



THE *Main Street* ECONOMIST *Agricultural and Rural Analysis*



ISSUE 1, 2012

FEDERAL RESERVE BANK of KANSAS CITY

Commodities Underpin Rural Economic Growth

*by Jason Henderson, Vice President, and Omaha Branch Executive,
and Maria Akers, Associate Economist*

The global boom in commodity markets underpinned rural economic gains in 2011. Supported by strong global demand, booming commodity markets spurred robust growth in many mining and farming communities. Soaring crude oil prices sparked increased domestic drilling activity, and swelling global food demand ushered in record highs for U.S. agricultural exports. The prominent presence of commodity-based industries in rural communities stirred rural nonfarm business activity as rural manufacturers tapped global markets.

Still, in the midst of the commodities boom, rural America had to brace itself against stiff headwinds in the U.S. economy. Rising energy prices, a weak housing market and tight government budgets constrained rural America's

economic growth. Fiscal challenges, especially in state and local governments, curbed the economic rebound.

Despite these challenges, rural America appears poised for additional economic gains in the year ahead. Elevated commodity prices and profits are expected

to provide a foundation for rural prosperity. Solid economic gains in developing nations and robust export growth could further rejuvenate rural manufacturing activity, and stronger economic growth in the United States could provide an additional boost to business activity on Main Street. However, areas of weakness in the national economy cast a shadow of

uncertainty on rural prosperity in the year ahead. As a result, future rural economic gains hinge, in part, on a strengthening U.S. economy.

“Stronger economic growth in the United States could provide an additional boost to business activity on Main Street.”

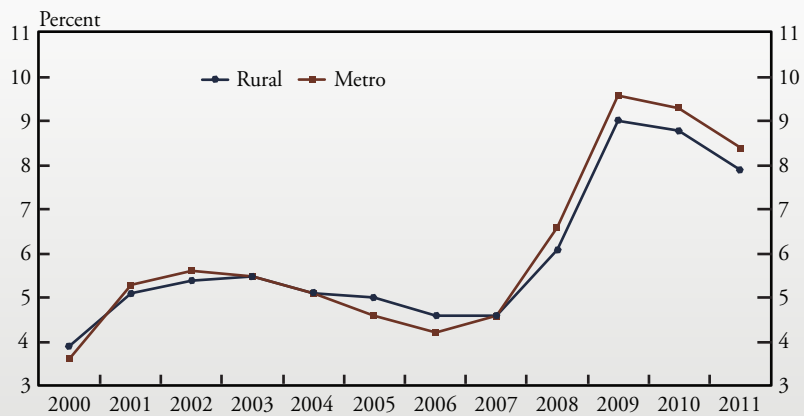


BOOMING COMMODITY MARKETS UNDERPIN RURAL GROWTH

Rural America forged solid economic gains in 2011. Rural job growth strengthened, topping 1 percent annually. At the same time, the rural unemployment rate trended down to 7.9 percent, remaining below the 8.4-percent rate in metro areas during the fourth quarter of 2011 (Chart 1¹). With strong global demand driving record high food and fuel exports, commodity prices rose sharply. Segments of the rural economy closely tied to commodity markets enjoyed the strongest job and income gains.

Rising energy prices were a boon to many rural economies. In 2011, crude oil prices soared 19 percent as global crude oil consumption outstripped global production.² High crude oil prices triggered an 18-percent surge in U.S. drilling activity, much of it in rural America. For example, the number of mining jobs in rural communities rose 8 percent during the year.³ Mining-dependent counties, which receive more than 15 percent of their income from mining activity, experienced job gains double the national average. The largest gains emerged in North Dakota where the mining jobs rose 40 percent state-wide in 2011 after a 76-percent gain in the previous year. Other energy producing states such

**Chart 1
U.S. Unemployment Rate**



*Note: Fourth quarter data.
Source: Bureau of Labor Statistics*

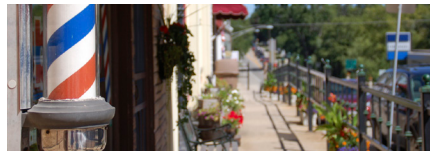
as Oklahoma, Texas, Wyoming and Pennsylvania also experienced double digit gains in mining employment.

