

*The Outlook for U.S. Agriculture:
Prices, Pressures, and Distributions*

Presented to the State of Missouri
Senate Agriculture, Conservation, Parks and Tourism
Committee,
the House Committee on Agriculture,
and the House Agri-Business Committee

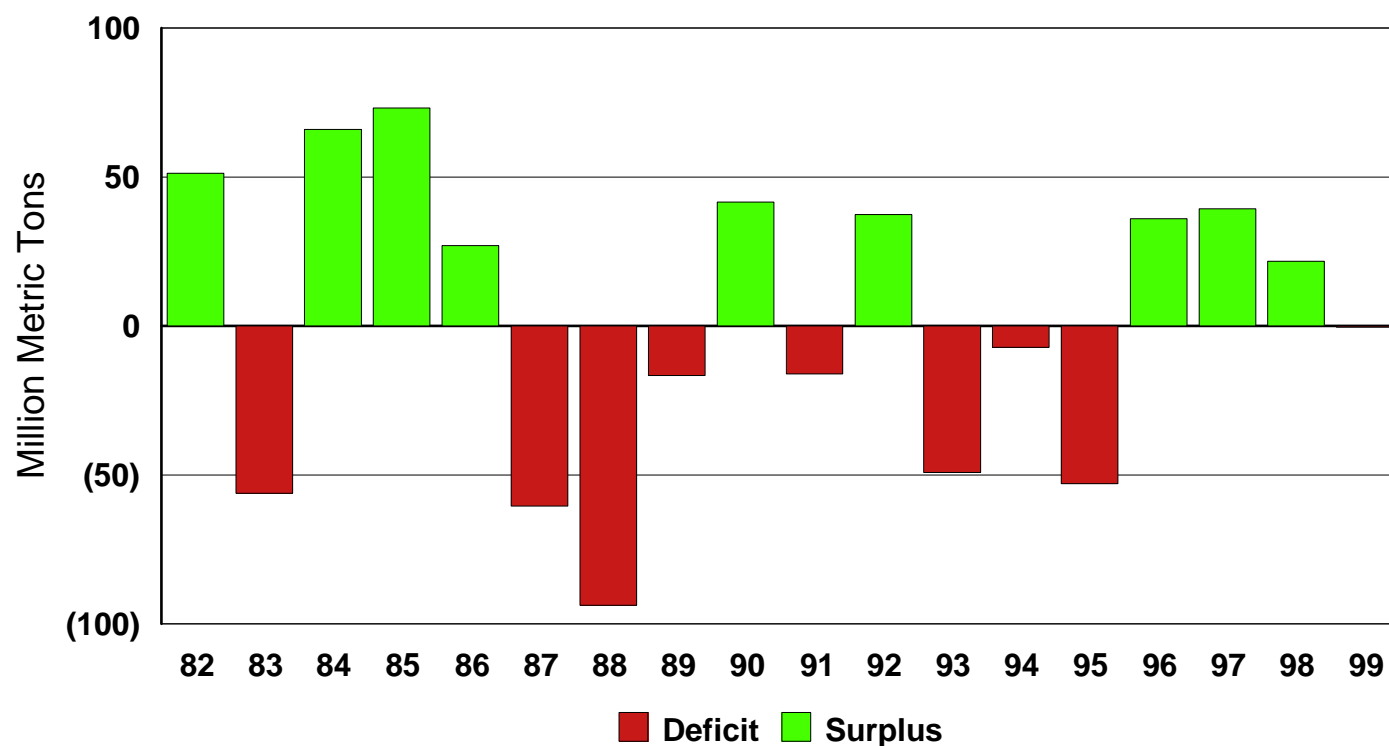
January 12, 2000

Gary M. Adams and Abner W. Womack
Food and Agricultural Policy Research Institute
College of Agriculture, Food & Natural Resources
University of Missouri-Columbia

