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# AgLetter

## FARM DEBT EDGING UPWARD

Farm debt has been trending slowly upward so far in the 1990s, reversing a portion of the substantial contraction that occurred during the latter half of the 1980s. The annual rate of increase moved up to about 3 percent in the last two years and USDA analysts are projecting a comparable gain for 1996. Revised estimates show farm debt approximated \$150.8 billion at the end of 1995. That marked an increase of less than 10 percent from the cyclical low of \$137.9 billion at the end of 1989 and was more than 20 percent below the 1984 peak of \$193.8 billion. A little over half (\$79.3 billion) of the total was secured by farm real estate. The remaining so-called nonreal estate farm debt represents annual operating loans to farmers and intermediate-term loans to finance such things as machinery and equipment.

Despite faster growth recently, the debt of the farm sector appears to be well within traditional levels of "safety." Due to faster growth in asset values, the sector's debt-to-asset ratio continues to decline, falling to 15.4 percent at the end of 1995 compared to 16.9 percent in 1989 and the high of 23 percent during the troublesome times of the mid 1980s. Similarly, the share of the sector's gross earnings needed to service debt remains well below the levels of the 1980s and in line with the standards of the 1960s and early 1970s.

Year-to-year changes in farm debt reflect numerous variables that influence the demand for new loans, the willingness of lenders to extend more credit, and the ability of farmers to meet loan repayment schedules. Farm loan demand strengthened in 1996 as more crop acreage, higher input prices (especially feed), increased purchases of farm machinery, and higher farm real estate transfers and prices offset the rise in farm earnings and the decline in livestock inventories. Stable to somewhat lower interest rates also tended to encourage more borrowing. Moreover, a more competitive stance on the part of the Farm Credit System (FCS) probably augmented the amount of credit available to farmers. The influence of the above components in adding to farm debt in 1996 may have been partially countered by faster loan repayments. Despite the emergence of more repayment problems among hard-pressed cattlemen, high grain prices, higher farm earnings, and sizable government payments to farmers probably led to increased loan repayments among most other farmers.

For several years, banks paced the uptrend in outstanding farm debt. The share of farm debt owed to banks rose steadily from a low of 21 percent in the early 1980s to just under 40 percent last year. The expanding share owed banks was evident in both their niche area of nonreal estate lending and in loans secured by farm real

estate. The nonreal estate share owed banks rose from 37 percent in 1981 to 53 percent. Banks' share of farm real estate debt rose even more, from 7 percent in 1982 to over 28 percent last year. With their rapid growth in farm mortgage lending, the share of farm real estate debt owed to banks came within nearly 3 percentage points of matching the eroding share owed the FCS.

### Farm debt, December 31, 1995

	Amount, billion dollars	% secured by real estate	As % of farm assets	Percent owed to *			
				Banks	FCS	FSA	LIC's I&O's
Illinois	8.1	58.0	12.5	49.9	22.2	3.7	3.6 20.5
Indiana	4.7	63.8	14.9	38.5	23.5	4.4	5.7 27.7
Iowa	10.9	56.6	18.4	47.8	14.7	4.5	3.5 29.5
Michigan	2.7	53.1	15.2	22.4	48.7	8.8	2.0 26.1
Wisconsin	5.2	49.6	19.8	41.6	15.5	6.4	1.1 23.3
District states	31.6	56.6	15.9	43.7	22.3	5.0	3.4 25.6
United States	150.8	52.6	15.4	39.8	24.8	6.7	6.0 22.7

\*FCS = Farm Credit System; FSA = Farm Service Agency of the U.S. Dept. of Agriculture;  
LIC = Life insurance companies and I&O = Individuals and others.

Source: U.S. Department of Agriculture.

The vastly restructured FCS is once again becoming a

dominate farm lender. The FCS is a nationwide system of cooperatively-owned lending institutions serving mostly farmers and farm cooperatives. Its status as a government sponsored enterprise (GSE) allows the FCS to fund its loans at very competitive rates through securities sold to investors. The FCS grew rapidly during the agricultural boom in the 1970s. By the early 1980s, it accounted for over a third of all outstanding farm debt, including a 44 percent share in its niche area of farm mortgage lending. The restructuring triggered by the agricultural crises in the 1980s subsequently pulled the FCS share of farm debt down to 24 percent. Since 1993, the FCS's portfolio of nonreal estate farm loans has grown faster than that for any other lender. And this year, the FCS may record the largest rise of any lender in farm real estate loans. The FCS's portfolio that contains mostly mortgage loans to farmers has registered abnormally large quarterly gains since the latter part of 1995. As of the end of September 1996, that portfolio was up more than 5 percent from a year ago. In comparison, the year-over-year gain in farm real estate loans held by banks has been narrowing, falling to 4 percent in September.

