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FEDERAL RESERVE BANK OF CHICAGO

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THE GROWTH AND DISTRIBUTION OF FARM DEBT has changed markedly in recent years. In the latter half of the 1970s, the annual rise in farm debt averaged more than 15 percent. But in the last three years, the annual increase in farm debt averaged only 9.5 percent. The most significant development in the distribution of debt among lenders has been the growing share held by government agencies, mostly at the expense of banks. In terms of the distribution of farm debt by borrower, an interesting analysis by the Farm Credit Administration highlights the concentration of farm debt among larger farmers and the types of farms prevalent in the Midwest.

Preliminary figures suggest outstanding farm debt approached $218 billion at the end of 1982, up 7.9 percent from the year before—the smallest annual increase since 1970. Nonreal estate loans, typically short- and intermediate-term credit not secured by farm real estate, paced the rise. At an estimated $108 billion at year-end, nonreal estate farm debt was up more than 12 percent from the year before. An abnormally large share of the growth in nonreal estate farm debt reflected the price-support lending activities of the Commodity Credit Corporation. Excluding the CCC portfolio, nonreal estate debt rose less than 4 percent in 1982. Farm real estate debt rose about 4 percent to nearly $110 billion. That was the smallest annual percentage rise in farm real estate debt since 1947, no doubt reflecting the downturn in transactions and the declining prices of real estate.

The market shares of outstanding farm debt held by lenders have changed markedly in recent years. Of mortgage debt, the share held by federal land banks has recorded virtually uninterrupted growth since the mid-1950s, rising from 15 percent at that time to 43 percent at the end of 1982. The share now held by FLBs virtually equals the peak combined share held by FLBs, the Federal Farm Mortgage Corporation, and the Joint-Stock Land Banks in the late 1930s following the special Depression-era legislation that initially propelled these agencies into the dominant position among farm mortgage lenders.

In conjunction with the growing market share of farm mortgage debt held by federal land banks, the share held by the Farmers Home Administration has edged upward to 8 percent, while the shares held by other lenders have declined appreciably. The share of farm mortgage debt held by banks, which reached a peak of 17 percent in the late 1940s, has declined to less than 8 percent. The share held by life insurance companies, which peaked at 25 percent in the late 1950s, has declined to 12 percent. Individuals and others hold a 29 percent share.

Outstanding Farm Debt and Percent Held by Lenders, December 31 of Selected Years

	1970	1975	1980	1981	1982*
Outstanding farm debt *(bil. dol.)*					
Real estate	$30.3	$49.6	$95.5	$105.6	$109.6
Nonreal estate	24.1	41.9	86.4	96.1	108.0
Total	54.5	91.5	182.0	201.7	217.6
Share of debt by lender *(percent)*					
Real estate					
Banks	12.4%	12.7%	9.2%	7.9%	7.8%
Federal land banks	23.5	32.2	37.6	41.3	43.0
Life insurance companies	18.5	13.6	13.5	12.4	11.7
Farmers Home Adm.	8.0	6.8	8.1	8.3	8.3
Individuals and others	37.5	34.8	31.6	30.1	29.2
Total	100.0	100.0	100.0	100.0	100.0
Nonreal estate					
Banks	46.0	48.1	36.5	34.3	33.5
PCAs & FICBs**	22.8	26.4	23.6	22.8	19.4
Government agencies	11.1	5.1	22.4	26.7	31.6
CCC	(7.8)	(.9)	(5.8)	(8.3)	(15.4)
FmHA & SBA	(3.3)	(4.2)	(16.6)	(18.4)	(16.3)
Individuals and others	20.1	20.4	17.5	16.2	15.5
Total	100.0	100.0	100.0	100.0	100.0

*Preliminary.

**Represents the combined share held by production credit associations and the federal intermediate credit banks through loans discounted for financial institutions other than PCAs.