The surge in mining employment fueled sharp wage increases. Many mining jobs, such as engineers, geologists, welders and mechanics, require workers with specialized skills. Anecdotal comments from business owners indicated a shortage of these skilled workers in many mining communities, which led mining firms to pay the highest average weekly earnings in rural America, 10 percent higher than the next-closest industry.

Rising commodity prices also triggered a booming farm economy. Surging global food demand boosted exports, straining already tight food supplies. U.S. agricultural exports jumped 18 percent in 2011, reaching

record highs.⁴ The bulk of these exports went to developing nations, such as China, which, since 2010, has emerged as the leading export destination for U.S. agricultural exports, topping Canada, Mexico and Japan. Crop exports rose 21 percent in 2011 due to strong wheat, cotton and grain shipments. On the livestock side, annual red meat and dairy exports soared almost 30 percent while poultry exports rose 17 percent.

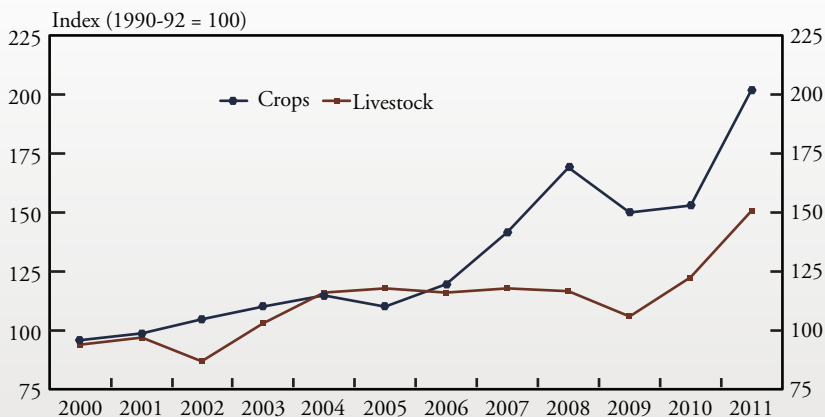
Robust global demand pushed crop inventories to record lows and crop prices to record highs. By the end of 2011, less than 8 percent of U.S. annual corn consumption was held in storage, half the levels from two years ago.⁵ With low inventories of other crops as well, crop prices rose to record high (Chart 2). Corn and wheat prices



more than doubled from 2010 to 2011, and the price of soybeans shot up nearly 50 percent. Cotton prices, however, were the most volatile as they tripled over the course of a year before settling 27 percent higher than the five-year average at the close of 2011. In fact, the inflation-adjusted value of annual crop production rose 13 percent and hit a new high in 2011 despite drought-reduced yields in parts of the southern United States.⁶

Strong global demand also fueled record high prices for some livestock producers, although soaring feed costs challenged profit margins. In 2011, the annual value of livestock production rose 15 percent from 2010 levels and was the fifth-highest on record after adjusting for inflation. The combination of rising export demand and herd liquidations in the drought-stricken southern Plains pushed U.S. cow inventories to historical lows. As a result of shrinking supplies, feedlot operators paid escalating prices for feeder cattle. Strong export demand for beef and pork supported higher cattle and hog prices compared to 2010. However, rising feed costs trimmed profit margins in the latter part of 2011. Declining poultry production during the second half of 2011 reduced broiler stocks and pushed prices higher at year-end. After rebounding in 2010, prices for dairy products rose

Chart 2 Agricultural Prices Received



Source: USDA

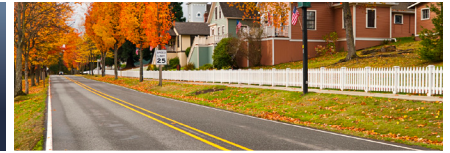
an additional 24 percent during 2011.

Even with rising production costs, high commodity prices drove sharp income gains for the U.S. farm sector. Farm production costs rose in 2011, though at a slightly slower pace than gross revenues. Production costs rose 10 percent compared to 15-percent and 13-percent gains in the value of livestock and crop production, respectively. According to the United States Department of Agriculture (USDA) estimates, real net farm income in 2011 was expected to exceed 2010 levels by 22 percent.

