

# The Main Street

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## WILL THE REBOUND IN FARM FINANCIAL CONDITIONS CONTINUE?

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**A**s strong ethanol demand fuels a sharp rise in crop prices, rural America is cautiously optimistic. Robust market-based revenues from the crop sector should more than offset lower government payments and limited profit margins in livestock operation. At the same time, rising incomes have bolstered farm credit conditions and spurred another round of sharp gains in farmland values across the country. Thus, the stage is set for a farm sector rebound in 2007.

Yet rural optimism is tinged with uncertainty. High input costs, the potential for drought, the tradition of overreacting to higher prices, and changing farm policies could alter the outlook. This article examines how crop prices have fueled a rebound in farm financial conditions and maintained the health of farm balance sheets—and explores the risks to the farm rebound in 2007.

### **SURGING CROP PRICES BOOST FARM INCOMES**

Farm income expectations for 2007 surged with higher crop prices. Strong ethanol demand fueled the rise in overall crop prices and boosted crop revenues. But the higher crop prices also led to lower government subsidy payments and limited profit margins in the livestock sector. As a result, income expectations for the year vary

across the nation, depending on the local concentration of crop and livestock activity.

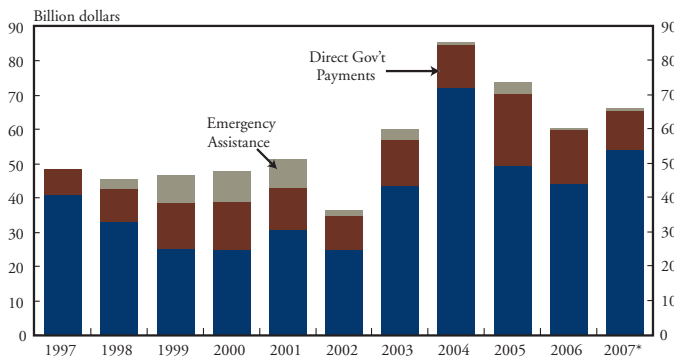
On the positive side, the higher crop prices and increased production rates have brightened expectations for crop revenues. As 2006 came to a close, the strong crop demand, coupled with drought-limited production, caused U.S. crop prices to spike. The demand for corn was fueled by a surge in ethanol demand. The resulting strength in corn spilled into other crop markets, fueling a sharp rise in overall farm crop prices that moved against the usual seasonal trend. In the first few months of 2007, crop prices remained high, boosting expectations for larger crop revenues.

Elevated prices also led to a substantial change in the U.S. crop mix. For example, the number of acres farmers expected to plant to corn rose 15 percent in the March plantings report, at the expense of soybean, cotton, and rice acres.<sup>1</sup> The USDA forecast saw crop revenues soaring 9.8 percent in 2007 following a 6.7 percent gain in 2006, paced by the sharp gains in gross corn revenues.<sup>2</sup>

On the negative side, the rise in crop prices has translated to higher feed costs and reduced profitability for livestock producers. Livestock feed costs rose sharply in 2006 and by March 2007 were roughly a third above

CHART 1

U.S. NET FARM INCOME



Source: USDA  
\* Forecast, February 2007

year-ago levels.<sup>3</sup> Despite the higher feed and forage costs, however, the expansion in livestock production is expected to strengthen in 2007 as total red meat and poultry production edge up, led by stronger increases in pork production. An uptick in meat production would place downward pressure on prices and limit profits. Cattle prices are expected to ease in 2007 with fed cattle prices forecast to hover around \$85 per hundredweight and feeder cattle prices to slide below \$100 per hundredweight. Hog prices are expected to range between \$45 and \$47 per hundredweight.

In addition, government payments are expected to decline further. In 2006, higher crop prices caused government subsidy payments to drop by a third (Chart 1). The contraction is expected to continue in 2007 as the higher crop prices are projected to trim government payments by another 24 percent to \$12.4 billion.