The changing market shares of nonreal estate farm debt are perhaps even more dramatic. Government agencies—the Farmers Home Administration, the Commodity Credit Corporation, and the Small Business Administration—have dominated the growth in nonreal estate debt in recent years. Since the mid-1970s, nonreal estate farm loan portfolios held by the three government agencies have grown at a compound annual rate of 50 percent. In comparison, the annual growth in the portfolios of all other nonreal estate lenders was 9.5 percent. As a result, government agencies now hold a post-World War II high of 32 percent of the outstanding nonreal estate farm debt, up from the more typical range of 10 to 16 percent in the 1960s and early 1970s. In contrast, the share held by banks, which peaked at 50 percent at the end of 1973, has declined to a 24-year low of 33 percent. Likewise, the share held by the farm credit system (mostly production credit associations), which had steadily increased over the past 40 years, has declined from a peak of nearly 27 percent at the end of 1974 to 19 percent. The share held by individuals and others has declined from 20 percent in the early 1970s to 15 percent.

The rapidly expanding share of nonreal estate farm debt held by government agencies since the mid-1970s initially reflected new and more liberalized emergency lending programs of the FmHA and the SBA. But that source of growth abated last year as the combined FmHA and SBA outstandings declined nominally. Since the latter part of 1981, the CCC has dominated the growth in nonreal estate portfolios held by government agencies. The surge in loans held by the CCC represents the government price support mechanism for grains in conjunction with the burdensome buildup of grain stocks and expanded lending for grain storage facilities. The CCC's share of nonreal estate farm debt, now at 15.4 percent, has reached a 22-year high, but remains below the highs of 20 to 26 percent that occurred several times in the 1940s and the 1950s.

Distributions of farm debt by borrower characteristics are less readily available than those for lenders. But recently released results from the 1979 Farm Finance survey, conducted by the Bureau of the Census, provide some interesting insights. An excellent overview of the survey findings was recently published in the *Agricultural and Credit Outlook '83* by Farm Credit Administration. According to that report, the 1979 survey again indicated that nearly half (46 percent) of the farm operators were debt free and that a similar portion of the farm assets were held by individuals (operators and landlords) without farm debt. Debt-free operators, however, owned only about 26 percent of the farm assets of all operators.

Considering only farm operators, farm debt is concentrated among larger farms. Reflecting this, 85 percent of the relatively few operators with $100,000 or more in 1979 sales were indebted, while only 44 percent of the operators with sales of less than $40,000 were indebted. Operators of the large farms accounted for 56 percent of the operator farm debt while operators of the smaller farms accounted for 21 percent. For indebted operators, debt-to-asset ratios averaged 28 percent among the larger operators and 18 percent among the smaller operators.

The report by the Farm Credit Administration also noted a disproportionate degree of financial vulnerability among younger farmers. Farm operators under 35 years of age represented only 16 percent of all operators, but 21 percent of the operators with debt and 20 percent of the debt owed by operators. More significantly, the average debt-to-asset ratio among indebted operators under 35 years of age was 35 percent compared to 24 percent for all indebted operators.

The report noted some variation in the proportion of indebted farm operators by type of farm enterprise. Among 12 crop enterprises, for instance, the proportion of indebted operators ranged from 47 percent for operators of tobacco farms to 65 percent for corn farms. Similarly, the proportion of indebted operators for 8 different livestock categories ranged from 42 percent for cattle ranchers to 70 percent for dairy operators. In terms of the distribution of farm debt, cash grain farms accounted for nearly 30 percent of the total, while dairy farms accounted for an additional 10 percent.

In an interesting analysis, the report attempted to update the 1979 survey findings to the current situation by accounting for the deterioration in equity, the continued growth in debt, and the farm earnings squeeze that has plagued agriculture in the interim. The analysis suggests that while the overall debt-to-asset ratio for the farm sector at the end of 1982 may have only slightly exceeded 20 percent, the ratio for all farm operators was likely 26 percent and the ratio for indebted operators was over 35 percent. The last figure, compared with the average ratio of 24 percent for indebted operators at the time of the 1979 survey, dramatically portrays the financial deterioration among indebted farm operators the past three years.

