FRB CHICAGO

AGRICULTURAL LETTER

FEDERAL RESERVE BANK OF CHICAGO

September 13, 1985 Number 1664

Farm income up in 1984, but expected to decline this year

Final tabulations of farm income for 1984, recently completed by the USDA, show a 2 percent year-to-year rise in net cash income. The gain was attributable to a 4 percent increase in cash receipts from farm marketings last year that offset higher cash expenses and a drop in direct government payments. A substantial buildup of inventories in 1984 boosted net farm income to more than double the previous year's level. The current forecast for 1985 points to declines in both measures of farm income.

The 4 percent increase in cash receipts last year was distributed across both crops and livestock. Crop receipts were up more than 3 percent from a year earlier as higher prices more than offset the lower volume of marketings. The volume of crop marketings through much of 1984 was held down by the drought and the Payment in Kind program that sharply lowered the 1983 crop harvest. Food grain receipts were unchanged as a 4 percent drop in wheat receipts more than offset substantial gains for rice and rye, while feed grains and hay recorded a 1.6 percent gain with larger receipts for sorghum and hay offsetting drops in corn, oats, and barley. Receipts from soybean marketings were down slightly from the 1983 level as reduced marketings offset higher average prices, but large receipts for peanuts boosted total oilcrop receipts by more than 1 percent. Substantial gains in receipts for vegetables, and fruits and nuts contributed to the year-to-year gain in crop receipts as well.

Receipts from livestock marketings in 1984 rose almost 5 percent from the previous year, reaching a new record of $72.7 billion. With marketings holding near the year-ago level, a 4 percent gain in farm prices for all livestock and products accounted for most of the increase. Cash receipts for poultry and eggs registered the largest gain in 1984, up 22 percent from a year earlier, while dairy receipts dropped 4 percent, recording the first year-to-year decline since 1962. Cash receipts for other livestock in 1984 were mixed, with cattle receipts up 7 percent and hog receipts off 1 percent from the previous year.

While cash receipts were up in 1984, direct government payments to farmers dropped from the year-earlier level. Cash payments, which include deficiency, diversion, disaster, storage, and conservation program payments, were reduced slightly to about $4 billion. In addition to the cash payments, final disbursements of commodities under the PIK programs were made last year. These commodity disbursements were valued at almost $4.5 billion, well below the $5.2 billion provided in 1983. Corn accounted for about two-thirds of the 1984 total, with additional disbursements of cotton, wheat, sorghum, and rice accounting for the remainder. Combining both cash and in-kind payments, direct government payments amounted to $8.4 billion last year, almost a tenth below the 1983 level, but still well above any other year.

Rising production expenses also offset part of the gain in last year's cash receipts. At $139.4 billion in 1984, total production expenses were up almost 3 percent from the PIK and drought reduced level of 1983. Outlays for seed, fertilizer, pesticides, machine hire and custom work, and net rent recorded the sharpest year-to-year gains, ranging from 16 to 28 percent. Despite lower prices, increased purchases boosted outlays for livestock by more than 7 percent. Feed costs, however, were down 4 percent from the previous year's level.

Total interest expenses in 1984, at $21.1 billion, fell 1.4 percent, marking a second consecutive annual decline. The decline, which was recorded in both real estate and nonreal estate interest expense, was attributable to a drop in outstanding debt as the average interest rate remained steady. Interest expenses of $10.7 billion on real estate debt were down 1 percent from a year earlier, declining for the first time since 1946. Nonreal estate interest expenses in 1984, at $10.4 billion, were down 2 percent from the previous year and more than 8 percent below the 1982 peak.

Farm income statement

	1981	1982	1983	1984	1985
	(billion dollars)				
Earnings					
Crop receipts[1]	72.9	72.7	66.8	69.0	67-71
Livestock receipts	69.1	70.3	69.4	72.7	67-71
Total receipts	142.1	142.9	136.2	141.8	136-140
Cash government payments	1.9	3.5	4.1	4.0	5-9
Value of PIK commodities	0.0	0.0	5.2	4.5	0
Other cash income	2.5	2.6	2.5	2.9	2-4
Gross cash income	146.5	149.0	148.1	153.2	147-152
Nonmoney income[2]	13.7	14.0	13.1	13.1	11-13
Value of inventory change	6.3	-0.8	-9.8	7.9	-2-2
Total gross income	166.5	162.1	151.4	174.0	158-163
Expenses					
Cash expenses	110.7	110.7	109.7	114.0	110-114
Other expenses[3]	25.3	26.1	25.8	25.4	22-26
Total expenses	136.0	136.8	135.5	139.4	134-138
Income					
Net cash income[4]	35.8	38.3	38.3	39.1	34-39
Net farm income[5]	30.5	25.3	15.8	34.6	22-26

