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A FINANCIAL PROFILE OF INDEBTED FARM OPERATORS IN NEBRASKA - 1984

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A FINANCIAL PROFILE OF INDEBTED
FARM OPERATORS IN NEBRASKA - 1984

By

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April, 1984

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* * * * *

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* * * * *

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A FINANCIAL PROFILE OF INDEBTED FARM OPERATORS IN NEBRASKA - 1984

INTRODUCTION

The farming sector continues in an extended period of economic stress. Some have described it as the most serious and prolonged period of financial stress in more than 40 years [2]. Real net farm income of farm families during the current decade has been less than two-thirds the average for the 1970's. Farm cash flows have followed a similar pattern.

Present economic stress has been further aggravated by rapid expansion of indebtedness during the last half of the 1970's when total debt of the U.S. farming sector more than doubled [5]. During that time, debt expansion paralleled the rapid appreciation of land and other agricultural assets. When interest rates reached unprecedented levels in the 1980's while assets started declining in value, the stage was set for a financial crunch of crisis proportion. For many farmers, economic survival has become the key issue of today [1].

This paper analyzes in some detail the current financial state of Nebraska's farming sector. It is specifically focussed on indebted farm operators, in examining the financial health and credit worthiness of this particular group. After constructing a financial framework to better understand current conditions, implications are then drawn.

NEBRASKA'S BALANCE SHEET

The balance sheet is one of three financial statements used to determine the economic condition of a business entity (whether it be an individual, a business, an industry, or an entire sector). Quite simply, the balance sheet provides a "snapshot view" of the financial position at a specific point in

time. In one section, it summarizes the value of assets owned, while listing out liabilities and net worth (which is owner equity) in another section.

The term "balance sheet" is based upon the fundamental accounting equation:

$$\underline{\text{Assets} = \text{Liabilities} + \text{Net Worth.}}$$

Table 1 presents Nebraska's farming sector balance sheet for each of the past eight years. This time period spans two distinctly-different economic environments - one of relative prosperity covering 1977 to 1980, and another of agricultural recession from 1981 to present.

The prosperity period was characterized by growing asset values. Assets in virtually every asset category increased rather dramatically in value in part a reflection of general inflationary conditions, but also of an optimistic, expansionary attitude within the sector itself. Effects were particularly pronounced in the real estate portion, the dominant item in the asset side of the balance sheet.

To be sure, liabilities were also growing rapidly during the late 1970's. Debt capital was increasingly the means of financing a sector that was "on the move." Yet, assets (particularly land) were generally appreciating in value at a rate which kept financial ratios relatively unchanged. Moreover, total rate of return to assets (including appreciation) was consistently exceeding the rate of interest on borrowed capital; thus heavy debt leveraging was viewed by many as the most desirable financial strategy. The debt-to-asset ratio did increase somewhat but a rate of one dollar of debt per five dollars of asset value was not exceeded, and the sector continued to provide the appearance of having a very sound financial position.

Since January 1, 1981, however, the balance sheet series clearly reveals financial deterioration for the sector as a whole. Estimated debt continued to increase until 1983 when (1) production cutbacks as a result of the PIK

Table 1. Balance Sheet of Nebraska's Farming Sector (Including Farm Households) January 1, 1977-84.^{1/}

