



QUARTERLY U.S. RURAL ECONOMIC REVIEW, Q1-2012

At an Inflection Point?

This quarterly update is prepared by the Knowledge Exchange Division and covers the key industries served by CoBank, including the agricultural markets and the rural infrastructure industries.

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Key Points:

- *The U.S. economy continues to provide mixed signals but, on balance, seems to be on a course of slow but steady growth.*
- *Natural gas continues to displace coal as a generation fuel, and the pace of displacement has accelerated recently in response to the low price of natural gas relative to coal.*
- *Rural local exchange carriers are operating in a state of hyper-uncertainty as they wait for the Federal Communications Commission to finalize the details of its Universal Service Fund and Intercarrier Compensation Reform Order.*
- *Agricultural commodity market expectations continue to be dominated by reports of reduced crop production in South America and the USDA's reports on prospective 2012/13 acreage plantings and current grain stocks.*
- *This year, the combination of acreage shifts, more normal harvests in the U.S., and the leveling-off of ethanol usage would likely result in downward pressure on new crop prices.*
- *Although grain prices have been resilient, protein prices have improved steadily over recent months; and so has profitability in the meats sector, particularly for broilers.*
- *Going forward, the two wild cards for the dairy industry's outlook will be dairy product exports and feed costs, and producers and processors alike will be closely monitoring their margins as well as their risk management strategies.*

Preview

Global and U.S. economic prospects appear to have taken a turn for the better during Q1-2012, reflecting renewed optimism as well as an easing in the contagion risks that have dominated earlier economic assessments. The European and U.S. economies seem to be on steadier footings, although they each still face ongoing risks and challenges. Meanwhile, China and other emerging economies are attempting to transition from weaker export growth to stronger internal demand.

The rural economy continues to outperform the overall U.S. economy. Tight grain supplies and 2012/13 crop prospects dominate the near-term outlook for commodity markets while the protein and dairy sectors continue to adjust accordingly. The rural infrastructure industries continue to adapt and adjust their operations not only to the still-subpar economic recovery, but also to the perplexing regulatory and legislative uncertainties.

Macroeconomic Outlook

While global economic growth remains subdued, the major concern over financial contagion from the sovereign debt crisis in Europe has quieted for the moment. The European Central Bank has eased credit and liquidity concerns with its low interest rate, medium term loans to European banks, while an orderly default on Greek debt has been completed. Analysts are now focused on the continuing shallow recession in Europe and its implications and risks for Portugal and, more importantly, Spain.

China and the emerging economies remain the main engines of growth for the global economy. With the weakness in the advanced economies, the export-led growth strategies of the emerging economies are much less effective than they used to be. In fact, China recorded an unusually large trade deficit in February. While this trade deficit may have been influenced by the Chinese New Year celebrations, it does appear to be symptomatic of global weakness. Fortunately for the world economy, inflation statistics for China have eased in recent months, and this slowdown may provide the government the opportunity to stimulate domestic demand to offset weakness in foreign markets.

Oil prices remain a key risk to the still-fragile global economic outlook. Geopolitical concerns in the Middle East and attempts to curtail the importation of Iranian oil have lowered supplies and created ongoing concerns over potential disruptions to oil markets. Oil prices are likely to remain above \$100 per barrel – perhaps by a wide margin – until a resolution regarding Iranian nuclear ambitions has been reached.

“*Global and U.S. economic prospects appear to have taken a turn for the better during Q1-2012.*”

The U.S. economy continues to provide mixed signals but, on balance, seems to be on a course of slow but steady growth. In recent months, the statistical readings on jobs and manufacturing have been encouraging, but some analysts are questioning whether the unusually mild winter weather may have exaggerated the improvements. At the same time, gasoline prices have been rising in recent weeks, and this increase could take a toll on consumer demand and pocketbooks. Housing prices appear to have leveled off in the opening months of the year, and there are indications that the market for existing homes in many regions is beginning to stabilize with early signs of recovery. Housing starts have also begun to recover very slowly with multifamily housing leading the growth. Once the housing industry finally does begin its long-overdue cyclical recovery, it will bolster the U.S. economy's forward momentum.

Rural Infrastructure

Infrastructure industries – including communications, electric power generation, transmission and distribution, natural gas, and water utilities – are highly diverse. But in varying degrees, they all mirror and are tied to the overall economy.

Electricity Industry

The U.S. Energy Information Agency (EIA) is projecting that total U.S. consumption of electricity will edge down 0.2 percent during 2012, with a 2.1 percent decline in retail sales of electricity to the residential sector offsetting modest upticks in the sales to the commercial and industrial sectors. This projection is predicated on a forecast of milder weather for 2012, including a 17 percent decline in heating degree-days and a 15 percent decline in cooling degree days, which is expected to constrain the overall demand for electricity.

In contrast to the national projections, the outlook for the electric distribution cooperatives calls for their kWh sales to continue trending upward, even though their customer bases are mostly residential and their customer numbers have recently been flat-to-slightly-down. This is a well-established trend that persisted throughout the 2008-09 recession and subsequent recovery and should extend through 2012. The electric coops largely serve the rural economy, and the rural housing markets have been much less hard-hit and devastated by the mortgage and foreclosure crises that have gripped the national housing markets. It's the housing markets in cities and suburbs that have been hardest-hit by these crises, and the IOUs [independently owned utilities] and municipal utilities that serve these markets are the ones that have seen declines in their residential demand for electricity.

Natural gas continues to displace coal as a generation fuel, and the pace of displacement has accelerated recently in response to the low price of natural gas relative to coal in a growing number of economic dispatch situations (see Exhibit 1). For 2011, U.S. electricity generation produced by natural gas was 2.9

percent greater than a year ago, whereas coal-fired generation fell 6.1 percent over the same time period.

Natural gas prices have fallen to the lowest level in 10 years, and the low prices have been passed along to residential electricity users. U.S. residential electricity prices are projected to edge up 0.4 percent on average during 2012, well below the average annual increase of 2.6 percent posted during the past five years.

