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*Commentary on the rural economy*

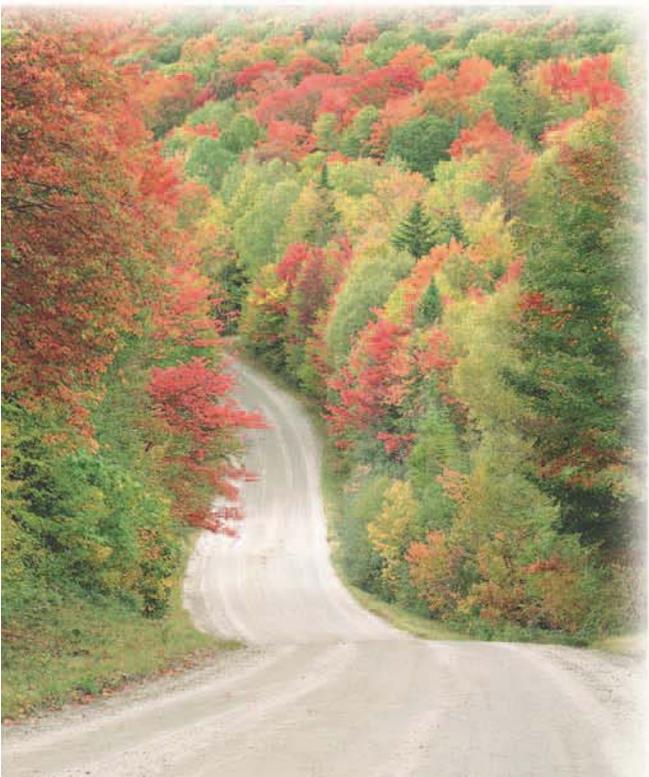


## **U.S. Agricultural Credit Conditions: Rising Energy Prices Boost Farm Costs**

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**F**armland values continue to rise and agricultural credit conditions remain strong throughout the nation. Still, agricultural lenders are keeping a watchful eye on their loan portfolios due to rising farm input costs. Respondents in all Federal Reserve surveys of agricultural credit conditions conducted in the first half of the year echoed these concerns as higher costs for fuel, fertilizer, and other energy-related inputs trim farm incomes in 2005 and into 2006. Nevertheless, the overall farm income picture remains bright for 2005 with estimates calling for the second-largest net farm income year on record. In addition, farm loan repayment rates are still healthy, loan renewals and extensions remain in check, and the farm balance sheet is in good condition.

**Continued strength in farmland values**

The remarkable gains in farmland values are still raising the eyebrows of both agricultural producers and their lenders. Reports from around the nation point to continued strength in farmland values due to robust nonfarm demand and the two largest farm income years on record.

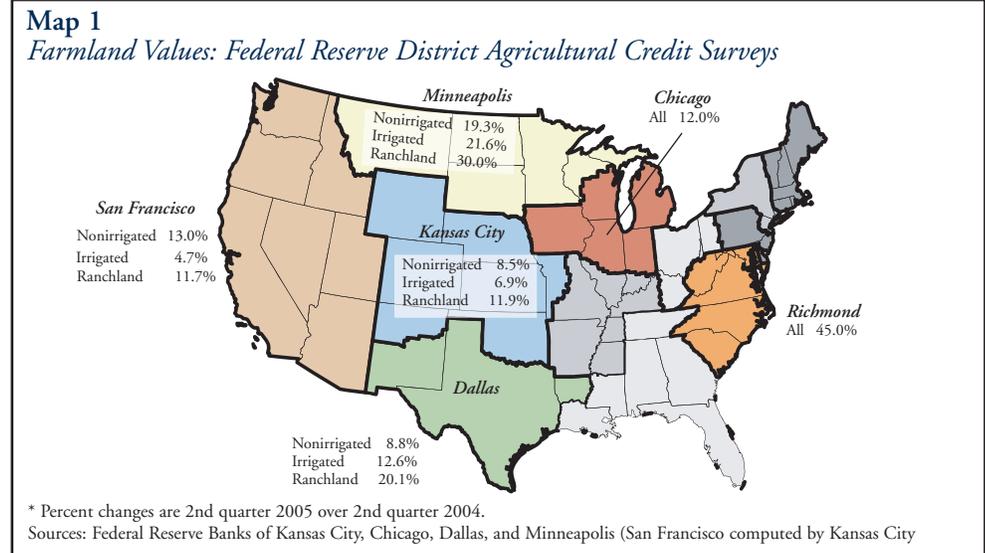
Second quarter surveys of agricultural credit conditions conducted by regional Federal Reserve banks revealed once again the magnitude of the farmland value gains observed across the country. According to the district surveys of agricultural bankers, average annual gains of good quality (nonirrigated) farmland ranged from 8.5% to 45% (Map 1).<sup>1</sup> Triple-digit gains were reported in some isolated markets, especially those on the outskirts of a metropolitan area, where agricultural land often competes with commercial and residential development. The Richmond district reported the largest average gain for all farmland at 45%. Minneapolis again posted strong gains of nearly 20%, with the highest increases reported in South Dakota. The Kansas City district, with its large agricultural base, posted a much more modest but still healthy gain for nonirrigated farmland of 8.5%.