Item	1977	1978	1979	1980	1981	1982	1983 ^{2/}	1984 ^{3/}
	----- Number -----							
FARMS.....	68,000	66,000	65,000	65,000	64,000	63,000	63,000	63,000
ASSETS	----- Million Dollars -----							
Total Farm Assets.....	26,709.5	27,224.0	35,125.8	40,278.4	43,454.7	42,006.9	39,863.0	37,393.0
Real Estate.....	20,076.0	19,693.6	25,042.5	28,620.0	31,482.0	29,797.6	26,798.8	24,628.1
Livestock & Poultry.....	1,480.6	1,786.3	2,983.7	3,440.9	3,449.2	3,262.4	3,086.1	2,993.5
Machinery & Motor Vehicles...	2,743.5	2,990.8	3,741.0	4,261.0	4,502.7	4,703.1	4,794.5	4,914.4
Crops.....	1,249.8	1,616.3	1,926.1	2,420.6	2,374.5	2,529.6	3,386.7	2,976.9
H.H. Equip. & Furnishings....	306.8	304.3	340.4	364.3	409.6	421.8	434.7	452.1
Deposits & Currency.....	414.3	379.7	443.5	454.2	461.2	469.1	487.2	509.6
U.S. Savings Bonds.....	68.0	51.9	116.8	112.1	105.6	98.1	94.9	97.7
Investments in Cooperatives..	370.5	401.2	531.8	605.2	669.8	725.3	780.1	820.7
CLAIMS								
Total Farm Debt.....	4,696.3	5,670.3	6,954.4	8,084.9	8,737.7	9,588.4	11,165.7	10,715.8
Real Estate Debt.....	2,006.9	2,316.6	2,687.0	3,183.6	3,597.2	4,011.6	4,225.9	4,318.9
Nonreal Estate Debt.....	2,607.4	2,816.7	3,432.3	4,187.3	4,434.5	4,634.8	5,036.8	5,112.4
CCC Loans.....	82.0	537.0	835.0	714.0	706.0	937.0	1,903.0	1,284.5
Equity.....	22,013.2	21,553.7	28,171.4	32,193.4	34,717.0	32,423.6	28,697.3	26,677.2
RATIOS	----- Ratio Percentage -----							
Equity/Assets.....	82.4	79.2	80.2	79.9	79.9	77.2	72.0	71.3
Debt/Equity.....	21.3	26.3	24.7	25.1	25.2	29.6	38.9	40.2
Debt/Assets, Total.....	17.6	20.8	19.8	20.1	20.1	22.8	28.0	28.7

^{1/} Source: Economic Indicators of the Farming Sector, State Income & Balance Sheet Statistics Series, Economic Research Service, U.S. Department of Agriculture.

^{2/} Revised estimates.

^{3/} Projected. Real estate asset value data derived from 1984 Nebraska Farm Real Estate Market Survey, Adjustments to other asset and claim items based upon projected percentage changes for 1984 U.S. balance sheet as published in Agricultural Finance, Outlook & Situation, Economic Research Service, U.S. Department of Agriculture, AFO-24, December 1983.

program and (2) financial pressures curtailed aggregate expansion. Concurrently, total asset value was falling, primarily due to depreciating farm real estate values. As a result there was a rather substantial equity (net worth) decline for the sector. By January 1, 1984, total equity in nominal dollars had eroded some 23 percent from its peak level at the beginning of 1981; while in real (constant) dollars the decrease was 34 percent.¹ On a dollar basis, the decline of owner equity has exceeded an estimated \$2.6 billion per year for the past three years in Nebraska. The relative magnitude of this is substantial when one considers the fact that net farm income (after inventory adjustment) for the Nebraska farming sector has averaged less than \$750 million annually since 1970.

The financial ratios reveal a similar pattern. The debt-to-asset ratio rose from 20 percent to nearly 29 percent in this three-year span.² Even in 1983, a year when the federal government initiated the most costly farm program ever, financial conditions did not improve, but rather slipped further.

While the current levels of these aggregate ratios still indicate soundness, this dramatic change in a relatively short period is certainly some cause for alarm.

¹ Equity or net worth is a most important indicator of financial well-being. At the individual level, it reflects what an asset owner could net if all his/her assets were converted to cash and all liabilities were paid in full. The sector as a whole, of course, can not be liquidated. Yet, equity trends at the aggregate level still mirror the relative financial health of the sector.

