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### Farm sector balance sheet

Recent readings of the farm sector's balance sheet indicate that the erosion in farm assets and equity that has characterized the decade continued last year. Preliminary estimates of ending 1986 conditions suggest that asset values, excluding farm households, fell by almost 8 percent last year and are about 30 percent lower than the 1981 peak. A similar proportional decline in farm sector debt during 1986, however, offset the decline in asset values, leaving the debt-to-asset ratio of the farm sector virtually unchanged. Still, proprietors' equity in farm operations dropped more than 7 percent during 1986, leaving equity in the sector more than a third lower than in 1981.

The decline in farm sector assets centered on further declines in the value of real estate, which accounts for more than 70 percent of total assets. Last year's declines in land values, recently reported by USDA, dropped the value of farm real estate about 8 percent. Although less than the 12.5 percent year-to-year drop registered at the end of 1985, this year's decline sliced almost \$45 billion from the asset side of the sector's balance sheet.

Additional downward adjustment to asset values was caused by a sharp drop in the value of crop inventories stored on and off farms. At about \$30 billion at the end of last year, the value of crop inventories was down almost a fifth from a year earlier. The decline is attributable to the burdensome levels of stocks and the introduction of PIK certificates and marketing loans for various crops that have allowed the traditional price floors of various government programs to be circumvented, allowing market prices to fall. In addition, cuts in livestock inventories, although partially offset by higher prices, contributed slightly to the decline in assets, while continued lagging investment in farm machinery and equipment also resulted in a drop in asset values.

The financial assets of farm businesses also registered a decline in 1986. Although demand deposits and cash holdings of farm enterprises remained fairly stable at about \$9 billion, investments in farmer cooperatives dropped more than 6 percent from a year earlier. Much of that decline undoubtedly represents farmers who are paying down outstanding debt held

by Farm Credit System lenders and withdrawing equity investments.

Total farm debt, excluding farm households, registered a fourth consecutive annual decline in 1986. At \$176.3 billion at the end of last year, farm debt outstanding was down 8 percent from a year earlier and more than 13 percent lower than the 1982 high. Farm real estate debt outstanding declined more than 8 percent during the year through a combination of pay downs and write-offs as many financially stressed farmers continued to adjust their operations. Among various lenders, changes in farm real estate outstandings varied significantly. Outstanding loans from Federal Land Banks and individuals fell 16 and 8 percent, respectively, while farm real estate debt held by life insurance companies was down 7 percent from a year earlier. The farm real estate loan portfolio of the Farmers Home Administration registered a year-to-year drop of 1 percent. Commercial banks, on the other hand, showed a gain of 13 percent in the level of outstanding farm real estate loans.

Total nonreal estate farm debt also declined by more than 8 percent last year, despite an increase of more than 12 percent in Commodity Credit Corporation loans outstanding. The CCC indebtedness, however, reflects the high level of participation by farmers in the government's crop price support programs. Moreover,

**Balance sheet of the farm sector  
(December 31)**

	1983	1984	1985	1986 <sup>P</sup>
	(-----billion dollars-----)			
<b>Assets</b>	956.8	856.0	771.4	712
Real estate	736.1	639.6	559.6	515
Nonreal estate	220.7	216.4	213.7	197
Livestock and poultry	49.7	49.6	45.9	48
Machinery	100.9	95.0	92.2	89
Stored crops	33.3	33.8	37.1	30
Financial assets	36.9	38.0	36.7	35
<b>Liabilities</b>	202.4	198.7	192.1	176
Real estate debt	103.7	102.9	97.3	89
nonreal estate debt	98.7	95.7	94.8	87
CCC	10.8	8.6	16.9	19
Other	87.9	87.1	77.9	68
<b>Proprietor equity</b>	754.4	657.3	579.3	536

<sup>P</sup> Preliminary  
 SOURCE: USDA, Federal Reserve Board

most of this indebtedness will be settled by forfeiting the crops collateralizing the loans, or repaying the indebtedness at less than face value through marketing loans for cotton and rice or generic PIK certificates for grain. When CCC debt is excluded, the nonreal estate debt owed to remaining lenders fell even more sharply, registering a decline of more than 12 percent. Year-to-year declines in nonreal estate debt outstanding were registered by the major lenders other than CCC. Again, FCS lenders showed the sharpest decline, with outstandings down nearly a fourth. Nonreal estate loans from banks were down 12 percent from a year earlier, as were loans held by individuals, and merchants and dealers. Outstanding nonreal estate loans from the FmHA dropped 2 percent in 1986.

The large reduction in debt last year was insufficient to offset the decline in asset values. Consequently, farmer equity continued to erode in 1986. Total net worth in the sector dropped 7.5 percent to about \$536 billion, registering a sixth consecutive annual decline. That is the lowest nominal level of owner equity since 1976 and, after adjusting for the effects of inflation, places sector equity at the levels that prevailed in the 1960s. The sector's ratio of debts to assets, however, held near the year-earlier level at 24.8 percent.