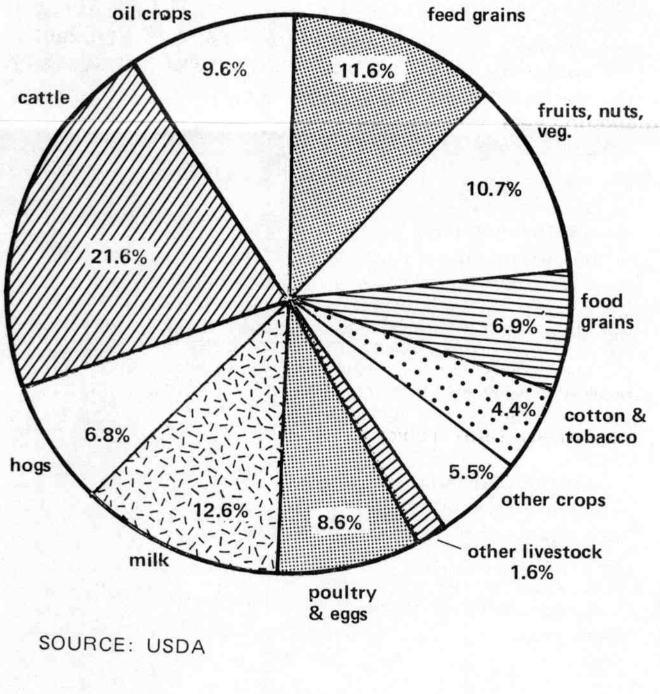
[1] Includes net loans made by CCC to farmers.
[2] Home consumption of farm products and imputed rent.
[3] Depreciation and perquisites to hired labor.
[4] Gross cash income less cash expenses.
[5] Total gross income less total expenses.
SOURCE: USDA

Despite lower government payments and higher production expenses, farm income increased in 1984. Net cash income, which measures the income available to purchase assets, retire loans, and cover farm household expenses totaled $39.1 billion in 1984, up 2 percent from the previous year and the highest level on record. However, when adjusted to reflect changes in purchasing power due to inflation, net cash income fell slightly in 1984. On a per farm basis, net cash income adjusted for inflation was the lowest since 1971.

Total net farm income, a conceptual measure of the income generated by a given year's production whether it is sold, fed or held in inventory, jumped sharply in 1984. At $34.6 billion, total net farm income last year was more than double the 1983 level and also a record high. The substantial gain in net farm income is due to the large year-to-year swing in the value of the change in farm inventories. Following the PIK and drought reduced 1983 harvest, inventories were drawn down sharply resulting in a net drain on total gross income of $9.8 billion for that year. However, as inventories were replenished in 1984 the value of the change in inventories was positive and quite large, adding about $7.9 billion to the total gross income of farmers. The nearly $18 billion swing between the two years accounted for the bulk of the sharp rise in total net farm income last year.

Current projections for farm sector earnings in 1985, although up slightly from earlier forecasts, foreshadow declines from last year. Although crop receipts are expected to hold in the range of the 1984 level, livestock receipts are projected to drop due to the depressed prices that have been recorded through much of the year. Overall cash receipts, therefore, are expected to range from $136 to $140 billion in 1985, down 1 to 4 percent from a year ago.

1984 cash recepits from farm marketings



SOURCE: USDA

Direct government payments to farmers in 1985 are expected to total between $5 and $9 billion. With disbursements under the PIK program having been completed in 1984, all of this year's government payments will be in the form of cash. The bulk of these will be accounted for by deficiency and conservation program payments to crop producers and diversion payments to milk producers.

The decline in cash receipts expected this year may be partially offset by lower production expenses. Reduced plantings, particularly wheat, soybeans, and cotton, along with some cutback in input usage by farmers under financial stress is expected to hold cash expenses in the range of $110 to $114 billion in 1985, unchanged to down 3.5 percent from last year. Non-cash expenses, which include depreciation and perquisites to hired labor, will likely add about $24 billion to total production expenses, down about 4 percent from 1984. The expected decline in non-cash expenses is largely attributable to a continuation of the downtrend in depreciation expenses evident over the last few years. Farm capital depreciation expenses have declined for the past two years following an extended downturn in capital expenditures over the last five years and little change in prices of capital items.

