# U.S. Agriculture at the Crossroads in 1999

By Russell L. Lamb

arkets for U.S. farm products took a sudden, unexpected turn for the worse in 1998, as supply and demand factors combined to produce a plunge in crop prices. Most parts of the nation had very favorable growing conditions in 1998, resulting in an abundant harvest of the major crops, and pushing prices lower. Likewise, the supply of red meat products in the marketplace soared, as both beef and pork producers boosted production, with pork production hitting a record high. But as supply soared, demand weakened. In particular, the economic crisis in Asia led to a drop in ag exports to many Asian countries. And problems in Asia also contributed to a slowdown in world growth more generally, and thus global demand for U.S. farm products slumped.

With supply and demand forces pushing prices down, few producers could claim solid profits from the marketplace. Crop prices retreated more than 25 percent from year-earlier levels before recovering some of that ground late in the year. The nation's cattle producers faced substantial losses all along the production chain. Hardest hit, though, were hog producers, who saw the lowest hog prices since the 1960s.

Russell L. Lamb is a senior economist at the Federal Reserve Bank of Kansas City. Michelle Beshear, a research associate at the bank, helped prepare the article. This article is on the bank's Website at www.kc.frb.org. The slump in farm commodity prices brought national attention to farm income problems by midyear. Congress delivered a hefty \$6 billion surge in government payments late in the year to support farm income. The surge in government payments was enough to offset most of the losses farmers suffered in the marketplace. Moreover, farmers and lenders were mostly able to withstand the financial stress, since farmers' balance sheets and bank loan portfolios began the year in good shape.

After the gyrations of 1998, the year ahead is one of particular uncertainty for U.S. agriculture. The outlook for farm income depends critically on the role the government will play in the farm sector. U.S. grain bins are fuller than in the past three years, making lower crop prices likely in 1999. In the livestock industry, cattle prices have been slow to strengthen, and low hog prices will likely persist through the first half of 1999, suggesting that profits may be slow in returning to livestock producers in 1999. This suggests that market returns to ag producers are likely to be weaker in 1999 than in 1998.

With market returns falling, farmland values are likely to come under some stress in 1999, putting added stress on farm balance sheets and lender portfolios. While the extent of the decline remains to be seen, it will certainly focus renewed attention on farm financial conditions. Congressional action is therefore the wildcard in the outlook for farm income. If Congress and the President decide to repeat this year's performance, farm income will remain solid in 1999, soft commodity prices notwithstanding. If Congress balks at approving further farm subsidies, however, farm income will likely drop in 1999.

#### I. A GOOD YEAR IN 1998

In many respects, 1998 was unlike anything most in U.S. agriculture had expected. Grain prices had generally been strong the previous three years, allowing most producers (with the exception of some district wheat and cattle producers) to earn solid profits. Most analysts had expected the strength to continue in 1998. The Asian economic crisis—and its offspring, the meltdown in Russia and the downturn in South America—played a key role in trimming export demand for U.S. agricultural products. Moreover, good weather and large plantings led to a boost in crop production. The result was a plunge in grain prices of as much as 30 percent in mid-1998.

In addition, overly optimistic expansions in some parts of the livestock industry (especially by pork producers) led to a flood of meat products on the marketplace, depressing prices for most livestock products. By harvest-time, the outlook for U.S. agriculture was bleak, with producers facing losses almost across the board. The weakness showed up in projections of 1998 farm income during the summer and fall, with the healthy increases posted over the past three years coming to an abrupt halt. While agriculture's strong balance sheet was able to withstand the loss of income this year, the downturn was enough to cause worry among some ag lenders, and farmland buyers were willing to pay less for land.

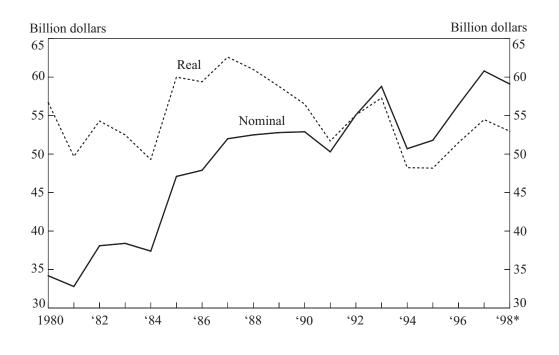
#### Government subsidies boost farm finances

U.S. agriculture turned in a healthy overall financial performance in 1998, even though farm

income for the nation fell and most producers turned pessimistic by yearend. The drop in income stemmed from a plunge in crop prices, although a surge in government payments offset part of the loss. Tenth District farm income weakened along with the rest of the nation this year, as losses in the cattle and hog industries combined with weak wheat prices to yield lower income for the region. Farmland values began to drop in mid-1998 as well.

U.S. net cash farm income, a broad income gauge that nets cash expenses from cash receipts, fell \$1.7 billion to \$59 billion in 1998 (Chart 1). The decline reflected developments in both crop and livestock prices, as prices fell in the wake of a good 1997 harvest and booming meat supplies. Farm income would have been much lower without a boost from additional government subsidies. In October, Congress and the President approved an additional \$6 billion in farm aid for 1998.<sup>1</sup> In nominal terms, the 1998 farm income total was the second best on record, although in real terms it was near its average level for the 1990s. Net farm income, another measure of farm income which takes into account farm inventory adjustments and capital depreciation, fell 3.6 percent.

