Staff Paper

2013 ANNUAL
AGRICULTURAL OUTLOOK

Coordinated by
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2013 Annual Agricultural Outlook

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THE GENERAL ECONOMY
Robert Myers

U.S. GDP shrank by 0.1% during the fourth quarter of 2012, the first such contraction since the "Great Recession" ended over three years ago. Cuts in defense spending and a slowdown in inventory buildup were the main causes. The economy's core growth drivers - consumer spending, business investment, and housing - all continued to expand. Nevertheless, the fourth quarter contraction is worrisome and highlights that both GDP growth and jobs growth in the U.S. economy have been well below normal levels for periods of economic recovery. This has led to the weakest post-recession recovery since World War II and left millions of Americans still looking for work.

A number of explanations have been offered for the slow economic rebound. Uncertainty about Government policy, including the "fiscal cliff" debacle and the fight over raising the country's debt ceiling have undoubtedly been major drags of late. Unfortunately, the recent agreement on the fiscal cliff only addressed the tax-side of the equation. In another two months Congress will be faced with $110 billion in deferred automatic spending cuts unless a deal can be struck on the spending/deficit reduction side. Most economists believe immediate spending cuts of this magnitude will push us into another recession, but that in the longer-term the federal budget deficit has to be brought under control if we are going to return to a higher growth path. Economic troubles in Europe and other countries have also received a share of the blame. The resulting decline in demand for U.S. exports has made it difficult to get the economy growing at a more normal rate. The hard hit housing and construction sector also continues to be a drag on consumer confidence and economic growth, although there are signs of life in new housing construction. Tighter credit requirements have also played a role in reducing business investment and consumer spending, although the historically low interest rates now available on loans have made it a great time to borrow for those who do qualify. Forecasts are for the low interest rate environment to continue for at least another year.

Despite this backdrop of a challenging economic growth and employment picture, there are also some positive signs. The presidential election is now behind us which should reduce some uncertainty in the political landscape. Also, the situation in Europe, while far from over, appears to have eased considerably. China and other emerging economies are starting to show signs of renewed economic growth. In the U.S. there are signs of life in the housing and construction industry. Construction and related activity are predicted to help rather than hinder U.S. economic growth this year for the first time since 2005. Furthermore, higher home sales prices and volumes, as well as increased construction, albeit modest so far, are providing a welcoming boost. Estimates are that housing-related jobs grew by an average of 11,000 a month in 2012 compared to an average monthly decline of 1,000 in 2011. And super-storm Sandy, which hammered the U.S. Northeast at the end of 2012, should spur an additional surge in construction related jobs in 2013.

Consumer confidence in the U.S. is receiving a boost from the performance of the stock market at the end of 2012 and beginning of 2013. Currently, business earnings are forecast to increase 13.6% in the U.S. in 2013, though some economists are skeptical this rate can be achieved (2012 earnings growth was only 3%). Nevertheless, since the "fiscal cliff" tax agreement was hammered out in the final throws of 2012, U.S. stock prices have been climbing steadily higher. This is a positive sign because stock price increases are often an indication of improved future growth prospects. Inflation remains low for now but many economists are worried about future inflation given the staggering rate at which the Federal Reserve has been increasing the U.S. money supply.

So what does this mean for the future of the U.S. macro economy? Consensus forecasts are for more of the same in 2013 - an anemic GDP growth rate of 1.8%; little improvement in labor market conditions, with unemployment forecast to remain close to its current 7.8% level; little change in interest rates; little change in inflation; slow growth in wages; and continued mild recovery in construction and housing. However the just-announced surprise contraction in GDP during the fourth quarter of 2012 has raised fears about the economy's ability to handle the tax increases which took effect in January, and the government spending cuts that are looming on the horizon. These factors could lead to even slower growth in 2013 than has been forecast, though nobody is talking about another recession yet.

The Michigan economy is forecast to improve at a slightly faster pace than the U.S. as a whole in 2013. The manufacturing sector, and particularly automobiles, has continued to show signs of growth and employment creation. The University of Michigan’s recent outlook conference predicted sustained but moderate economic recovery will help lower the state’s unemployment rate fall from the current 9.1% to 8.4% by the end of 2013. So while growth and employment prospects have not returned to where they were decades ago, at least things are heading in the right direction.

POLICY OUTLOOK

David B. Schweikhardt and Roger L. Betz

After Congress failed to pass a Farm Bill in 2012, the policy outlook in 2013 will consist of two parts: The short-term outlook for the 2013 crop year and the longer-term outlook for 2014 and beyond. For 2013, Congress included a nine-month extension of the commodity programs contained in the 2008 Farm Bill in the American Taxpayer Relief Act of 2012 (the "fiscal cliff" agreement passed on January 2, 2013). For the years 2014 and beyond, Congress must again complete the process of writing a new Farm Bill. The outlook for that process will be discussed below.