The EIA is projecting that the total renewable energy supply will decline by 3.8 percent in 2012, largely reflecting a sharp fall in hydropower production. Last year, hydropower production surged 23 percent to its highest level since 1999 due to unusually heavy precipitation in the Pacific Northwest. In contrast, other renewable energy supply sources – mainly wind, biomass, and solar – are expected to grow modestly in 2012.

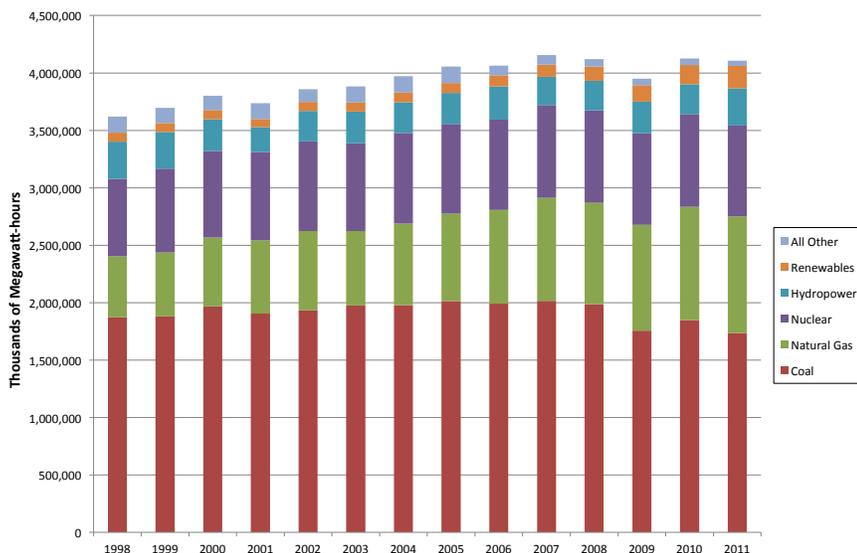
Energy Commodity Markets

Crude oil prices are ratcheting higher, reflecting a combination of stable-to-growing demand from emerging market economies and heightened political risk in certain oil-producing countries. The spot price for West Texas

Intermediate (WTI) crude is currently hovering at \$105-108 a barrel, up about \$6-9 since year-end 2011. The EIA is projecting that the price of WTI crude will average \$106 a barrel in 2012 – \$5 a barrel higher than last quarter's projection and more than \$10 above the average for 2011.

The increase in the medium-term price outlook for crude oil is due to geopolitical tensions and risks in the Middle East, mainly involving Iran. During 2012, global oil consumption is expected to outpace production growth in non-OPEC oil producing countries, leaving OPEC as the swing producer. OPEC countries (Saudi Arabia, in particular) are the only ones with excess production capacity. Outside of OPEC, North America is expected to post the largest increases in oil production due to growth from onshore shale formations in the U.S. as well as Canadian

Exhibit 1: U.S. Electricity Generation by Fuel Source



Source: U.S. Energy Information Administration.

oil sands. The oil-directed drilling rig count across North America increased from 777 at the beginning of 2011 to 1,293 in March 2012.

Natural gas markets in the U.S. recently posted several all-time highs and lows. First, during 2011, total marketed production of natural gas grew by an estimated 7.9 percent, the largest yearly volumetric increase in history. Second, working natural gas inventories (i.e., those either in pipelines or in storage) continue to set new seasonal record highs as unusually warm winter weather contributed to much lower-than-normal inventory draws. Third, Henry Hub natural gas prices averaged \$2.50 per MMBtu during February 2012, the lowest average monthly price in 10 years. Looking ahead to the rest of the year, the EIA is projecting that prices will begin to recover, as a falling rig count reduces production while natural gas consumption increases by just over 3.0 percent. Continued large gains in natural gas use for electric power generation are projected to offset lesser declines in residential and commercial use.

Coal markets continue to languish, with domestic consumption of coal declining due to the substitution of natural gas. Export markets, however, remain relatively strong, but the trend shows a flattening of export demand. Recently, coal prices have been on a downward trend, driven by the decline in demand for coal to generate electricity.

Energy Policy

A key policy issue within the electric generation industry involves the renewal of the Production Tax Credit (PTC) for renewable energy, which is due to expire at year-end 2012. Recent Congressional efforts to tack-on a renewal of the PTC to existing bills have been unsuccessful, and the outlook for renewal remains highly uncertain. This policy uncertainty is likely to create a challenging environment for renewable energy investment during 2012.

Power generation operators also face considerable uncertainty about the impact of the new Environmental Protection Agency (EPA) rules regarding emissions – uncertainty that is compounded by the continuing litigation over these rules. Among the most complex rules and

regulations are those pertaining to future retirements of inefficient and older coal generation units, including the Cross-State Air Pollution Rules (CSAPR), the Mercury and Air Toxic Standards (MATS), Water Regulation 316(b) (which applies to cooling water intake structures), and the EPA's rules governing management of coal ash under the Resource Conservation and Recovery Act. At present, the combination of the substantial capital requirements needed to comply with the new regulations, the short and often uncertain timelines for implementing them, and the low cost of competing fuels – especially natural gas – puts the coal industry and coal-fired electric generation plants at an inflection point in terms of their share of the nation's power-generation mix for the next several decades.

Water Industry

Regulatory and legislative issues remain the key challenges facing the nation's water industry. A case in point is the recent controversial California water bill that the U.S. Congress is currently considering. This bill highlights such ongoing issues as agricultural versus urban water use, water rights, water conservation and quality, and where to draw the line between state versus federal regulation.

The nation's sluggish economic performance has dampened the industry's outlook over the near term. Cutbacks in federal and state budgets and limited financing alternatives signal potentially dire consequences for the industry's aging infrastructure, which is in need of rehabilitation and repair. At the same time, persistent consumer hesitancy and less flexible regulatory environments have resulted in resistance to water rate increases with which to fund infrastructure investments.