*“Rural farm sites are selling quickly to hobby farmers, horse enthusiasts, etc.”*

*- Eastern North Dakota*

Gains in irrigated cropland values were also healthy but generally more moderate. Minneapolis reported the largest gains at more than 20%, while irrigated land in the San Francisco district gained less than 5%. Rising energy costs associated with irrigation have likely kept a lid on gains in irrigated land. In addition, irrigated land tends to be the most expensive in a region and thus typically lies at the bottom of the list of land being considered for development.

Ranchland, on the other hand, is at the top of the list in terms of nonfarm



demand. Strong demand for development and recreation, along with the strong cattle market, has caused ranchland values to surge. All Federal Reserve districts tracking ranchland values once again reported double-digit annual gains in the second quarter. Minneapolis and Dallas, which both cite strong recreational demand, posted the strongest gains at 30% and 20.1%, respectively.

**Solid farm credit conditions**

Bankers responding to Federal Reserve surveys reported that farm credit conditions were generally healthy through the first half of 2005. Both loan repayment rates and renewals and extensions improved dramatically in 2004 due to the rise in farm

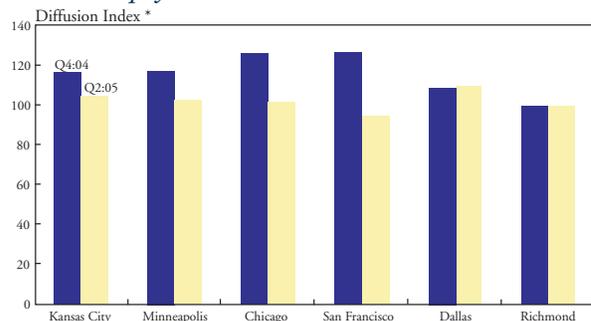
incomes. Despite being slightly weaker in the second quarter of this year, the measures remained quite strong by historical standards. Loan repayment rates were steady to slightly weaker compared to the end of 2004 (Chart 1).

The indexes for the Kansas City,

Minneapolis, Chicago, and San Francisco districts have all fallen since the fourth quarter of 2004, while the Dallas and Richmond indexes held steady. Still, the indexes remained above 100 as more respondents reported that repayment rates were unchanged from the previous year. The indexes of renewals and extensions in the first half of this year ranged from steady to higher than in the second half of 2004. Similar to repayment rates, the strength of the index was due to a larger share of respondents reporting no change in the number of requests for renewals and extensions relative to the previous year.

The demand for loans over the last year has trended higher. Loan demand moved up at the end of last year as machinery and equipment purchases surged with rising farm

**Chart 1**  
*Farm Loan Repayment Rates*



\*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 Kansas City, Dallas, and Minneapolis, San Francisco, and Chicago.

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income. Loan demand appeared to strengthen in the first half of 2005, but for a very different reason. Some reported that higher energy prices are triggering the need for larger operating loans. The increase in loan demand was most notable in the Chicago and Minneapolis districts. Meanwhile, bankers had not raised concerns about a shortage of loan funds. Nevertheless, the index of funds availability as tracked by the Federal Reserve surveys has pulled back from a year ago.

Recently released data from farm balance sheets corroborate a generally strong farm financial picture. The USDA reports that total farm debt has risen steadily in recent years. Since 2001, total farm debt is up nearly 15%, with much of the increase coming from a 24% rise in real estate debt. The farm balance sheet remains in check, however, as the value of farm assets also continues to rise. Total farm assets are up 27% from 2001, primarily due to a 32% jump in real estate assets. Thus, farm equity continues to expand, leaving the debt-to-asset ratio at a very healthy 13.4%.

