



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

### Capital expenditures by farmers are trending up

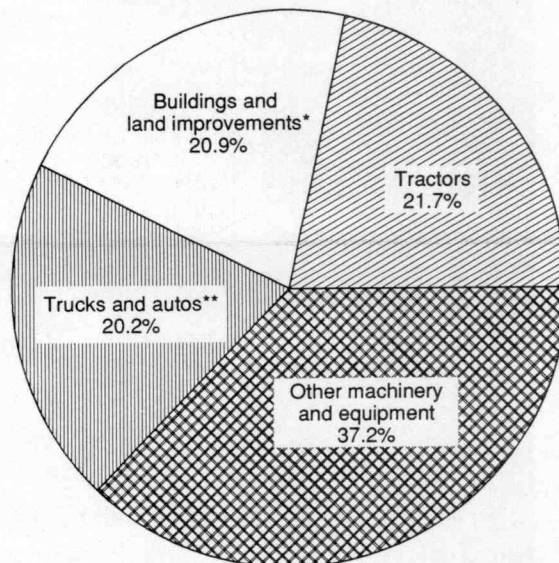
Capital expenditures by farmers edged higher last year and are projected to rise again this year. Recent USDA estimates show that capital expenditures by farmers, despite the drought, rose 4.3 percent last year to a four-year high of \$10.2 billion. A strengthening first-half performance in unit sales of new farm machinery and equipment suggests that overall farm capital expenditures are likely to be up again this year. Current USDA projections suggest that such expenditures could total somewhere between \$10.0 and \$12.0 billion in 1989.

The \$10.2 billion in farm capital expenditures last year encompassed some \$2.2 billion for tractors and an additional \$3.8 billion for other farm machinery and equipment. Together, these items accounted for about 59 percent of all farm capital expenditures last year. Another \$2.1 billion represented expenditures on trucks and autos used for farm business purposes by farmers. The remaining \$2.1 billion represented expenditures on farm service buildings and other land-related structures such as fences, tile lines, terraces, ponds, etc.

Although trending up from a cyclical low in 1986, annual farm capital expenditures remain well below most years since the mid 1970s. Strong gains during the "boom" years of the 1970s pushed annual capital expenditures by farmers to a peak of \$20.1 billion in 1979. But during the financial distress that gripped the farm sector during the early- to mid-1980s, such expenditures declined nearly 60 percent to a 14-year low of \$8.5 billion in 1986. The recovery since then has been encouraging to a number of industries that were hard hit by the agricultural downturn earlier this decade. Yet even at the upper end of the USDAs projected range for this year, capital expenditures by farmers would still lag the annual levels that prevailed from 1975 through 1984.

Prospects for further growth in farm capital expenditures this year have been solidified by the strengthening first-half performance in sales of farm tractors and equipment. According to reports from the Farm and Industrial Equipment Institute (FIEI), unit retail sales of farm tractors with 40 or more horsepower during the first half of this year were up 16 percent from the same period a year earlier. The year-over-year gain was

### Capital expenditures by farmers



\*Excludes farm operator dwellings.

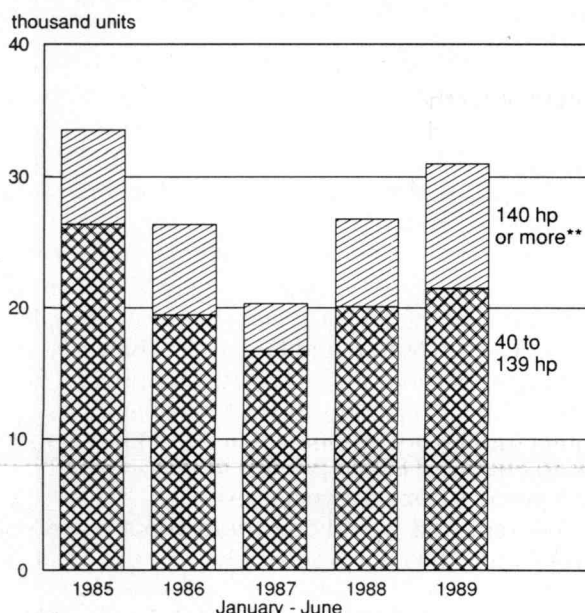
\*\*Share used in the farm business only.

SOURCE: USDA

particularly large during the second quarter (23 percent) and it was led by sales of the larger, and more expensive, tractors. For example, first-half sales of all four-wheel drive farm tractors were up 48 percent from the year before and sales of two-wheel drive tractors with 140 or more horsepower were up 39 percent. In comparison, unit sales of two-wheel drive tractors with 100 to 139 horsepower were up 17 percent while those with 40 to 99 horsepower were up less than 6 percent. (Unit sales of tractors with less than 40 horsepower, which—due to their limited power—are not typically regarded as "farm" tractors, were off 19 percent in the first half.)