Overall, net farm incomes are expected to rise in 2007 as the higher crop revenues and flat livestock sector revenues more than offset higher production costs and lower government payments. Net farm incomes are expected to rise 10 percent to \$66.6 billion. Gross revenues are expected to rise 6.6 percent as crop revenues jump 10 percent and livestock revenues rise 3.3 percent. The increased market-based revenues should help offset the declines in government payments and higher production costs. Still, the rising feed costs should limit livestock profits, while higher fertilizer, pesticide, seed, and energy costs raise crop production expenses.

While respondents to Federal Reserve agricultural credit surveys also expect farm income to rise in 2007, the surveys revealed regional differences regarding farm income prospects. For example, in the fourth quarter of 2006 Federal Reserve farm income indexes for the Corn Belt rebounded. In contrast, the farm income indexes for the Dallas and Richmond districts rose less robustly. The dichotomy of farm income was most glaring in the Kansas City District. Farm income expectations have jumped sharply in Nebraska, where increased ethanol production has boosted revenues from corn production. But expectations have deteriorated further in Oklahoma, where livestock producers face higher feed costs, and a drought-stricken 2006 harvest left few crops to sell at elevated prices.

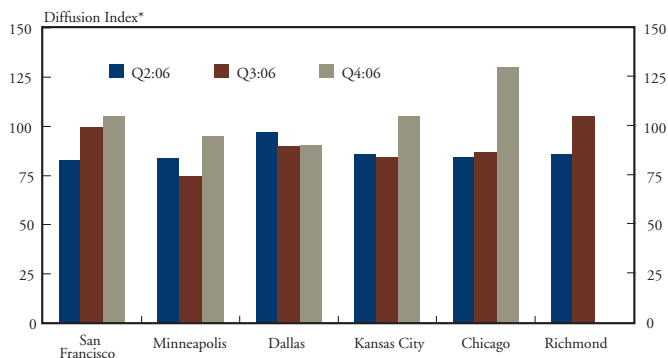
FARM FINANCIAL HEALTH STRENGTHENS

National farm financial conditions strengthened in the fourth quarter, though the indicators varied across the nation. Crop-producing regions typically experienced the greatest rebound in farm financial conditions, while regions with large concentrations of livestock and dairy operations often saw credit conditions deteriorate. Credit quality also remained weak in areas still suffering from drought. The higher proceeds from marketed crops, however, have allowed many producers to use a portion of their income for debt servicing.

The index of loan repayment rates rose during the fourth quarter in all of the district surveys (Chart 2). The index for the Chicago District moved up substantially at year end to its highest level since 1988. However, this improvement was not felt throughout the Chicago District, as Wisconsin's rate of repayment slipped due to its struggling dairy market. The Minneapolis District indicated loan repayment rates changed little overall, as declining rates in drought-stricken North Dakota and Montana were offset by increased repayment levels in Minnesota, where fall crop yields were very good. In the Kansas City District, repayment rates rose, due mainly to large gains in Nebraska, where the high crop prices boosted farm incomes.

## CHART 2

### FARM LOAN REPAYMENT RATES FOR 2006



\*Bankers responded to each item by indicating whether conditions during the current quarter were higher than, lower than, or the same as in the year-earlier period. The index numbers are computed by subtracting the percent of bankers that responded "lower" from the percent that responded "higher" and adding 100.

Sources: Federal Reserve Banks of Richmond, Chicago, Minneapolis, Kansas City, Dallas, and San Francisco (computed by Kansas City).

Another indicator of improving farm credit conditions in the most recent Federal Reserve surveys was the steady or falling numbers of requests for loan renewals and extensions. Respondents in the Richmond, Chicago, and Kansas City districts noted lower rates of requests for loan renewals and extensions relative to the previous year, while requests in the Minneapolis and Dallas districts were flat. Improved cash flow afforded more borrowers the opportunity to satisfy their debt obligations at year end.

Farm loan demand remained at serviceable levels through year end. For the last half of 2006, demand for farm loans in the Minneapolis, Kansas City, and Dallas districts was relatively stable. The Chicago District reported increased loan demand driven by the Corn Belt states of Illinois and Iowa. In the Richmond District the impact of tropical storm Ernesto in North Carolina was cited as sharply lowering demand for loans.

