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Cattle numbers stabilize

The USDA's latest enumeration of the cattle herd suggests that the seven-year cyclical decline is ending. The survey indicated that the nation's cattle herd numbered nearly 99.5 million head as of January 1. The estimate was larger than analysts had expected but still nominally below the 27-year low set a year ago. Despite the nominal decline, it appears that cattlemen started to rebuild their herds last year. The calving rate increased considerably and the inventory of both beef cows and beef replacement heifers was up from last year. These developments imply that the decline in beef production this year will be smaller than had been expected.

An upturn in last year's calf crop was the major factor contributing to the larger than expected cattle inventory estimate. The inventory of cows and replacement heifers at the beginning of 1988 numbered 2 percent less than the year before. However, the survey indicated that the 1988 calf crop rose 2 percent from the cyclical low of 1987. This implies a calving rate (the number of calves born as a percent of the beginning inventory of cows and replacement heifers) of 77.5 percent for 1988, up from 74.5 percent the year before and, along with 1980, the highest for any year since 1972.

Despite the 1988 drought, cattlemen apparently responded to the improved operating returns of recent years by curtailing somewhat further their culling of the breeding herd and by raising more animals for herd replacement. Federally inspected slaughter of all cows and heifers (which accounts for the bulk of all such animals slaughtered) declined to 16.6 million head in 1988, down 2 percent from the year before and down about 8 percent from the annual average during the heavy-culling years of 1983 through 1986. Beef cow slaughter, at about 3.3 million head in 1988, led the decline last year by falling nearly 7.5 percent.

The cut in slaughter helped boost the current inventory of breeding cattle for the beef herd. As of January 1, the inventory of beef cows was up nearly 2 percent from a year earlier, while the inventory of heifers held for beef cow replacements was up more than 5 percent. The dairy component of the cattle breeding herd, however, stabilized last year. Milk cow numbers on January 1 were down nearly 1 percent from a year

ago which about offset a 2 percent rise in the number of heifers being held for milk cow replacements.

While a rebuilding of the nation's cattle breeding herd apparently got underway in 1988, that does not appear to be the case for District states. The calving rate in District states improved slightly last year, but not enough to offset the 2.6 percent decline in the inventory of cows and replacement heifers at the beginning of last year. Hence, the calf crop in District states declined modestly again last year. Moreover, the current inventory of all beef cows and beef replacement heifers in District states is essentially unchanged from a year ago as a decline in beef cow numbers about offset the estimated rise in the number of heifers being held for beef cow replacements. The dairy component of the cattle breeding herd in District states is down 2.1 percent, reflecting declines for both dairy cows and dairy replacement heifers.

The January 1 survey of all cattle also provides a more complete state-by-state tally of the number of cattle on feed than is the case with the 7-state monthly survey or the 13-state quarterly survey. (Cattle "on feed" are those fed a full ration of grain or other concentrates and expected to produce a carcass that will grade "select" or better.) As of January 1, the number

Cattle inventory, January 1, 1989

	District states		United States	
	Million head	Percent change*	Million head	Percent change*
All cattle and calves	13.3	-1.3	99.5	0
All cows	5.2	-1.7	43.9	1.1
Beef cows	2.4	-0.7	33.7	1.7
Dairy cows	2.8	-2.5	10.2	-0.8
Heifers 500 lbs. and over	2.7	-1.1	17.3	1.1
Beef cow replacements	.4	8.4	5.5	5.3
Dairy cow replacements	1.2	-1.0	4.2	2.0
Other	1.1	-3.9	7.6	-2.3
Steers and bulls 500 lbs. and over	2.4	3.3	18.0	0.7
Calves under 500 lbs.	3.0	-4.1	20.2	-3.9
<hr/>				
Addenda:				
Cattle on feed	1.5	-1.9	11.2	-3.2
1988 calf crop	5.0	-0.3	40.9	2.0

*From previous year.
 SOURCE: USDA

of cattle on feed nationwide was down more than 3 percent from a year earlier but up nearly 2 percent from two years earlier. In District states, the inventory of cattle on feed was down about 2 percent from a year earlier and down nearly 9 percent from two years ago. Cuts in Illinois, Iowa, and Wisconsin last year offset gains in Indiana and Wisconsin.

The continuing decline in cattle feedlot activity in District states extends a trend of the past two decades. The January 1 inventory of cattle on feed in the five states comprising the Seventh Federal Reserve District peaked in 1969 at 3.7 million head. At that time, District states accounted for more than 29 percent of the inventory of cattle on feed nationwide. As of the start of this year, feedlot inventories in District states were down 59 percent from the peak of two decades ago and equivalent to only 13.5 percent of the total nationwide. The number of cattle on feed in Iowa has declined 71 percent over the past two decades, accounting for a proportionately large share of the decline in all District states. Feedlot inventories in Illinois are down 57 percent from two decades ago, while those in Indiana and Wisconsin are off more than a third. The number of cattle on feed in Michigan is up 5 percent from two decades ago, but still some 14 percent below the all-time high for that state set in 1973, the year feedlot numbers peaked nationwide at 14.4 million head.