FAPRI

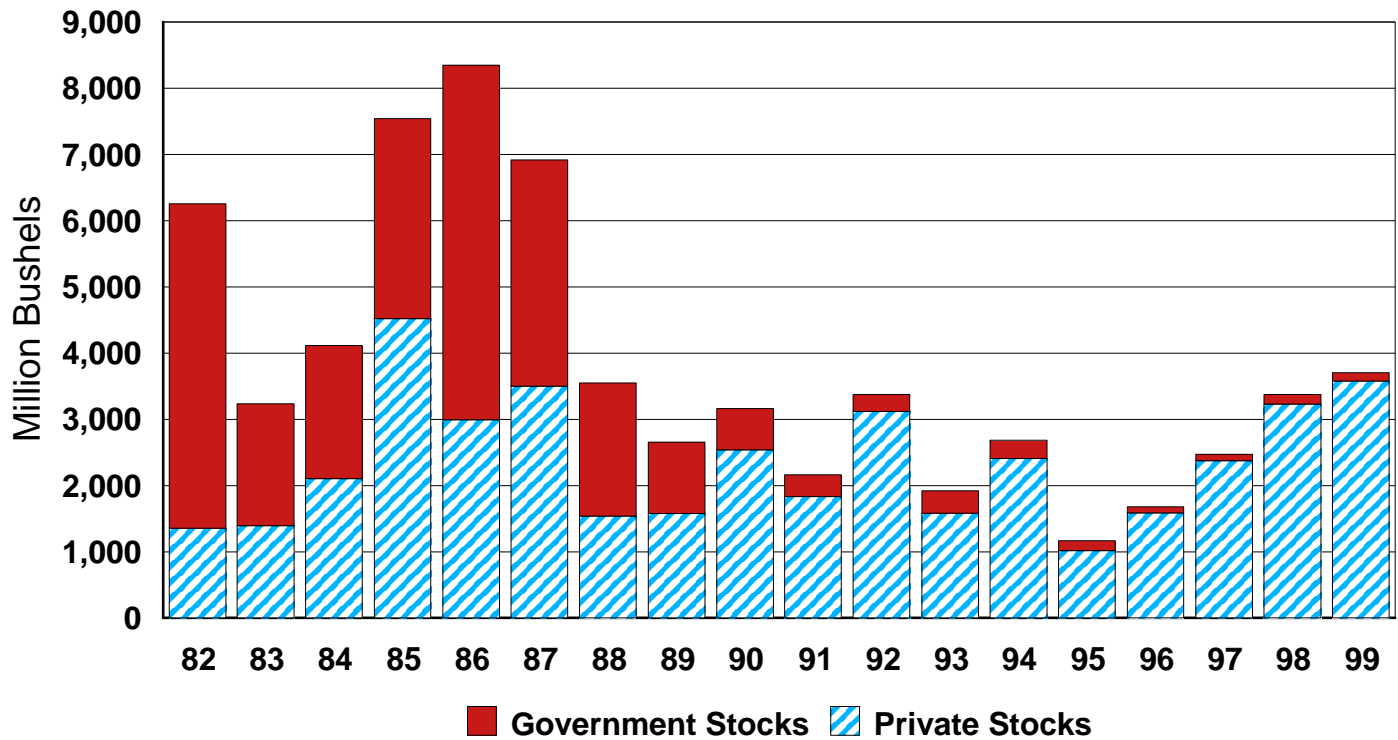


World Grains and Oilseeds, Production Less Consumption



- Between 1990 and 1995, world production fell short of world consumption in 4 out of the 6 years with 3 consecutive years occurring in 1993-95. The result was a significant decline in stocks.
- Increased acreage and favorable yields led to 3 years (1996-98) where world production surpassed consumption. This has allowed stock levels to recover.
- Current estimates for 1999 are that global production and consumption will be roughly equal, but large stocks continue to overhang the market.