Bankers anticipated more farm loan activity in early 2007 as producers seek to cover their higher production costs or plan expansions of their operations. Most indexes of funds availability moved higher at year end, and collateral requirements were largely unchanged. Thus, banks should be able to satisfy the increased loan demand.

Moderating interest rates and increased income prospects for 2007 are expected to push capital spending levels higher. Across the country at year end, fixed interest rates for farm

loans were stable or slightly lower. In the Chicago District, about 70 percent of the bankers surveyed anticipated increasing purchases of machinery and equipment. In the Kansas City District, more than half of the survey respondents in Nebraska expected capital expenditures to increase as crop producers replace old equipment and strive to boost yields. In contrast, as some producers in the Richmond, Chicago, Dallas, and Kansas City districts trim herds, feeder cattle loans are expected to decline.

### STRONG LAND VALUE GAINS STRENGTHEN FARM BALANCE SHEETS

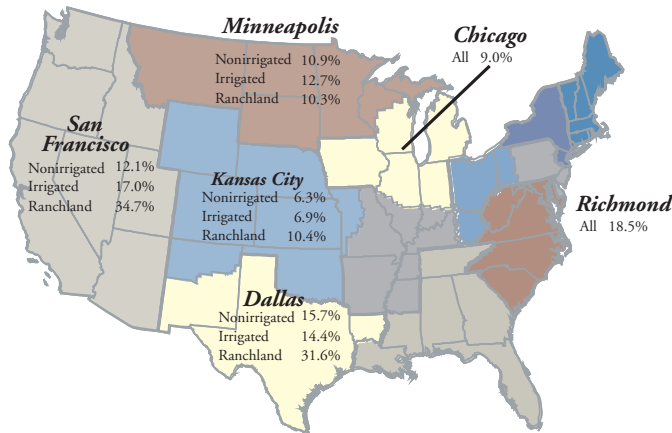
Farm balance sheets are expected to remain healthy in 2007 due to stronger farm incomes. Although farm debt is expected to increase modestly, farm assets—mainly real estate values—are expected to grow faster than debt. Non-real-estate debt is expected to increase 4.3 percent, and real estate debt is anticipated to rise 3.8 percent. Even with these gains, various debt ratios are expected to remain historically low. For example, the debt-to-asset ratio is expected to hold at 11.8 percent.

The first half of 2006 saw the pace of land-value appreciation begin to moderate, only to rebound at year end. Heading into the fourth quarter, an already healthy demand for farmland was further buoyed by the surge in crop prices. Given positive income prospects and rising cash rents, many farmers and investors sought to increase their real estate holdings. In addition, recreational demand and the prevalence of tax-deferred land exchanges continued to support the market.

While increases in land values vary by state, as well as by parcel, the national trend continued to show widespread gains. In the fourth quarter of 2006, the value of good-quality farmland (nonirrigated) rose faster than in the same quarter of 2005, with annual gains ranging from 6.3 percent to 15.7 percent (Map 1). Irrigated cropland often posted slightly stronger annual gains (6.9 percent to 17.0 percent), especially where corn is the major crop and irrigation is necessary to guarantee yields. In the Dallas and San Francisco districts, ranchland value gains remained robust, surging by approximately one-third. In the Dallas District, the average price of ranchland in the fourth quarter surpassed that of nonirrigated farmland for

**MAP 1**

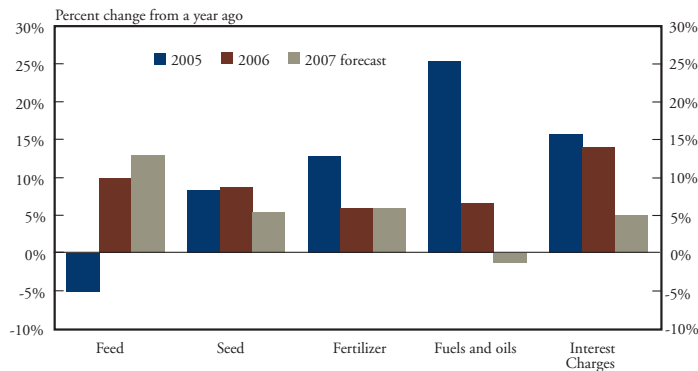
**U.S. LAND VALUE GAINS**



\*Percent changes are 4th quarter 2006 over 4th quarter 2005, except Richmond which are 3rd quarter data.  
Sources: Federal Reserve Banks of Richmond, Chicago, Minneapolis, Kansas City, Dallas, and San Francisco (computed by Kansas City).