The implications one draws from the changing distributions of farm debt by lenders and borrowers are many and, depending on one's value system, varied. But clearly, the depressed conditions in agriculture the past three years have taken a toll on the financial vitality of some very important segments of U.S. agriculture. If the depressed conditions were to last another few years, the ownership and the values of agricultural assets could change rather dramatically. Fortunately, the apparent popularity of PIK and other acreage-limiting programs among farmers this year suggests the stress in agriculture may be abating rather than intensifying.

Without doubt, the quality of the agricultural credits held by lenders has deteriorated considerably. But asset liquidation in agriculture appears to have been less than what might have been expected in light of the deterioration that has occurred. Lenders and farm borrowers seem to be working out the current stress with minimal distortions. This partially reflects the increased role of government agencies in the farm debt market. The fungible nature of the loans provided by government agencies has cushioned the deterioration in the quality of credits between commercial lenders and farmers.

Nevertheless, the increased role of government agencies is a shock to those who profess the free enterprise nature of U.S. agriculture. It is also a vastly different outturn than the Administration's intent of a year or two ago to reduce the government safety net for agriculture.

In that regard, the question as to how large the government role in agriculture should be merits consideration in the current debate on bills calling for loan repayment moratoriums and expanded government loan programs for farmers.

Gary L. Benjamin

THE AGRICULTURAL EXPORT OUTLOOK is not as bright as it was in the 1970s. The USDA now expects agricultural exports for the year ending in September (fiscal 1983) to fall 8 percent from last year to $36 billion, marking the second consecutive annual decline. Export tonnage is also expected to be down from the year-earlier level to 154.5 million metric tons, a 2 percent drop and the third consecutive annual decline. Export markets have been an important outlet for U.S. agricultural commodities, especially since the early 1970s. As a result, a number of special initiatives have recently been undertaken to rebuild export trade or to protect export markets from competing sellers.

During the 1970s, the value of agricultural exports rose from $7 billion to almost $32 billion, a phenomenal 16.5 percent compound annual rate of growth. This rapid increase was due to greater export tonnage, as well as higher prices. Agricultural export volume in the 1970s more than doubled from 62 million metric tons to nearly 140 million metric tons, an 8.4 percent compound annual rate of growth.

At the end of the 1970s many analysts were expecting this growth in agricultural exports to continue well into the 1980s. The value of agricultural exports increased to $40.5 billion in fiscal 1980 and reached a peak of $43.8 billion in 1981. But in fiscal 1982, the value of agricultural exports fell—the first year-to-year decline in 13 years. The volume of agricultural exports peaked, at least temporarily, in fiscal 1980 at 164 million metric tons. In fiscal 1981, export volume declined to 162 million metric tons and in fiscal 1982 was 158 million metric tons.

The recent decline in agricultural exports occurred despite low U.S. commodity prices as a number of other factors came to bear. Economic activity in many countries was down appreciably. High interest rates increased the debt service requirements for most countries, and several, especially in Eastern Europe, found it more difficult to obtain the financing needed to sustain the volume of imports at earlier levels. The U.S. dollar, relative to currencies of other industrialized countries, was strong, making U.S. commodities more expensive to foreign buyers. Because of greater production abroad, especially in 1982, some countries were able to reduce imports from the U.S. In addition, agricultural exports have increasingly taken on political overtones—through the imposition of embargoes and other restrictions—resulting in shifts in export activity among countries.

The expected decline in export value for this year is based on prospects for a 2 percent decline in export tonnage and a 6 percent decline in prices of the goods exported. However, in the first quarter (October-December 1982) of fiscal 1983, export tonnage was down 15 percent. The sharp decline in tonnage reflected lower corn and wheat exports, which account for three-fifths of U.S. agricultural export volume. Based on weekly export reports through February (the first five months of the fiscal year), corn export volume was down 2 percent, while wheat exports were down 20 percent from the year-earlier level. Soybean shipments are moderately ahead of last year's record pace. In order to meet the volume projections for the year, corn exports the rest of this year will have to exceed the year-earlier pace by 10 percent. Soybean exports will have to remain slightly above the year-ago pace, and wheat exports will have to pull within 5 percent of the year-earlier pace.