Farm incomes generally fell in the Tenth District states in 1998. Livestock producers generally posted sharp declines in income compared with 1997. In particular, hog producers suffered a plunge in prices as supply ran well ahead of demand. By yearend, hog prices were at the lowest levels since the 1960s, and producers were losing roughly \$50 per animal. Cattle producers saw a more moderate decline in profits from 1997 levels. Cattle feeders generally suffered substantial losses through the summer of 1998, reflecting the high prices paid for feeder cattle the previous fall. Cattle ranchers also posted large losses, as feeder cattle prices slumped in the summer, in spite of cheap feed prices. While wheat producers harvested a good crop, prices plunged to reflect the glut of wheat on world



#### *Chart 1* U.S. NET CASH FARM INCOME

\* U.S. Department of Agriculture forecast.

markets. The district's corn and soybean producers, in contrast, had good crops and decent prices, in spite of a plunge in prices in the late summer and early fall. By yearend prices for these two crops, which account for less of farm production in the Tenth District than in the rest of the nation, had recovered a large portion of the earlier decline.

Despite a drop in U.S. farm income, the sector's balance sheet remained generally healthy as 1998 began (Table 1). Farm assets climbed 3.7 percent, nearly matching the gains of the year before. A healthy rise in farmland values helped boost farm assets, in spite of a decline in non-real estate wealth. Many parts of the Farm Belt saw healthy gains in land values on a year-over-year basis. In the Tenth District states, nonirrigated farmland values rose 4 percent for the 12 months ended September 30, 1998. In the third quarter of 1998, though, district farmland values fell about 1.3 percent, suggesting that farm financial conditions were weakening in the district.

Farm debt began last year somewhat higher, in line with the trend of recent years. For the nation, farm debt advanced a moderate 3.0 percent to \$170 billion. However, the growth in farm assets was roughly adequate to offset the growth in debt, leaving the farm sector's debt-asset ratio at 15.1, about the same as the previous year. Similarly, agriculture's debt-equity ratio was about unchanged at 17.8 percent. By the end of 1998 the farm sector balance sheet

#### Table 1 FARM BALANCE SHEETS ON NOVEMBER 19

(Billions of dollars)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Assets										
Real estate	600.8	620.0	625.6	642.8	673.4	706.9	755.7	799.5	849.2	895.6
Non-real estate	213.6	221.5	219.3	227.5	233.0	231.4	226.2	234.4	239.6	233.9
Total assets	814.4	841.5	844.9	870.3	906.4	938.3	981.9	1,033.9	1,088.8	1,129.5
Deflated	907.9	899.0	868.3	870.3	883.4	894.5	912.5	940.8	967.8	1,004.0
Liabilities										
Real estate	76.0	74.7	74.9	75.4	76.0	77.7	79.3	81.7	85.4	87.6
Non-real estate	61.9	63.2	64.3	63.6	65.9	69.1	71.5	74.4	80.1	82.8
Total liabilities	137.9	137.9	139.2	139.0	141.9	146.8	150.8	156.1	165.4	170.4
Deflated	153.7	147.3	143.1	139.0	138.3	139.9	140.1	142.0	147.0	151.5
Dropriator's aquity	676.6	703.5	705.7	731.3	764.4	791.5	831.1	877.8	923.4	959.1
Proprietor's equity										
Deflated	754.3	751.6	725.3	731.3	745.0	754.5	772.4	798.7	820.8	852.5
Debt-asset ratio (percent)	16.9	16.4	16.5	16.0	15.7	15.6	15.4	15.1	15.2	15.1

Note: Figures for 1997 and 1998 are forecasts. Also, table excludes operator households. Source: U.S. Department of Agriculture.

undoubtedly looked weaker, although it likely remained healthy.

In spite of the decline in market prices, U.S. agriculture remains in good financial health overall as 1999 begins. While many producers throughout the nation had smaller incomes last year, crop producers benefited from the increase in government subsidies. In the Tenth District, most farm incomes were weaker in 1998 than the previous year, reflecting the importance of cattle production in district agriculture. But concern among both producers and lenders about the future health of the sector appeared to be growing by yearend. Farmland values, which had been growing robustly, turned down in mid-1998.

#### A bountiful harvest for crop producers

Weak prices for crops led to a decline in market returns to crop producers in 1998, in spite of high yields for the three major crops in most parts of the country (Chart 2). Coming off the healthy prices of 1997, corn and soybean producers boosted plantings in 1998. In contrast, wheat producers eased back on planted acres, reflecting a switch into soybean production. Farmers generally had good growing conditions and reaped big harvests. The nation's soybean producers reaped a record harvest, and corn production was the second-largest on record. In spite of lower plantings, wheat production overall rose in the U.S., as yields soared. In particular, winter wheat production jumped to a new record in 1998. While large supplies contributed to a plunge in crop prices, weak exports, especially to Asia, were just as important (Chart 3). Overall, crop producers earned weak returns in the marketplace, but the surge in government payments helped make up the difference.

Wheat producers harvested a bumper crop thanks to excellent growing conditions. The nation's wheat production totaled 2.56 billion bushels, the biggest crop since 1990 (Table 2). A big winter wheat harvest contributed to the rise in wheat output. While healthy yields had been expected, the size of the winter wheat crop surprised markets. Spring wheat production, meanwhile, was off somewhat in 1998 due to lower plantings. Overall, the nation's wheat yield was 43.3 bushels per acre, the highest since 1990.

