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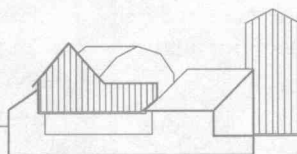
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### Farm production expenses holding steady

Production expenses in the farm sector have leveled off in recent years. Preliminary estimates prepared by the U.S. Department of Agriculture suggest that farm production expenditures in 1992 approximated \$145 billion, virtually unchanged from the levels of the two previous years. About \$126 billion represented the cash expenses associated with farming as a business, while the remainder represented noncash charges—mostly depreciation—or various household expenses of farm operator families. With crop acreage somewhat lower and input prices, on balance, showing only a modest rise, farm production expenses are likely to hold steady again this year.

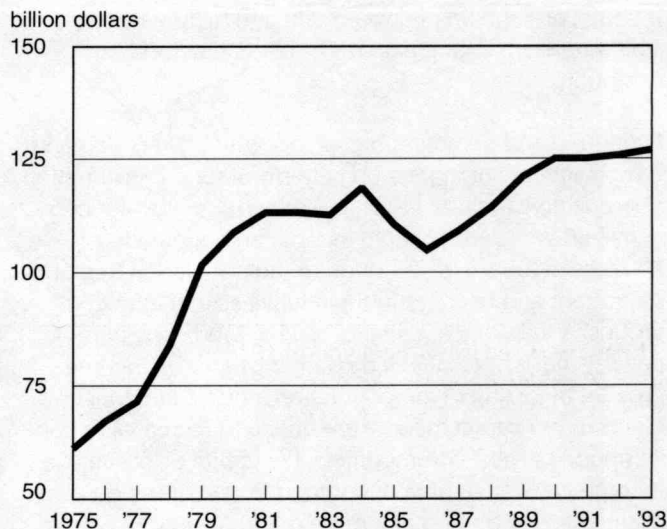
In line with the windup of the spring planting season, much of the recent focus on farm production expenses has been on costs confronting crop farmers. In 1991 (the latest year for which detailed estimates are available) a little over a fifth of the \$125 billion in farm cash expenses were for such things as seed (\$4.0 billion), fertilizer and lime (\$7.4 billion), pesticides (\$6.3 billion), and fuels, oil, and electricity (\$8.0 billion). Expenses for most of these inputs this year will be influenced by somewhat higher prices paid per unit of input, countered by a smaller acreage base. USDA reports note that prices paid by farmers in April for seed, chemicals, and fuels and energy were running 2.5 to 4 percent above year-earlier levels. Alternatively, fertilizer prices in April were down 2 percent and among the lowest of any year since 1979. Moreover, the quantity of inputs purchased by crop farmers will likely be somewhat lower this year due to a modest cut in overall seeded acreage, especially for corn which receives a large share of the fertilizer and chemicals applied by farmers. The likely continuation of some longer-range trends—such as the decline in per acre fertilizer application rates for corn and the shift toward minimum tillage practices—may also help trim the purchases of some inputs by farmers this year.

Another large share of cash production expenses in the farm sector is tied mostly to livestock and poultry producers. Together, purchases of feed (at \$19.8 billion) and livestock and poultry (at \$14.4 billion) accounted for over a fourth of the cash expenses in the farm sector in 1991. Livestock and poultry inventories are up slightly this year, signaling increased purchases of both feeder stock and feed. In this regard, prices paid for feeder livestock are up considerably from a year ago. But the impact of the larger inventories on feed expenses will likely be cushioned by

lower feed prices. In general, prices of hay and protein concentrate feed mixes this spring were at, or somewhat above year-earlier levels. However, considerably lower grain prices have probably eased overall feed costs for most producers so far this year. Even so, feed prices the remainder of this year will hinge significantly on the supply implications of the unfolding crop developments.

The remaining cash expenses for the farm sector encompass several components. The largest of these components is interest and labor expenses which approximated \$13.5 billion and \$12.1 billion, respectively, in 1991. The downtrend in interest rates on farm loans continued into the early months of this year, offering farmers opportunities for lower interest charges on new loans and on variable-rate loans still outstanding. Moreover, the lower rates offer refinancing options on fixed-rate loans taken out when rates were higher. This coupled with the leveling off in outstanding farm debt of recent years might extend the downtrend in interest expenses of the past 10 years into 1993. Conversely, labor expenses (excluding noncash perquisites) have been trending modestly upward in recent years, mostly due to rising cash wages and the rise in employer contributions to Social Security. USDA surveys show farm wage rates in April were up about 2.5 percent from a year ago. The modest expansion in inventories may translate into increased labor needs for livestock producers. However, 1993 labor requirements for

Annual farm cash expenses have leveled off\*



\*1992 is preliminary; 1993 is a forecast.  
SOURCE: U.S. Department of Agriculture.

crop farmers, while perhaps trimmed by a modest cut in acreage, won't be finalized until harvest prospects for field crops and fruit and vegetables crops are more definite.