² This level of indebtedness is quite high relative to current levels in other states. In fact, as of January 1, 1983, Nebraska's debt-to-asset ratio was reported to be second highest among the 50 states, being exceeded only by that of South Dakota (with a ratio of 28.3 percent) [5]. At that same time, more than half of the states had ratios of less than 20 percent, and only 5 other states had average debt-to-asset ratios of 25 percent or more.

Also, it is obvious that within these aggregates, there are substantial groups of agricultural producers whose financial conditions are much less benign than indicated by the sector averages. These producers, while producing the bulk of the farm cash receipts, also account for the major share of farm debt. For them, the severity of financial stress is magnified. Thus, we must turn our attention to indebted farm operators specifically.

INDEBTED FARM OPERATORS -- A PROFILE

The farming sector is comprised of three rather distinct groups of resource owners -- nonfarmer landlords, debt-free farm operators, and indebted farm operators. On the basis of data derived from the 1979 Farm Finance Survey conducted by the U.S. Department of Commerce, Bureau of Census, it is possible to disaggregate the State's farm sector into these three groupings. Table 2 presents the proportionate shares of the Nebraska farm sector balance sheet. Assuming these proportions have remained basically constant since 1979, recent aggregate changes in asset and debt levels were allocated among the three groups. Then, using these current estimates of asset value and debt by sub-group, current levels of equity could be estimated for each.

Nonfarmer landlords hold a sizable portion of the sector assets, their holdings are primarily real estate. The farm debt held by this group, however, is relatively small; the debt-to-asset ratio is below 7 percent [3]. As a consequence of low levels of debt, over 41 percent of the equity within the farm sector currently is estimated to belong to nonfarmer landlords. Obviously then, the equity erosion that has occurred recently has greatly impacted landlords, even though their financial position is typically not being stressed by heavy debt loads.

Table 2. Proportionate Shares of The Nebraska Farm Sector Balance Sheet By Type of Owner Group, January 1, 1984.^{1/}

Item	Nonfarmer Landlords	Debt-Free Farmers	Indebted Farmers	Total
	<u>Percent</u>			
ASSETS:				
Total Farm Assets	31.5	15.6	52.9	100.0
Real Estate Assets	43.6	13.0	43.4	100.0
CLAIMS:				
Total Farm Debt	6.7	0.0	93.3	100.0
Real Estate Debt	11.3	0.0	88.7	100.0
EQUITY: ^{2/}				
Total	41.5	21.9	36.6	100.0

^{1/} Based upon relative distribution of assets and claims reported for Nebraska in the Bureau of Census, 1979 Farm Finance Survey and updated to 1984 to reflect aggregate asset value and debt level changes.

^{2/} Current equity proportions derived from multiplying the sector balance sheet by these assets and claims percentages.

Roughly one out of every three active farmers in Nebraska operate without any debt capital [3]. This owner group tends to be operating smaller farm units, and is, no doubt, weighed towards the older age classes. But while owning only one-sixth of the farm assets, debt-free farmers now account for nearly 22 percent of the sector's equity. As true of the non-farmer landlords, debt-free farmers also have experienced declining net worth. Yet, because of no debt encumbrances, this group has escaped the cash flow problems which plague so many today.

For the indebted farmer group, comprised of about 40,000 of the State's 60,000 farmers, the shares are quite different. While over half of the farm assets are owned by them, virtually all of the debt is centered here. The

buildup of debt within the sector has accelerated the equity loss for this owner group. In 1984, indebted farmers held about 37 percent of the sector equity, in contrast to nearly 42 percent at the beginning of the decade.

