7	6.9	7.9	-1.5	7.83	↑	-0.5	MT
1975	8	12	31.6	6.9	7.9	1.0	6.25	↓↓	-1.3	PRE
1976	7	16	19.2	4.9	6.8	1.9	5.50	↓↓	4.9	E
1977	8	3	-11.5	6.7	6.8	0.1	5.46	↑↑	4.7	POE
1978	10	1	1.1	9.0	9.1	0.1	7.46	↑↑↑	5.3	MT
1979	12	2	12.3	13.3	12.8	-0.5	10.28	↑↑↑	2.5	PRE
1980	13	4	25.8	12.5	15.3	2.8	11.77	↓↑↑	-0.2	E
1981	17	6	-9.7	8.9	18.9	10.0	13.42	↑↑↓	1.9	POE
1982	12	29	14.8	3.8	14.9	11.1	11.02	↓↓↓	-2.5	MT
1983	9	7	17.3	3.8	10.8	7.0	8.50	0	3.6	PRE
1984	10	13	1.4	3.9	12.0	8.3	8.80	↑↓	6.8	E
1985	8	18	26.3	3.8	9.9	6.1	7.69	↓	3.4	POE
1986	6.5	12	14.6	1.1	8.3	7.2	6.33	↓↓↓↓	2.7	MT
1987	6	1	2.0	4.4	8.2	3.8	5.66	↑	3.7	PRE
1988	7	6	12.4	4.6	9.3	4.7	6.20	↑	4.4	E
1989	9	12	27.3	4.6	10.9	6.3	6.93	↑	2.9	POE
1990	8	8	-6.6	5.0	10.0	5.0	6.98	↓	1.0	MT
1991	6	14	26.2	3.1	8.5	5.4	5.45	↓↓↓↓	-0.6	PRE
1992	4	6	4.5	2.9	6.2	3.3	3.25	↓	2.1	E
1993	3	6	7.1	2.7	6.0	3.3	3.00	0	3.0	POE
1994	4	-5	-1.5	2.6	7.2	4.6	3.88	↑↑↑	4.0	MT
1995	4	18	34.1	2.6	8.5	5.9	5.00	↑	2.6	PRE

[1]From Williamson 1995 and Hirsch 1996.
[2]From Schiller 1994.
[3]Real interest rate = Prime interest rate - Consumer price index.
[4]Interest rate that the Federal Reserve charges member banks.
[5]From Pring 1992, Schiller 1994, and Investors Business Daily.
[6]Real GDP = Real Gross Domestic Product (amount of economic expansion).
[7]MT = Mid term, PRE = Pre-election, E = election, POE = Post-election.

Table 2. Influence of presidential election cycle on stock market returns (S&P 500 stock index) over the past 40 years (1956-1995) (Hirsch 1996).

Pre-election year		Election year		Post-election year		Mid-term year	
Year	Return S&P 500	Year	Return S&P 500	Year	Return S&P 500	Year	Return S&P 500
	(%)		(%)		(%)		(%)
1976-1995 Period							
1979	12.3	1976	15.6	1977	-11.5	1978	1.1
1983	17.3	1980	25.8	1981	-9.7	1982	14.8
1987	2.0[1]	1984	1.4	1985	26.3	1986	14.6
1991	26.2	1988	12.4	1989	27.3	1990	-6.6
1995	34.1	1992	4.4	1993	7.1	1994	-1.5
$\bar{x}$	18.4		11.9		7.9		4.5
1956 - 1975 Period							
1959	8	1956	3	1957	-14	1958	38
1963	19	1960	-3	1961	23	1962	-12
1967	20	1964	13	1965	9	1966	-13
1971	11	1968	8	1969	-11	1970	0
1975	32	1972	16	1973	-17	1974	-30
$\bar{x}$	18.0		7.4		-2.0		-3.4

[1] The S&P 500 index was up 32% between January 1 and August 31, 1987 but sold off sharply in October due to rising inflation, an interest rate hike by the Federal Reserve in September, and concern that President Reagan might be impeached because of news of the Iran-hostage scandal in October. Historically anytime the market has run up over 30% between January 1 and August 31 it has been vulnerable to a sharp sell-off in the September through November period. Conditions surrounding the October 1987 33% sell-off were quite similar to October 1929 when the market lost about one third of its value in three days (White 1990). Any time presidents have been caught up in charges of serious scandal it has been bad for the stock market. President Nixon's problems with Watergate greatly accentuated the crash in 1973-74.

and to focus more on ranching operations or be in cash when conditions favor low or negative stock market returns.