U.S. Wheat, Feed Grain & Soybean Stocks



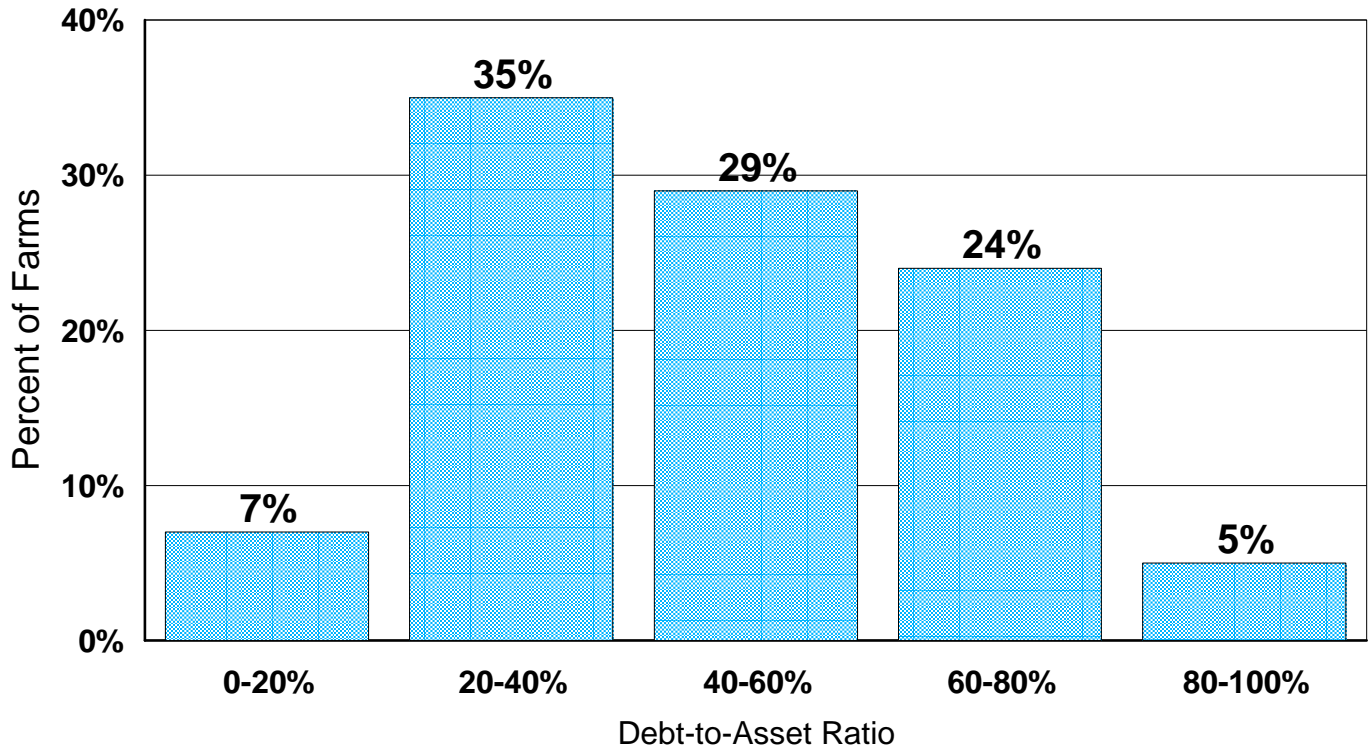
- With U.S. crop production projected to exceed demand for a fourth straight year, ending stocks of the major grains and oilseeds are expected to continue to increase.
- For the 1999 marketing year, stocks will reach 3.7 billion bushels, roughly 3 times the 1995 level.
- Unlike the mid-1980's, almost all stocks are currently held in the private sector.
- In the absence of widespread yield problems, stocks will continue to pressure prices through 2000.

U.S. Commodity Prices

	1981-85	1986-90	1991-95	1996-98	1999	2000-02
Wheat, per Bu	\$3.42	\$3.01	\$3.50	\$3.44	\$2.46	\$3.00
Corn, per Bu	\$2.62	\$2.12	\$2.49	\$2.36	\$1.85	\$2.01
Soybeans, per Bu	\$6.10	\$5.90	\$5.95	\$6.28	\$4.77	\$4.70
Cotton, per Lb	\$0.59	\$0.60	\$0.64	\$0.65	\$0.48	\$0.50
Rice, per Cwt	\$8.02	\$6.39	\$7.48	\$9.50	\$6.31	\$6.87
NE Steers, per Cwt	\$63.99	\$69.83	\$72.20	\$64.28	\$65.00	\$72.74
B&G, per Cwt	\$51.21	\$51.97	\$46.29	\$48.52	\$32.34	\$41.15
All Milk, per Cwt	\$13.44	\$12.91	\$12.80	\$14.51	\$14.35	\$12.92

- With the exception of beef and dairy, 1999 commodity prices came in substantially lower than historical averages. Prices of the 5 major crops are all expected to average below the loan rate for the 1999 marketing year.
- Assuming normal yields, only a modest recovery is anticipated for the 2000-02 period. Soybean prices are expected to average below the 1999 level in the 2000-02 period. Loan rates will continue to play a significant role in a producer's income.
- Strengthening is expected in beef and pork prices as beef production falls and pork levels off.