The typical (average) financial situation of Nebraska's indebted farmer is presented in Table 3. The abbreviated balance sheet depicts the average situation for three time periods. At the beginning of the decade, the typical indebted farm operator had total owned assets valued at \$510,000. By 1984, average asset value of the operation had dropped to about \$475,000. On the other hand, the debt load continued to increase through 1982. It averaged one quarter million dollars per operator on January 1, 1983, 38 percent higher than at the beginning of the decade. Some reduction in average debt load occurred in 1983, although the average debt level remained high as of January 1, 1984.³

Declining asset value and rising debt translate into an erosion of equity. And the change since 1980 has been dramatic indeed; per farm net worth fell nearly \$94,000 during that time period. Averaging a loss of more than \$23,000 per year; the typical indebted farmer's net worth in nominal dollars is only 71 percent of January 1, 1980 value. In real dollars, average net worth on January 1, 1984 was about 56 percent of the beginning of the decade value.

³ The cash flow problem facing many producers today is obvious. When average debt load approaches a quarter million dollars per operator, annual interest charges can easily exceed \$25,000 per year. Insufficient and/or unstable income flows can lead to severe debt servicing problems, particularly when interest rates are high. As a consequence, many who are heavily indebted are now restructuring debt or partially liquidating assets.

Table 3. Estimated Assets, Claims, and Equity Per Farm For Indebted Farm Operators in Nebraska, January 1, 1980, 1983, and 1984.^{1/}

Item	1980	1983 ^{2/}	1984 ^{3/}
----- Dollars Per Farm -----			
ASSETS:			
Total Farm Assets.....	\$510,000	\$506,800	\$475,400
Real Estate Assets.....	\$297,300	\$279,800	\$257,100
CLAIMS:			
Total Farm Debt.....	\$181,400	\$250,600	\$240,500
Real Estate Debt.....	\$ 69,700	\$ 90,100	\$ 92,100
EQUITY:			
Total Equity.....	\$328,600	\$256,200	\$234,900
Real Estate Equity.....	227,600	189,700	165,000
----- Ratios -----			
FINANCIAL RATIOS:			
Debt/Assets.....	.356	.494	.506
Debt/Equity.....	.552	.978	1.024
Assets/Debt.....	2.812	2.022	1.977
Equity/Assets.....	.644	.506	.494

^{1/} Based upon State balance sheet estimates as published in Economic Indicators of the Farm Sector, State Income and Balance Sheet Statistics Series, Economic Research Service, U.S. Department of Agriculture. Statistics for indebted farm operators are derived from balance sheet data for the sector using the relative distribution of assets and claims as reported for Nebraska in the Bureau of the Census, 1979 Farm Finance Survey.

^{2/} Revised estimate.

^{3/} Estimated from state and national data.

The financial ratios for the indebted farmer group point out a financial problem far more acute than indicated for the total sector. The average debt to asset ratio is nearly 51 percent. The ratio of assets to debt has fallen below 2.0.⁴ In essence, net worth of Nebraska's indebted farm operators averages only half of the asset value owned by them.

Of course, the individual financial situations which comprise the indebted farmer group are quite varied. Some farmers are operating with very low levels of debt, far below the average for the group. Moreover, others have relatively low long-term debt with fixed interest rate levels reflecting conditions of the past. Thus, one cannot conclude that all indebted farmers in the state now face serious financial stress. Unfortunately, there is the other side of the coin -- there are many whose individual financial condition is even more precarious than the overall average. For them, any further erosion of net worth in combination with inadequate debt servicing capacity points to an acceleration towards insolvency (total debt exceeding total asset value). Because of the high cost of debt relative to low rates of return to agricultural assets, many heavily-indebted farmers face severe operating losses. In fact, their operating losses could well have equalled a third of their net worth annually in recent years [4]. In other words, insolvency can occur within a relatively short period of time.

⁴ Both of these ratios are now at levels which many lenders would consider turning points between financial health and stress for individual borrowers. While solvency is not an issue, debt servicing ability certainly is. In response, lenders may hesitate to extend further credit and may even require debt reduction through asset liquidation. In short, the "lid" goes on the debt capital sources, and the planning strategy of the farm operation, both short term and long term, can be affected significantly.