With the drop in receipts expected to outstrip the decline in expenses, farm income will likely fall in 1985. The broad forecast range for net cash income of $34 to $39 billion suggests that measure of income may hold near the year-ago level or drop by as much as 13 percent. If net cash income this year falls into the low end of the forecast range, it would be at the lowest level since 1977.

Total net farm income is expected to drop sharply from last year's level. The current USDA forecast places net farm income between $22 and $26 billion, compared to the 1984 level of $34.6 billion. The projected decline stems largely from expectations of a much smaller adjustment to gross income this year due to the value of the change in inventories.

Production estimates point to huge crops, growing stocks

The USDA's recent crop production estimates reconfirmed expectations of bumper harvests this year. Based on September 1 conditions, the index of overall crop production suggests that output will be up almost 5 percent from last year's level. Substantial increases in feed grain and oilseed crops paced the rise, more than offsetting drops in food grains and tobacco. The large harvests are more than adequate to meet demand. Domestic utilization of crops in the months ahead may be stimulated by low prices. But exports are expected to remain at depressed levels, providing little opportunity to substantially increase total utilization. As a result, carryover stocks will continue to mount, holding crop prices at low levels.

Corn production is now projected to be up almost 11 percent from last year, with both acres harvested and yields recording substantial increases. The September estimate, at 8.47 billion bushels, is about 2.5 percent above the first estimate released in August, and almost 3 percent above the previous high recorded in 1982. The record corn crop stems from the largest harvested corn acreage in 35 years and a record yield of 113.3 bushels per harvested acre.The current per acre yield estimate is almost 3 percent above the previous high established in 1982. The production estimate for sorghum points to a year-to-year increase of 31.5 percent and a new record high, while production of oats is expected to be up 14 percent. Barley output is expected to rise slightly from the high level of a year ago. As a result, total feed grain production is estimated to be up more than 12 percent from last year.

Soybean production was pegged at 2.06 billion bushels in September. The estimate was raised more than 5 percent from August as cool and wet weather boosted yield estimates to a national average of 33.2 bushels per acre, more than one bushel above the 1979 record. Although the high yields are expected to push soybean output almost 11 percent above a year ago, lower acreage will hold this year's output below the 1979 record of 2.26 billion bushels.

The September corn production estimate for the five District states was almost 3 percent higher than the previous month's estimate and more than 11 percent above last year's crop. The District average per acre yield is pegged at 119.5 bushels compared to 110.9 bushels a year ago. Yields ranged from 129 bushels per acre in Illinois to 100 bushels in Michigan.

District soybean production estimates were raised as well. At 864 million bushels, the September estimate was up almost 4 percent from a month earlier and points to a 15 percent year-to-year gain in District soybean output. The increase in soybean production compared to last year is attributable to a substantial increase in yields more than offsetting a slight decline in the area harvested. District average soybean yields, at 37.6 bushels per acre, were well above last year's 32 bushel per acre average as near ideal growing conditions prevailed through much of the area.

This year's record level of corn production and near record soybean output are expected to contribute to increased domestic utilization rates during the 1985/86 marketing year. The current estimate of corn production, along with beginning stocks of about 1.32 billion bushels suggests that corn supplies for the marketing year that begins in October will total almost 9.79 billion bushels. According to USDA estimates, domestic use will account for 5.45 billion bushels of the total, up more than 4 percent from the previous year to a new high. However, corn exports are projected to drop more than 12 percent from the current marketing year's level as increased world grain production and greater competition limit U.S. market share. At about 1.63 billion bushels, U.S. exports of corn would be at the lowest level since the 1974/75 marketing year.

Soybean supplies for the marketing year that began in September are pegged at 2.37 billion bushels, up more than 16 percent from last year's beginning supply. Crushings are expected to be up about 1 percent from last year, while exports are projected to show a 12.5 percent gain. Despite the substantial increase from a year ago, soybean exports are expected to hold well below the levels that prevailed in the late 1970s, and early 1980s. With both crushings and exports up, total utilization of soybeans this marketing year is expected to show a 5 percent year-to-year increase.

With utilization estimates for both corn and soybeans well below production estimates, carryover stocks at the end of the 1985/86 marketing year are expected to increase substantially. Carryover stocks of corn next fall are expected to exceed 2.7 billion bushels, more than double the previous year's level and second only to the record 1982/83 carryover that triggered the PIK program. At that level, corn stocks would equal more than 38 percent of the preceding year's use. Soybean stocks are expected to jump 79 percent from this year to a new high. At 555 million bushels, soybean stocks at the end of the 1985/86 marketing year are expected to be equivalent to more than 30 percent of the previous twelve months' total utilization.