Canadian utilities continue to purchase U.S. water assets. In February 2012, Corix, a Canadian owner of utilities and utility services and product companies, won the auction for Utilities, Inc, a U.S. water utility that provides service to customers in various eastern, southeastern, midwestern, and southwestern states. In 2010, Corix agreed to purchase some of the water utility assets sold by the Lower Colorado River Authority (TX). And previously, another Canadian utility company, EPCOR, completed the

purchase of American Water's Arizona and New Mexico subsidiaries and American States Water Company's Arizona subsidiary. These purchases of water assets are part of a larger trend where foreign investors are drawn to U.S. assets in the water, electric, and natural gas industries because of their stable returns, fairly protective regulatory environments, and the recent downtrend in the foreign exchange value of the U.S. dollar.

Communications Industry

The overall communications industry is looking forward to moderate growth from select revenue streams during 2012. Analysts expect its total revenues to grow 4 percent during 2012, with both consumers and businesses continuing to consume more wireless data services than ever before, and then storing the ever-growing mountain of information in the cloud. For most industry segments, including wireless carriers, fiber transport providers and data center companies, this growth in usage will improve financial performance, encourage ongoing capital investment in the network, and facilitate merger and acquisition (M&A) activity throughout the year. Rural local exchange carriers (RLECs) that have diversified into the above mentioned business segments will also see a positive impact from the projected growth. However, this bright outlook will do little to lift the regulatory clouds that have long been overhanging the industry; especially for those carriers that rely heavily upon regulated revenue.

Rural LECs are preparing for another difficult year as they fight battles on several fronts to ensure that they remain viable and can continue to serve their respective customer bases well into the future. Over the past year, this rural industry has operated in a state of hyper-uncertainty about its regulated revenue streams. In 2011, the RLEC sector posted a decline in network investment, shrinking valuations (especially for privately owned RLECs), and a significant drop-off in M&A activity. Analysts expect that these trends will persist until the Federal Communications Commission (FCC) finalizes the details of its Universal Service Fund (USF) and Intercarrier Compensation Reform Order (the Order).

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Meanwhile, the rural industry will spend an extraordinary amount of time and money lobbying the FCC in an attempt to guaranty an acceptable level of compensation going forward. Toward this end, the RLECs have employed a shrewd strategy – working together as one solidified industry, and partnering on occasion with such unlikely allies as the regional Bell operating companies and internet service providers – to garner the best possible outcome. Select rural providers will also have to struggle with similar issues at the state level, as proposed legislation in Colorado, Georgia, Kansas, and Texas, to name a few, will effectively cut the state USF support upon which they have relied to provide service to consumers located in remote, high cost areas. Although the RLEC community may be able to negotiate a more favorable outcome than is currently proposed, the amount of support available to rural carriers in the future will be less than that available in recent years.

Less support will ultimately force smaller providers to seek economies of scale and revenue diversification, most likely through mergers and acquisitions. Those rural communications companies that have shifted their business models and significantly reduced or eliminated their dependence upon regulated revenue streams have flourished. The RLECs in this category have retained value, gained access to capital, and carried out their long-term business strategies in spite of tenuous economic and regulatory circumstances.

U.S. Agricultural Markets

In the opening months of 2012, agricultural commodity market expectations have been dominated by reports of reduced crop production in South America and anxieties about the USDA's March 30 reports on prospective

2012/13 acreage plantings and on current grain stocks. Global grain stocks are tight by historical standards, and U.S. farmers have sufficient financial capacity to delay marketing their 2011/12 crops. Going forward, grain prices will likely remain firm, albeit with more downside risk than upside potential. But these markets are jittery, and the potential for major price swings – positive or negative – is very high.

U.S. agriculture should enjoy another profitable year in 2012, but rising input costs will likely compress producer margins. For farmers and ranchers, net cash income will likely be the second or third largest on record with better balance in gains between the livestock and crop sectors than last year. The development and size of the 2012/13 crops will be the major factors in transitioning commodity prices and land prices.

Grains, Oilseeds, and Ethanol

Grain markets remain extremely tight as they enter the second quarter. The USDA's March 30 planting intentions report highlighted the wide disparity in economic incentives faced by producers in choosing whether to plant corn or soybeans. Corn acreage is projected to reach a 75-year high in an effort to rebuild stocks that have fallen to exceptionally low levels. Conversely, the USDA expects soybean acreage to fall below what it was last year, which if realized, would shift supply concerns in 2012/13 from corn to soybeans (*see Exhibit 2*).

Corn

Corn market conditions tightened during Q1-2012, and they appear to be poised to remain firm for the rest of the marketing year. Thanks to stronger than expected exports and a decision by many grain producers to postpone selling their 2011/12 crop, basis across the Midwest has moved to historically high levels. Meanwhile, U.S. export sales accelerated as South American yield projections have fallen, and the reduced supplies in both hemispheres pushed corn prices higher.

The strong basis and recent inversion in futures prices (with nearby contracts priced higher than contracts further out) have signaled that the corn market is in short

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supply, but also spurred some producers to sell now rather than wait. The March/May contract spread traded at a record during the month of March. Futures prices moved sharply in both directions during the latter half of March and early April. Nearby corn futures, for example, jumped from \$6.40 a bushel to \$6.75, fell to \$6.00, and then rebounded to \$6.60 – all within a one-month span. Some producers elected to sell into the rallies. However, basis around the Midwest has wavered very little, indicating that supply concerns will likely persist through the summer. This old crop supply concern has been compounded by a new crop concern that trend yield projections for 2012 may turn out to be overly optimistic. Some analysts contend that a warm (and in some areas dry) winter and continuous planting of corn acres will increase pest pressure and lower yields, while additional corn acreage will be planted on marginal lands, inducing a further drag on yields. Under this hypothetical scenario, corn production would fall short of the widely foreseen record harvest, causing prices to fall less than the market consensus currently anticipates.

On March 30, the USDA released two reports which had been eagerly anticipated, one on planting intentions for the 2012/13 crops and the other on current stocks of U.S. grains. The acreage projections for corn and soybeans surprised the markets, with corn acres projected to be 95.9 million acres (a level not seen since 1937) and soybean acreage at 73.9 million (down 2 percent from last year). Both figures were outside the ranges expected by industry analysts, with corn acreage ending up on the high side and soybeans on the low side. The USDA's reported inventory levels were in line with prior expectations for soybeans, but were lower than expected for corn. These reports will provide support for the entire grains complex in the coming months, and particularly for old crop corn and new crop soybeans.