Detailed statistics indicating the distribution of Nebraska's farm population across the continuum of indebtedness are not available. However, Melichar recently developed distributions for the U.S. level [4]. Since Nebraska's farm sector has trended closely with U.S. changes in recent years, it was considered reasonable to use the U.S. distributional set as a proxy for Nebraska. The estimated distribution of debt in Nebraska using this procedure is presented in Table 4.

As previously noted, about a third of the State's farmers are debt free. In addition, nearly one-fourth of the farmers operate with debt no more than 10 percent of asset value. Thus, for more than half of the farm population debt encumbrance is not a major source of financial stress.

Another one-fourth of the farmer population carry indebtedness ranging from 11 to 40 percent of asset value. For those closer to the top end of this range, the debt load has probably become of concern; but, debt repayment has generally not become jeopardized.

For about one out of every nine farmers, debt is estimated to be 41 to 70 percent of value. At these levels of debt encumbrance, many are experiencing varying degree of financial stress; i.e., asset earnings fall short of debt servicing requirements. What follows is payment delinquency and/or substantial financial tradoffs to deal with the debt problem [4]. Of course, the severity is contingent upon not only the magnitude of debt but also the associated interest rates. But, the higher the debt-to-asset ratio, the higher the probability is of financial difficulty.

At the extreme, about 8 percent of the State's farm operators now operate with very high claims relative to equity. Their leverage position, which is total debt/net worth, is greater than 2.4. One would have to conclude that

Table 4. Estimated Percentage Distribution of Nebraska Farm Operators and Farm Debt By Relative Debt Levels and Severity of Financial Stress, January 1, 1984.^{1/}

Ratio of Debt to Assets	Degree of Current Financial Stress ^{2/}	Percentage Distribution of:	
		Farm Operators	Farm Sector Debt ^{3/}
		<u>Percent</u>	
0% (No Debt)	None	34	0
1 to 10%	None	23	5
11 to 40%	Some stress for some operators	24	30
41 to 70%	Moderate to severe stress for most	11	30
71% & Over	Severe	8	29

^{1/} Percentage distributions based upon U.S. estimates derived from the Bureau of Census, 1979 Farm Finance Survey and updated to January 1, 1984 by Melichar in "A Financial Perspective on Agriculture," Federal Reserve Bulletin, February 1984.

^{2/} A normative evaluation, considering such factors as current debt service capacity, borrower opportunity for debt expansion, degree of financial solvency, etc.

^{3/} This percentage distribution of debt will not add to 100 percent since about 6 percent of the farm sector debt is held by nonfarmer landlords.

this group is now experiencing very severe financial trouble. Their equity has been eroding as incomes have fallen below debt servicing requirements. For many, financial insolvency is a very real possibility.

While the distributional pattern reveals that about 20 percent of the Nebraska's farmers now face moderate to severe financial stress, the problem is even more disturbing from the perspective of the lender. It is estimated that nearly three-fifths of the total farm debt load is owed by these individuals. In short, debt-servicing problems are not limited to a "few problem loans" but rather are pervasive throughout much of their loan portfolios.

SUMMARY & IMPLICATIONS

The financial position of Nebraska's farming sector has seriously deteriorated during the current decade. Chronically low incomes, and greater dependency on debt capital, and relatively high interest rates has led to debt servicing problems. This in combination with falling asset values has eroded owner equity by about one-third in real dollars since January 1981. Even in 1983, when the federal government implemented the costly PIK program, the aggregate financial position of the sector slipped further. As of January 1, 1984, the sector's debt-to-asset ratio was approaching 30 percent, considerably above the levels of the 1970's, and one of the highest levels among the 48 states.

But, even more disconcerting has been the financial condition of farm operators with debt. The level of equity for this group as of January 1, 1984 had fallen nearly 30 percent in nominal dollars and almost 45 percent in real dollars from beginning-decade values. With the typical debt encumbrance approaching one quarter million dollars per indebted operation, annual interest obligations frequently exceed \$25,000 per year. For the indebted group, debt now averages half of total assets owned. With interest rates currently far in excess of the typical rate of return to farm assets, it appears virtually inevitable that negative cash flows, delinquent loan repayment and eroding net worth will occur.

