FRB CHICAGO AGRICULTURAL LETTER

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Agricultural exports

Exports of U.S. agricultural products are expected to remain strong this fiscal year. The current USDA forecast of export tonnage, at 148.5 million metric tons, was revised upward by 3 million tons and points to the largest volume of exports since fiscal 1982. Moreover, it would hold exports more than a third higher than the 1986 low. Although export tonnage is forecast to be about 1 percent more than last year, lower prices for grains and oilseeds are expected to trim the value of U.S. agricultural exports. At $38.5 billion, the latest estimate is up slightly from the initial forecast at the start of the fiscal year, but 3 percent lower than the fiscal 1989 value. With U.S. agricultural imports expected to hold at last year's level, the U.S. agricultural trade surplus is expected to drop to $17 billion.

The recent upward revision in export tonnage is attributable largely to expected increases in coarse grain sales. Total coarse grain exports are now expected to reach 66.5 million metric tons, almost a tenth higher than the fiscal 1989 level. Corn exports, which account for about 87 percent of the total, are forecast to rise almost 15 percent from a year ago. The stronger prospects for coarse grain shipments stem from both larger than expected demand and some decline in export supplies among competing countries. Despite the large increase in tonnage, the value of U.S. coarse grain exports is expected to drop slightly this year to $7.3 billion. However, the value of corn exports is projected to rise almost 5 percent from the year-earlier level.

The forecast for wheat and flour exports, unchanged from the beginning of the fiscal year, points to declines from a year earlier. The forecast of 34.3 million metric tons represents a drop of about 12 percent from the last fiscal year due to tight domestic supplies and continued stiff competition. In addition, USDA cites an unexpectedly large Southern Hemisphere crop and the potential for a large Northern Hemisphere crop as pressuring prices downward. As a result, the value of U.S. wheat and flour exports is projected to drop almost 16 percent from the last fiscal year.

USDA projections of oilseed exports for the current fiscal year are mixed, as larger soybean shipments are offset by weaker prices. Soybean exports are projected to rise 14 percent from the fiscal 1989 level, while soybean meal and oil exports dip below last year's levels. However, abundant world supplies of oilseeds will pressure prices lower, resulting in an overall decline in the value of U.S. oilseed exports. The current forecast pegs the value of oilseed exports at $5.7 billion in fiscal 1990, about 16 percent lower than a year ago. The value of soybean exports is projected to drop about 14 percent from last year, with soybean meal and oil exports registering significantly larger declines in value.

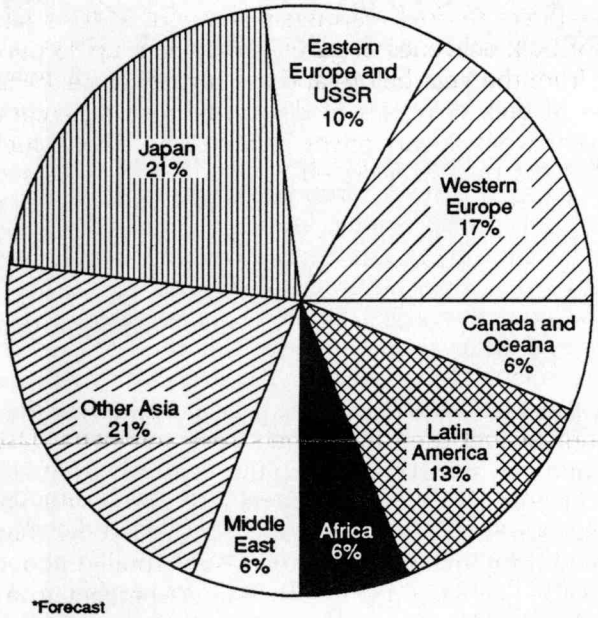
Export prospects for most other agricultural commodities appear favorable this year. Strong demand and reduced competitive pressure due to smaller crops in China and Pakistan have combined to raise projected cotton shipments by 14 percent and the value of cotton and linters exports by about a fourth. Exports of livestock, poultry and dairy products may rise 3 percent in value this year, with particularly strong demand for meats and poultry offsetting declines in live animal exports.

USDA projections of horticultural product exports were revised downward from the beginning of the fiscal year due to the winter freeze. Nevertheless, exports of horticultural products are still projected to eclipse last year's record. Continued strong demand for fresh and processed fruits, and tree nuts as well as wines and malt beverages were cited as contributing factors.