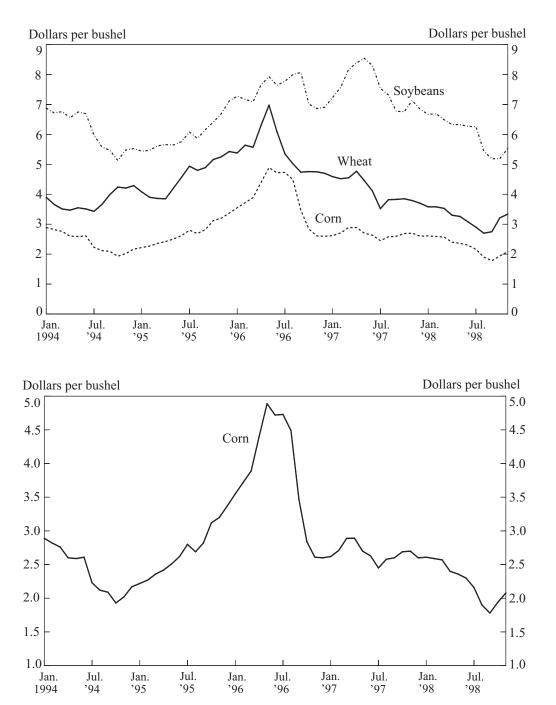
Wheat prices continued to slide throughout most of 1998, following the trend that developed after the large 1997 harvest. Prices held above \$3.00 per bushel right up until the spring harvest. For the 1997-98 marketing year which ended May 31, 1998, wheat prices averaged \$3.38 a bushel, roughly 20 percent below the previous year's average (Table 3). But once it became clear that this year's crop would be a bumper one, and the grain began piling up on the ground, prices slid to \$2.60 per bushel in Kansas City. Wheat prices found a bottom in late September after it became apparent that the U.S. government would sponsor large wheat sales to Russia, both to avoid disaster there and to help U.S. farmers. Wheat prices firmed in the fall but reached resistance at \$3.40 per bushel and leveled off.

Corn production also benefited from nearly ideal growing conditions in 1998. In spite of a slide in corn prices in 1997, producers planted a bit more corn in 1998, expecting to earn healthy returns. The growing season started off with excellent conditions, and the crop was planted about on schedule. Thanks to cooperative weather throughout the year, the nation's corn fields turned in an average yield of 133.3 bushels per acre, well above the previous year's level. Thanks to large plantings and healthy yields, U.S. corn production totaled 9.84 billion bushels, the second-largest crop on record. The rise in production was enough to boost projected ending stocks of corn substantially, to roughly 19 percent of the previous year's use (Chart 4).

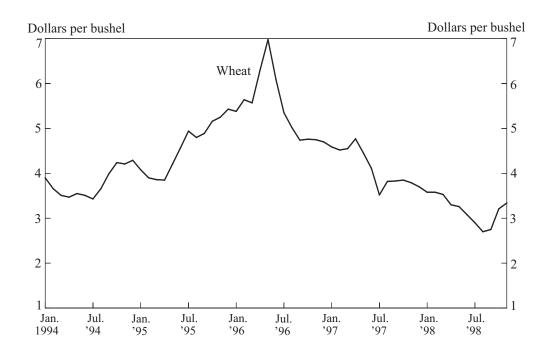
Corn prices declined throughout most of 1998. After remaining well above \$2.50 in 1997, prices responded to large plantings and the weakening export picture by falling through the spring and summer. For the marketing year that ended August 31, 1998, corn prices averaged \$2.43 at the farm level, about ten percent below the previous year's level. But when market participants began to expect a near-record crop in late July and August, prices tumbled sharply to as low as \$1.71 per bushel in central Illinois. As in the wheat market, though, the prospect of larger government food-aid packages helped to boost prices by October, and corn prices reached above \$2.10 by yearend.

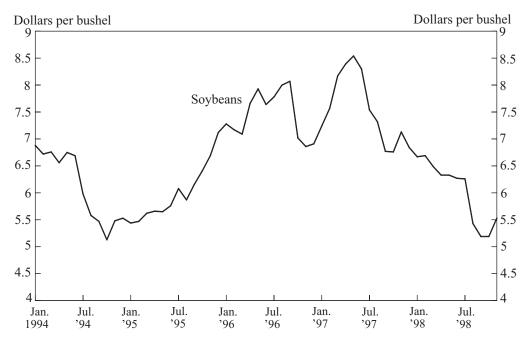
Soybean producers had another outstanding year in 1998 in terms of overall production, although weak prices likely dampened their incomes somewhat. Soybean plantings rose another 3 percent to the highest level in 19 years. In spite of relatively tight stocks as 1998 began, soybean prices dropped throughout most of the year. Nonetheless, for the marketing year ended August 31, soybean prices at the farm gate still averaged \$6.48 per bushel, only 12 percent below the previous year. With the surge in plantings and nearly ideal growing conditions this summer, a bumper crop was clearly in the making, and prices plunged in September and early October, reaching as low as \$5.00 per bushel in central Illinois. By late October, however, prices strengthened, and ended the year close to \$5.75 per bushel. In fact, soybean production set a new record this year, with a national average yield of 38.6 bushel per acre and total production of 2.76 billion bushels.

#### Chart 2 GRAIN PRICES



## Chart 2 - continued GRAIN PRICES





#### Billion dollars Billion dollars 70 70 60 60 50 50 40 40 30 30 20 20 **'**90 **'**92 **'**94 **'**96 **'98**\* 1980 **'**82 **'**84 **'**86 **'88**

## *Chart 3* U.S. AGRICULTURAL EXPORTS

\* U.S. Department of Agriculture forecast.