When to Own Common Stocks

During the history of the United States going back to the early 1800's, common stock prices have been more closely linked to the presidential election cycle than any other factor (Hirsch 1996) (Table 2). Most of the gains in stocks occur during the pre-election and election years. During the past 40 years returns have averaged 18% in the pre-election year. The election year is next best with returns averaging about 10%. Historically and recently it has been difficult to make money in common stocks during the two years following the election.

The reasons for the high returns during the pre-election and election years are fairly straight forward. During the first part of their administrations, presidents and political leaders typically take steps to control inflation and balance budgets. These steps such as raising taxes, raising interest rates, and/or cutting government programs depress the economy and are unpopular. This enables politicians to do the reverse during the pre-election and election years, and helps insure their popularity on election day.

Interest Rates Changes Drive Stock Prices

Through history the second most important factor after the presidential cycle affecting stock prices has been the direction of interest rates (Table 3). During the past 40 years when interest rates were falling annual stock returns have averaged about 18% compared to about 4% when interest rates were rising. It is important to recognize that the stock market tends to discount future growth in corporate earnings 6-12 months in advance. A primary determinant of corporate earnings is the cost of capital. Lower interest rates mean lower costs of capital to business and increased buying capability of consumers. Lower interest rates also lower bond yields making stocks relatively more attractive than bonds.

Inflation and the Stock Market

Inflation ranks third in importance of the factors affecting common stock prices. Inflation as measured by the consumer price index is the primary force driving interest rates. When inflation is rising, interest rates will generally be rising because bond investors (debt holders) require an adjustment for loss in their buying power and an added premium for inflation risk. Further the higher yields on bonds increases their attractiveness relative to stocks.

How to Invest in the Stock Market

Ranchers have the opportunity to shelter significant income amounts in common stocks through Keogh Plans (401Ks) and Individual Retirement Accounts (IRAs). Most ranchers and their employees qualify for 401Ks that are designed for self-employed people and small business owners. They allow annual tax deductible contributions of up to 25% of earned income with a cap of $30,000 total. Any earnings on 401Ks are tax-deferred. Individual Retirement Accounts (IRAs) allow an individual to set aside up to $2,000 a year and let it grow without being taxed until the money is withdrawn.

Table 3. Influence of interest rate changes by the Federal Reserve on stock prices (S&P 500 stock index) over the past 40 years (1956-1995) (Hirsh 1996).

Falling interest rates		Rising interest rates	
Year	Return S&P 500	Year	Return S&P 500
1976 - 1995 period			
	(%)		(%)
1976	19.2	1977	-11.5
1982	14.8	1978	1.1
1983	17.3	1979	12.3
1985	26.3	1980	25.8
1986	14.6	1981	-9.7
1990	-6.6[1]	1984	1.4
1991	26.2	1987	2.0
1992	4.4	1988	12.4
1993	7.1	1989	27.3
		1994	-1.5
		1995	34.1
$\bar{x}$	13.7	$\bar{x}$	8.5
1956 - 1975 period			
1958	38	1956	3
1961	23	1957	-14
1967	20	1959	8
1971	11	1960	-3
1972	16	1962	-12
1975	32	1963	19
		1964	13
$\bar{x}$	23.3	1965	9
		1966	-13
		1968	8
		1969	-11
		1970	0
		1973	17
		1974	-30
		$\bar{x}$	-0.4

[1]Interest rate reduction never occurred until December of 1990. This triggered a major stock market advance of about 30% over the next 12 months.

A major concern is how to invest in common stocks without becoming a victim of excessive brokerage fees and/or incompetent stock selection. Market index mutual funds such as the S&P 500 with low purchase fees are an excellent way to handle this problem. Mutual funds with good long term performance and low purchase are discussed by Williamson (1995).

Tax Avoidance and Compounded Returns

The power of tax-free compounding is not well appreciated. If $2,000 is put away each year for the next 25 years compounding tax-free, the account would grow to $157,119, assuming a modest 8% annual increase. Had the money been in a regular, taxable account with a 28% tax rate on the gain each year, the total would only be $112,202 over the same period. That's a $44,917 difference. A 15% average annual return would have been within reach of ranchers willing to put some time into studying the markets and could psychologically handle the higher volatility associated with small capitalization and foreign equities (Table 4).