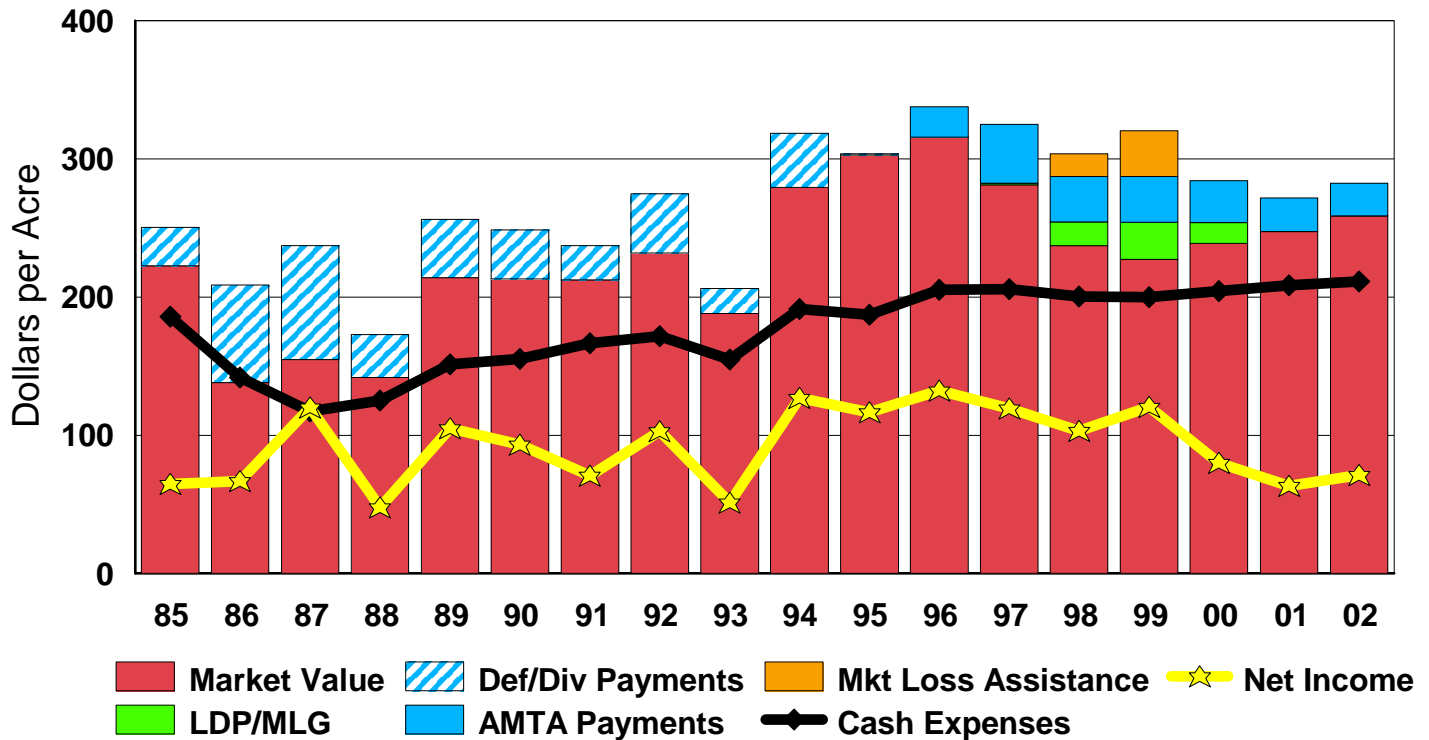
Missouri Bankers Association Survey



- Representatives of the Missouri Bankers Association provided FAPRI with information about 187 loans drawn from the portfolios of 13 commercial banks. While these results are not necessarily representative of all rural Missouri banks, they do raise some concerns.
- Of the 187 loans, 57% have debt-to-asset ratios in excess of 40%. FAPRI's representative farms work suggests that this level of debt creates critical financial problems.

U.S. Corn Income vs Cash Expenses

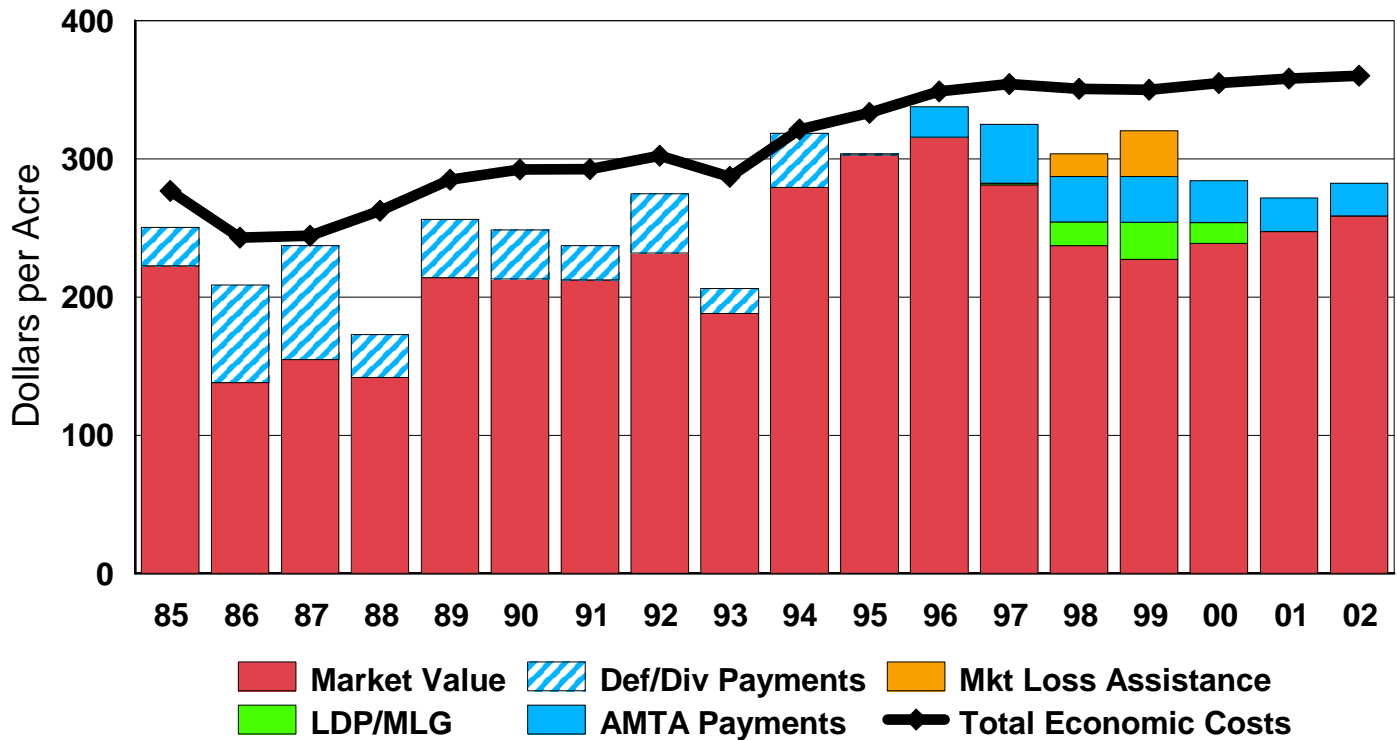
Projections from the FAPRI November 1999 Baseline