#### A painful year for livestock producers

Livestock producers posted huge losses in 1998, with few areas of strength. Ranchers generally experienced low prices for feeder calves throughout 1998, as low feed costs did little to boost prices. Prices for fed cattle slid during the spring and summer, and feedlot operators, who paid high prices for calves in 1997, saw their hopes of profits evaporate as the Asian economic turmoil took its toll on global demand. Hog producers continued to expand production, outstripping demand sharply by midyear. As a result of the oversupply of red meat products on the market and waning Asian demand, pork prices plunged to their lowest levels in 30 years. The poultry industry was the one bright spot in the livestock sector, with rising product prices and falling feed costs helping to boost profits throughout most of 1998.

The cattle industry slumped again in 1998, after a brief flirtation with profitability the previous year. Losses started right at the beginning of the production chain (Chart 5). While falling feed costs pushed down the cost of gain for cattle feeders, large losses suffered in fed cattle markets held back demand for feeder cattle in mid-1998. In spite of starting the year with 2 percent fewer cattle in 1998, ranchers failed to see a rise in prices. The price of feeder cattle plunged from around \$85 a hundredweight at the beginning of the year to \$68 in mid-September, before recovering somewhat near yearend. Weak prices led to losses for ranchers during most of the year.

#### Table 2

### U.S. AGRICULTURAL SUPPLY AND DEMAND ESTIMATES

(December 11, 1998)

		Corn (bu.)		F	eedgrains (m	t.)
	2	Sept. 1-Aug. 3	1	J	June 1-May 3	1
	1996-97	1997-98	1998-99	1996-97	1997-98	1998-99
Supply						
Beginning stocks	426	884	1,308	14.4	27.0	38.2
Production and imports	9,306	9,369	9,846	270.1	268.0	275.9
Total supply	9,733	10,258	11,154	284.6	295.0	314.1
Demand						
Domestic	7,054	7,445	7,730	206.0	211.6	216.3
Exports	1,795	1,504	1,700	51.5	45.3	48.9
Total demand	8,849	8,950	9,430	257.6	256.8	265.2
Ending stocks	883	1,308	1,724	27.0	38.2	48.9
Stocks-to-use ratio (percent)	10.0	14.6	18.3	10.5	14.9	18.4

		Soybeans (bu.	)		Wheat (bu.)	
	2	Sept. 1-Aug. 3	1		June 1-May 3	1
	1996-97	1997-98	1998-99	1996-97	1997-98	1998-99
Supply						
Beginning stocks	183	131	200	376	444	722
Production and imports	2,391	2,708	2,769	2,377	2,622	2,647
Total supply	2,575	2,839	2,968	2,753	3,065	3,370
Demand						
Domestic	1,562	1,768	1,753	1,308	1,302	1,393
Exports	882	870	840	1,001	1,040	1,150
Total demand	2,443	2,639	2,593	2,310	2,342	2,543
Ending stocks	131	200	375	444	722	827
Stocks-to-use ratio (percent)	5.4	7.6	14.5	19.2	30.8	32.5

Note: Data represent millions of bushels or million metric tons. Source: U.S. Department of Agriculture.

#### Table 3

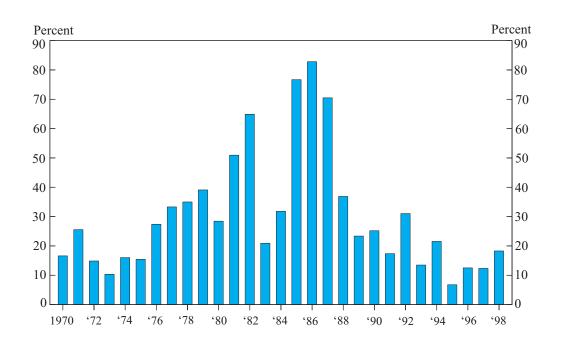
#### U.S. FARM PRODUCT PRICE PROJECTIONS

(December 11, 1998)

	Calendar years					
Livestock	1997	1998*	1999+	Percent change		
Choice steers	\$66.32/cwt	\$61.84/cwt	\$69-75/cwt	16.4		
Barrows and gilts	\$51.36/cwt	\$32.24/cwt	\$32-34/cwt	2.3		
Broilers	\$.59/lb.	\$.63/lb.	\$.5660/lb.	-7.9		
Turkeys	\$.65/lb.	\$.62/lb.	\$.6065/lb.	.8		
		Marketing years				
Crops	1996-97	1997-98*	1998-99+	Percent change		
Wheat	\$4.30/bu.	\$3.38/bu.	\$2.60-2.80/bu.	-20.1		
Corn	\$2.71/bu.	\$2.43/bu.	\$1.80-2.20/bu.	-17.0		
Soybeans	\$7.35/bu.	\$6.48/bu.	\$5.15-5.75/bu.	-15.9		
*Estimated.						
+Projected.						
Source: U.S. Department of Agriculture.						

Cattle feeders also lost money throughout most of 1998. After paying high prices for feeder cattle in late 1997, feedlot operators were counting on a surge in fed cattle prices last year. However, prices actually plunged throughout the first half of 1998 as the Asian crisis began to take a bite out of export demand and the value of cattle hides, an important component of the packers' profit margin, moved only marginally during the year.<sup>2</sup> After starting the year close to \$65 a hundredweight, fed cattle prices moved between \$62 and \$66 a hundredweight throughout the spring. By early summer, however, prices slid sharply to as low as \$58 per hundredweight. In spite of the moderation in feed costs in 1998, prices were well below break-even throughout the summer, and feeders lost as much as \$115 per head in July and August. By the end of the year, losses for feeders were subsiding, as fed cattle prices firmed and corn prices weakened a bit. Losses for cattle feeders were likely down to about \$25 per head by yearend.