**High energy prices raise concerns**

The current year is expected to be the second-largest farm income year on record. Still, agricultural lenders and producers are keeping a close eye on the way farm finances respond to rising energy costs.

The most recent farm income estimate released by USDA projects 2005 net farm income at \$71.5 billion, \$11 billion less than the 2004 record (Chart 2). Bumper crops are expected to keep crop receipts near the 2004 record, while continued strength in cattle prices will keep livestock receipts at year-ago levels. Government payments are expected to increase \$9.4 billion due to soft crop prices, pushing payments close to the record level in 2000.

*“Rising fuel costs and related inputs will have an affect on net income, but most operations will remain profitable.”*

*- Southeast Washington*

Most of this year’s expected decline in farm income can be attributed to higher expenses. For the farm economy as a whole, cash expenses are expected to be 6% above 2004 and nearly 17% above the ten-year average. Fertilizer, interest, and fuel costs will account for much of the increase as together they are expected to rise 22%. Further hikes in projected energy costs are likely on the horizon due to the drastic jump in energy prices following the September hurricanes.

Although the farm income picture remains bright overall, agricultural producers and their lenders are increasingly concerned about rising input costs.

The USDA indexes of prices paid for fuel and fertilizer have risen dramatically in recent years (Chart 3). In November, fertilizer prices climbed 13% above a year ago and 38% above the five-year average. Prices for nitrogen, a critical input in producing corn, rose 12% over 2004 and soared 75%

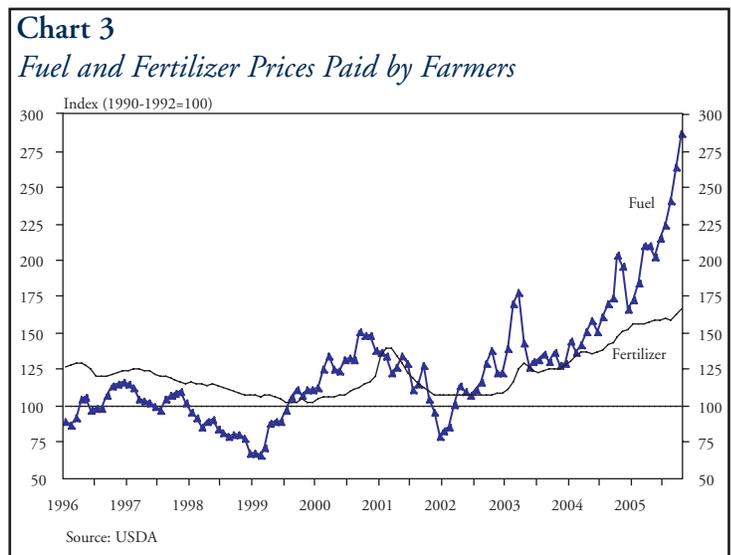
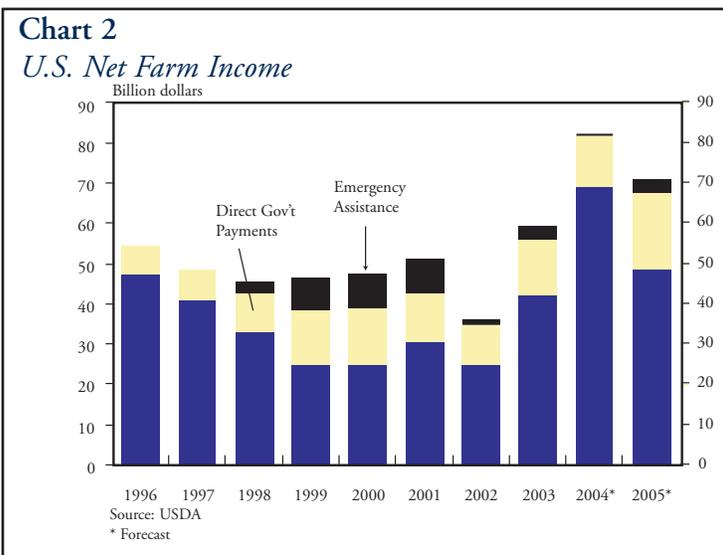
from just three years ago. In the past, increases in natural gas prices in the fall and winter months spelled higher fertilizer prices the following spring and summer (the spring of 2001 was a case in point).

And futures markets point to higher natural gas prices in the

foreseeable future, suggesting that fertilizer prices will also rise.