The current forecast of the farm sector's balance sheet at the end of this year suggests continuation of most of the trends that have characterized the last few years. On the asset side of the balance sheet a further

decline in the value of farm real estate will predominate. However, slides in the value of crop inventories and farm machinery, which are expected to be only partially offset by an increase in the value of livestock herds, will also contribute to the drop. Farm financial assets at the end of 1987 are forecast to hold near year-earlier levels. On the liability side, farm debt excluding the CCC is expected to register further but more moderate declines in 1987. CCC debt outstanding at the end of the year is expected to be down from last year's high level, contributing to an overall decline in total farm debt outstanding.

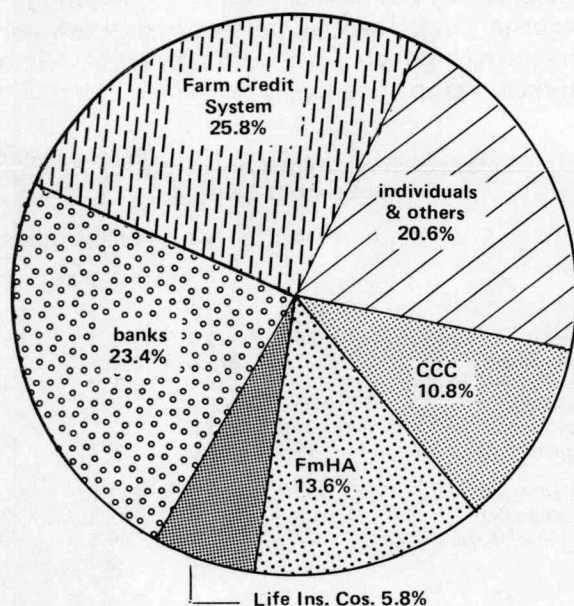
### Farm sector income to show improvement

Net income of the farm sector, after a mixed performance in 1986, is expected to show sizable gains this year. The increase is expected despite projections of further declines in receipts from marketings of farm products. A new high in direct government payments to farmers and a continuation of the recent down-trend in farm production expenses will offset the drop in cash receipts from farm marketings and boost net earnings.

Farm sector receipts in 1987 are forecast to register a second consecutive annual decline. At about \$134 billion, farm receipts will be down about 3 percent from last year, with the drop attributable to lower crop receipts. Crop marketings, including net Commodity Credit Corporation loans, are forecast to total \$58 billion in 1987, about 6.5 percent lower than last year's total. Most of the drop will be accounted for by lower grain and soybean receipts. With lower loan rates and government price floors largely removed, low market prices due to burdensome stocks of most commodities will depress crop receipts this year. In addition, it is likely that producers will feed more of their crop output directly to livestock on the farm. Further dampening of crop receipts in late 1987 will likely occur due to an expected 70 million acres of farmland that will be idled this year.

Declines in crop receipts will not be countered by continued gains in the livestock sector. However, livestock cash receipts in 1987 are forecast to hold at last year's high level of \$71 billion. The continued strong performance is based largely on prospects for substantial year-to-year gains in cattle receipts and a continued strong performance for hogs. Cash receipts for meat animals are projected to be up almost 3 percent from last year. In contrast, cash receipts for poultry are expected to remain stable in 1987 as continued gains in output are offset by lower prices. A drop in dairy product receipts this year will limit the overall increase for the livestock sector. The recent reduction in the dairy herd is expected to lower output

Distribution of farm debt<sup>1</sup>  
(\$176.3 billion)



<sup>1</sup>Excludes farm households.  
SOURCE: Federal Reserve Board.



# Farm income statement

	1985	1986 <sup>f</sup>	1987 <sup>f</sup>
	(------billion dollars-----)		
Earnings			
Crop receipts <sup>1</sup>	72.7	62	58
Livestock receipts	69.4	71	71
Farm related receipts	6.4	5	5
Total receipts	148.5	138	134
Cash government payments	7.6	8	9
Value of PIK commodities	.1	4	7
Gross cash income	156.2	150	150
Nonmoney income <sup>2</sup>	11.5	10	9
Value inventory change	-1.1	-3	-3
Total gross income	166.6	158	156
Expenses			
Cash expenses	112.1	106	103
Other expenses	24.0	23	21
Total expenses	136.1	129	124
Income			
Net cash income <sup>3</sup>	44.0	44	47
Net farm income <sup>4</sup>	30.5	29	32

<sup>f</sup>Forecast, may not add due to rounding.

<sup>1</sup>Includes net loans from CCC.

<sup>2</sup>Home consumption of farm products and imputed rent.

<sup>3</sup>Gross cash income less cash expenses.