Exhibit 2: Prospective vs. Actual Acreage Plantings

	Prospective Acreage Plantings*				Actual Acreage Plantings*			
	Corn	Soybeans	Wheat	Total	Corn	Soybeans	Wheat	Total
2012	95.9	73.9	55.9	225.7	n.a.	n.a.	n.a.	n.a.
2011	92.2	76.6	58.0	226.8	92.3	75.2	54.4	221.9
2010	88.8	78.1	53.8	220.7	87.9	78.9	53.6	220.4
2009	85.0	76.0	58.6	219.6	87.0	77.5	59.2	223.7
2008	86.0	74.8	63.8	224.6	87.3	74.5	63.2	225.0
2007	90.5	67.1	60.3	217.9	92.9	64.1	60.5	217.5

n.a.: not available.

* Millions of acres.

Source: USDA.

Price movements in April could cause actual planting acreage to shift somewhat, which would be revealed in the USDA's June 30 acreage report. However, over the past five years, corn acreage adjustments have averaged only 1 percent between the March and June reports (adjusted higher in four of the five years), while soybean acreage adjustments averaged 0.7 percent (lower in three of the five years). For the current (2011/12) marketing year, the farm gate price is still expected to average \$6.20 per bushel, versus \$5.18 in the previous year, and the domestic stocks-to-use ratio is estimated at an unusually low 6.3 percent.

For the 2012/13 marketing year, the downside price risks appear to outweigh the upside potential for corn. The combination of increased acreage, a more normal harvest, the leveling-off of ethanol usage, and continuing modest growth in the global economy will likely result in downward pressure on new crop price levels. Prices should remain firm but well below the highs of 2011/12.

Wheat

Strong global wheat production and historically high stock levels have left the wheat market supported precariously by corn and soybean prices. Global wheat use for animal feed has risen to 17 percent of total use, with China's demand for feed wheat being especially strong. This trend is expected to extend through the summer months as wheat stocks are likely to rise at the same time that market

prices are acting to ration corn use. U.S. wheat export sales were stronger than anticipated in Q1-2012, bolstered by delays at Black Sea ports. Customary seasonal trends point to a tapering off of exports in the coming months, however, and intense foreign competition will persist from exporters such as Australia, which is poised to produce a second consecutive record crop.

While considerable winter kill may have damaged the Eastern European winter wheat crop, conditions in the U.S. appear to be quite favorable. Temperatures have been much higher than normal across the wheat belt, and precipitation in the Central and Northern Plains was above average for February. The Texas Panhandle and adjacent areas remain dry, however. The eerily warm temperatures during February and March have begun to bring the crop out of dormancy unusually early, and producers remain concerned that a cold snap could cause damage after the crop has emerged. The March prospective plantings report projects a 3 percent climb in total wheat acres from a year ago. Winter wheat planted area is up 3 percent, but spring wheat acres are expected to fall by 3 percent. For the current (2011/12) marketing year, the farm gate price is expected to average \$7.30 per bushel, versus \$5.70 in the previous year, and the domestic stocks-to-use ratio is estimated at 38 percent.

Soybeans

Although the U.S. is well supplied with soybeans for the rest of 2011/12, market participants now anticipate a tight global supply situation due to the current production shortfall in South America. Soybean prices rallied in February and March, encouraging some farmers to shift additional U.S. acres into soybeans. Based on the results in the March 30 planting intentions report, prices may need to climb even higher relative to corn, to incentivize producers to plant more soybeans.

The South American harvest is in full swing, and export sales in the region are off to a record-setting pace as importers clamor for reduced supplies. This harvest should bring to an end the recent strong overseas demand for U.S. soybeans. About two-thirds of Brazil's soybean exports are bound for China, where imports increased in the first quarter and crush margins are rumored to be turning positive after many months in the red. China may also be choosing to build its stocks in 2011/12 rather than risk being left short in a potentially higher priced market.

The domestic crush has been strong in the first quarter. February saw a contra-seasonal increase in the crush due to high levels of domestic soybean meal (SBM) use and a historically low SBM-to-corn price ratio. Record imports of canola oil from Canada are slowing the drawdown of soybean oil (SBO) stocks and providing resistance for prices to move higher. But this resistance is likely to fade as the year progresses. According to USDA projections, biodiesel use of SBO in the U.S. will rise 42 percent year over year (YoY) in 2011/12, as the biofuel industry ramps up its production of biodiesel in conformity with the RFS2 mandate, which has raised the floor to 1 billion gallons a year from 2012 onward. And the global vegetable oil market will see further upward pressure in the coming months as the Brazilian government is expected to increase the mandatory blending rate of biodiesel from 5 to 7 percent.

An early dry spring will favor corn plantings this year. But the favorable conditions will also help facilitate larger total crop acreage in the Northern Plains and the Western Cornbelt. Combined corn and soybean acres are expected to expand for the sixth consecutive year. But every bushel will be needed as record U.S. soybean exports are expected in 2012/13 in the wake of a disappointing production year in South America. The season average farm price for soybeans in 2011/12 is estimated to be \$12.00 a bushel, versus \$11.30 in the previous year. And the domestic stocks-to-use ratio is anticipated to settle at roughly 9 percent this year before it is reduced by as much as half in 2012/13.



Corn harvest in Brazil: this year's crop harvests in South America have fallen below prior expectations.

Ethanol

The ethanol industry continues to adjust to a market without a blending subsidy, which expired at year-end 2011. Overproduction in late 2011 aimed at capturing the last of the subsidies resulted in record inventories that ballooned by 23 percent from December to March. This surge sent prices and margins tumbling, as producer returns fell approximately 75 percent. An 8 percent decline in gasoline use in January compounded the oversupply problem, as there were fewer gallons of fuel with which to blend the abundant supply of ethanol. Producers responded to the oversupply and cut back production levels incrementally in the first quarter. But at the current production pace, it could take months before the overhang is eliminated, and ethanol margins will remain under pressure until then.