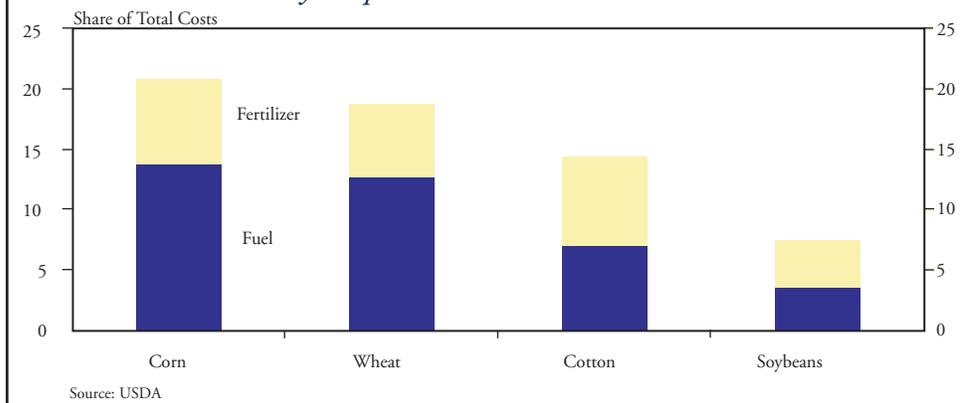
*“The cost of fuel and fuel-related products as well as the impact if increased fuel prices on the costs of supplies and parts has strained cash flow projections.”*

*- Texas Panhandle*



**Chart 4**

*U.S. Production Costs by Crop*



Prices paid for fuel jumped even more drastically than fertilizer, soaring 41% above a year ago and 116% above the five-year average. Although gasoline prices had retreated somewhat at the time of this writing, the price index for diesel, a primary fuel source for farm machinery, remained nearly 130% higher than two years ago.

Higher energy prices have very different impacts across production agriculture. Energy prices account for only a small share of expenses for livestock producers. For them, the impact comes mainly from higher transportation costs, which are a small share of overall production costs. Crop producers, on the other hand, are sensitive to increases in energy costs because fuel, fertilizer, and irrigation costs are all tied to energy prices. Still, there is big variation from crop to crop. Wheat and corn producers feel more of a pinch from higher energy prices relative to other crop producers. For corn producers, fuel and fertilizer account for nearly 50% of variable costs and more than 20% of total costs, a comparable share to land costs (cash rents or mortgage payments) (Chart 4). Fuel and fertilizer make up similar shares of wheat production costs. Fuel and

fertilizer, though, account for smaller shares of production costs for cotton and soybean producers (roughly 15 and 8 percent of total costs).

Bankers report that rising energy costs and the uncertainty they spell have worried both producers and farm lenders. Comments from second quarter Federal Reserve surveys were filled with concerns over rising input costs. More recently, the concerns have been more profound among bank contacts, who have suggested that the full impacts of rising input costs will not be seen in farm financial conditions until 2006. Thus, many producers may begin to alter their production practices, and lenders will keep a watchful eye on farm loans. Additionally, respondents from the Kansas City, Minneapolis, and San Francisco districts have lowered their expectations for farm income, farm household spending, and

farm capital spending. Analysts expect rising input costs and smaller incomes to influence farm spending patterns in the near future.

Two years of record farm income have provided a cushion for the farm economy during a period of rapidly rising input costs. Livestock producers are expected to enjoy another strong income year as demand and prices remain strong. Crop producers reaped bountiful harvests in 2005 but are increasingly concerned about production costs. Farm financial indicators, including loan repayment rates, renewals and extensions, and farm balance sheets are in good condition. Nevertheless, rising energy costs are painting an uncertain picture for agriculture in the year ahead.

**Endnote**

<sup>1</sup> The samples in the Richmond and San Francisco districts are smaller than the other districts conducting surveys, thus results tend to be more variable from survey to survey.

*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.html](http://www.dallasfed.org/research/agsurvey/index.html)

Kansas City:

[www.kansascityfed.org/agcsurvl/Agcmain.htm](http://www.kansascityfed.org/agcsurvl/Agcmain.htm)

Minneapolis:

<http://minneapolisfed.org/pubs/agcredit/>

Note: Summaries are not available for San Francisco and Richmond, but information from their surveys can be found at: [www.federalreserve.gov/releases/e15/](http://www.federalreserve.gov/releases/e15/)

*“The huge positive cash flow benefits of 2005 have run their course. The reality of more normal profits for cattle, hogs, and grain is back. Financial conditions are much tighter than last year.”*

*- Northeast Kansas*