**CHART 3**

**FARM INPUT COSTS**



Source: USDA

the first time.

Other farmland value surveys corroborated the strength in farmland prices. For example, Iowa State University’s annual land value survey reports that land values increased in every county in the state in 2006—the fourth consecutive year that the average price for an acre of farmland reached a new high.<sup>4</sup> Still, while land prices are bustling in many areas, drought conditions in parts of the Minneapolis and Kansas City districts have limited appreciation for nonirrigated farmland.

Most farmland continued to be purchased by farmers. But Federal Reserve survey responses showed that nonfarm investors remain active participants in the farmland market. With crop prices up, investor interest

has increased and shifted to return on capital. In a reversal from last year, in the Kansas City District investment was cited more often than recreation as a reason for farmland purchases by nonfarmers. To be sure, recreation remained one of the primary reasons for land purchases by nonfarmers. According to the University of Missouri’s 2006 Farm Land Values survey, the number of farmland purchasers who intend to use the land for purposes other than agriculture increased 6 percent during the last year.<sup>5</sup>

In short, many Federal Reserve survey contacts felt that land values will continue to strengthen in 2007. Half of the respondents in the Chicago District anticipated further increases in land values. In the Kansas City District, expectations for stronger farmland price appreciation climbed higher. Indeed, a recent land value survey from the University of Nebraska indicated that land values and cash rent gains have already accelerated in 2007.<sup>6</sup>

**RISKS TO THE OUTLOOK**

The outlook for agriculture in 2007 is bright, but several risks to farm incomes remain. Rising input costs continue to strain farm profits and, as always, drought is a concern. An added risk this year is changing crop patterns, which could dramatically alter the supplies of various crops and raise concerns about the supply-demand balance in agriculture.

Profits in 2007 could be limited by the high and rising input costs. Farmers have faced steadily increasing input prices over the past few years, fueled in large part by energy markets. For example, surging energy costs in 2005 led to a substantial rise in farm production costs. Direct energy expenses rose 47 percent from 2003 to 2006, leading to price jumps in fertilizer and pesticide. The rising energy prices also lead indirectly to higher feed costs. Thus, while surging energy prices fuel a major expansion in the ethanol industry, livestock producers must pay a heavy price in feed costs.

While total input costs are high, they are expected to rise more slowly than in 2005 (Chart 3). USDA expects the total input costs to rise 5.8 percent, up slightly from 2006 but below the 7.2 percent rise in 2005. Moreover, USDA expects a decline in fuel and oil costs. Spot and futures prices for oil and natural gas have increased recently, though, and if prices surge unexpectedly, farm costs could soar.



Drought, of course, could also limit farm profitability in 2007. In 2006, drought in much of the Great Plains severely limited production. Wheat production in Oklahoma and Texas fell to less than half of normal levels. This winter, an El Nino weather pattern brought much-needed rain and snow to the southern and central Plains as well as the Corn Belt. As a result, for most of the country drought conditions eased considerably. El Nino has weakened recently and some meteorologists have noticed the potential for the development of a La Nina pattern, which historically leads to hot, dry summers in much of the major crop-producing regions. If La Nina strengthens, drought conditions may limit crop production.

Changing crop patterns could also pose a risk as the market seeks a new balance between supply and demand for farm commodities. The rapid expansion in ethanol production has already led to a surge in corn prices—boosting the profitability of corn production relative to other crops. Farmers have responded by sharply increasing their plans to plant corn. But too sharp a rise in corn plantings could outstrip demand.

The estimate for this year's prospective plantings of corn acreage was higher than most market estimates. Following the report's release, crop prices fell. Moreover, the surge in corn prices also trimmed profitability in the ethanol industry. The spike in corn demand fueled by ethanol could abate, if some ethanol plants in the planning stages are not built. Consequently, farm commodity markets could become quite volatile in the near term as the market swings to balance supply and demand.