After experiencing a banner year in 1997, pork producers saw their lowest prices in 30 years in 1998 (Chart 6). As 1998 began, prices for hogs strengthened somewhat, reaching back to \$47 per hundredweight in the Spring. But once the Asian problems became clear, hog prices began falling and did not stop until they hit bottom. Cash prices in the Omaha direct market hit \$11.00 a hundredweight in December before recovering somewhat by yearend. Nonetheless, hog producers were losing over \$50 per animal at yearend, with no end to the hemorrhaging in sight. In spite of the weakness in hog prices throughout the summer, hog producers were slow to cut the size of the hog herd. Indeed, hog numbers continued to rise throughout 1998, suggesting that further losses are in store in 1999.



#### *Chart 4* U.S. STOCKS-TO-USE RATIO FOR CORN

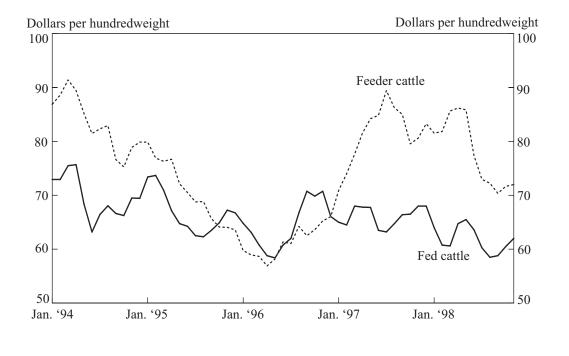
In spite of the weakness elsewhere in livestock, poultry producers had a good year in 1998, benefiting from lower feed costs and relatively strong prices for their output. Expansion in poultry production slowed substantially in 1998, owing to disease-related problems in some broiler flocks. Total production rose only 2 percent, the smallest increase since 1982. Strong domestic demand for chicken products and lower feed costs again helped producers earn profits. Prices for broilers rose about 7 percent in 1998, averaging close to 63 cents per pound, allowing for healthy profits by producers.

Turkey producers, on the other hand, had another rough year in 1998. Net returns to turkey producers were negative through June, but producers turned profitable in July as feed costs dropped and earned profits through the remainder of the year. In spite of a 4 percent decline in turkey production in 1998, prices also dropped over 4 percent. The decline in prices reflects weaker domestic demand and plunging exports of turkeys. Turkeys have faced stiffer competition from pork products this year, as hog prices declined from last year's levels. Turkey and pork are competing inputs in many processed meat products.

#### II. A TURNING POINT IN 1999

While agricultural producers were spared much of the market-induced pain of low commodity prices last year, 1999 may mark a turning point for U.S. agriculture. To be sure, livestock producers should see some improvement in incomes, although pork producers could lose money through the first half of the year. With

#### Chart 5 CATTLE PRICES



crop stockpiles at healthy levels, export demand is unlikely to pick up sharply this year; and no government set-asides to contain production, U.S. crop prices are poised for another year of weakness. Low prices in 1998 were offset by government subsidies at yearend. But further government subsidies may not be in the cards in 1999, as Congress may be wary of reopening the Pandora's box of farm programs past.

#### Government subsidies in doubt in 1999

While markets were generally unkind to farm producers in 1998, the government helped salve their pain with a generous portion of additional farm subsidies. The farm subsidy payments provided a healthy boost to an otherwise weak farm income picture, but at least a portion of the help probably went to producers facing limited losses, especially dairy farmers and corn and soybean producers. In contrast, some severely stressed segments of the farm income, especially livestock producers, received little benefit from the additional government payments (see the accompanying box).

While last year's boost in government payments provided much needed support for farm income, the outlook for additional government subsidies in 1999 is uncertain. This is not an election year, so less attention is likely to be focused on problems in the Heartland. But overall farm income in 1998 was relatively high, ranking as the second highest on record (in nominal terms). This may suggest to some in Congress that additional support to the farm sector is



#### Chart 6 HOG PRICES

not required. A sharp drop in government subsidy payments next year would mean that weak commodity prices could push down farm income. The hope of many policymakers, of course, is that farm commodity prices will recover in 1999, providing a market-led boost to total farm income, and making additional government support unnecessary. That hope may not be fulfilled, however, given the overhang of supplies in many agricultural markets.

#### Weaker farm income in 1999

U.S. agriculture will probably record a modest drop in farm income in 1999. Crop prices are likely be lower on average than in 1998, reflecting healthy stockpiles and weaker export demand, especially from the Asian economies. Livestock producers could see some renewed strength in their incomes by yearend, especially as the effect of lower feed costs begin to help the bottom line. But, hog producers will probably remain in the red for at least the first half of 1999. Overall, USDA expects U.S. net cash farm income may slide about 6 percent.

The drop will likely be similar for agricultural producers in the district. The large number of cattle producers in district states are likely to benefit from stronger cattle prices, helping boost district farm income. On the other hand, wheat producers are particularly vulnerable to lower prices, and they comprise a larger share of district agriculture than in the United States as a whole. Likewise hog producers are facing a weak outlook in 1999, and their increasing

#### THE 1998 FARM RESCUE PACKAGE

The hefty dose of additional subsidy payments to farm producers in 1998 contained a myriad of emergency relief aid targeted at different segments of the farm economy, including some segments whose incomes actually fared quite well in 1998. Of the total \$5.9 billion in additional subsidies approved last year, roughly half, or \$2.8 billion was earmarked for farmers already receiving production flexibility contract payments (sometimes referred to as market transition payments) under the 1996 farm bill. This represented a 50 percent boost to their 1998 government subsidy payments. The bulk of these payments went to corn and soybean producers, who likely suffered less last year than most other producers. The nation's wheat producers also stand to gain a large share of the \$2.8 billion in additional aid.