On the basis of debt encumbrance, it is estimated that about 20 percent of Nebraska's farmers are now experiencing moderate to severe financial stress. And it is this group which is estimated to account for about three-fifths of the farm sector debt outstanding.

The implications of a financial crisis of this magnitude are sobering. If (1) interest rates remain at current plateaus and (2) farm sector income continues to be relatively low and erratic, major structural adjustments will take place.

The scenario may well look as follows:

- As many as one out of every ten farmers could exit farming by 1986 because of financial pressures. This is a rate certainly much higher than attrition under more normal economic times. For some, the route would be foreclosure, for others, voluntary exit. Any operator whose debt now exceeds 65 to 70 percent of asset value faces (1) a nearly impossible debt servicing obligation and (2) a shrinking net worth. This operator is most vulnerable to financial insolvency unless major adjustments to financial structure can be made.
- Financial lenders could experience widespread delinquency rates on as much as 30 percent of their loan volume by 1986. This is reflective of the loan volume associated with farmers having debt-to-asset ratios of more than 70 percent. If insolvency follows, they may well become the reluctant holders of title of up to 10 percent of the sector assets. Much of this may be real estate which could be difficult to sell in the short run.
- Forced liquidation of assets would create very soft asset markets in the short run, as high levels of asset offerings exceed very cautious demand. Real estate values could drop further. One should bear in mind, however, that in any given local land market there remains a group of potential

buyers (including many active farmers) who will still have interest in land acquisition. In addition, a sizable portion of real estate is held by owners who are not encountering financial stress. Thus, the possibility of a downward "cascading effect" to land values is not likely.

- The sector as a whole may experience further erosion of wealth. Net worth, which grew rapidly under land boom conditions of the 1970's could retract as silently as it came. By 1985, real estate asset values in constant dollars may be approaching 1970 levels. Of course this affects a wide range of landowners -- from the active farmer who integrated this wealth into major expansion decisions to the elderly couple who were counting on landed wealth for economic security in their retirement years. In virtually no case, is the ensuing adjustment painless.
- Each continuing season of financial pressure could lead to a new group of farmers being forced to exit farming. With equity depleted, they would face leaving farming with little or no wealth. Even aggressive, short-term farm income support programs may do little more than delay the inevitable, 1983 being a case in point.
- The socio-economic impact on rural communities would be significant. Out-migration of young adults as well as farm families could accelerate. Both private retailing and various public services, dependent upon certain population levels, may experience declining quantity and quality. It should also be recognized that if agricultural wealth diminishes, so also does the wealth of the rural community. This, too, can contribute to reduced economic viability.

Of course, other future scenario sets could be constructed, and some with far different implications. If, for example, the agricultural sector was to move into an extended period of favorable farm income levels, then today's debt-servicing problems would be reduced. In turn, economic "staying power" would be greater for the indebted farmer, and the rural community could experience some renewed vitality.

But irrespective of the scenario one chooses to believe, it is obvious we are not witnessing a temporary economic shortfall which will be remedied by a year or two of good farm income. Rather, major structural adjustment to Nebraska's agricultural economy appears inevitable. Over time, debt structure in agriculture will more closely conform to the economic uncertainties of the times with lower debt-leveraging levels; asset values will move to a level more clearly reflective of current economic earnings; asset ownership will gravitate towards the more financially established entities; and, unfortunately for some, economic survival in farming will not be possible. Whether or not major policy decisions can alter any of these changes is debatable.

Perhaps there is little solace for farmers who economically succumb and for asset owners who face eroding wealth. But for the farm sector as a whole, this period of transition should bring about not only a readjustment but also a restoration of economic soundness.

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