FEDERAL RESERVE BANK OF CHICAGO

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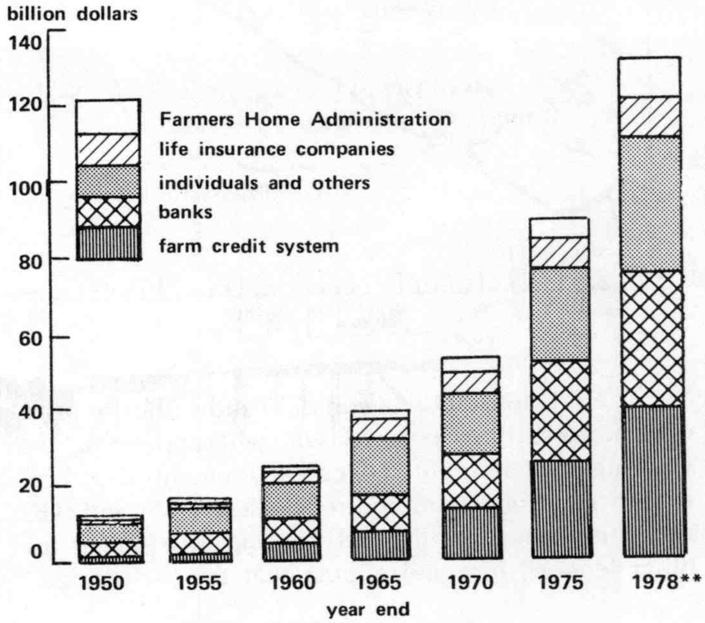
FARM DEBT has grown much faster in the seventies than in previous decades. Latest estimates from the USDA indicate that farm debt (excluding CCC loans) has grown at a compound annual rate of 11.3 percent during the nine years of this decade. That is substantially more than the annual growth rate of 8 percent in both the fifties and the sixties. The faster growth has already boosted farm debt to $131 billion, up from $48 billion ten years ago and only $21 billion twenty years ago. And if the stepped-up growth rate of the seventies persists through the next two decades, farm debt will surpass the trillion dollar mark before the year 2000.

Farm debt exceeded $131 billion at the end of last year*



*Excludes $5.3 billion in CCC loans.
**Preliminary.

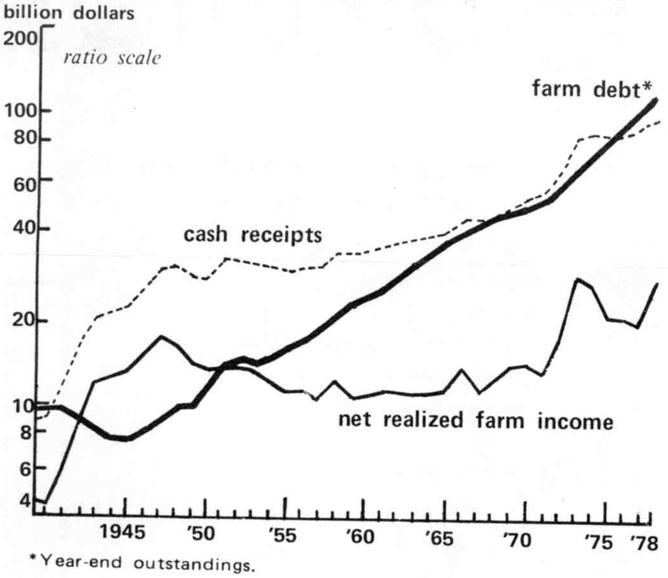
The pick-up in farm lending is evident in both real estate and nonreal estate farm debt. So far this decade, nonreal estate farm debt (excluding CCC loans) has grown at an annual rate of 12.0 percent. That compares with annual growth rates of 6.3 percent in the sixties and 8.4 percent in the fifties. Farm real estate debt, which grew at annual rates of 8.0 percent in the fifties and 9.2 percent in the sixties, has grown at an annual rate of 10.7 percent so far in the seventies. Nonreal estate debt has grown faster this decade than real estate debt despite the sharply higher credit requirements to finance farm real estate transfers and despite efforts to restructure farm debt by replacing short-term obligations with longer-term mortgage financing.