The remaining one-third of annual cash farm production costs include several general categories that, in 1991, included \$7.5 billion for net rent paid to non-operating landlords and \$5.4 billion in property taxes. Net rents in recent years have fluctuated, reflecting a blend in the effective rents paid under share rental arrangements and a moderating uptrend in cash rental rates. Property taxes have trended upward in recent years and will probably rise again this year despite the tax reform efforts in many states. The other major cash expenditures categories are repairs and maintenance of capital items (\$6.7 billion in 1991), machine hire and custom work (\$2.7 billion), marketing, storage, and transportation expenses (\$4.5 billion), and a broad, miscellaneous category (amounting to roughly \$13.1 billion in 1991) that covers such things as insurance, registration and licensing fees, business-related telephone and water expenses and fees, tools and supplies, livestock breeding and health-care expenses, custom feeding fees, etc. Due to the broad nature of these various components, it is difficult to forecast future trends. However, in recent years, these expense components have tended to trend upward while overall farm production expenses were leveling off.

Gary L. Benjamin

### Trends in per capita food consumption

USDA data shows that consumers are altering their diets. Poultry consumption has made significant inroads against red meat. Consumers are also eating more fruits, vegetables, and grains. In contrast, per capita consumption of beef, eggs, and milk has been on the decline. In general, the increasing age of the U.S. population, rising disposable income, and the link between diet and health are responsible for the changing patterns of per capita food consumption.

Economic and demographic factors which affect demand have a significant impact on patterns of food consumption. These factors include tastes and preferences, health concerns, growth in disposable income and population, changes in the age distribution of the population, regional migration, and changes in the relative size of ethnic groups. On balance, changes in U.S. food consumption patterns have been affected relatively more by income growth, the aging of the population, and health concerns. Gains in per capita income are linked to increases in consumption of most commodities. Per capita disposable income grew at an annual compound rate of 9.2 percent during the 1970's and at a more moderate rate of 6.6 percent in the 1980's. The shift in the U.S. population

towards older age groups stems from the declining birth rate and greater longevity. Older people tend to be more health conscious, and several studies have associated diet and health. Moreover, the USDA (among others) has a history of encouraging consumers to reduce their intake of fats, sugar, and sodium, while adding fiber. Reflecting this, per capita food consumption measures indicate an increase in overall food consumption during the past decade as well as a relative shift away from the consumption of animal products in favor of crop products.

Supply factors may also affect per capita consumption by influencing relative prices. Management improvements, new technology, larger production facilities, and vertical integration can improve unit costs and allow producers to increase output at lower prices while still remaining profitable. This seems to be particularly true of the broiler industry, where large operations marketing over 100,000 birds annually now account for well over 90 percent of total marketings, compared to 5 percent in 1959. Furthermore, favorable retail prices relative to other meats have been an important factor in the per capita consumption gains made by broilers.

Data published by the USDA provides historical insight into food consumption patterns. However, it should be noted the data represent national averages that do not account for differences over time in age, income, or other attributes. Furthermore, since the consumption measures for many commodities are estimated after first accounting for other uses, they more closely reflect the disappearance of those commodities from the marketing system rather than actual human consumption. However, the food consumption data still remain a useful approximation of broad trends over time.

On a trimmed, boneless equivalent basis, per capita poultry consumption—consisting of broilers, mature chickens, and turkey—surpassed pork consumption in 1986 and has been closing on beef in recent years. At 60 pounds per person, poultry accounted for a third of the average individual's meat consumption last year, a substantial increase over the 20-percent share it held two decades ago. Furthermore, the gains made by poultry have come largely at the expense of beef. Per capita beef consumption reached a peak in 1976 at 89 pounds when it accounted for over one-half of all meat consumption. It has since been on a fairly steady decline, coming in at 63 pounds in 1992. Per capita pork consumption has fluctuated in a comparatively narrow range the past couple of decades, and posted a moderate gain in 1992 to reach 50 pounds.