Strong farm income and low interest rates fueled record gains in farmland values during 2011. With robust farm income and few alternative investment options with similar rates of return, demand for farmland intensified. Farmers and

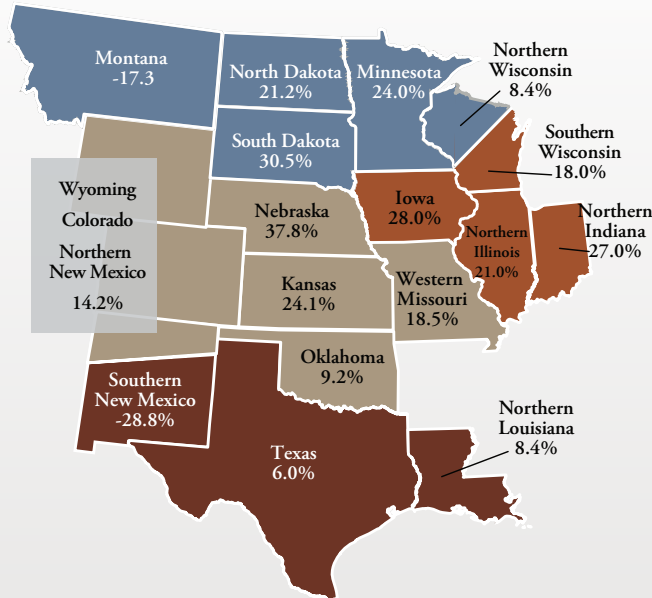
nonfarm investors competed for good-quality farmland, most notably in grain-producing regions. In the fourth quarter of 2011, nonirrigated farmland values soared as much as 20 to 40 percent above year-ago levels, according to survey data from the Federal Reserve Banks of Chicago, Dallas, Kansas City, and Minneapolis (Map 1). Agricultural bankers reported that the strong farm real estate market was enticing some landowners to sell, particularly older farmers and absentee landowners.

Farm income gains also supported an increase in farm capital spending on equipment and structures. The Association of Equipment Manufacturers reported a 3.5-percent and 1.9-percent year-over-year increase in four-wheel and two-wheel drive tractor sales, respectively.



**Map 1: Value of Non-Irrigated Cropland
Fourth Quarter 2011**

Percent change from prior year



Source: Federal Reserve District Surveys (Chicago, Dallas, Kansas City, Minneapolis.)

from the first stage of commodity processing, such as metal smelting, wood milling, chemical distilling and textile production, kept rural factories humming. Strong global demand for agricultural products boosted durable and non-durable rural factory activity during the economic recovery with rising exports of agricultural equipment and processed foods. Machinery and transportation equipment manufacturing also ramped up with stronger foreign demand. Nationally, processed food and metal product exports rose more than 24 percent during the past year.⁸

The rebound in rural manufacturing activity, however, did not translate into stronger wholesale trade and transportation job gains. During the recession, rural wholesale trade and transportation firms cut payrolls sharply and they have yet to rebound. Sluggishness in business activity outside of commodity markets and high fuel costs strained profits at transportation firms, limiting employment and wage gains in 2011.

During the past year, rural employment in professional and business services began to rebound. The professional and business services sector employs about 6 percent of rural workers and encompasses a wide variety of positions, such as engineers, lawyers, accountants and software developers. Professional and business services positions grew

Many farm operators used profits to purchase equipment and complete construction on farm buildings and storage facilities in 2011 to take advantage of federal tax rules on bonus depreciation allowances.

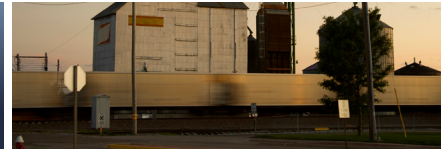
COMMODITY BOOMS FUEL RURAL NONFARM GROWTH

Booming commodity markets also spurred job gains beyond the farm gate. Industries closely tied to commodity production, such as manufacturing, enjoyed stronger employment gains. Still, rural communities were not immune to the broader economic struggles in

national labor markets.