In addition to additional aid for most crop producers, the emergency relief aid also included \$2.4 billion in financial assistance to farmers who had suffered losses due to financial disaster. In particular, two classes of farmers were identified, those who had suffered multiyear losses and those who had suffered losses to 1998 crops. Producers were eligible to claim losses under one, but not both, of these provisions; USDA will calculate payments under both provisions and pay the higher of the two claims. The emergency relief also included help for farmers who had suffered losses due to wheat scab. The provisions cover all crops, regardless of whether producers purchased crop insurance or not. A hefty \$400 million in assistance was earmarked for incentive payments to all farmers to purchase higher levels of crop insurance.

Among other special provisions of the emergency relief legislation, Congress set aside \$200 million in special assistance to dairy farmers. This is particularly surprising since dairy prices were at high levels in 1998 and most dairy producers earned hefty profits. Equally surprising is the slim measure of support for livestock producers, especially cattle producers, who have suffered huge losses during the past three or four years. Only \$200 million in government aid was earmarked for cattle producers, to offset the loss of forage related to natural disasters, especially drought.

importance in district agriculture will likely hold back farm income.

Notwithstanding a dip in farm income in 1999, agriculture's balance sheet should avoid substantial deterioration, although some weakening is likely. Farmland values have shown signs of weakening over the past six months, as producers respond to weaker market prices. With crop prices at lower levels in 1999, farmers are likely to show little enthusiasm for bidding up land prices. As incomes slide, farmers will also likely expand debt levels, but the problems are likely to be isolated to a few sectors of the farm economy. Cattle feeders and ranchers, for example, have had a few tough years recently, and they are under substantial stress. And the pitiful hog prices in recent months have ravaged pork producers. Overall, farm assets and farm debt may begin to move in opposite directions in the year ahead, contributing to some weakening of farm financial conditions.

In spite of a weakening in farm conditions in 1999, the farm economy is far from the crisis situation of the mid-1980s. Farmers have mostly avoided the large runup in farm debt that preceded the 1980s farm crisis. In addition, farm income levels have been quite high for the past three years, and most farmers have stockpiled healthy cash reserves to deal with the farm downturn. Farmers are likely to weather the deterioration in farm finances in 1999 with relatively few, isolated areas of stress in the farm economy. Moreover, agricultural lenders have much stronger loan portfolios than in the mid-1980s. Ag bankers have generally been quite cautious in lending for farmland purchases.

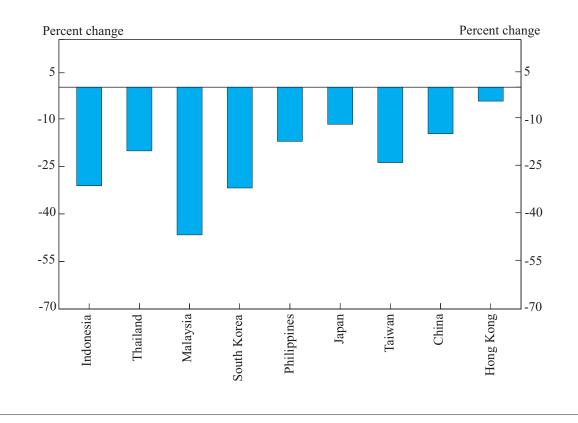
## Agricultural exports are suffering from the Asian flu

U.S. agricultural exports lost ground in 1998 as the Asian crisis began to take a bite out of demand (Chart 7). The weak export picture in 1998 seems likely to continue in 1999. World economic growth is slowing, as problems in Asia appear to have spilled outside the region, especially to Russia and Latin America. While currency problems in Asia and elsewhere have subsided, employment and output in those countries are far from recovering the ground lost last year, suggesting continued weak demand for U.S. agricultural products. Moreover, with large inventories and hefty meat production in 1999, exports will be especially important in supporting prices for U.S. crops and livestock products this year.

One key factor in pushing down U.S. agricultural exports in 1998 was the economic turmoil in Asia. Demand for U.S. ag products plunged in the Asian countries affected most severely by the Asian crisis—Indonesia, Thailand, Malaysia, Korea and the Phillippines. And among other developing countries in Asia—Taiwan, China and Hong Kong, for example—exports have fallen substantially as well. But most of our ag exports to Asia go to Japan, and those exports have not dropped as sharply, in spite of the severe economic downturn in Japan. This likely reflects the fact that demand for food in Japan—a mature, developed economy—is much less sensitive to changes in income than in the developing countries hit hard by the crisis.

The outlook for exports of bulk commodities in 1999 is promising, although exports are likely to remain well below 1996 highs. Bulk exports dropped back about 13.5 percent in 1998, largely reflecting the decline in Asian demand for U.S. bulk commodities. However, exports of bulk commodities could recover some of that ground in 1999. Bulk exports are expected to jump 9 percent in 1999: A large U.S. wheat crop and food aid to Russia help account for a projected increase of 8 percent in U.S. exports of wheat and flour. The Russian food-aid package may also boost corn exports, which are projected to shoot up 12 percent. Total coarse grain exports are expected to rise 10 percent, but will still be below 1996 levels. The surge in U.S. soybean production last year will help boost exports of oilseeds and their products in 1999 as well, although lower world prices arising from greater international production will dampen the impact in value terms.