Fortunately for U.S. producers, ethanol exports remained strong and absorbed some of the slack, with Brazil continuing to import. This export demand may taper off in April, however, when Brazil's sugarcane harvest begins. If that crop comes in as large as expected, U.S. ethanol exports would likely fall precipitously, further curtailing overall demand. This possibility poses a key near-term risk for the industry.



High retail meat prices are testing consumers' resolve and budgetary constraints.

Animal Protein and Dairy

Although grain prices have been resilient, protein prices have improved steadily over recent months; and so has profitability in the meats sector, particularly for broilers. These markets either have already adjusted to, or are in the process of adjusting to, the high feed cost environment. The cattle inventory, for example, has shrunk to the lowest level since 1952, and beef production will continue to decline throughout 2012. The key question is: how much will U.S. consumers be willing to pay for the smaller supplies relative to alternative protein choices?

Broilers

The broiler chicken industry is waging a comeback. After a prolonged period of severe distress, the industry has started 2012 with a renewed sense of discipline and profitability. During Q1-2012, chicken integrators reduced the size of the breeding flock, and egg sets and chick placements were down approximately 5 and 4 percent, respectively. Production for Q1-2012 is estimated to have fallen 5 percent YoY, and full year production is slated to decline 3 percent YoY.

Stocks of all chicken products are down substantially from 2011 levels, including breast meat stocks which were stubbornly stuck at elevated levels for months. Prices have rebounded to record levels, with expectations that prices will remain strong throughout the spring and summer. Markets for all chicken products are tight, and rising prices will pose some risk to export markets as

leg quarters in particular may become less affordable in some foreign markets. Nonetheless, exports are expected to remain strong overall, rising 2 to 3 percent YoY.

The industry faces two significant risks in 2012 besides the ongoing volatility in feed costs. First, bird weights at slaughter are historically high. This is partially due to the increase in demand for deboned chicken products, which come from larger birds. In addition, the unseasonably warm winter temperatures in growing areas are also producing higher than average weight gains for birds on feed. Elevated bird weights could pressure the market as the seasonal spring-summer increase in production ramps up. The second risk hinges on premature expansion of the flock. Companies have been using their renewed profitability to pay down debt and rebuild their balance sheets. If the industry were to initiate an overly ambitious expansion of the flock, its prices and margins would likely erode, putting the goal of a sustained recovery in jeopardy.

Turkey

Turkey producers have been unusually well disciplined over the past two years, maintaining production at profitable levels. Early indications in 2012 are that the situation is now changing. Turkey production, like chicken production, is shifting to larger birds for deboning and causing an increase in total production. This trend toward larger birdweights is expected to continue throughout the year, raising production by 2 to 3 percent YoY.

At the same time, market demand is pushing back at current prices, and the additional production is landing in cold storage. In January, cold storage for turkey products was up 17 percent YoY. Analysts foresee continued soft demand over the balance of the year, with prices sinking by an estimated 10 to 15 percent. However, margins are expected to remain mostly positive throughout the year, albeit at a lower level than in 2011.

Beef

The cattle herd is now at the lowest level since 1952, and is expected to fall another 3 percent in 2012, for the fifth consecutive year of decline.

Feeder cattle are in great demand and short supply, fueling a highly profitable cow/calf sector. The beef calf population is at a multi-decade low, and the population could fall by another 8 percent in 2012. To supplement supply, feedlots are sourcing dairy calves, which are in much greater supply. Also, a 2 to 4 percent increase in cattle imports, mostly from Mexico, should help mitigate the shortage of cattle available for feeding. Despite these efforts to sustain supply, beef production will likely fall about 4 percent in 2012, with a somewhat larger decline occurring in the second half of the year. There are also some indications that an increasing number of heifers are being retained by producers for breeding. If this becomes an established trend, feeder cattle availability will fall even further.

The shortage of feeder cattle has forced feedlots to pay record prices for incoming cattle, and they are then selling them for less than their cost of acquisition and feeding. Therefore, while feedlots are able to capture revenue through various services provided, their pure cost of buying and feeding cattle is producing a decidedly negative return. This situation is expected to persist for at least the next several months.

Packer margins are also deeply in the red, and will likely remain so at least for the next few months. Processors have to pay record prices for fed cattle, while facing price resistance at the wholesale and retail levels. Retailers have not yet passed along the full increase in beef prices, relying to some extent instead on increased margins from their chicken and pork sales. With chicken prices expected to rise in coming months, retailers may be forced to change their strategy as the grilling season nears. Wholesale beef cutout values are expected to rise by 4 to 5 percent YoY, and the domestic consumer and export markets will be tested as retail prices climb to new record-high levels. Exports are expected to decline 2 to 3 percent for the year, with most of the slippage coinciding with the drop-off in production in the latter half of the year.

In sum, certain segments of the beef industry will fare better than others as the year unfolds. Cow/calf operators should continue producing profitably for the duration of the year, while feedlots and packer margins will

remain squeezed at least into the summer. In order to alleviate downward pressure on margins, there are some indications that packers are pursuing alternative ways to secure beef cattle supply by expanding operations in other segments of the supply chain. The jury is still out on how successful they will be.

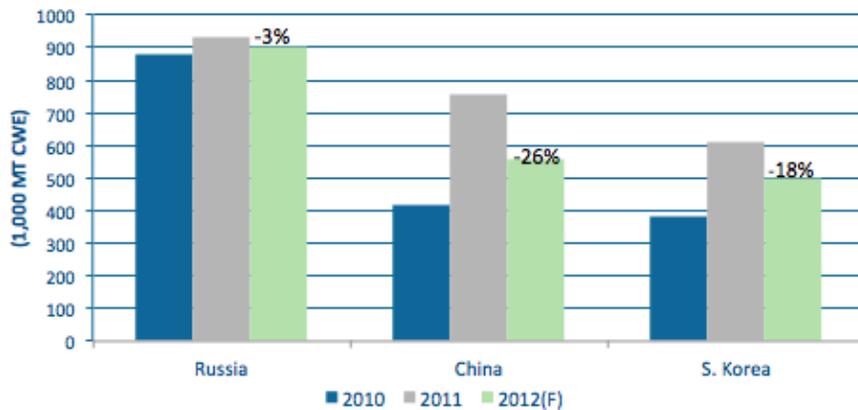
As the first quarter ended, the beef industry confronted a new challenge. The recent consumer backlash to social media reports on lean finely textured beef (LFTB) has caused many of the major grocery chains and quick-serve restaurants to stop offering ground beef containing LFTB. The rejection of LFTB (labeled as “pink slime” by media conduits) comes at a time when the beef supply is already at an unusually low level. Currently, LFTB accounts for roughly 5-7 percent of the supply of ground beef in the U.S., so removing it will drive up prices – as much as \$0.15 per pound for ground beef. While the issue is likely to dampen beef sales in the near term, the chicken and pork industries are anticipating that some short-term aversion to beef products may improve demand for competing proteins.