The analysis of farm debt trends is less precise for local regions than for the U.S. as a whole. This is because the data is largely based on the location of the lender rather than the borrower. This can cause distortions when, for example, a lender located in one state extends credit to a farmer in another state. The problem grows as nationwide branching becomes more prevalent in banking and as the lending opportunities for entities within the FCS become less restrained by local and district boundaries. Aside from these caveats, however, it appears that the trends in farm debt among the five states comprising the Seventh Federal Reserve District have paralleled the nationwide trends in recent years. The five states collectively account for 21 percent of all farm debt nationwide, unchanged from their share in the late 1980s and only 1 percentage point below the region's share when farm debt peaked in 1984.

Of the roughly \$31.6 billion in farm debt among District states as of the end of 1995, nearly 57 percent was secured by farm real estate. The share secured by real estate was highest in Indiana and lowest in Wisconsin. The latter may reflect the dominance of dairying in Wisconsin and the convenience a monthly milk check offers for collateralizing farm debt. The distribution of debt by lender shows the share of farm debt owed to banks is higher among District states than elsewhere (44 percent compared to 39 percent). However, the share of farm debt owed banks varies substantially among the five District states, ranging from 50 percent in Illinois to 22 percent in Michigan. The share owed to the FCS approximates 22

percent over the five-state region, ranging from a low of 15 percent in Iowa to a dominating share of nearly 41 percent in Michigan. The share owed to life insurance companies in all District states is lower than the national average and the share owed to the Farm Service Agency (of the U.S. Department of Agriculture) is lower in all District states other than Michigan. The share reportedly owed to individuals and others over the five District states has edged higher in recent years but, at 26 percent, remains below the share that category accounted for a decade ago.

*Gary L. Benjamin*

### **TRACTOR SALES HIGHEST SINCE 1983**

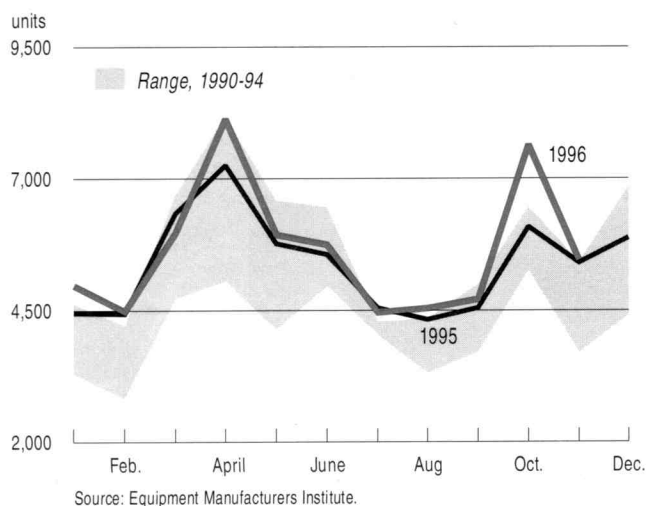
Unit sales of farm tractors with at least 40 horsepower are on track to post an annual gain for the fourth consecutive year. Reports from the Equipment Manufacturers Institute show that farm tractor sales totaled 62,100 during the first eleven months of 1996, 6 percent more than a year earlier. In comparison, combine sales suffered a year-over-year decline of 5 percent to about 7,800 units despite a strong performance in the late summer and early autumn. Internationally, the U.S. expanded farm equipment exports in fiscal 1996 and realized a trade surplus, in contrast to the deficit recorded the prior year.

Units sales of new farm tractors were somewhat variable over the past year. Sales got off to a good start last January, aided by record-high grain prices. But deliveries faded rapidly in the ensuing two months as the debate over farm legislation dragged on and the uncertainty surrounding the future of U.S. farm programs reached a new level. April brought strong year-over-year gains in tractor purchases as the new farm bill improved the financial outlook and farmers increased the acreage planted to corn and soybeans. The changes were relatively modest over the next five months, but then tractor sales exploded in October, registering a year-over-year gain of 26 percent before dropping back to a minor increase in November.

While each of the broad size categories registered an increase in sales, larger tractors played a relatively greater role in the improved results. Through November, unit sales of large two-wheel-drive tractors—100 or more horsepower—were about a tenth above the prior year's pace. Sales of four-wheel-drive tractors were up 7 percent through November, somewhat below the double-digit increases of the past three years. In comparison, sales of smaller farm tractors—40 to 99 horsepower—registered a more modest year-over-year gain of 4 percent for the January-November period.

Tractor sales were fueled by an increase in the acreage planted to major crops in 1996 that stemmed in part from

## Unit sales of tractors with 40 or more horsepower



the dismantling of the acreage reduction program. But farm income was probably the most important factor contributing to the increase. Projections from the USDA indicate that net cash income to the farm sector will be near \$58 billion in 1996, a tenth higher than the 1991-95 average. Higher prices for wheat, corn, soybeans, milk, and hogs helped boost cash receipts from farm commodity sales. And despite the high crop prices, direct government payments to farmers were higher than in each of the previous two years. Moreover, the strong pace in agricultural exports added to the rise of farm income in 1996.