Unit sales of most other items of farm machinery and equipment covered in the FIEI reports also recorded first half gains. Following three consecutive quarters of steep drought-related declines, unit retail sales of self-propelled combines rebounded sharply in the second quarter. As a result, total first-half sales of combines were up nearly 8 percent from the year-ago pace. Other reported first-half gains in unit retail sales included a 4 percent rise for forage harvesters, a 12 percent rise for both mower conditioners and for windrowers, and a 16 percent rise for rectangular balers.

### Large tractors pace first-half rise in unit retail sales of farm tractors\*



\*Excludes tractors with less than 40 horsepower.

\*\*Includes all 4-wheel drive tractors.

SOURCE: FIEI

First-half trends in unit retail sales of farm equipment in District states were somewhat mixed. Combine sales in District states also rebounded sharply in the second quarter, breaking the trend of sharp year-over-year declines in the three preceding quarter. But the second-quarter rebound in District states was not sufficient to overcome the first quarter decline. As a result, total first-half unit sales of combines in the five-state region were down nearly 20 percent. In contrast, first-half tractor sales in District states were relatively strong. For instance, first-half unit sales of four-wheel drive tractors in the five state region were up 76 percent from a year ago compared to a 42 percent rise elsewhere. Moreover, first-half sales of all two-wheel drive tractors (including those with less than 40 horsepower) were up 2 percent in District states but down 5 percent from a year earlier in all other states.

The continuing recovery in sales of farm equipment and overall farm capital expenditures reflects several factors. The need to replace old, depreciated capital assets has been building over the past several years, especially during the early and mid 1980s when financial distress sharply curtailed farm capital expenditures. Moreover, with the drought of last year and early this year reducing the once large carryover stocks of grains and soybeans, farm price support programs have been relaxed to encourage expanded crop plantings. To minimize downtime for repairs and to achieve timely field operations in the face of an aging stock of farm machinery, the increased crop acre-

age has added to the needs for investment in new farm machinery and equipment. At the same time, however, the reduction in grain and soybean stocks has probably reduced the demand for new grain storage structures.

In conjunction with the increased demand for new capital assets, several factors have enhanced the ability of farmers to make the necessary expenditures. In particular, cash farm earnings have risen sharply in recent years. The latest USDA estimates indicate that net cash farm income rose to \$59.9 billion last year, up from a revised \$57.7 billion the year before and an annual average of \$36.1 billion in the first half of the current decade. While cash earnings may decline somewhat this year, the levels projected by most analysts would suggest that earnings will continue to support gains in farm capital expenditures during the second half.

In addition to the recovery in farm earnings, strengthening balance sheets have also added to the willingness of farmers to undertake capital expenditures. Since bottoming in 1986, farmland values nationwide have recovered about 10 percent. During the current year, land values are expected to rise another 6 percent or more. The rise in land values, along with a substantial paydown and restructuring of farm debt has helped to improve the equity, or net worth, of most farmers. The improved equity has encouraged farmers to expand their capital expenditures and solidified their ability to use debt to finance a portion of those expenditures.

Gary L. Benjamin

### Milk production

Milk production this year is projected to register a new record level of output. USDA analysts are currently projecting milk output of 147.5 billion pounds for all of this year, slightly more than 1 percent above the current record established in 1988. Similarly, commercial disappearance is expected to hit a new high, rising more than 1 percent from the year-earlier level. As a result of these trends, net removals of manufactured dairy products from the market by the Commodity Credit Corporation will likely hold near last year's level.

Through the first half of 1989, U.S. milk production approached 75 billion pounds, up 1.2 percent from last year. However, monthly data from the twenty-one major producing states, which account for about 85 percent of total output, showed a narrowing of year-to-year gains. Moreover, production in these states dropped below year-ago levels during June and July. Through the seven month period as a whole, milk

production for the twenty-one major producing states had slipped slightly below the comparable period of last year.

The downtrend in production this spring and early summer has been attributed to high feed costs and tight forage supplies in the aftermath of last year's drought, and poor growing conditions in some areas earlier this year. If poor forage conditions persist milk output could be down through the fall. However, as this year's grain and soybean crops come in, feed costs will decline, providing an incentive to boost milk production.

This explanation of the recent drop in milk output is borne out by trends in milk cow numbers and productivity in the twenty-one major producing states through the first seven months of 1989. While milk cow numbers have held below a year ago throughout 1989, the gap had narrowed slightly to about 100,000 head by July. However, output per cow after holding 2 to 3 percent above a year ago through May dropped to last year's level during June and registered a year-to-year decline during July.