- Assuming U.S. average yields, additional government payments helped sustain 1999 income near levels observed in the mid-1990's. The same can not be said for those producers with yield losses.
- Assuming no additional package and continued pressure on market prices, average net incomes in 2000 are projected to fall substantially below levels seen in recent years.
- Cash expenses cover the costs of inputs, interest, taxes and farm overhead. Land rents are not included in the expenses and, therefore, must still be covered by the net income.
- Lower average incomes in 2000 imply
 - ▶ More farms will have negative net incomes. In the Corn Belt, USDA's projects that just over 20% of farms will have negative net incomes in 2000, up from 14% in 1998.
 - ▶ Farms in the Corn Belt are expected to have even greater debt repayment problems in 2000. Source: USDA's Agricultural Income & Finance, December 1999.

U.S. Corn Income vs Total Economic Costs

Projections from the FAPRI November 1999 Baseline



- Total economic costs, as reported by USDA, include expenses for capital replacement, as well as land expenses and the opportunity costs for unpaid labor. Land expenses are valued at the rental rate. For producers who own their land, the land costs represent the opportunity cost of the land.
- Historically, total economic costs have been at or above the level of total income. For the 2000-02 period, lower receipts widen the gap between income and costs, suggesting even greater financial pressures.

Distribution of Net Farm Income by Sales Class

Source: USDA, www.econ.ag.gov/briefing/farmincome/finfidmu.htm

	1995-97 Avg	1998
> \$1,000,000		
Number of Farms	20,553	25,937
Net Farm Income (Bil \$)	\$16.5	\$21.8
\$500,000-\$999,999		
Number of Farms	38,190	45,135
Net Farm Income (Bil \$)	\$8.4	\$9.2
\$100,000-\$499,999		
Number of Farms	317,680	302,454
Net Farm Income (Bil \$)	\$26.8	\$22.4
\$20,000-\$99,999		
Number of Farms	461,315	423,423
Net Farm Income (Bil \$)	\$3.7	\$2.5
< \$20,000		
Number of Farms	1,354,732	1,393,561
Net Farm Income (Bil \$)	-\$8.4	-\$11.8
Total		
Number of Farms	2,192,470	2,190,510
Net Farm Income (Bil \$)	\$46.9	\$44.1