With cattle numbers stabilizing and the apparent rebuilding of the breeding herd already underway, the USDA has narrowed its projected decline in beef production for this year to 3 percent from the 7 percent cut that was forecast in January. Most of the decline is expected to come in the second half of this year. The decline in the current quarter is expected to be about 1 percent from a year ago, followed by a 2 percent decline in the second quarter. With lower beef production, cattle prices this year will probably surpass the record high of \$69.55 per hundredweight set for choice steers at Omaha in 1988. Prices so far this year have averaged about \$73 and could move into the mid \$70s range during the second quarter.

Gary L. Benjamin

Farm machinery and equipment sales

After increasing rapidly during the early months of 1988, the onset of the drought began to temper gains in farm machinery sales last spring. By the third quarter of last year, figures from the Farm and Industrial Equipment Institute (FIEI) were indicating year-to-year declines in unit sales. Although preliminary sales figures for early 1989 are somewhat mixed, larger than expected farm sector income last year and forecasts

Sales of new farm machinery and equipment

	1985	1986	1987	1988
	(-----number of units-----)			
Tractors				
two-wheel drive				
40-99 HP	37,842	30,848	30,694	33,154
100-139 HP	7,300	5,149	5,084	4,320
140 HP or more	10,400	9,113	10,818	11,802
four-wheel drive	2,912	2,037	1,653	2,729
Total	58,454	47,147	48,249	52,005
Self-propelled combines	8,411	7,660	7,170	5,995
Small balers	7,038	5,734	5,352	5,735
Forage harvesters	2,460	2,164	2,280	2,405
Mower conditioners	11,243	10,898	11,239	11,043
Windrowers	2,026	1,461	1,570	1,706
Grinder-mixers	1,914	1,797	2,478	2,656

SOURCE: Farm and Industrial Equipment Institute.

for continued strong income this year along with increased acreage in production point toward continued improvement for the farm machinery and equipment industry this year.

Farm equipment sales during the first half of 1988 registered substantial year-to-year gains, continuing a trend that had started in mid 1987. By June of last year cumulative sales of farm tractors with 40 or more horsepower were almost a third higher than during the same period a year earlier, while sales of combines had more than doubled the year-earlier pace. However, the strong first half performance gave way to a sharp slump in sales during the summer months as the drought wore on. During the third quarter of 1988, unit retail sales of farm tractors dropped 23 percent from a year earlier. Although sales recovered somewhat in October and November to post year-to-year gains, sales of tractors with 40 or more horsepower fell below a year ago again in December. Combine sales suffered an even more extensive decline. Monthly sales of combines posted year-to-year drops throughout the second half of 1988, cumulating to a 40 percent decline from a year ago through the period.

The sharp drop in combine sales during the second half of 1988 more than offset the year-to-year gains that had been registered through June. For all of 1988, unit sales of combines were more than 16 percent below the previous year's level, registering a seventh consecutive annual decline. Sales of mower conditioners registered a slight decline in 1988 as well, falling less than 2 percent from a year earlier.

Unit retail sales of other major farm equipment items all recorded annual gains. Despite the third quarter slump, sales of farm tractors with 40 or more horsepower increased almost 8 percent in 1988, recording a second consecutive annual increase. Unit sales of

four-wheel drive tractors, a relatively small portion of total sales, registered year-to-year gains of almost two-thirds in 1988. Among two-wheel drive tractors, units with between 40 and 100 horsepower and those with over 140 horsepower recorded increases of 8 and 9 percent, respectively, from 1987 levels. However, farm tractors with between 100 and 140 horsepower slipped 15 percent from the sales level of the previous year.

Several other types of farm machinery and equipment items recorded sales gains in 1988. Sales of small balers and combination grinder-mixers were both up more than 7 percent from the year-earlier level, while windrowers sales registered an almost 9 percent increase. Sales of forage harvesters in 1988 totaled 5.5 percent more than in 1987.

Tractor and combine sales in 1988 fared somewhat worse in the five District states than in the nation as a whole. Sales of tractors with 40 or more horsepower, although up from last year, recorded an increase of only about 2 percent. Unit sales were essentially unchanged from a year ago in Illinois and Indiana, while sales were off almost 3.5 percent in Wisconsin. Sales of tractors with at least 40 horsepower were up more than 7 percent from the previous year in both Iowa and Michigan.

