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## FRB CHICAGO

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#### **Milk production**

Milk production this year is forecast to climb to a new record level. After declining almost 1 percent from the year-earlier level in 1989, USDA analysts point toward output of almost 147 billion pounds of milk during 1990. At that level production would be almost 2 percent above last year and just over 1 percent higher than the record output of 1988. Commercial disappearance of milk is expected to show an even larger rise above the year-ago level, which would likely trim Commodity Credit Corporation net removals of manufactured dairy products from the 1989 level.

Milk production in the twenty-one major producing states has remained above year-earlier levels throughout the first four months of 1990. Monthly survey data from these states, which account for about 85 percent of the U.S. total, show gains in output during each of the first four months of 1990. Although January output was only slightly above the year-earlier level, increases of more than 1 percent have been registered in the three months since then. For the four month period as a whole, milk production in the twenty-one major producing states totaled more than 42.1 billion pounds, which represents a 1.1 percent increase from the same period last year. Year-to-year gains are likely to pick-up markedly in the months ahead as we enter the summer and fall months when 1989 production recorded year-to-year declines due to high feed costs and poor forage supplies.

The increase in milk production recorded so far this year is attributable to a rebound in milk output per cow, with the size of the dairy herd essentially unchanged compared to a year ago. Output per cow has been spurred by increased concentrate feeding. The milk-feed price ratio, a traditional indicator of the profitability in milk production, remained relatively high during the first quarter despite sharp declines in milk prices. For the twenty-one major producing states, output per cow has held from 1.5 percent to 1.9 percent above last year since February, following a less than 1 percent year-to-year increase in January.

For the remainder of the year, lower prices compared to last year will put downward pressure on the milkfeed price ratio and begin to curtail the increases in production per cow. Some lingering concerns about

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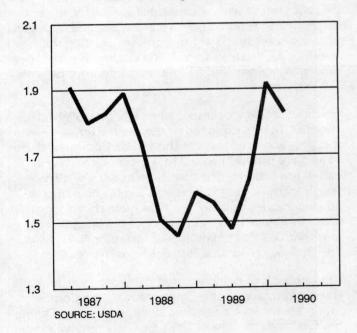
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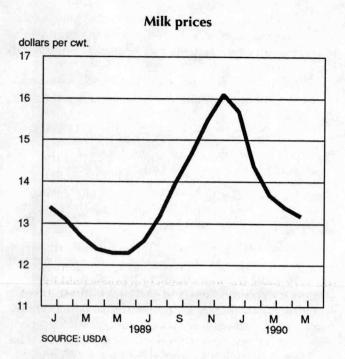
forage quality and supplies could limit the expansion in output as well. However, a good quality crop in 1990 would likely provide a boost to output.

Milk cow numbers during the early months of 1990 have held less than half a percent below last year's levels in the twenty-one major producing states. Although supplies of replacement dairy heifers were relatively large at the start of the year, and would suggest some upward pressure on cow numbers, continued high culling rates would relieve much of that pressure. USDA analysts are pointing toward milk cow numbers for the year averaging slightly below the 1989 level.

Milk production in the five states of the Seventh Federal Reserve District has followed a pattern similar to the twenty-one major producing states. During the first four months of 1990, milk output in District states was just over 1 percent higher than during the comparable period last year. Milk production in Wisconsin, the nation's leading milk producing state recorded an increase of almost 1.3 percent for the period. Strong year-to-year gains in milk output of 2.5 and 3.7 percent were registered in Iowa and Illinois, respectively, during the four month period. Milk pro-

#### Milk-feed price ratio





duction in Indiana and Michigan, however, recorded small declines from year-earlier levels.

Milk cow numbers through April averaged slightly higher than a year ago for the District as a whole. However, the slight increase is attributable to a 1 percent increase in Wisconsin offsetting declines in the other District states. While small declines in cow numbers were recorded in most of these states, dairy producers in Indiana registered a 4.3 percent drop from last year in the average number of milk cows during the four month period.