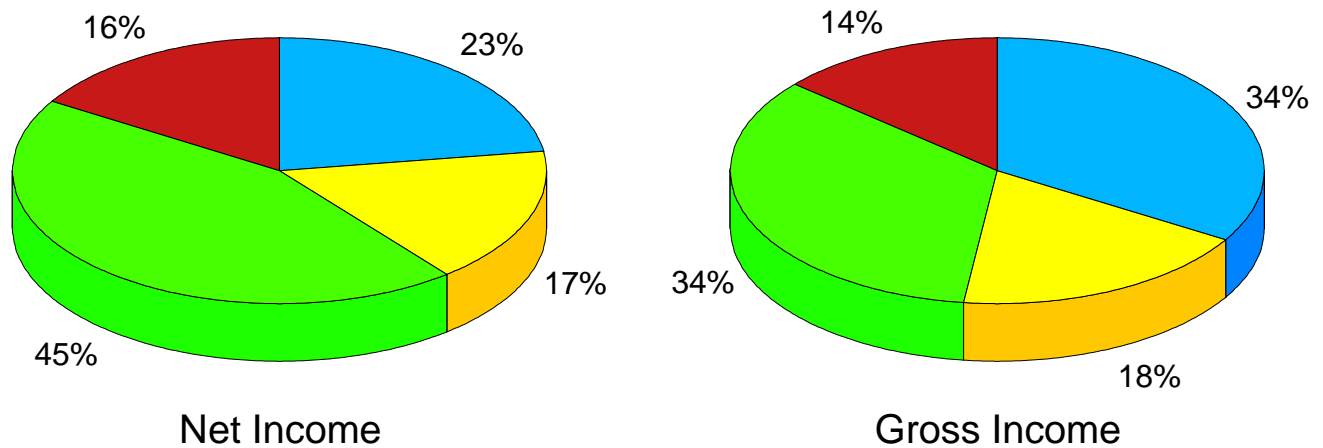
For 1998, USDA estimates that there were 25,937 farms with sales in excess of \$1,000,000. Those farms accounted for \$21.8 billion in net farm income.

Historically, the bulk of U.S. net farm income is accounted for by 300,000 farms with sales between \$100,000 and \$500,000.

Over 60% of all farms have sales below \$20,000. In 1998, those farms produced net farm income of -\$11.8 billion.

Distribution of 1998 Farm Income by Farm Typology, As Measured by the ARMS

Source: USDA's Ag Income & Finance, September 1999

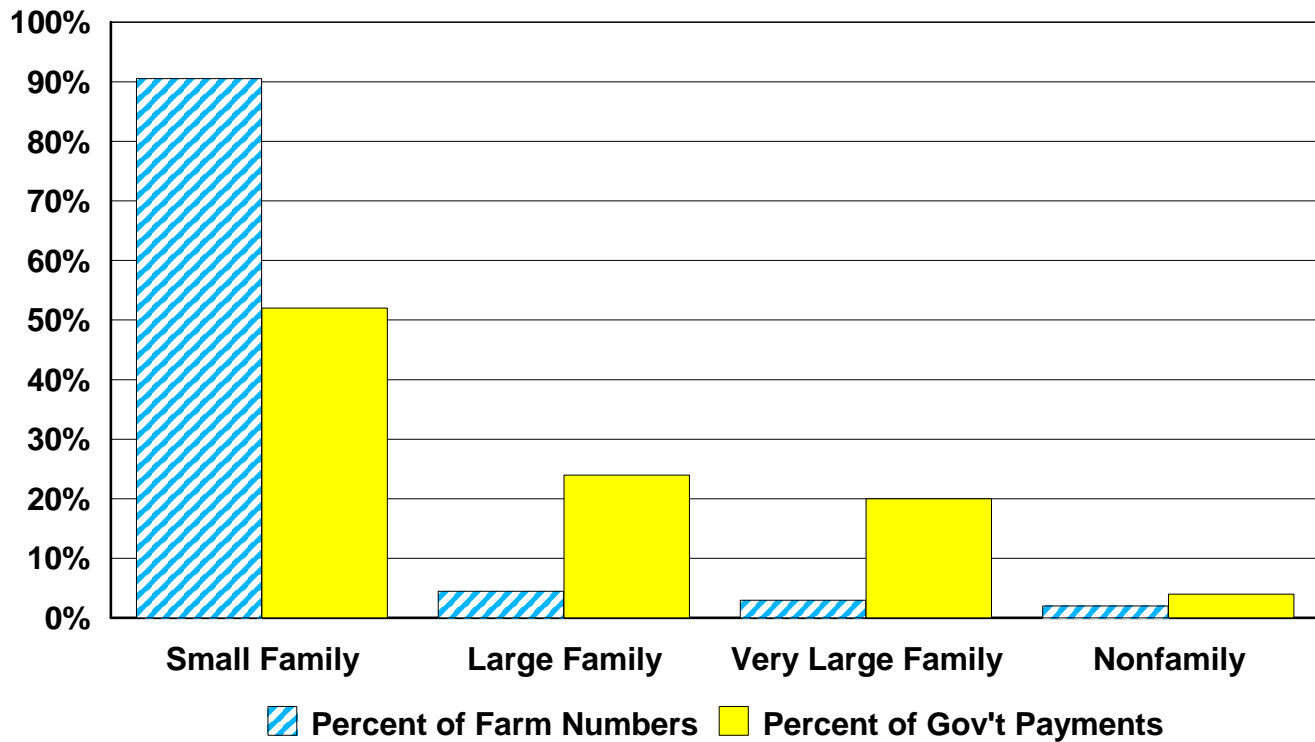


■ Small Family Farms
 ■ Very Large Family Farms
 ■ Nonfamily Farms
■ Large Family Farms

- Net farm income is based on survey results from USDA's 1998 Agricultural Resource Management Study. Surveys for this study were completed in early 1999.
- Small Family Farms are those with sales of less than \$250,000.
- Large Family Farms are those with sales between \$250,000 and \$499,999.
- Very Large Family Farms are those with sales greater than \$500,000.
- Nonfamily Farms are those organized as nonfamily corporations or cooperatives.
- Full-time farmers, i.e. those that list farming as their primary occupation, make-up 91% of gross farm income and 94% of net farm income.