The projected decline in U.S. agricultural exports this year will be spread across most regions of the world. The value of exports to the European Community countries is projected to drop again, registering a 7 percent decline from last year. USDA analysts attribute the drop to lower soybean and soybean meal prices, and reduced meat sales because of the EC hormone ban. U.S. agricultural exports to Asia are projected to drop 2 percent in value compared to last year, due largely to reduced sales of wheat to China. Exports to Japan are expected to hold near $8.2 billion in fiscal 1990, as larger meat exports are offset by a cut in grains.

Exports to Eastern Europe are expected to rise sharply again in fiscal 1990, due in part to food assistance shipments. However, exports to Eastern European countries, at only $600 million, will remain a very small component of U.S. agricultural exports. Exports to the

Distribution of agricultural exports
(38.5 billion)*



*Forecast
SOURCE: USDA

Soviet Union are expected to approach last year's record high of $3.3 billion. U.S. agricultural exports to Mexico are expected to decline about 9 percent from last year's record high, accounting for most of the projected 8 percent drop in the value of exports to Latin America.

Imports of agricultural products into the United States are forecast to equal last year's record of $21.5 billion. The latest forecast reflects an upward revision to account for larger imports of fruits, juices, and vegetables following the winter freeze in Florida and Texas. Imports of fruits, including juices, are expected to approach $2.2 billion this year, 17 percent more than last year. Vegetable imports are projected to register a 1 percent year-to-year rise in value. In contrast, the value of coffee imports is projected to drop 7 percent from fiscal 1989, despite an almost 11 percent increase in tonnage.

The expected drop in agricultural exports, combined with a stable level of imports, will reduce the U.S. agricultural trade surplus. At a projected $17 billion, the surplus will be down about 6.5 percent from last year, but still more than 3 times larger than the low recorded in fiscal 1986.

Peter J. Heffernan

Farmers expected to use more crop inputs this year

A recent U.S. Department of Agriculture report summarized recent and prospective trends in farm use of fertilizer, fuel, seeds, and chemicals. Due to prospects for a slight increase in crop acreage, farm use of these inputs will probably rise moderately this year. But with prices pressures abating after an upsurge last year, total expenditures for major crop inputs will likely hold fairly steady this year.

The latest USDA estimates suggest that farmers spent about $20 billion for fertilizer, fuel, seeds, and chemicals in 1988. That is about $1.2 billion higher than an earlier estimate and reflects preliminary revisions indicated by the 1987 Census of Agriculture. Preliminary estimates for 1989 suggest that the total rose to around $23 billion due to higher prices and a modest rise in the quantity of inputs purchased. Of last year's forecasted total, fertilizer (including lime) accounted for about $8 billion. Another $6 billion was spent for fuels and oil, while pesticide expenses approximated $5 billion. The remaining $4 billion represented seed expenses. While pesticide expenses may rise slightly this year, expenses for fertilizer and seed are expected to be stable to slightly lower than last year. Fuel expenses will be up during the early part of this year. But recent declines in prices offer hope that fuel expenses will stabilize in the months ahead.

After holding steady at 19.6 million nutrient tons last year, U.S. consumption of fertilizer for agricultural purposes is forecast to rise about 5 percent during the year ending June 30. Lower prices, however, will substantially moderate the rise in fertilizer expenses for farmers. After rising rapidly from late 1986 through last spring, fertilizer prices have dropped below year-earlier levels as supplies have expanded through imports and domestic production. Fertilizer prices paid by farmers last October were 2 percent under the year-earlier level. Despite subsequent seasonal gains, USDA analysts believe that fertilizer prices this spring will average 4 percent below the three-year high set in April of last year.

The projected increase in fertilizer consumption for this year reflects expectations for a modest rise in crop acreage and a recovery in application rates. Fertilizer application rates were down somewhat last year because of nutrient carryover from the 1988 drought year and because of wet conditions in the eastern Corn Belt that limited applications in the spring of 1989. The 20.6 million nutrient tons of fertilizer consumption projected for this year would be the highest in five years but still short of the levels that prevailed (except for the PIK year of 1983) with the higher crop plantings from 1976-85.

Fertilizer application rates vary widely by state, by crop, and by nutrient. Despite differing trends for some crops and some nutrients, it appears that overall application rates have been fairly stable since the early 1980s. Annual USDA surveys in major crop states show that per acre fertilizer application rates for corn (the most heavily fertilized of the major crops) averaged 136 pounds of nitrogen, 65 pounds of phosphate, and 84 pounds of potash the past three years, down 2 to 6 percent from the 1981-83 average. In contrast, average per acre application rates for soybeans the past three years (at 20 pounds of nitrogen, 47 pounds of phosphate, and 76 pounds of potash) were 5 to 10 percent above the 1981-83 average. Nitrogen application rates on wheat and cotton have averaged somewhat higher in recent years. But recent phosphate application rates for those two crops have been down from the 1981-83 average, while potash application rates have been up for wheat but down for cotton.