Exports to a number of countries this fiscal year are expected to trail the year-earlier level. Exports to Western Europe are expected to decline by over 10 percent, while exports to Eastern Europe may fall by 13 percent. The value of exports to the USSR may only be half the year-earlier level. Because of lower exports to Japan and China, exports to Asia will be down. Only exports to Africa and Latin America, largely Mexico, may exceed year-earlier levels. Overall, exports to developed countries are expected to be down 10 percent, while exports to less developed countries may be up 7 percent.

A number of efforts with political overtones are underway to stimulate export sales and to protect existing export markets. In order to shore up export sales and overcome some of the credit difficulties experienced by an increasing number of countries, the U.S. announced a three-year export credit program which provides a blend of interest-free direct credit and loan guarantees from the CCC to private lenders at market rates of interest. Funds also have been made available for foreign market development. Other initiatives may be forthcoming, such as an "export PIK" program that would provide additional export commodities free as a bonus to foreign buyers of U.S. commodities. The U.S. also recently arranged a sale of 1 million metric tons of wheat flour to Egypt at prices well below world free market prices. Such initiatives are designed to counteract efforts by other exporters—namely the EEC—to subsidize sales of their own commodities to importers. Consideration is also being given to subsidized export sales of surplus dairy products. Such initiatives, however, run the risk of provoking retaliatory moves.

Jeffrey L. Miller

Selected agricultural economic developments

Subject	Unit	Latest period	Value	Percent change from Prior period	Percent change from Year ago
Index of prices received by farmers	1977=100	February	132	+ 3.1	− 1
Crops	1977=100	February	117	+ 2.6	− 6
Livestock	1977=100	February	147	+ 3.5	+ 4
Index of prices paid by farmers	1977=100	February	158	+ 0.6	+ 3
Production items	1977=100	February	151	+ 0.7	+ 2
Producer price index* *(finished goods)*	1967=100	February	284	0	+ 2
Foods	1967=100	February	260	+ 0.6	+ 1
Processed foods and feeds	1967=100	February	254	− 1.6	+ 2
Agricultural chemicals	1967=100	February	283	− 0.1	− 5
Agricultural machinery and equipment	1967=100	February	323	+ 0.3	+ 6
Consumer price index** *(all items)*	1967=100	January	293	+ 0.2	+ 4
Food at home	1967=100	January	279	+ 0.5	+ 2
Cash prices received by farmers					
Corn	dol. per bu.	February	2.55	+ 8.1	+ 5
Soybeans	dol. per bu.	February	5.65	+ 1.6	− 6
Wheat	dol. per bu.	February	3.59	+ 0.6	− 3
Sorghum	dol. per cwt.	February	4.39	+ 7.3	+ 8
Oats	dol. per bu.	February	1.43	− 2.1	−28
Steers and heifers	dol. per cwt.	February	60.90	+ 3.2	0
Hogs	dol. per cwt.	February	57.60	+ 4.2	+19
Milk, all sold to plants	dol. per cwt.	February	13.80	0	0
Broilers	cents per lb.	February	27.7	+ 7.4	+ 3
Eggs	cents per doz.	February	54.7	+ 4.0	−17
Income *(seasonally adjusted annual rate)*					
Cash receipts from farm marketings	bil. dol.	4th Quarter	144	+ 0.6	+ 1
Net farm income	bil. dol.	4th Quarter	25	+44.5	− 2
Nonagricultural personal income	bil. dol.	February	2,592	+ 0.2	+ 5

*Formerly called wholesale price index.

**For all urban consumers.

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