Rural manufacturing has clearly benefited from the commodity boom. Since the end of the recession, rural manufacturing employment has rebounded sharply, rising almost 4 percent in 2011 alone, double the national average. In addition, manufacturers have expanded overtime for existing employees, lifting average weekly earnings at factories almost 4 percent, well above gains in other industries.⁷

Rural manufacturers closely tied to commodity production posted the strongest employment gains. Export demand for products



almost 2 percent at rural firms with even stronger growth in earnings. In contrast, employment in the finance and information sectors remained well below pre-recession levels. Personal services in rural areas have held steady, supported by health care spending. Consumer spending on health care supported a modest 1-percent growth in rural health care jobs outside of hospitals in 2011.⁹ However, rural hospitals trimmed payrolls as changes in federal government reimbursement rates challenged profit margins. Still, average weekly earnings in the rural health care industry rose more than 5 percent compared to 2010.

In contrast, rural retailers have struggled, showing the downside of high commodity prices. Rural consumers spend a greater share of their income on fuel costs (Henderson). High fuel and food costs strained rural household budgets, and after posting strong growth the previous year, rural retailers cut employment by more than 2 percent in 2011. Business contacts noted that high gas prices also affected rural tourism. Leisure and hospitality firms in rural areas reduced staff more than 10 percent in 2011.

After sharp contractions during the recession, the rural housing and construction sector showed signs of stabilization in 2011, similar to its metro peers. Although rural single-

family building permits fell 15 percent from 2010 levels, rural home prices edged up in the third quarter of 2011, and employment at rural real estate service firms rose. In addition, construction employment held steady through the end of year. Weaker housing starts and stable construction employment pointed to stronger non-residential building projects in factories, in businesses or on the farm.

Still, fiscal challenges limited rural America's economic rebound. Federal, state and local budget cuts led to rural job losses where almost 15 percent of rural workers were employed in the public administration or education field. Rural government payrolls dropped more than 7 percent in 2011, more than double the national decline. Some federal agencies, such as the Farm Service Agency and the U.S. Postal Service, have announced closures or consolidations in rural areas. For the third consecutive year, rural education employment has declined, falling more than 2 percent in 2011.

A 'NEW NORMAL' FOR THE RURAL ECONOMY?

Rural America appears poised for robust economic activity in 2012. High commodity prices could sustain the economic strength in mining and farm communities. Further economic gains on a global basis could support additional export opportunities for

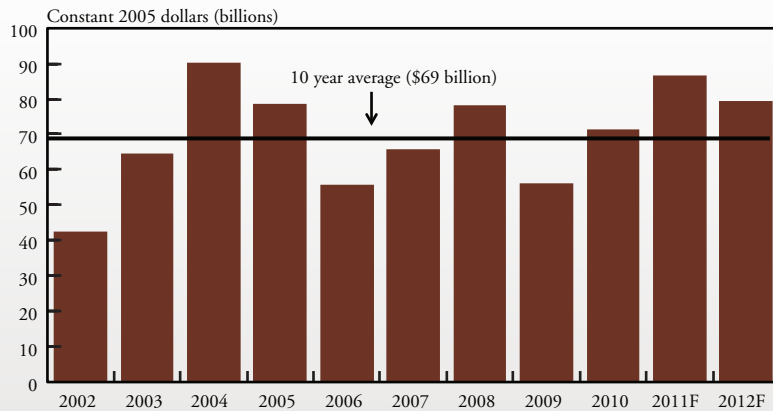
rural goods-producing industries, while a stronger U.S. economy could mitigate the headwinds that have worn on rural America the past few years.

Robust energy activity could underpin the rural economy in 2012. In January 2012, the U.S. Energy Information Administration (EIA) anticipated that global crude oil consumption would exceed global production in three quarters of 2012, driven by expanding demand in developing nations. As a result, crude oil prices are expected to rise 6 percent in the coming year. In addition, the U.S. Bureau of Land Management auctioned oil and gas leases on 20 percent more land in 2011 compared to 2010, suggesting expansion in energy exploration activity, particularly for oil drilling. Despite the potential for additional crude oil production, natural gas production is expected to ease in 2012 as high inventory levels place downward pressure on natural gas prices and profits.

Lean global supplies could also support farm incomes in the coming year. USDA projects that 2012 real farm income will be short of the 2011 peak by 8 percent, but still the third-highest value since 1980 and well above the latest 10-year average (Chart 3). Gross farm income is expected to rise 1.5 percent in 2012. Crop receipts are projected to edge up in 2012 as expanding production offsets slightly lower crop prices. USDA anticipates a marginal decline



Chart 3: U.S. Real Net Farm Income



Note: Forecast is denoted with an "F"
Source: USDA

in livestock sales driven by tighter production levels and lower dairy receipts from falling milk prices. Agricultural production expenses are expected to reach a new high, rising 4 percent from 2011 levels, which also tempers farm income prospects.