All major lenders except life insurance companies have recorded faster growth during the seventies. Since the beginning of this decade, farm debt held by the farm credit system (primarily FLBs and PCAs) has risen at an annual rate of 15.0 percent, up from 11.6 percent in the sixties. The farm credit system now accounts for over 30 percent of the outstanding farm debt. At banks, which hold nearly 28 percent of the total debt, farm loans have grown at an annual rate of 11.2 percent this decade, as against 8.1 percent in the sixties. Farm loans held by individuals and others—a broad category of lenders that now account for 27 percent of total farm debt—have grown at an annual rate of 8.8 percent this decade. The remaining farm debt is about equally divided between life insurance companies and the Farmers Home Administration. Outstandings at the FmHA have risen at an annual rate of 13.8 percent so far this decade, while outstandings at life insurance companies—slowed by a brief downturn early in the decade—have grown at a rate of 6.2 percent.

Comparisons between the higher level of farm debt with various measures that partially describe the quality of farm debt are mixed. On the one hand, the value of farm assets (measured in current dollars) has about matched the stepped-up growth in farm debt. Consequently, the debt-to-asset ratio for agriculture—currently 17.1 percent—is only slightly above the level of the early seventies, although it is the highest since the early forties.

On the other hand, the growth in farm debt has continued to exceed the growth in farm earnings. Debt exceeded net farm income by a margin of nearly 4.7 to 1 last year, despite a near record for net farm income. Except for the two previous years, that was the highest ratio in modern times. Moreover, farm debt now exceeds annual cash receipts from farm marketings by a substantial margin. During the late sixties and early seventies, debt was about equal to cash receipts, and during the early sixties debt was 25 to 30 percent below cash receipts.

Gains in farm earnings during the seventies have not matched the faster growth in farm debt



*Year-end outstandings.

The relationship between debt and cash receipts is even more startling compared with what appears to be a very high annual debt service requirement. Based on evidence of collections and renewals at PCAs and FLBs and the assumption that relationships are similar for other lenders, it would appear that the "scheduled" principle and interest repayment on farm debt this year might be around $100 billion, or equivalent to about 90 percent of all cash receipts from farm marketings last year. Of course, much of this debt service requirement will be met by loan renewals and extensions rather than actual paydown. Nevertheless, it serves to point out that the expanded debt levels entail a substantial cash flow obligation for farmers. And in many cases, nonfarm earnings are probably used to help meet debt service requirements.

The implications of the higher debt levels, particularly with respect to agricultural earnings, are not clear. Some have suggested that the debt load in agriculture is too heavy. Clearly, the problems that developed in late 1977, when falling commodity prices resulted in a cash flow squeeze for farmers, adds some credence to that argument. But judgment as to whether the debt load is too heavy rests more appropriately in the cumulative decisions between individual lenders and borrowers rather than in an aggregate view of the agricultural sector. And that judgment will largely hinge on future earnings prospects of individual farmers from both farm and nonfarm sources.

Apart from the concern that farm debt may be too heavy, it seems clear that agriculture has become increasingly dependent on debt capital. If agriculture continues to have recurring cycles of boom and bust, the impacts on lenders will be more apparent than in the past.

Gary L. Benjamin
Agricultural Economist

HOG PRICES have dropped sharply since the release of the latest USDA *Hogs and Pigs* report. The report, covering the 14 major hog producing states, showed a 16 percent year-to-year increase in sow farrowings during the December 1978-February 1979 period and followed the 9 percent increase reported for the preceding quarter. Furthermore, producers reportedly intend to farrow 24 percent more sows in the March-May quarter and follow that with a 19 percent hike in the June-August quarter. If accurate, the report portends a much larger increase in pork supplies this year than previously expected, perhaps as much as 15 percent. Although hog prices dipped below year-before levels in reaction to the report, a moderate recovery is expected and should last through the spring and well into the summer quarter. Most of the downward price pressures are not likely to develop until late in the year.