Exports of value-added agricultural products—which account for a major slice of total sales abroad—are expected to fall further in 1999. Poultry exports are expected to decline 14 percent in volume terms this year, reflecting weakness in Asia and Russia. A decline in poultry prices will make the drop in value terms even larger. In contrast, U.S. red meat exports are projected to jump 9 percent in value terms in 1999, although weak prices will make the gain smaller in value terms. Exports of horticultural products are expected to drop back slightly to \$10.3 billion next year.



#### *Chart 7* DECLINE IN U.S. AGRICULTURAL EXPORTS TO ASIA *Fiscal year*

#### Lower prices for crop producers

Crop producers are likely to face weak market conditions in 1999, and the key to income is the outlook for additional government payments. After large harvests the past three years, U.S. grain bins are relatively full, likely keeping a lid on prices in 1999. Of course, the bumper crop harvested last year helped producers offset some of the price weakness.

Wheat producers probably will earn smaller profits in 1999 than a year ago. Prices have fallen in the wake of the big 1998 crop and may show only a modest increase this year. Wheat farmers are sure to harvest fewer acres in 1999 than last year, in response to the weak prices last fall. But with normal weather, wheat production will still far outstrip U.S. demand, and thus exports will be crucial in supporting prices.

U.S. wheat exports should rise modestly in the coming year, boosted in part by low U.S. prices and, more importantly, food-aid shipments to Russia. U.S. wheat competes mainly with production from Argentina, Australia, Canada, and the European Union. Total wheat production rose last year in these countries, with the European Union contributing most of the increase. Nonetheless, gains in foreign demand are expected to boost U.S. wheat exports to just under 1.15 billion bushels in 1999. Though well under the

record level set in 1981, the current export pace compares favorably with the average for the 1990s. Domestic demand for wheat should continue its steady growth in 1999, with both food and feed use rising.

Taken together, total demand for wheat may rise to about 2.54 billion bushels, roughly 200 million bushels higher than the year before. The increase in demand will not use up the additional supplies from 1998's large harvest, however. Carryover supplies are projected to climb to 827 million bushels, a 15 percent jump from a year ago and the biggest gain in eight years. The swollen stocks should weigh down prices. Barring a weather shock, farm-level wheat prices are forecast to average \$2.70 a bushel in the 1998-99 crop marketing year, more than a fifth lower than last year.

The corn market will likely face continued weakness in 1999, as large world supplies and sluggish economic growth help hold down the market for U.S. corn. Global corn production jumped 3.3 percent in 1998, boosted by an even larger increase in U.S. production. As a result, world stocks of corn are fairly high this year, suggesting that prices will have a difficult time gaining much ground this year.

In spite of healthy world production, U.S. exports of corn are expected to rise more than 13 percent in 1999. In part, this reflects the inclusion of 500,000 metric tons in the food-aid package approved for Russia. But a production decline in Argentina is also likely to weaken exports from that country, boosting the U.S. share of the export market. Overall, U.S. corn exports could run 1.7 billion bushels in the 1998-99 marketing year. Domestic corn consumption, meanwhile, could set a new record in 1999 at 7.7 billion bushels. In particular, feed use of corn is projected to rise as livestock feeders take advantage of the low prices to feed more corn. Of course, the prospect of fewer cattle next year could act to trim demand for corn in cattle

feed, but this will likely be more than offset by very strong pork and poultry production. Overall feed use of corn is expected to jump 3 percent. In addition, industrial uses for corn, such as ethanol, are also expected to increase in the coming year. Given huge supplies of corn and relatively large stocks, corn prices are expected to weaken further next year. For the 1998-99 marketing year, farm-level corn prices are expected to average \$2.00 a bushel, roughly 20 percent below the previous year's level.

While soybean producers are also being hurt by the current weakness in commodity prices, they are likely to fare better than other producers in 1999. While export demand is expected to subside somewhat in 1999, the decline will be less severe than for other crops. In particular, weak production of Malaysian palm oil is helping to support soy oil demand. And a decline in South American production (in both Argentina and Brazil) will also help boost demand for U.S. soy products. On balance, U.S. soybean exports are expected to decline about 3.5 percent, to roughly 850 million bushels. Domestic demand for soybeans will also edge up in 1998, with food and industrial uses and livestock feed demand contributing to the rise. Overall, domestic use is pegged at 1.75 billion bushels in 1998.

Overall, total demand for soybeans will be a near-record 2.6 billion bushels. Notwithstanding that strength, demand will still not be strong enough to use up the big 1998 crop. Carryover stocks of soybeans are projected to jump to 375 million bushels, nearly double the stocks held in the previous year. With bigger stocks weighing on the market, prices are expected to drop. For the 1998-99 marketing year, prices are forecast to average \$5.45 a bushel, about 15 percent lower than the year before.

#### A weak outlook for livestock producers

Livestock producers face a poor outlook for the first half of 1999; only poultry producers are

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likely to see solid profits. Feed costs should generally decline compared with 1998, which will help livestock producers across the board. Cattle prices are likely to rise this year, reflecting leaner supplies; but a diminished export picture next year will keep a lid on the price increase. The huge numbers of hogs still in the production pipeline will keep prices low for hogs throughout the year. Poultry producers could see growth in exports slow and supplies expand, pushing prices down further.