In contrast to the improved market for new farm tractors, combine sales logged a decline in 1996. Unit sales during the first eight months of the year were down sharply from the prior year, posting a cumulative decline of 16 percent. The next three months brought a remarkable turnaround, with a year-over-year sales gain for the September-November period approaching 15 percent. This pattern probably stemmed from a double whammy experienced by farmers earlier in the year. After the uncertainty surrounding the farm bill situation was resolved in April, farmers faced a late spring that extended corn and soybean planting dates considerably beyond the norm and left the crops exposed to a shortened growing season. With crop yields in doubt up until the last moment, farmers chose to postpone combine purchases until they had a better feel for the size of the harvest.

Farm machinery and equipment manufacturers belong to a mature industry that underwent considerable restructuring following the prosperous times of the 1970s. Over time, the domestic industry has evolved into a smaller group of globally competitive firms that look to exports and capital investment in foreign nations as part of a strategy to enter new markets and expand sales. Furthermore, USDA reports show that domestic farm

equipment manufacturers made significant strides in the international arena during the fiscal year ending September, 1996, boosting foreign sales nearly a fifth to \$3.2 billion. The improvement was led by a particularly sharp increase in exports of tractors and other self-propelled equipment. In addition, the gain in exports coincided with a decline in imports of farm equipment. Those developments boosted the industry's trade balance to a surplus of \$390 million, a turnaround of nearly three-quarters of a billion dollars from the trade deficit of the prior year.

An additional perspective on the performance of the farm equipment industry is evident from output and employment measures. These statistics—compiled by the U.S. Department of Commerce—indicate that farm equipment manufacturers have been in an expansion phase since 1992. Furthermore, annual output—as measured by the value of manufacturers' shipments—has recovered to a level near the 1981 peak. But taking a longer view—and adjusting for inflation—the data show the average annual value of shipments so far in the current decade is well below the average for the past two decades and only slightly larger than the norm for the 1960-69 period. And even though industry employment rose in recent years, it is still well below the average levels of the past three decades.

These changes mirror (and were influenced by) the downsizing and restructuring experienced by production agriculture in the 1980s. Yet they also point to an industry that has improved productivity and is more competitive than in the past. Manufacturers have adjusted to the changed environment, adopted new technology, and the benefits have been reaped as steady gains in real output per employee, which is higher than at any time in the past three decades. And though inventories have fluctuated somewhat in the past few years, they remain—in real terms—well below the levels that existed even in the 1960s.

Mike A. Singer

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# SELECTED AGRICULTURAL ECONOMIC INDICATORS

	Latest period	Value	Percent change from		
			Prior period	Year ago	Two years ago
<b>Prices received by farmers</b> (index, 1990-92=100)	November	110	-1.8	4	16
<b>Crops</b> (index, 1990-92=100)	November	116	-2.5	-1	16
Corn (\$ per bu.)	November	2.64	-8.7	-8	33
Hay (\$ per ton)	November	95.10	1.5	19	10
Soybeans (\$ per bu.)	November	6.80	-2.2	6	27
Wheat (\$ per bu.)	November	4.07	-2.6	-15	9
<b>Livestock and products</b> (index, 1990-92=100)	November	103	0.0	10	14
Barrows and gilts (\$ per cwt.)	November	54.60	-2.3	35	91
Steers and heifers (\$ per cwt.)	November	70.40	3.4	8	3
Milk (\$ per cwt.)	November	15.20	-5.6	9	16
Eggs (¢ per doz.)	November	82.7	10.9	7	34
<b>Consumer prices</b> (index, 1982-84=100)	November	159	0.2	3	6
Food	November	156	0.3	4	7
<b>Production or stocks</b>					
Corn stocks (mil. bu.)	September 1*	426	N.A.	-73	-50
Soybean stocks (mil. bu.)	September 1	183	N.A.	-45	-12
Wheat stocks (mil. bu.)	September 1	1,724	N.A.	-8	-17
Beef production (bil. lb.)	October	2.18	12.6	0	3
Pork production (bil. lb.)	October	1.59	13.0	1	-2
Milk production* (bil. lb.)	November	10.6	-3.1	0	0
<b>Receipts from farm marketings</b> (mil. dol.)	August	16,254	-5.8	9	16
Crops**	August	8,295	-3.8	6	35
Livestock	August	7,600	-1.7	7	-2
Government payments	August	359	-59.8	1,336	379
<b>Agricultural exports</b> (mil. dol.)	September	4,376	-5.4	-7	23
Corn (mil. bu.)	September	100	-8.8	-60	-13
Soybeans (mil. bu.)	September	42	-20.9	-41	-2
Wheat (mil. bu.)	September	129	-12.5	-3	7
<b>Farm machinery sales</b> (units)					
Tractors, over 40 HP	November	5,449	-28.5	1	6
40 to 100 HP	November	3,082	-27.4	1	2
100 HP or more	November	2,367	-29.8	1	11
Combines	November	1,439	30.1	25	59

N.A. Not applicable

\*22 selected states.

\*\*Includes net CCC loans.



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