The use of pesticides on major field crops rose 5 percent in 1989 and is projected to rise another 2 percent this year. The rise in pesticide expenses will likely be somewhat larger due to expectations of a 1 to 3 percent rise in pesticide prices. Overall, about 460 pounds of active pesticide ingredients were used on major crops last year. About 85 percent of the total represented herbicides which are typically applied on the bulk (85 to 97 percent) of the nation's corn, soybean, cotton, and spring wheat acreage and 40 to 45 percent of the winter wheat acreage. Insecticides accounted for another 13 percent of total pesticide usage on field crops last year. Fungicides, which are mostly applied on peanut acreage, accounted for the remaining share used in field crops.

Seed expenses, which rose sharply in 1989, are likely to hold steady this year. Last year's rise was highlighted by a 10 percent jump in the tonnage of seed used to plant eight major field crops and a comparable rise in the USDA's measure of prices paid by farmers for seed. For this year, the tonnage of seed used in plantings of major field crops is expected to rise about 3 percent while the overall measure of seed prices is expected to be steady to somewhat lower. Various reports note that hybrid seed corn prices have retreated as supplies have recovered from the 1988 drought. And prices of most non-hybrid seeds have undoubtedly declined in line with the general decline in most commercial crop prices.

The farm energy bill, which also rose sharply last year, is expected to register only a modest rise in the current year. Last year's strong rise was propelled by sharply higher prices for fuel. Farmers paid about $1.05 a gallon for bulk deliveries of gasoline last year, up 13 percent from the year before and the highest since 1985. Prices of bulk deliveries of diesel fuel rose 4 percent last year while LP gas prices held steady. Diesel fuel and LP gas prices registered further strong increases early this year (as a result of temporary tight supplies following unusually cold temperatures in December) but have since retreated. While energy prices are often volatile and difficult to project, USDA analysts believe that prices for all of this year may hold at or only slightly above the 1989 level.

Preliminary estimates and projections show that the amount of fuel used by farmers rose somewhat last year and may rise slightly again this year. The trend in farm fuel use over the past several years, however, has been downward. Final estimates for 1988 show that farm use of gasoline, diesel, and LP gas totaled about 5.1 billion gallons, down more than 30 percent from the 1979 level. During the same period, harvested acreage of principal crops in the U.S. fell less than 15 percent. Other factors contributing to the marked decline in fuel use over the past several years include a shift from gasoline- to diesel-powered engines, innovations in crop drying and irrigation, the use of larger, multi-function machinery and equipment, and changing tillage practices to conserve soil and reduce the number of trips over a field that are required to produce a crop.

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Selected Agricultural Economic Indicators

	Latest period	Value	Percent change from Prior period	Year ago	Two years ago
Receipts from farm marketings *($ millions)*	November	17,539	-8.4	11	12
Crops*	November	8,825	-14.0	10	7
Livestock	November	7,791	-1.7	9	12
Government payments	November	924	-3.4	80	80
Real estate farm debt outstanding *($ billions)*					
Commercial banks	September 30	15.2	1.1†	7	16
Farm Credit System	September 30	26.5	-0.5†	-8	-14
Life insurance companies	September 30	8.62	-0.7†	-1	-8
Nonreal estate farm debt outstanding *($ billions)*					
Commercial banks	September 30	29.8	2.5†	2	3
Farm Credit System	September 30	9.70	2.6†	4	-2
Interest rates on farm loans *(percent)*					
7th District agricultural banks					
Operating loans	January 1	12.05	-1.1†	1	7
Real estate loans	January 1	11.15	-1.7†	-1	4
Commodity Credit Corporation	March	8.12	3.2	-11	20
Agricultural exports *($ millions)*	January	3,759	5.6	12	30
Corn *(mil. bu.)*	January	239	-7.6	36	79
Soybeans *(mil. bu.)*	January	77	17.7	16	-4
Wheat *(mil. bu.)*	December	86	13.2	-20	-28
Farm machinery sales[P] *(units)*					
Tractors, over 40 HP	February	4,231	-5.3	12	34
40 to 100 HP	February	2,304	-5.1	7	6
100 HP or more	February	1,927	-5.5	18	99
Combines	February	481	-4.6	145	119

*Includes net CCC loans.
†Prior period is three months earlier.
[P]Preliminary

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