A Financial Approach to Ranching

Properly run western ranches make fairly good hedges against inflation and in most years can provide the operator with a small profit above the value of labor and management inputs. However on most ranches there are few opportunities for investment that will give a 5% or more annual return over a 20 to 30 year period.

Ranchers who place discretionary income in common stocks can tax shelter income, improve their liquidity and greatly improve their total investment returns. Risk in the stock market can be managed by allocating money into 3 or 4 well established mutual funds with good long term records, investing in market index mutual funds, and transferring from stocks into money market mutual funds during periods of rising inflation, rising interest rates, and after large run-ups in stock prices. Switching from stocks to money market funds is particularly effective during the post-election and mid-term years of the presidential cycle. Over the past 40 years such a strategy using the S&P 500 index would have yielded an average annual pre-tax investment return of 12%. Merely buying and holding an S&P 500 index mutual fund would have provided an annual average return of 10% for the same period.

As always the future is filled with uncertainty. On one hand, high debt levels, war and climatic adversity could all make returns from common stocks lower in the next 20 years than in the past. On the other hand new technologies, modifications in government policies, and an expanding world economy could permit common stock returns to equal or exceed those of the recent past.

Diversification, gradualism, knowledge acquisition and application, and avoidance of debt have long been the keys to financial success in free-market societies. Those ranchers who learn to strategically use the stock market have a tremendous advantage over those depending entirely on income from their ranching operations.

Any rancher planning to use the stock market as an investment vehicle should spend some time studying it. Books I've found useful on investing in common stocks, mutual funds, and other assets include Lynch (1989), Malkiel (1990), Pring (1992), Schabacker (1994), Bowers (1995), Stovall (1995), Williamson (1995), Hirsch (1996), and Leonard (1996).

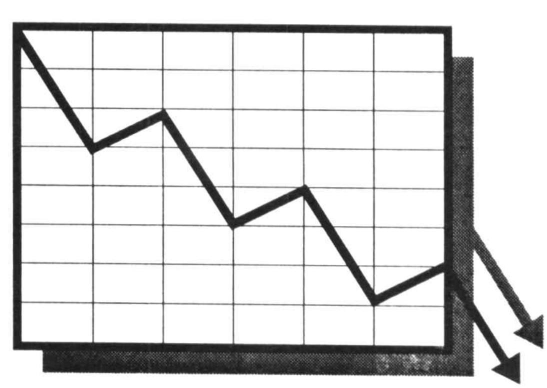

Table 4. Fifteen year (1980 - 1995) returns from various asset classes (Williamson 1995).

Year	Money market	Govt bonds	High yield bonds	Municipal bonds	Utilities (stocks)	Dow (stocks)	S&P 500 (stocks)	NASDAQ (small capitalization stocks)	Foreign stocks	Precious metals (stocks)
	(%)									
1980	13	4	4	-12	4	14.9	25.8	33.9	24.4	64
1981	17	6	6	-7	12	-9.2	-9.7	-3.2	-1.0	-24
1982	12	29	30	36	23	19.6	14.8	18.7	-0.9	48
1983	9	7	16	9	12	20.3	17.3	19.9	24.6	3
1984	10	13	8	8	18	-3.7	1.4	-11.2	7.9	-25
1985	8	18	22	18	26	27.7	26.3	31.4	56.7	-6
1986	6.5	12	13	16	20	22.6	14.6	7.4	67.9	31
1987	6	1	2	-1	-4	2.3	2.0	-5.3	24.9	33
1988	7	6	12	11	13	11.9	12.4	15.4	28.6	-15
1989	9	12	-1	9	29	27.0	27.3	19.3	10.8	23
$\bar{x}$	9.7	10.8	11.2	8.7	15.3	13.3	13.2	12.6	24.4	13.2
1990	8	8	-10	6	-2	-4.3	-6.6	-17.8	-14.9	-22
1991	6	14	35	11	20	20.3	26.2	56.8	12.5	-5
1992	4	6	18	9	9	4.1	4.5	15.4	12.2	-15
1993	3	6	18	9	9	13.7	7.1	14.8	32.6	94
1994	4	-5	3.2	8	-7	2.1	-1.5	-3.2	-1.2	-1.1
1995	4	18	17	18	31	35.5	34.1	39.9	9	-4
$\bar{x}$	4.8	7.8	15.2	10.2	10.0	12.6	10.6	18.1	8.4	7.8

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