Errata: Due to a calculation error, the change in farmland values in Indiana from April 1, 1992 to April 1, 1993 was reported to be 4 percent in *Agricultural Letter* No. 1840 (May, 1993). The change was actually 3 percent.



### Per capita consumption of selected foods, pounds

|                             | 1970-79<br>Average | 1980-89<br>Average | 1990  | 1991  | 1992  |
|-----------------------------|--------------------|--------------------|-------|-------|-------|
| Beef                        | 81.0               | 71.9               | 64.1  | 63.3  | 63.0  |
| Pork                        | 45.2               | 48.2               | 46.8  | 47.3  | 49.9  |
| Chicken                     | 29.3               | 37.1               | 43.3  | 44.3  | 46.3  |
| Turkey                      | 7.0                | 10.2               | 14.6  | 14.2  | 14.2  |
| Fish & shellfish            | 12.4               | 14.2               | 15.0  | 14.8  | n.a.  |
| Eggs (no.)                  | 286.9              | 257.7              | 234.9 | 233.5 | 235.0 |
| Milk                        | 256.6              | 228.3              | 221.7 | 221.5 | n.a.  |
| Fats & oils                 | 53.5               | 60.5               | 63.1  | 63.7  | n.a.  |
| Fresh fruit                 | 80.7               | 91.0               | 92.6  | 90.6  | n.a.  |
| Fresh vegetables            | 110.0*             | 122.7              | 136.3 | 129.0 | n.a.  |
| Processed fruit             | 21.0               | 19.4               | 21.2  | 19.4  | n.a.  |
| Processed<br>vegetables     | 119.5*             | 118.7              | 126.9 | 130.1 | n.a.  |
| Potatoes                    | 120.0              | 121.0              | 129.8 | 131.4 | n.a.  |
| Flour & cereal<br>products  | 138.1              | 158.3              | 183.0 | 184.1 | n.a.  |
| Sugar                       | 96.0               | 66.0               | 64.4  | 63.7  | 64.5  |
| High fructose<br>corn syrup | 5.5                | 37.1               | 50.3  | 51.4  | 51.7  |

\*1972-79 average.

SOURCE: U.S. Department of Agriculture.

Per capita consumption of eggs and milk have been in a downtrend for several years. In contrast, cheese consumption has risen while the trend for frozen dairy products has been flat. Egg consumption in 1992 averaged 235 per person, 10 percent below the level of 10 years earlier. The use of fresh eggs declined steadily, largely due to concerns regarding cholesterol in the diet. However, the number of eggs used in liquid, frozen, and dried egg products posted a gain of 50 percent over the past 10 years, partially offsetting the decline in fresh egg consumption.

Whole milk consumption dropped by over 50 pounds per person from 1981 to 1991. In contrast, per capita consumption of skim and lowfat milk rose sharply, surpassing usage of whole milk in 1987 and currently accounting for 60 percent of per capita milk consumption. These trends were largely driven by the aging of the U.S. population, as adults tend to consume less milk than children, and display a greater desire to reduce fat intake. Another factor was the upswing in per capita soft-drink consumption, which exceeded that of milk for the first time in 1982.

Fats and oils include lard, tallow, butter, margarine, shortening, and salad and cooking oils. Per capita usage in 1991 was 11 percent greater than in 1981, with vegetable products predominating total usage. However, the gain in usage may not accurately reflect the trend in actual human consumption since both restaurants and households generate substantial amounts of waste grease from cooking.

The restaurant industry's trend to salad bars and ethnic dishes has provided a boost to the utilization of fresh vegetables. In addition, consumption has also been lifted through greater imports of fresh vegetables to offset sea-

sonal declines in domestic production. Per capita consumption of the major fresh vegetables tracked by the USDA rose 17 percent from 1981 through 1991, a gain of nearly 20 pounds per person. There was no significant trend in the consumption of processed vegetables, though the 1991 level was the highest in 15 years. Per capita fruit consumption also trended upwards during the 1980's, driven higher by gains in noncitrus consumption, particularly apples, bananas, and grapes. The trend in fresh citrus consumption was fairly flat during the past decade, and per-capita consumption of processed fruit has also been fairly steady in recent years.