Pork

The pork industry performed better than many analysts had expected during Q1-2012, thanks to near record exports and steady domestic demand. However, toward the closing weeks of the quarter, market conditions were showing signs of softening, with exports slowing, inventories rising, and prices weakening.

Producer margins are still firmly in the black, but packer margins have narrowed significantly and are roughly at breakeven. Producer margins should remain mostly positive throughout 2012, but risks remain, as strong feed prices continue to pressure returns. Export demand is likely to weaken as the year progresses, and it is still unclear to what extent feed costs will decline later in the year. Packer margins are also expected to improve throughout the year, particularly during the second half, with lean hog prices set to decline YoY during the summer months while pork product prices pull back only slightly from year-earlier levels. Until harvest time, the high cost of corn and soybean meal will likely limit herd

Exhibit 3: Pork Imports into Select Overseas Markets



*China, South Korea, and Russia are the 3rd, 5th, and 6th largest markets for U.S. pork exports.

Sources: USDA and CoBank.

expansion, but from then on, pork production will likely expand – perhaps as much as 2 percent YoY.

Exports are projected to shrink during the rest of 2012 (see Exhibit 3). The biggest declines in exports will occur in those destined for China and Hong Kong where cyclical domestic herd expansion will reduce import needs. Although China's recent feeder pig losses from harsh winter weather may help to sustain U.S. exports, declines will likely be realized in the second half of the year. Exports destined for South Korea and Russia are also expected to taper off, driven by increasing domestic pork production in those countries, as well.

Looking ahead, how well or poorly the pork industry fares during 2012 will depend on several countervailing forces. On the downside, the combination of declining exports and increasing pork production will lead to weaker market conditions. Analysts are projecting that hog prices will fall roughly 6 percent while cutout values could decline as much as 5 percent. But on the upside, domestic demand is expected to strengthen, in response both to declining pork prices and to increasing beef and chicken prices.

Red meat will be very expensive this spring and summer, but pork should continue to be the relatively cheaper protein option. Per capita consumption of beef and

chicken is expected to fall as their availability decreases and prices climb. Meanwhile, per capita pork consumption is expected to rise for the first time in several years, climbing nearly 3 percent.

Dairy

Milk production expanded further during Q1-2012, while dairy product prices continued to trend downward. At the same time, feedgrain prices have reversed the easing that occurred late last year. Going forward, the two wild cards for the industry's outlook will be dairy product exports and feed costs; and the entire dairy complex, producers and processors alike, will be closely monitoring their margins as well as their risk management strategies.

A surge in milk production during the closing months of 2011 has carried through to Q1-2012. Total milk production in February 2012 was 4.6 percent above what it was a year ago (after adjustment for the additional leap year day), with all regions posting gains. The increase in milk production reflects the favorable winter weather in most parts of the country, growing herd size, and improvements in per-cow productivity. The cow herd across the 23 major milk-producing states edged up 1 percent in February YoY to 8.60 million head. Concerns about high feed prices and projections for lower milk prices through the year, however, could result in a culling of the herd beginning in mid-year in an effort to curtail supplies and bolster prices. In addition, the high prices of slaughter cattle will also encourage dairy farmers to cull their herds.

Dairy product prices have been trending downward in recent months. Most dairy analysts are anticipating further price declines in response to strengthening milk production. To date, overall product inventory levels have remained fairly flat, inasmuch as strong sales in overseas markets have counterbalanced the gains in production. In coming months, however, stocks of dairy products are likely to begin building, as domestic and global buyers postpone purchases in anticipation of lower prices.

Export markets continue to be a source of strength for the U.S. dairy complex, but the rapid growth experienced over the past few years is expected to moderate in the face of increased global competitive pressures. At year-end 2011, dairy exports set a new record equal to a 13.3 percent share of U.S. milk solids production, up from 12.8 percent during 2010 and around 9 percent in 2009. At the same time, U.S. exports of cheese, for example, were up about 20 percent YoY. Butter and non-fat dry milk prices have been weak in recent months due to a perceived global supply glut, but U.S. exports of these two products remain strong. Mexico continues to be the largest importer of U.S. dairy exports, accounting for about 39 percent of non-fat and skim milk powder exports.

Looking forward, dairy analysts generally agree that overseas demand for U.S. dairy products will remain strong through the remainder of 2012, particularly from Asia, and should provide ongoing buoyancy for export product processors. A key factor that could temper demand for U.S. dairy exports is increased competition from Oceania. The consensus forecast for global milk production calls for a rise in global production with prices concurrently falling.

Prices within the dairy complex are also expected to remain volatile during 2012. This volatility will be driven by increases in Oceania's production (or lack thereof), variability in the prices of feed grains, and ongoing uncertainty surrounding domestic and global consumer demand for dairy products. In addition, ongoing volatility in feedgrain prices will continue to create uncertainty around producers' margins, and the current downtrend in dairy product prices will be the key challenge facing processors.

Other Commodities

Cotton

The USDA's latest WASDE report projects that global cotton production will be up in 2012/13 despite a slight reduction in world acreage planted. With large carryover stocks from the previous year boosting supply above demand, USDA analysts are projecting that ending

stocks will grow a whopping 32 percent in 2011/12 – and continue growing in 2012/13. Mill use is projected to be down 5 percent in the 2011/12 season but is expected to rebound slightly in the 2012/13 season.