Ongoing strength in the energy and agricultural economies hinges on strong global demand and exports. In 2011, robust exports of agricultural commodities, ethanol and gasoline helped drive rural economic gains. The International Monetary Fund projects world GDP growth of 3.3 percent in 2012, driven by a 5.4-percent gain in developing economies. Robust global economic growth could support demand for agricultural and manufactured goods, particularly first-stage commodity processing. In fact, USDA projects the annual value

of agricultural exports will hold just under last year's record level. The EIA expects that U.S. gasoline exports will remain strong. With a relatively low value of the dollar, U.S. goods should compete favorably in global markets.

A stronger U.S. economy could also stimulate rural business activity. According to the Federal Reserve System's January 2012 Summary of Economic Projections, the U.S. economic recovery is projected to strengthen in 2012 with GDP rising between 2.2 and 2.7 percent and further declines in the U.S. unemployment rate. More jobs and stronger incomes could prompt additional spending on rural Main Street and stimulate housing demand. In fact, U.S. housing starts are projected to rise more than 15 percent in 2012.¹⁰

Still, the potential for slower economic growth remains a risk. At the beginning of 2012, the International Monetary Fund (IMF) revised down its economic forecasts for 2012, due largely to deteriorating financial conditions in Europe from the sovereign debt crisis. A flight to quality investments is a typical response to escalating financial distress, which could raise the value of the dollar and dampen U.S. competitiveness in global markets. Economic uncertainty in the euro zone and movements in currency markets could factor into global demand during the coming year and affect U.S. exports.

Echoing global projections, the Federal Reserve also trimmed its expectations for U.S. economic growth. Although the Federal Reserve's most recent Summary of Economic Projections expects U.S. real GDP growth to range between 2.2 and 2.7 percent in 2012, this is down from 2.5 to 2.9 percent growth expected in November 2011. The persistence of fiscal tightening at the federal, state and local levels and sovereign debt issues in the euro area is expected to restrain U.S. economic growth. In addition, rising energy prices could trim 2012 economic growth as it did in 2011.

In sum, with robust commodity markets, rural America is well-



positioned to enjoy solid economic gains in 2012. The ability to tap global markets by exporting raw commodities and processed goods has rekindled growth in rural America's farming, mining and manufacturing communities. Yet, the headwinds from rising gasoline prices, weak housing markets and fiscal challenges have limited rural growth over the past year. If the headwinds abate, rural America is poised for healthy economic gains on Main Street.

ENDNOTES

¹Non-metro and metro unemployment rates obtained from the Economic Research Service (ERS), U.S. Department of Agriculture (USDA).

²Crude oil production and consumption data obtained from the Energy Information Administration (EIA), Short-term Energy Outlook, February 2012. <http://www.eia.gov/forecasts/steol/data.cfm>.

³In this article, employment and weekly earnings data was obtained from the Current Population Survey (CPS), Bureau of Labor Statistics (BLS), www.bls.gov.

⁴U.S. agricultural export data was obtained from the Global Agricultural Trade System (GATS) at the Foreign Agricultural Service (FAS), U.S. Department of Agriculture, <http://www.fas.usda.gov/gats/default.aspx>.

⁵Global crop inventory data was obtained from the Production,

Supply, and Distribution (PS&D) database at the Foreign Agricultural Service (FAS), U.S. Department of Agriculture, <http://www.fas.usda.gov/data.asp>

⁶Real crop production values obtained from ERS, USDA.

⁷According to BLS data, one out of every seven rural workers is employed at a manufacturing plant, with food processing and fabricated metal factories accounting for roughly a third of all rural manufacturing jobs.

⁸Export data obtained from the WISERTrade system.

⁹According to BLS data, health care, social service and personal service firms have a large presence in many rural communities, employing almost one-fifth of the rural workforce.

¹⁰Housing starts projections are based on Consensus forecasts from the Blue Chips Economic Indicators, February 2012.