Distribution of 1998 Government Payments

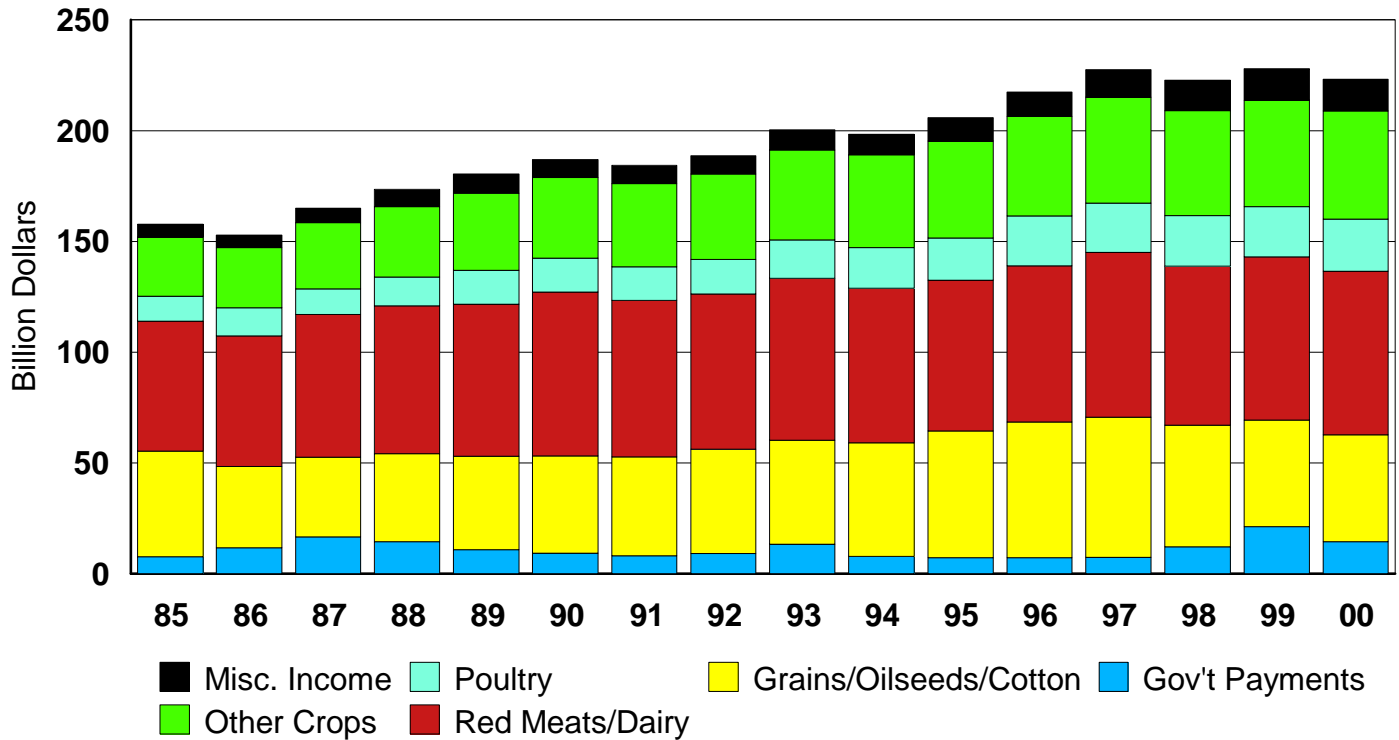
Source: USDA's Ag Income & Finance, September 1999