Texas and Georgia, the nation's two largest cotton growing states, have large areas still listed in the extreme drought category, though they have been upgraded slightly from the exceptional drought category. Cotton acreage in the U.S. could decline by as much as 11 percent this coming planting season reflecting shifts to more profitable crops such as corn or soybeans. But even an 11 percent drop in cotton acreage is probably not big enough to bring supply and demand back into balance. For calendar-year 2011, U.S. cotton consumption fell 15 percent from a year ago, with further declines in the offing.

U.S. cotton exports are expected to fall 25 percent this season given the reduction in exportable quantities from the drought stricken U.S. crop and intensified competition from other exporting countries. However, China has continued to buy through mid-March to replenish its reserves, and these purchases account for over half of the U.S.'s 2011/12 export sales to date. Currently, total export commitments are hovering around 11.4 million bales for the 2011/12 marketing season, down from 15.6 million in 2010/11.

In view of the stiff competition from cheaper manmade fibers, consumer demand for cotton goods will be hard-pressed to increase enough to bolster mill profitability. Continued drought in Texas and Georgia is still an issue to monitor carefully in the coming season. In the meantime, an uptick in U.S. cotton exports following India's March 5 ban on exports has proved to be short-lived given the subsequent loosening in those restrictions. The forecast price range for upland cotton in 2011/12 is 88-93 cents/lb, versus 81.5 cents/lb in the previous year. Price increases in the 2011/12 season are projected higher in light of early contracting prices posted in spring and summer of 2011.

Rice

The rice markets face challenges similar to those of the cotton markets. Global rice production for the 2011/12

Exhibit 4: U.S. Sugar Production and Consumption



Sources: USDA/ERS and CoBank.

season is projected to reach 465.4 million tons, a 3 percent increase from the previous season. Ample supplies are attributed to a larger area planted globally, especially in South Asia. Global ending stocks for the 2011/12 season are projected at 100.3 million tons, up 3 percent from last season; however, the U.S., Brazil, Indonesia, and the Philippines did not add much to those global stocks. The 2011/12 season will be the fifth one in a row where global ending stocks have increased, and those ending stocks are now at the highest level since the 2002/03 season.

U.S. rice production in 2011/12 is projected to fall 24 percent from a year ago to 185 million cwt, in sharp contrast to the world situation. The contraction in U.S. production has been partially offset by larger imports and the largest carryover stocks since 1987/88. Total use of U.S. long-grain rice is anticipated to decline 22 percent YoY, while medium/short-grain use is expected to increase 6 percent YoY. U.S. rice exports are also encountering stiff competition in the global marketplace from other rice producing countries. For the 2011/12 season, U.S. ending stocks are forecast to be 40.9 million cwt. Rice prices of \$13.20-\$13.80/cwt for long-grain are up from \$11.00

last season due to tighter stocks, while medium/short-grain prices are \$15.40-\$16.00/cwt down from \$18.00 last season due to larger ending stocks.

Texas accounts for around 5 percent of the U.S. rice crop. The Lower Colorado River Authority (LCRA) recently announced that producers in key rice production areas within Texas will not have access to water from two important lakes for irrigation. LCRA's announcement and the potential for rice to lose acres to other crops this planting season seem to be the only good news in an otherwise uninspiring outlook for the market.

Sugar

Sugar producers are walking around with big smiles these days. Demand has exceeded supply for the past five years

(see Exhibit 4), and prices have climbed to historical highs. Credit for this bullish market belongs to U.S. consumers whose appetite for sugar continues to grow. Americans consumed 5.3 percent more sugar in 2011 than they did just three years ago.

U.S. sugar production is expected to increase to 8.0 million short tons raw value (STRV) in the 2011/12 season, up 2.5 percent from the previous year thanks to an improved sugar cane yield and an additional 1,000 acres to be harvested in Florida. An increase in sugar cane production is expected to outweigh a slight reduction in sugar beet production. However, sugar imports are expected to fall while domestic consumption posts another advance, and the projected increase in domestic production will probably not be large enough to prevent further strain on the U.S.'s already tight stocks. The ending stocks-to-use ratio for the 2011/12 season is expected to be 9 percent, down 3.7 percent from the previous year.

Sugar prices in 2011 remained historically high. Refined sugar beet prices in the Midwest averaged 56.22 cents/lb in 2011, a 5 percent increase over the previous year's average. U.S. raw sugar prices in 2011 were up

6 percent YoY. Sugar will likely continue on its upward price trajectory in the near term given the outlook for a historically low stocks-to-use ratio.

Fruits, Nuts, and Vegetables

Excluding a few short-lived freezes in Florida and California, the mild winter weather allowed the majority of fruits, nuts and vegetables (FNV) growers to produce abundant yields. However, plentiful YoY stock levels sent overall prices lower in the fruit and vegetable categories. Retail and grower prices alike fell during Q1-2012. Some analysts foresee a rebound in prices in coming months as fuel prices and spring holiday demands increase. An uptick in prices is critical for fruits and vegetables if they are to remain competitive among other commodities as crops jockey for acreage.

Citrus growers fared better than other fruit growers, despite weather concerns and a significant loss of mandarins due to a January freeze in California. Prices for both oranges and lemons increased during the quarter, and both crops are forecast to close with slightly higher production than the 2010/11 season. The tree nut sector is experiencing a tremendous boom; record-level exports have provided impressive returns on tree nut harvests. Strong export demand is expected again in 2012, and growers continue to expand orchards to meet the call.

Two specific events during the first quarter made for a memorable beginning to a new year for several commodities. One was the discovery of citrus greening in Texas and California, and the other was the detection of fungicide in orange juice imports. Distressed by the discovery of citrus greening in their groves, citrus growers in Texas and California have undertaken aggressive action to limit further expansion of the disease. Meanwhile, the FDA halted imports of all Brazilian orange products after one shipment tested positive for the fungicide carbendazim. The orange juice (OJ) futures market experienced several weeks of exceptional volatility following the FDA's action. Eventually, a majority of the fungicide-free shipments were released into the market, Brazil pledged to phase out use of the fungicide, and the OJ futures market stabilized, albeit at a higher than normal level.