Output per cow registered an increase of almost 1 percent District wide. Substantial gains of 5 percent in Illinois and almost 3 percent in Indiana and Michigan accounted for much of the increase. Limiting the overall gain, there was almost no change in output per cow in Wisconsin and a slight drop in output per cow in Michigan.

Commercial disappearance of milk, after a slight decline last year, is expected to resume the upward trend that characterized most of the 1980s. Commercial use of all dairy products rose 2 to 3 percent above yearearlier levels during the first three months of 1990, which many analyst attribute to a rebuilding of pipeline inventories that had become quite thin during the final months of 1989. Current USDA projection suggest that commercial disappearance of milk for all of 1990 will be up about 2 percent from last year.

Net removals of manufactured dairy products from the marketplace by the Commodity Credit Corporation are forecast to decline slightly this year. During the first three months of 1990, CCC net removals have been down more than 12 percent from last year, largely due to decreased purchases of butter. Strong domestic cheese use early in the year limited purchases of most manufactured products and resulted in no cheese purchases by the CCC to support milk prices. Current USDA projections point to CCC net removals of about 8.1 billion pounds on a milkfat basis, down a tenth from last year's net purchases. At that level, net removals of manufactured dairy products would be equivalent to 5.5 percent of projected 1990 milk production, a somewhat lower proportion than last year's 6.2 percent of output.

After surging higher during the last half of 1989, milk prices have trended seasonally lower during the first five months of this year. From a peak of \$16.10 per hundredweight in December, milk prices dropped to \$13.20 per hundredweight by May. However, compared to a year earlier milk prices have held well above 1989 levels throughout the five month period. At an average price of \$14.08 per hundredweight, milk prices during the five months ending in May averaged more than a tenth higher than last year. Although milk prices generally show a seasonal increase during the second half of the year, any gains will likely fall well short of last year's levels. Current USDA projections have milk prices averaging almost 9 percent less than a year ago for all of 1990.

### **Agricultural prices**

After trending lower during the first quarter, the index of prices received by farmers has rebounded during April and May. Much of the recent strengthening is attributable to escalating feed grain and hay prices as well as the sharp jump in hog prices. Compared to a year ago, farm prices through April have averaged 2 percent higher than during the same months last year. Prices paid by farmers, however, have continued to edge higher as well. The quarterly index of prices paid by farmers, reported in April, registered an increase of just over 1 percent from three months earlier and showed a year-over-year rise of 3.4 percent.

Much of the recent increase in prices is attributable to rising crop prices, with more moderate gains in livestock. The index of all crop prices has returned to the level that prevailed at the beginning of the year and shows a 5.4 percent increase from the March low. Feed grain prices have shown the largest gains, with prices in May up more than 12 percent from the beginning of the year. Prices received for food grains, however, have been trending lower during the first five months of 1990 and are more than 7 percent below the January level. Prices for oil bearing crops have fared somewhat better, recording a 3.3 percent increase between January and May.





Livestock and livestock product prices have recorded a more moderate gain of less than 2 percent during the first five months of the year. Virtually all of the increase in prices since the start of the year are accounted for by meat animal prices, with the May index showing a 7 percent increase over the January level. Offsetting their gain, dairy product prices in May had plummeted 16 percent from the high levels at the start of the year, while poultry and egg prices are down almost a tenth from January.

When compared to year ago price levels, however, a very different pattern emerges, with sharply higher livestock prices offsetting year-to-year declines in crop prices. Compared to the first five months of 1989, crop prices averaged more than five percent lower, while the index of livestock and livestock product prices averaged an 8.5 percent year-to-year gain during the period. Increases of a tenth in meat animal and dairy prices received by farmers were partially offset by an almost 3 percent year-to-year drop in the index of poultry and egg prices.

Prices received by farmers for feed grains during the first five months of the year averaged 9 percent less than the same months a year ago. However, most of the year-to-year drop was accounted for during the first few months of 1990, with feed grain prices in May less than 1 percent below a year ago. Food grain prices have shown substantial year-to-year declines throughout the five months and have averaged a tenth below the prices that prevailed during the same period last year. Prices for oil bearing crops have incurred an even larger decline than grains, with the index averaging 18 percent lower than the same months in 1989.