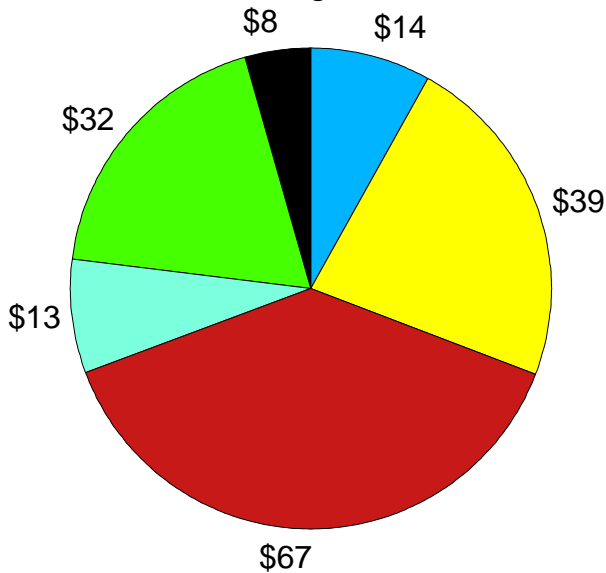
- Small family farms, those with sales less than \$250,000, accounted for 90% of farm numbers and received 52% of government payments.
- 44% of government payments went to the large and very large family farms. These farms accounted for 8% of total farm numbers and had sales in excess of \$250,000.
- Farms organized as a nonfamily corporation or cooperative accounted for 2% of farm numbers and received 4% of all government payments.

Breaking Down U.S. Gross Cash Income

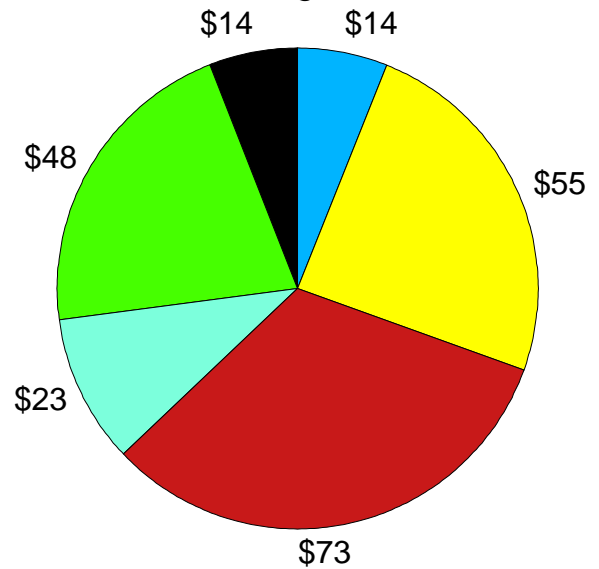
Projections from the FAPRI November 1999 Baseline



1987-89 Avg = \$173 Bil



1997-99 Avg = \$226 Bil



■ Gov't Payments ■ Red Meats/Dairy ■ Other Crops ■ Misc. Income
■ Grains/Oilseeds/Cotton ■ Poultry

Distribution of U.S. Income by Type of Operation

Source: USDA's Ag Income & Finance

	1993	1994	1995	1996	1997	1998
	(Billion Dollars)					
Gross Cash Income	200.2	198.3	205.5	217.8	228.0	222.7
Cash Grain/Cotton	45.6	51.4	54.1	62.1	64.8	58.7
Other Crops	50.9	52.7	53.3	58.8	61.1	62.3
Cattle	41.8	32.5	36.1	27.7	34.5	33.4
Hogs	10.8	9.3	10.1	11.4	11.8	8.6
Dairy	24.0	24.6	23.3	26.1	23.8	27.3
Poultry & Other	27.1	27.9	28.6	31.6	32.0	32.4
Net Cash Income	59.0	50.7	51.8	56.4	60.8	59.1
Cash Grain/Cotton	11.6	13.8	15.9	11.8	16.9	12.5
Other Crops	16.5	14.1	13.2	17.1	12.7	17.2
Cattle	10.7	9.2	7.1	3.7	8.2	6.7
Hogs	2.7	0.7	2.6	5.1	5.2	1.8
Dairy	4.5	3.0	2.4	4.7	2.6	6.0
Poultry & Other	13.0	9.9	10.5	14.1	15.2	15.0

- According to USDA, poultry operations accounted for \$15 billion in net cash income in 1998. This represents approximately 25% of the U.S. total net cash income of \$59.1 billion..
- Farms with crops other than cotton, grains and oilseeds as their primary enterprise contributed approximately \$17 billion in net cash income in 1998. To a large extent, these farms would be growing specialty crops such as fruits and vegetables.

Summary Points

- The most recent FAPRI outlook implies that prices for a number of farm commodities are likely to remain weak over the next couple of years. Only cattle and hog prices should see significant strengthening.
- Our representative farm work implies that most farms with a debt-to-asset ratio in excess of 40% are likely to be under severe financial pressure. Crop farms are especially vulnerable if prices remain low and no further aid comes from Washington.
- According to USDA's Ag Resource Management Survey, conducted in early 1999, 16% of 1998 net farm income was located on farms organized as nonfamily corporations or cooperatives. These farms constituted approximately 2% of all farm numbers.
- In 1998, 44% of all government payments went to the 8% of farms that were classified as large and very large family farms.
- FAPRI will continue to monitor factors affecting the price and income outlook for agriculture, and will continue to provide information to policy makers on the impacts of alternative policies.