The current supply and demand picture suggests that prices during the 1985/86 marketing year will remain depressed. The latest USDA projection has corn prices averaging between $2.35 and $2.55 per bushel during the coming year, down slightly from the estimate of a month earlier and below the $2.65 per bushel average estimated for 1984/85. The marketing-year average soybean price is forecast to range from $5.05 to $5.35 per bushel, lower than the August estimate and the $5.85 per bushel average price of the previous marketing year.

Peter J. Heffernan

1985 corn and soybean production estimates

	Yield per acre		Production	
	bushels	percent change*	million bushels	percent change*
Corn				
Illinois	129	13	1,464	17
Indiana	123	5	750	6
Iowa	118	5	1,575	9
Michigan	100	19	270	23
Wisconsin	103	-3	350	2
District States	119.3	8	4,410	11
United States	113.3	6	8,469	11
Soybeans				
Illinois	38	19	340	18
Indiana	38	10	169	13
Iowa	38	21	310	17
Michigan	32	19	35	9
Wisconsin	30	-3	10	-29
District States	37.6	17	864	15
United States	33.2	18	2,063	11

*Percent change from a year earlier.
SOURCE: USDA

AGRICULTURAL LETTER (ISSN 0002-1512) is published bi-weekly by the Research Department of the Federal Reserve Bank of Chicago. It is prepared by Gary L. Benjamin, economic adviser and vice-president, Peter J. Heffernan, economist, and members of the Bank's Research Department, and is distributed free of charge by the Bank's Public Information Center. The information used in the preparation of this publication is obtained from sources considered reliable, but its use does not constitute an endorsement of its accuracy or intent by the Federal Reserve Bank of Chicago.

To subscribe, please write or telephone:
Public Information Center
Federal Reserve Bank of Chicago
P.O. Box 834
Chicago,IL 60690
Tel.no. (312) 322-5111

Selected Agricultural Economic Indicators

	Latest period	Value	Percent change from: Prior period	Year ago	Two years ago
Receipts from farm marketings *($ millions)*	N/A[*]				
Crops	N/A[*]				
Livestock	N/A[*]				
Government payments	N/A[*]				
Real estate farm debt outstanding *($ billions)*					
Commercial banks	June 30	10.6	3.4[†]	7	20
Federal Land Banks	June 30	48.1	-2.0[†]	-3	-1
Life insurance companies	May 31	12.1	0.4	-3	-4
Farmers Home Administration	June 30	10.7	1.8[†]	6	11
Nonreal estate farm debt outstanding *($ billions)*					
Commercial banks	June 30	40.1	4.6[†]	-3	4
Production Credit Associations	June 30	16.7	0.1[†]	-15	-19
Farmers Home Administration	June 30	18.5	11.3[†]	11	16
Commodity Credit Corporation	June 30	8.70	-14.7[†]	33	-46
Farm loans made *($ millions)*					
Life insurance companies	May	231	439.8	125	191
Interest rates on farm loans *(percent)*					
7th District agricultural banks					
Operating loans	July 1	12.93	-4.0[†]	-10	-4
Real estate loans	July 1	12.61	-4.6[†]	-9	-4
Commodity Credit Corporation	September	8.13	4.8	-32	-23
Agricultural exports *($ millions)*	July	1,802	-12.3	-33	-31
Corn *(mil. bu.)*	July	97	-10.2	-26	-22
Soybeans *(mil. bu.)*	July	19	5.3	-51	-63
Wheat *(mil. bu.)*	July	69	-22.7	-50	-45
Farm machinery sales[p] *(units)*					
Tractors, over 40 HP	August	3,533	-16.4	-9	-18
40 to 139 HP	August	2,718	-20.2	-5	-17
140 HP or more	August	815	-0.2	-20	-20
Combines	August	861	52.7	-10	-22

[*] Monthly data no longer available.
[†] Prior period is three months earlier.
[p] Preliminary

AGRICULTURAL LETTER
FEDERAL RESERVE BANK OF CHICAGO
Public Information Center
P.O. Box 834
Chicago, Illinois 60690
(312) 322-5112

AG
LOUISE LETNES, LIBRARIAN
DEPT. OF AGRIC. & APPLIED ECON.
231 CLASSROOM OFFICE BUILDING
1994 BUFORD AVENUE
ST. PAUL, MN 55108