<sup>4</sup>Total gross income less total expenses.

SOURCE: USDA

slightly in 1987, and a scheduled cut in the milk support price late in the year may compound the decline in dairy receipts.

Despite the expected drop in marketing receipts, gross cash income of the farm sector in 1987 is expected to hold near last year's level. Gross cash income comprises marketing receipts, direct government payments, and farm related income, which includes payments from custom work, machine hire, recreational activities and forest products. While farm related income is expected to hold near last year's level, a continued increase in direct government payments will likely offset the expected drop in receipts from farm marketings.

It is currently forecast that direct government payments may reach \$16 billion in 1987, up from the \$12 billion record of last year. These direct government outlays to the sector are largely accounted for by deficiency, diversion, storage, and conservation program payments. Increased participation in government price and income support programs, along with large land diversion payments and outlays for land enrolled in the conservation reserve will keep direct government payments to farmers in the vicinity of 10 percent of gross cash income.

Total production expenditures of the farm sector are forecast to register another decline this year, the third

consecutive drop from the 1984 high of almost \$142 billion. Although not as large as the decline registered last year, 1987 expenses are forecast to fall almost 4 percent from the previous year's level. Much of the decline will be accounted for by lower cash expenses, which include the cost of planting and harvesting crops and maintaining livestock. Crop expenses are expected to be down because of both lower prices and reduced quantities of inputs, with a large portion of crop acreage idled by government programs. Livestock feeding expenses will continue to benefit from low grain prices in 1987 and the continuing decline in outstanding farm debt will contribute to a projected lowering of interest expenses this year. Overall, cash expenses in 1987 are expected to drop about 3 percent from last year to \$103 billion. Non-cash expenses of about \$21 billion in 1987, largely accounted for by depreciation expense, are projected to be down more than 8 percent from a year ago.

With lower expenses and increased government payments more than compensating for low marketing receipts, net income of the farm sector is expected to show substantial gains from last year's level. Net cash income, which measures the cash available to producers to meet operating and household expenses and retire debt as the difference between gross cash income and cash expenses, is expected to total about \$47 billion in 1987 compared to about \$44 billion last year. Net farm income is also expected to rise. Net farm income is an economic measure of the value of a given calendar year's production that adjusts cash income for the value of changes in inventories, the consumption of capital, food produced and consumed on the farm, and the imputed rental value of farm dwellings. At a projected \$32 billion for 1987, net farm income would be more than 14 percent higher than last year.

Peter J. Heffernan

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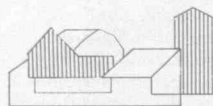
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## Selected Agricultural Economic Indicators

	Latest period	Value	Percent change from		
			Prior period	Year ago	Two years ago
<b>Prices received by farmers (1977=100)</b>	March	122	0.0	0	-9
Crops (1977=100)	March	101	2.0	-9	-20
Corn (\$ per bu.)	March	1.41	-0.7	-38	-47
Oats (\$ per bu.)	March	1.39	-5.4	22	-17
Soybeans (\$ per bu.)	March	4.69	0.0	-10	-20
Wheat (\$ per bu.)	March	2.57	-0.4	-22	-24
<b>Livestock and products (1977=100)</b>	March	142	-1.4	8	1
Barrows and gilts (\$ per cwt.)	March	47.20	-3.3	16	8
Steers and heifers (\$ per cwt.)	March	62.60	0.3	13	3
Milk (\$ per cwt.)	March	12.60	-2.3	3	-5
Eggs (¢ per doz.)	March	54.4	-6.7	-20	-6
<b>Prices paid by farmers (1977=100)</b>	January	159	0.6 <sup>†</sup>	-1	-3
Production items	January	143	0.7 <sup>†</sup>	-4	-7
Feed	January	99	0.0 <sup>†</sup>	-13	-20
Feeder livestock	January	164	2.5 <sup>†</sup>	11	1
Fuels and energy	January	158	5.3 <sup>†</sup>	-21	-19
<b>Producer Prices (1967=100)</b>	February	292	0.2	0	0
Agricultural machinery and equipment	February	342	0.1	1	1
Fertilizer materials	February	207	4.8	-5	-11
Agricultural chemicals	February	468	-1.5	0	3
<b>Consumer prices (1967=100)</b>	February	334	0.4	2	5
Food	February	330	0.4	5	7
<b>Production or stocks</b>					
Corn stocks (mil. bu.)	March 1	8,247	N.A.	25	78
Soybean stocks (mil. bu.)	March 1	1,384	N.A.	1	30
Beef production (bil. lbs.)	February	1.75	-16.9	-1	-1
Pork production (bil. lbs.)	February	1.07	-14.0	-3	-3
Milk production (bil. lbs.) <sup>††</sup>	February	9.28	-6.6	-3	4

N.A. Not applicable

<sup>†</sup> Prior period is three months earlier.



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