Milk production in the five states of the Seventh Federal Reserve District has been below year-ago levels throughout 1989. During the first seven months of the year, District milk production was down 2 percent from last year. Most of the drop was due to sharply lower output in Wisconsin, with the four other District states registering a combined decline of about .6 percent. Milk production in Wisconsin, which accounts for about two-thirds of District output, was down almost 3 percent compared to the first seven months of 1988. Illinois dairy farmers showed a year-to-year drop of 1.8 percent during the period, while Michigan milk production was down about 1.3 percent. Indiana milk production through July was about unchanged from a year ago during the seven month period, while Iowa producers recorded a 1.3 percent gain. Milk cow numbers in July were below a year earlier in all of the District states except Iowa, where the dairy herd was about .7 percent larger than last year. Output per cow, however, continued to show year-to-year gains in Illinois and Indiana, with the other states showing declines.

Commercial disappearance of milk is expected to rise again in 1989, continuing the trend that has characterized the 1980s. However, commercial use during the first half of 1989 has lagged the year-earlier pace by 1.5 percent, suggesting that second half utilization

will be substantially above last year. Current projections call for an increase of about 1 percent in milk utilization for all of this year.

Net removals of manufactured dairy products from the market by the Commodity Credit Corporation, the mechanism used to support milk prices, are expected to hold near the year-earlier level. However, net removals through the first six months of the year were sharply higher than the comparable months of 1988. At about 7.9 billion pounds through June, CCC net removals are almost 10 percent higher than a year ago. The gain is attributable to year-to-year increases in removals between March and June more than offsetting year-to-year declines in the first two months of 1989. Current USDA projections point to net removals of manufactured dairy products that would be equivalent to about 8.8 billion pounds of milk, a decline of only 1 percent from last year's level. At that level, CCC net removals would constitute about 6 percent of projected 1989 milk production.

Milk prices declined seasonally during the first five months of 1989, with the May price for all milk sold to plants averaging 9 percent lower than the January average. However, milk prices began their seasonal rise early this year, with an atypical increase in the June average price. Compared to year-earlier levels, milk prices have held well above 1988 levels through July. At an average of \$12.63 per hundredweight, milk prices during the seven months ending in July averaged more than 7 percent above the same months of a year ago. USDA currently forecasts milk prices for all of 1989 to average \$12.75 per hundredweight, well above the \$12.21 per hundredweight average for all of 1988.

Peter J. Heffernan

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



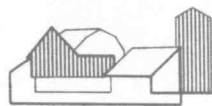
## Selected Agricultural Economic Indicators

	Latest period	Value	Percent change from		
			Prior period	Year ago	Two years ago
<b>Receipts from farm marketings (\$ millions)</b>	March	12,195	-10.1	-14	4
Crops*	March	4,373	-8.1	3	27
Livestock	March	6,720	1.9	7	9
Government payments	March	1,103	-50.0	-70	-48
<b>Real estate farm debt outstanding (\$ billions)</b>					
Commercial banks	March 31	14.6	2.4 <sup>†</sup>	8	20
Farm Credit System	March 31	27.0	-3.5 <sup>†</sup>	-7	-17
Life insurance companies	March 31	8.85	-1.8 <sup>†</sup>	-2	-9
<b>Nonreal estate farm debt outstanding (\$ billions)</b>					
Commercial banks	March 31	27.0	-4.8 <sup>†</sup>	1	-1
Farm Credit System	March 31	8.67	0.3 <sup>†</sup>	-2	-11
<b>Interest rates on farm loans (percent)</b>					
7th District agricultural banks					
Operating loans	July 1	12.41	-1.0 <sup>†</sup>	10	13
Real estate loans	July 1	11.55	-1.3 <sup>†</sup>	9	10
Commodity Credit Corporation	September	8.00	-1.5	0	16
<b>Agricultural exports (\$ millions)</b>	June	3,049	-8.0	14	47
Corn (mil. bu.)	June	225	5.9	68	87
Soybeans (mil. bu.)	June	32	34.0	8	-17
Wheat (mil. bu.)	June	92	-5.2	-29	-27
<b>Farm machinery sales<sup>P</sup> (units)</b>					
Tractors, over 40 HP	July	4,080	-26.2	12	6
40 to 139 HP	July	3,213	-26.8	17	5
140 HP or more	July	867	-24.1	-2	9
Combines	July	852	9.9	130	14

\*Includes net CCC loans.

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

<sup>P</sup>Preliminary



### AGRICULTURAL LETTER

FEDERAL RESERVE BANK OF CHICAGO  
Public Information Center  
P.O. Box 834  
Chicago, Illinois 60690

(312) 322-5111



AG001  
LOUISE LETNES LIBRARIAN  
DEPT OF AGRIC & APPLIED ECON  
231 CLASSROOM OFFICE BUILDING  
1994 BUFORD AVENUE  
ST PAUL MN 55108-1012