Prices for major commodities produced in District states have eased somewhat in recent days but remain strong. Cash corn prices in central Illinois started the year at about \$2.28 per bushel and rose steadily to \$2.80 per bushel in early May. Although prices slid to about \$2.68 at the end of the month, they remained about 10 cents above the year-ago level. Similarly, soybean prices advanced about 65 cents to \$6.22 per bushel in early May before dropping back to about \$5.90 at the end of the month. However, at that level soybean prices are more than \$1 per bushel lower than a year earlier. Hog prices have continued to rise through May, while cattle prices have held at high levels throughout the year. Hog prices started edging higher in February and have shown substantial gains in April and May. At about \$65 per hundredweight at the end of May, hog prices at Omaha were about \$18 higher than at the start of the year and \$22 higher than a year earlier. Cattle prices have remained in the high \$70 to \$80 per hundredweight range during the first five months of 1990, about \$3 per hundredweight more than the comparable period last year. The downtrend in milk prices from \$15.70 per hundredweight in January to \$13.20 per hundredweight in May has partially offset the strength in cattle and hog prices.

The quarterly index of prices paid by farmers, reported in April, continued to edge higher. At 183 percent of the 1977 base, the index reflecting prices paid by farmers for commodities and services, interest, taxes, and wages was up about 1 percent from January and more than 3 percent from a year earlier. A 15 percent increase from last year in feeder livestock prices paced the overall rise, but was supported by a 6 percent increase in chemical prices, an almost 5 percent rise in the prices of tractors and self propelled machinery, and an almost 4 percent year-to-year increase in wage rates. Partially, offsetting these increases, fertilizer prices were down almost 8 percent from a year earlier, feed prices recorded an 8.6 percent drop, and seed prices recorded a 4 percent decline from the previous year's level.

#### Peter J. Heffernan

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## Selected Agricultural Economic Indicators

	Latest period	Value	Percent change from		
			Prior period	Year ago	Two years ago
Prices received by farmers (1977=100)	May	154	2.0	3	14
Crops (1977=100)	May	135	3.1	3 -5	14
Corn (\$ per bu.)	May	2.66	6.0	3	37
Oats (\$ per bu.)	May	1.44	0.0	-32	-22
Soybeans (\$ per bu.)	May	5.92	1.7	-18	-15
Wheat (\$ per bu.)	May	3.44	-1.4	-14	16
Livestock and products (1977=100)	May	172	1.2	10	14
Barrows and gilts (\$ per cwt.)	May	61.20	12.9	44	30
Steers and heifers (\$ per cwt.)	May	78.70	-0.4	6	7
Milk (\$ per cwt.)	May	13.20	-1.5	7	16
Eggs (¢ per doz.)	May	60.2	-15.7	-4	37
Prices paid by farmers (1977=100)	April	183	1.11	3	9
Production items	April	169	0.6†	2	9
Feed	April	128	0.01	-9	14
Feeder livestock	April	213	3.9†	15	9
Fuels and energy	April	187	-6.5†	2	13
Producer Prices (1982=100)	April	117	0.0	4	9
Agricultural machinery and equipment	April	120	0.7	3	7
Fertilizer materials	April	94	1.4	-13	-5
Agricultural chemicals	April	118	0.3	4	11
Consumer prices (1982-84=100)	April	129	0.2	5	10
Food	April	131	-0.2	6	13
Production or stocks					
Corn stocks (mil. bu.)	March 1	4,813	N.A.	-8	-37
Soybean stocks (mil. bu.)	March 1	1,056	N.A.	19	-8
Beef production (bil. lbs.)	April	1.75	-6.6	-1	-5
Pork production (bil. lbs.)	April	1.25	-6.1	-6	-1
Milk production (bil. lbs.) tt	April	10.8	-1.4	1	3

N.A. Not applicable. †Prior period is three months earlier. ††21 selected states.

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