Finally, trade and domestic farm policy also pose risks to the farm outlook. Government officials continue to work with various Asian countries to open or expand their markets to U.S. beef. A change in trade policy could boost beef demand and support higher prices.

On the domestic side, discussions surrounding the new farm bill have already begun. While farm payments have recently accounted for a smaller portion of net farm income, they are still a major source of farm income capitalized into farmland values. The key questions being asked regard the level of farm bill support and the distribution of farm payments.

The profitability of ethanol production in an era of high energy prices and low crop prices has led some analysts to question the merit of economic support for renewable fuels production. Less support, either through lower gasoline tax credits or lower tariffs on imported ethanol, would limit profitability in the ethanol industry, which could ripple through the corn market.

Clearly, surging crop prices have boosted optimism in the farm sector. Strong ethanol demand has translated into higher crop revenues and soaring expectations for farm income, even though rising feed costs have trimmed livestock profits. This bright outlook has intensified farmland value gains and bolstered the financial health of the farm sector. However, confidence in the outlook is tinged with uncertainty. The rebound could quickly vanish with higher input costs, drought, changing farm policy, and lower prices caused by increased production.

#### ENDNOTES

<sup>1</sup>Agricultural Statistics Board, NASS. USDA. *Prospective Planting* obtained April 1, 2007 at <http://usda.mannlib.cornell.edu/usda/current/ProsPlan/ProsPlan-03-30-2007.pdf>

<sup>2</sup>The February USDA farm income and farm production expenses forecasts were obtained April 1, 2007 at [www.ers.usda.gov/Briefing/FarmIncome/nationalestimates.htm](http://www.ers.usda.gov/Briefing/FarmIncome/nationalestimates.htm)

<sup>3</sup>Livestock feed costs and prices were obtained on April 1, 2007 from USDA's *Livestock, Dairy, and Poultry Outlook* at [www.ers.usda.gov/publications/ldp/](http://www.ers.usda.gov/publications/ldp/)

<sup>4</sup>Information on Iowa State University's land value survey was obtained April 1, 2007 at [www.extension.iastate.edu/landvalue/](http://www.extension.iastate.edu/landvalue/)

<sup>5</sup>Information on Missouri's farmland values was obtained April 1, 2007 at <http://agebb.missouri.edu/mgt/landsurv.htm>

<sup>6</sup>Information on Nebraska's farmland values was obtained April 1, 2007 at <http://ianrnews.unl.edu/static/0703210.shtml>

#### FED SURVEY SUMMARIES ON THE WEB

CHICAGO: [WWW.CHICAGOFED.ORG/ECONOMIC\\_RESEARCH\\_AND\\_DATA/AG\\_LETTER.CFM](http://WWW.CHICAGOFED.ORG/ECONOMIC_RESEARCH_AND_DATA/AG_LETTER.CFM)

DALLAS: [WWW.DALLASFED.ORG/RESEARCH/AGSURVEY/INDEX.HTM](http://WWW.DALLASFED.ORG/RESEARCH/AGSURVEY/INDEX.HTM)

KANSAS CITY: [WWW.KANSASCITYFED.ORG/AGCRSURV/AGCRMAIN.HTM](http://WWW.KANSASCITYFED.ORG/AGCRSURV/AGCRMAIN.HTM)

MINNEAPOLIS: [HTTP://MINNEAPOLISFED.ORG/PUBS/AGCREDIT](http://MINNEAPOLISFED.ORG/PUBS/AGCREDIT)

RICHMOND: [WWW.RICHMONDFED.ORG/RESEARCH/REGIONAL\\_CONDITIONS/AGRICULTURE/INDEX.CFM](http://WWW.RICHMONDFED.ORG/RESEARCH/REGIONAL_CONDITIONS/AGRICULTURE/INDEX.CFM)

NOTE: A SUMMARY IS NOT AVAILABLE FOR SAN FRANCISCO, BUT ADDITIONAL INFORMATION FROM THEIR SURVEY CAN BE FOUND AT: [WWW.FEDERALRESERVE.GOV/RELEASES/EI5/](http://WWW.FEDERALRESERVE.GOV/RELEASES/EI5/)