Per capita consumption of flour and cereal products has risen steadily over the past decade, increasing by 37 pounds from 1981 through 1991. Wheat flour accounts for nearly 75 percent of flour and cereal products, with rice, corn, barley, oats, and rye products making up the rest. USDA research indicates older adults are more likely to purchase flour and cereal products, suggesting much of the gain may be attributed to the relative aging of the population.

USDA analysts recently conducted a study to identify future trends in the consumption of various individual food groups. Their results suggest that current trends will continue, with the greatest relative gains occurring in fruits, vegetables, and poultry. The implication is that poultry producers will find the domestic market relatively more capable of absorbing production gains when compared to their counterparts in red meat production. This suggests that the red meat industry must continue to view export markets as the primary engine for growth and also underscores the importance of international agreements to facilitate trade. The USDA analysts also suggested—after considering current trends—that productivity gains in production agriculture will outstrip increases in domestic food requirements, contributing to the movement of productive resources out of agriculture.

Mike A. Singer

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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 (index, 1977=100)</b> | May           | 146    | 0.0                 | 4        | -3            |
| <b>Crops (index, 1977=100)</b>                      | May           | 122    | -3.2                | -1       | -11           |
| Corn (\$ per bu.)                                   | May           | 2.15   | -0.5                | -14      | -10           |
| Hay (\$ per ton)                                    | May           | 86.30  | 3.0                 | 16       | 3             |
| Soybeans (\$ per bu.)                               | May           | 5.79   | 1.0                 | -1       | 2             |
| Wheat (\$ per bu.)                                  | May           | 3.05   | -6.2                | -16      | 15            |
| <b>Livestock and products (index, 1977=100)</b>     | May           | 168    | 0.6                 | 6        | 2             |
| Barrows and gilts (\$ per cwt.)                     | May           | 47.30  | 3.1                 | 4        | -14           |
| Steers and heifers (\$ per cwt.)                    | May           | 81.70  | -0.1                | 8        | 3             |
| Milk (\$ per cwt.)                                  | May           | 12.90  | 2.4                 | 1        | 14            |
| Eggs (¢ per doz.)                                   | May           | 62.9   | -9.2                | 23       | 6             |
| <b>Consumer prices (index, 1982-84=100)</b>         | May           | 144    | 0.1                 | 3        | 6             |
| Food  | May           | 141    | 0.4                 | 3        | 3             |
| <b>Production or stocks</b>                         |               |        |                     |          |               |
| Corn stocks (mil. bu.)                              | March 1       | 5,679  | N.A.                | 25       | 19            |
| Soybean stocks (mil. bu.)                           | March 1       | 1,215  | N.A.                | 3        | 2             |
| Wheat stocks (mil. bu.)                             | March 1       | 1,045  | N.A.                | 18       | -25           |
| Beef production (bil. lb.)                          | April         | 1.78   | -4.1                | 0        | -5            |
| Pork production (bil. lb.)                          | April         | 1.47   | -1.1                | 4        | 8             |
| Milk production* (bil. lb.)                         | May           | 11.4   | 4.1                 | 1        | 1             |
| <b>Receipts from farm marketings (mil. dol.)</b>    | January       | 15,551 | -15.2               | 2        | 2             |
| Crops**   | January       | 8,752  | -4.7                | 7        | 13            |
| Livestock   | January       | 6,577  | -17.6               | -6       | -11           |
| Government payments                                 | January       | 222    | -80.9               | 196      | 319           |
| <b>Agricultural exports (mil. dol.)</b>             | March         | 3,870  | 1.4                 | 4        | 6             |
| Corn (mil. bu.)                                     | March         | 136    | -0.2                | 9        | -28           |
| Soybeans (mil. bu.)                                 | March         | 80     | -23.8               | 27       | 22            |
| Wheat (mil. bu.)                                    | March         | 125    | -1.4                | 16       | 5             |
| <b>Farm machinery sales (units)</b>                 |               |        |                     |          |               |
| Tractors, over 40 HP                                | May           | 5,346  | -14.3               | 29       | -19           |
| 40 to 100 HP  | May           | 3,707  | 6.0                 | 22       | -11           |
| 100 HP or more                                      | May           | 1,639  | -40.2               | 50       | -33           |
| Combines  | May           | 416    | -11.1               | 105      | -68           |

N.A. Not applicable

\*21 selected states.

\*\*Includes net CCC loans.

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