The FNV industry continues to find success in marketing exports along with higher-value fresh products. Although the USDA's export forecast for the FNV industry was adjusted downward in February, international shipments are still expected to top the record-breaking 2011 totals. China and other Asian countries are expected to import record levels of U.S. tree nuts. Domestically, Congress continues to support programs that encourage the consumption of fruits and vegetables, consumers are trending towards more nutritious food, and both of these trends are driving demand higher.

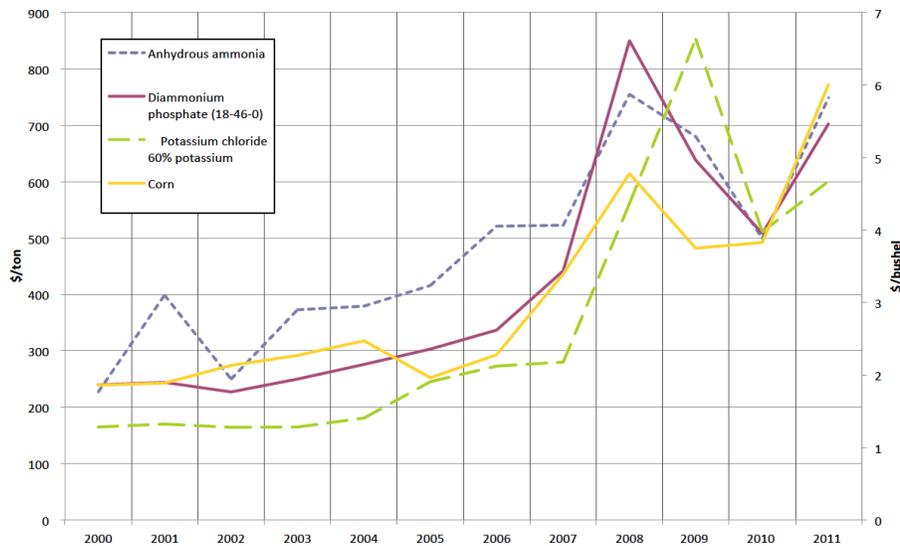
The industry continues to be challenged by long-term issues, such as food safety, labor shortages, access to water, pest and disease control, and global competition. In addition to implementing practices and standards to minimize the impact of each of these issues, growers and processors are looking to Congress to enact new laws and policies that will assist them in their efforts to address these challenges. Many of the hurdles can be overcome at a cost; however, those costs must be carefully balanced against consumers' price sensitivity and ability to substitute.

Farm Supply

The downturn in grain commodity prices in the closing months of 2011 and the subsequent upturn early in 2012 following news reports of the South American drought situation have kept participants in both the farm supply and grain commodity markets on their toes (*see Exhibit 5*). These price swings highlight the critical need that these participants have for effective risk management and mitigation strategies and tools.

As the spring planting season gets underway, most analysts anticipate that new crop prices will recede from the averages posted for the 2011/12 marketing year. This projection presumes (a) that acreage plantings expand beyond last year's weather-impaired plantings, and (b) that crop yields revert nearer to their trend levels. The nation's 2012/13 corn crop would then likely be well above last year's, with commensurately lower prices. And given the high correlation between grain and crop input prices, lower grain prices would also place downward pressure

Exhibit 5: Select Fertilizer Prices vs Corn Price



Sources: USDA/ERS and CoBank.

on fertilizer prices. However, for the next few months, the likely continuation of today's historically high crop prices – for fertilizer-intensive corn, in particular – along with the projected increase in acres planted for the 2012/13 crops should lead to robust volumes and firm prices for fertilizer and other crop input products.

Analysts at the International Fertilizer Industry Association (IFA) are forecasting a 4 percent expansion in global ammonia and urea production in 2011. Natural gas prices are expected to remain low, providing healthy margins for nitrogen fertilizer producers. Global demand for ammonia has recently leveled off, and so have prices. However, as the domestic planting season progresses, pre-plant demand could bolster fertilizer sales. Retail prices for anhydrous ammonia were reported to be about \$767/ton in mid-March, up 3-4 percent from a year ago. In view of the fertilizer industry's current high margins, manufacturers would appear to have some room to absorb lower fertilizer prices. But only reluctantly would they do so.

Urea prices displayed upward momentum recently, spurred by lower supplies and facility outages amid early season applications. However, the recent price increases in urea are expected to slough off as farmers substitute other less costly forms of nitrogen for urea. As top dress activity in wheat and corn pre-plant

applications continues to progress this season, demand for UAN increased and supported prices for 32 percent solution. Rising urea prices have also helped to keep the price of UAN on an upward trajectory.

Prices of potash, MAP (monoammonium phosphate), and DAP (diammonium phosphate) products remained subdued during Q1-2012 owing to comfortable inventory levels. With spring planting beginning to heat up in various regions, prices of MAP and DAP could begin to firm during springtime. Potash supplies remain long, and analysts expect prices to

continue trending downward. Many companies within the potash industry are working to curtail production in order to maintain price levels, even as they and others assess the costs and benefits of building new potash production facilities around the world.

Seed costs are expected to rise this year based on their improved genetics and yield potential. Possible shortfalls in seed supplies have been mentioned recently in the media, but seed producers maintain that there will be enough seed to accommodate demand. While the USDA's estimates call for a modest 0.7 percent increase in seed expenses, two major seed companies have reported that their seed prices could rise as much as 5-10 percent in 2012. Agricultural chemical prices are projected to increase around 6-8 percent in 2012, while fertilizer prices are expected to ease slightly from 2011.

Other crop input prices are projected to rise during 2012, albeit at a slower pace than a year ago. The USDA estimates that total farm expenses will grow 3.9 percent in 2012, which would be the second consecutive yearly increase exceeding \$10 billion. Major crop input expenses (seeds, fertilizer and pesticides) are projected to edge up just 1 percent in 2012 – far below the 16.8 percent hike posted in 2011. ■

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