Nearly 2.7 million sows were farrowed in the December-February period, almost 4 percent more than expected based on hog producers' December farrowing intentions. Similarly, the 24 percent more sows intended to be farrowed in the current quarter contrasts sharply with the previously reported intentions of a 16 percent increase. The average number of pigs saved per litter in the December-February quarter, roughly the same as the 6.8 average of a year ago, tends to dispel rumors of exceptionally heavy death losses this year from cold weather and disease.

The larger farrowings were reflected in the March inventory estimate of all hogs and pigs, which—at 50.5 million head—marked a 13 percent increase from a year ago. That was the largest March hog and pig inventory in the 14 major states—which account for about 85 percent of the nation's total—since 1971. Inventory increases were larger among market hogs in the lighter weight groups. The inventory of market hogs 60 pounds and over—a rough estimate of the slaughter supply for the current quarter—was a tenth more than last year. Hogs under 60 pounds numbered 14 percent more.

Buildup in breeding stock paces rise in hog inventories*

	1977	1978	1979 Number	1979 Change from 1978
	(thousand head)			(percent)
Market hogs				
under 60 pounds	14,199	14,590	16,665	14
60-119 pounds	8,585	8,987	10,014	11
120-179 pounds	8,387	8,309	9,146	10
180 pounds or over	5,846	5,848	6,342	8
Total	37,017	37,734	42,167	12
Hogs for breeding	7,003	6,946	8,344	20
All hogs and pigs	44,020	44,680	50,511	13

*Inventories on farms in 14 major hog producing states on March 1.

Hogs held for breeding purposes totaled 8.3 million head, up nearly a fifth from a year earlier and the largest percentage increase among the categories of inventory. Preliminary estimates suggest sow slaughter in the first 11 weeks of this year has trailed that of a year earlier by almost a tenth. This buildup in breeding stock supports prospects for further large farrowing increases in coming months, even though a higher proportion of gilts relative to sows could keep the number of pigs saved per litter from returning to the more normal pre-1977 levels.

All four of the district states covered in the recent report (Michigan is not included) showed substantial increases in hog production in the winter quarter.

Farrowing intentions portend sharp rise in pork production in 1979

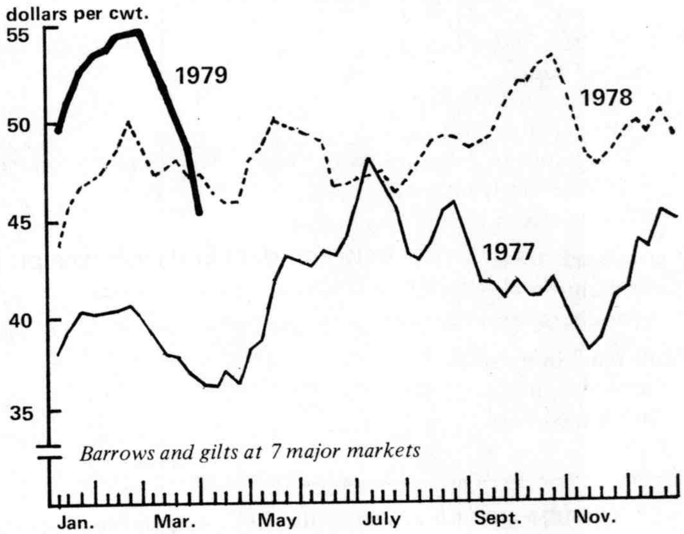
	Winter farrowings (Dec.-Feb.)		Spring farrowings* (March-May)		Summer farrowings* (June-Aug.)	
	Thou. head	Percent change	Thou. head	Percent change	Thou. head	Percent change
Illinois	340	13	475	17	400	13
Indiana	240	20	260	24	275	20
Iowa	680	13	980	17	850	20
Wisconsin	95	27	135	25	125	14
14 major states	2,659	16	3,548	24	3,163	19

*Based on producers' farrowing intentions.