The selloff in the cattle herd that began in 1996 will lead to tighter supplies and higher prices for cattle in 1999. The January 1 cattle inventory, perhaps the most-followed piece of data in the cattle sector, is likely to show a further moderate decline in the breeding herd. After suffering some rough years, ranchers are likely to be reluctant to expand herds in response to just one year of profits. The decline in cattle numbers will show up in smaller beef supplies in 1998: beef production is expected to plunge an estimated 6.3 percent next year.

Demand for beef is likely to be steady next year, although consumption could pull back a bit. Retail prices for beef are high relative to pork and poultry, which may dampen domestic beef demand somewhat. Overseas demand is likely to be strong, in spite of the lingering effects of the Asian crisis and the strong U.S. dollar. In particular, the dollar is not much stronger vis-àvis the Japanese yen, so Japanese purchases of U.S. beef will likely remain strong. Moreover, exports to Mexico-another important market for U.S. beef-could rise in response to strong economic growth there. In addition, the increase in red meat exports reflects the inclusion of some meat exports in the food-aid package to Russia. Overall, exports of U.S. beef are expected to rise 8.5 percent in 1999.

Tighter supplies and steady demand for U.S. beef will lead to higher prices for cattle next year, boosting prices of both feeder cattle and slaughter cattle. Prices for fat cattle should rise steadily through the year. Prices for finished steers in Nebraska are expected to average \$72 a hundredweight in 1999, an increase of about \$10, or roughly 15 percent, from 1998. Feeder cattle prices are also expected to rise steadily next year, boosted by high prices for fat cattle, a smaller calf crop in 1998, and low corn prices.

Pork producers will likely see slim profits at best in 1999 as producers work through the huge inventories of hogs. Profits are not likely to come until after the first half of the year—if they come at all. Pork producers continued to expand the breeding herd in the last half of 1998 despite record-low prices. Moreover, producers reported in the fall of 1998 that they intend to boost farrowings further in the first quarter of 1999, roughly 3 percent above year-earlier levels. Overall pork supplies are expected to climb by roughly 2.5 percent in 1999.

Demand for pork products is likely to be boosted by low prices in 1998 and will benefit from food-aid programs as well. Domestic demand for pork will benefit from the decline in price relative to beef next year, as pork prices remain low and beef prices rise. In addition, advances in developing more consumer-friendly pork products for the meat counter, combined with further marketing advances in fast food restaurants, will help boost demand. Pork exports are expected to expand in 1999 by roughly 6 percent. Although U.S. producers have not boosted exports to Japan as much as they had hoped, that market could be a source of additional demand in 1999.

Increased demand will probably be adequate to offset the rise in production in 1999, however, and hog prices are expected to rise on an annual basis. For the year as a whole, prices are expected to average \$33 per hundredweight, about unchanged from 1998's average price. Hog producer profits will likely get a boost from lower corn prices this year as well. Poultry producers are likely to see profits rise moderately this year, as lower feed costs boost the bottom line. Total poultry production is projected to rise 4 percent, a much slower rate of increase than the 10 or 12 percent expansions seen in the 1980s and early 1990s. Much of the expansion is likely to be in broiler production, as continued profits for broiler producers fuel further expansion. Broiler production is expected to rise more than 5 percent in 1999. While turkey production is expected to edge up next year, increases will be small, and turkey prices are likely to be about unchanged this year.

Demand for poultry products will continue to expand in 1999, albeit more slowly than in the past. Domestic demand is likely to rise about 4 percent this year, a slower pace than in years past. The slower growth in part reflects the substantial market penetration of poultry in the meat counter. Export demand for poultry products an important factor in boosting demand in the past—will likely fall this year, as exports to Russian and Asia weaken. Total exports are expected to drop about 3 percent this year.

Expanding supplies and slower growth in demand will probably lead to lower prices for poultry products in 1999. Broiler prices are expected to average about 58 cents per pound, about 7.5 percent below 1998 levels. Turkey prices, on the other hand, are expected to rise slightly to 62.5 cents per pound. In spite of weaker prices, profits are likely to rise as the sharp decline in feed costs contribute to the bottom line.

#### III. SUMMARY

U.S. agriculture faced a serious slump in 1998, with the marketplace generating large losses for both crop and livestock producers. Both crop and livestock producers suffered the effects of a decline in agricultural exports, as U.S. agriculture caught the Asian flu. Grain prices plunged by a fifth last year, and soybean producers saw prices fall nearly as much. Most crop producers harvested large crops, owing to increased plantings, higher yields, or in some cases both. For their part, livestock producers suffered a severe setback in 1998, with cattle and hog producers racking up huge losses. The moderation in feed costs was not enough to offset plunging product prices. Both U.S. and Tenth District farm income likely fell in 1998.

Agriculture can look forward to some improvement in the marketplace in 1999, although profits in many cases may again depend on government payments. Crop producers will probably see prices remain below 1998 levels throughout most of this year. The outlook is more mixed in the livestock sector, with cattle producers likely to earn good profits, while hog producers will probably see only a moderate improvement in profits. The key to the farm income outlook is government policy. If the government grants farmers another round of government subsidies, then farm income will likely hold steady. If government subsidies retreat from the high levels handed out in 1998, however, farm income could fall sharply in 1999.

#### **ENDNOTES**

<sup>1</sup> Loan deficiency payments were also triggered by plunging prices and kicked in to boost government payments further.

<sup>2</sup> Korea is the largest market for U.S. cattle hides.