The reductions in sales during the latter half of last year, on the heels of increased manufacturing schedules for many items, boosted year-end inventories of most farm machinery and equipment cited in the FIEI report, reversing the downtrend of the last several years. The unsold inventory of farm tractors at the end of December was up 16 percent from the year-earlier level, although inventories were still 19 percent below the level that prevailed two years earlier. Inventories of balers and windrowers were up more than a fourth from a year earlier, while grinder-mixer inventories at the end of December had jumped 60 percent from the previous year. Somewhat smaller increases of 7 to 10 percent were recorded in year-end inventories of mower conditioners and forage harvesters. Combine inventories, on the other hand, continued to drop in 1988, and at year end were down more than 5 percent from ending 1987 levels.

The build up of stocks of farm machinery and equipment last year raised the inventory-to-sales ratios for the industry, but did not lead to a return to the sharp misalignment that occurred during the early 1980s. At year end 1988, tractor inventories stood at almost 61 percent of sales during the previous twelve month period, up slightly from the 56 percent ratio recorded

at the end of 1987. At that level, the year end inventory-to-sales ratio is comparable to the levels that prevailed in the late 1970s, but well below the 80 and 90 percent levels of a few years ago. Combine inventories as a percent of annual sales edged higher last year as well. At almost 57 percent, the inventory-to-sales ratio was up about 7 percentage points from a year earlier, and remained well above the historical range of 25 to 30 percent. As with tractors, however, the year end inventory-to-sales ratio for the industry is well below the burdensome levels of the early 1980s. Ending stocks-to-sales ratios of other farm equipment items moved higher last year as well. Ending inventories of mower conditioners, forage harvesters, windrowers, and combination grinder-mixers about equaled 1988 sales of these items, while the inventory-to-sales ratio of forage harvesters was somewhat lower at about 80 percent. However, baler inventories at the end of last year exceeded 1988 unit sales by almost a fourth.

Despite some sluggishness in the market suggested by preliminary sales figures for January, most analysts expect further recovery in farm machinery and equipment sales in 1989. Farm income is expected to stay strong in 1989, providing a foundation for machinery and equipment demand. Moreover, adjustments in government price support programs along with relatively strong commodity prices will likely buoy planted acreage in 1989. Set aside requirements for participation in support programs for major crops have been reduced substantially and most analysts expect some decline in the very high program participation rates of the last few years. The resulting significant shift of acreage back into production is expected to provide additional impetus to demand for farm machinery and equipment this year.

Peter J. Heffernan

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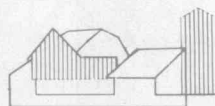
Selected Agricultural Economic Indicators

	Latest period	Value	Percent change from		
			Prior period	Year ago	Two years ago
Prices received by farmers (1977=100)					
Crops (1977=100)	February	148	-0.7	14	21
Corn (\$per bu.)	February	138	-1.4	27	39
Oats (\$per bu.)	February	2.54	-2.3	39	79
Soybeans (\$per bu.)	February	2.33	-7.5	27	60
Wheat (\$per bu.)	February	7.23	-6.0	21	54
	February	4.03	0.5	44	59
Livestock and products (1977=100)					
Barrows and gilts (\$per cwt.)	February	157	-0.6	5	9
Steers and heifers (\$per cwt.)	February	40.70	-2.6	-13	-17
Milk (\$per cwt.)	February	75.80	-0.1	6	21
Eggs (\$per doz.)	February	13.10	-2.2	7	2
	February	62.1	-2.8	32	6
Prices paid by farmers (1977=100)					
Production items	January	175	1.2†	6	11
Feed	January	163	0.6†	7	15
Feeder livestock	January	141	0.0†	26	42
Fuels and energy	January	202	3.1†	5	23
	January	166	0.6†	1	8
Producer Prices (1982=100)					
Agricultural machinery and equipment	January	111	0.9	5	7
Fertilizer materials	January	114	0.4	4	4
Agricultural chemicals	January	108	2.8	14	33
	January	112	1.3	5	9
Consumer prices (1982-84=100)					
Food	January	121	0.5	5	9
	January	122	1.2	6	9
Production or stocks					
Corn stocks (mil. bu.)	December 1	7,071	N.A.	-28	-31
Soybean stocks (mil. bu.)	December 1	1,367	N.A.	-22	-30
Beef production (bil. lbs.)	January	1.90	1.3	-3	-10
Pork production (bil. lbs.)	January	1.31	-8.0	5	5
Milk production (bil. lbs.)††	January	10.5	2.3	3	6

N.A. Not applicable

†Prior period is three months earlier.

††21 selected states.



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