December-February sow farrowings were 15 percent higher in district states, slightly below the average rise for the 14 states. Iowa and Illinois—first and second nationwide in hog production—farrowed only 13 percent more sows in the period. Producers' farrowing intentions suggest hog production in district states will continue to lag the rate of increase expected for the 14 states in the March-May and June-August quarters as well.

Hog slaughter is expected to rise sharply above year-earlier levels for the rest of 1979, following the estimated 3 percent first-quarter increase suggested by the preliminary data on federally inspected slaughter. With slaughter weights in the January-March period averaging slightly heavier than a year before, pork production could be nearly 4 percent larger than in the first quarter last year. Second-quarter slaughter is expected to be a tenth larger than a year before, while third-quarter slaughter is likely to be up about 15 percent. If producers' intentions for a 24 percent hike in March-May farrowings materialize, fourth-quarter slaughter could be more than a fifth above a year earlier. For all of 1979, the expansion in pork production could slightly exceed the approximately 13 percent projected rise in the total number of hogs slaughtered.

Hog prices could average below year-ago levels for remainder of year



Omaha cash prices for market-weight hogs dropped nearly a tenth to $44 per hundredweight in the days immediately following release of the recent report. Once the initial impact of the bearish report settles, however, prices should recover somewhat for at least the next several months, because the bulk of the projected increase in hog numbers will not materialize until later in the year. Aided by the likelihood of a sharp decline in beef production this year, hog prices should fare much better than would otherwise be expected from the increases forecast in hog production. Prices could hold in the mid- to high-$40s per hundredweight range into the summer months. In the fourth quarter, however, prices could drop below $40 per hundredweight, the level regarded currently as approximating the break-even price.

Don A. Langford
Agricultural Economist

Selected agricultural economic developments

Subject	Unit	Latest period	Value	Percent change from Prior period	Percent change from Year ago
Farm finance					
Total deposits at agricultural banks†	1972-73=100	December	188	− 0.9	+ 8
Time deposits	1972-73=100	December	219	− 0.1	+ 9
Demand deposits	1972-73=100	December	135	− 3.0	+ 6
Total loans at agricultural banks†	1972-73=100	December	234	+ 0.6	+14
Production credit associations					
Loans outstanding					
United States	mil. dol.	February	14,991	+ 0.7	+13
Seventh District states	mil. dol.	February	2,967	− 0.8	+13
Loans made					
United States	mil. dol.	February	2,350	−12.8	+23
Seventh District states	mil. dol.	February	575	+ 7.2	+21
Federal land banks					
Loans outstanding					
United States	mil. dol.	February	25,358	+ 1.2	+16
Seventh District states	mil. dol.	February	5,506	+ 1.7	+23
New money loaned					
United States	mil. dol.	February	428	−29.0	+24
Seventh District states	mil. dol.	February	117	− 8.3	+39
Interest rates					
Feeder cattle loans††	percent	4th Quarter	9.77	+ 5.5	+11
Farm real estate loans††	percent	4th Quarter	9.70	+ 4.7	+10
Three-month Treasury bills	percent	3/22-3/28	9.51	+ 0.6	+52
Federal funds rate	percent	3/22-3/28	10.00	− 0.6	+47
Government bonds *(long-term)*	percent	3/26-3/30	9.05	− 0.8	+ 9
Agricultural trade					
Agricultural exports	mil. dol.	January	2,432	−11.1	+25
Agricultural imports	mil. dol.	January	1,475	+ 8.5	+18
Farm machinery sales					
Farm tractors	units	January	11,114	+ 2.4	+24
Combines	units	January	1,705	− 4.5	+68
Balers	units	January	809	+87.7	+42

†Member banks in Seventh District having a large proportion of agricultural loans in towns of less than 15,000 population.

††Average of rates reported by District agricultural banks.

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