Farm Program Options for 2013

The extension of the 2008 Farm Bill for the 2013 crop year provides the same options that farm managers had during the 2009-2012 life of that bill. Producers will have two options for programs in which to enroll. The direct/countercyclical program option (DCP) consists of: (a) a target price for program crops ($2.63 for corn, $6.00 for soybeans, and $4.17 for wheat); (b) a fixed direct payment that is paid regardless of the national average price level (28 cents for corn, 44 cents for soybeans, and 52 cents for wheat); and (c) a countercyclical payment that is paid if the effective market price (national average market price plus direct payment) falls below the target price (thus a countercyclical payment is paid only if the national average market price falls below $2.35 for corn, $5.56 for soybeans, or $3.65 for wheat).

The second option for 2013 will be the Average Crop Revenue Election (ACRE) program that was also available from 2009 to 2012. ACRE payments are revenue-based payments that are determined by: (a) a benchmark revenue per acre for the individual farm (based on the farm's recent average yield and the national average market price for recent years); and (b) the actual revenue per acre for the 2013 crop year (based on the farm's actual yield for the 2013 crop year and the national average market price for the 2013 crop year). ACRE payments are made when: (a) the farm's actual revenue per acre is less than its benchmark revenue per acre and (b) the state's actual revenue per acre is less than the state's benchmark revenue per acre (calculated using state average yield and national average market price data).

To be eligible for the ACRE program, the producer must agree to forgo: (a) all countercyclical payments; (b) 20% of the crop's direct payment; and (c) 30% of the marketing assistance loan that is available for the crop. Because the gap between the expected market prices for 2013 and the effective market prices noted above is so great, it seems very unlikely that actual market prices will fall below the effective market prices in 2013. Thus, there is a very low probability that countercyclical payments will be made in 2013 and, therefore, there is likely to be little cost in forgoing the countercyclical payments.

The major trade-off for farm managers in 2013 is the cost of the direct payment forgone versus the additional risk management provided by the ACRE program. For example, the DCP provides no protection against yield risk at any time. The ACRE program does provide protection against yield risk in its revenue-based payments. In addition, the DCP provides no price risk protection until the national average market price falls below the effective prices noted above. Because these effective prices are far below the 2013 price outlook, DCP provides very little price risk protection in today's market environment. Because the ACRE benchmark revenues are based on the national average market prices for the past two years, ACRE has the potential to provide much more price risk protection in today's market environment. In

considering the DCP versus ACRE decision, some analysts consider ACRE to be an "insurance" option in which the forgone DCP payment is a "premium" that provides price and yield risk protection for the difference between today's market prices and the effective market prices in the DCP program. Thus, any decision to choose DCP or ACRE should be made within the context of a producer's overall risk management strategy.

In considering these two options for 2013, producers should note some differences from the 2009-2012 period. First, if a producer chose the ACRE program during the crop years 2009-2012, the decision to do so was irrevocable for the life of the 2008 Farm Bill. Because the Farm Bill extension applies only to the 2013 crop year, the decision to enroll in ACRE for 2013 is a one-year decision that will have no impact on the producer's future farm program enrollment options. Second, because a decision in 2009-2011 was irrevocable, producers were required to obtain the signatures of all landlords to enroll the farm in ACRE. Because the Farm Bill extension applies only to the 2013 crop year, and has no impact on future decisions, producers are not required to obtain the signatures of landlords to enroll the farm in ACRE for the 2013 crop year.

During the period 2009-2011, many observers speculated that the time-consuming process of explaining ACRE to landlords and obtaining landlord signatures had a significant effect in reducing enrollment in the ACRE program. If this has been an obstacle in the past, farm managers should reexamine the ACRE/DCP decision for 2013. Finally, all producers should note that they must make a decision on ACRE/DCP for the 2013 crop year, regardless of the decisions they made during the 2009-2011 period. In particular, if a producer enrolled in ACRE during the 2009-2012 period, that decision is not applicable to the 2013 crop year – a new election for ACRE must be made for 2013. Further details on the decision of ACRE versus DCP can be found at the website www.fsa.usda.gov

Policy Outlook for 2014 and Beyond

The breakdown of the legislative process during the writing of the 2012 Farm Bill provides an outline of what might be coming in a 2013 Farm Bill. It might also provide some disturbing insights into the future of the policymaking process, both for the Farm Bill and for the broader U.S. policy agenda.

In reality, Congress made a great deal of progress on the 2012 Farm Bill. The Senate passed a final version of its 2012 Farm Bill on July 20 by a vote of 64 to 35. The House Agriculture Committee passed its version of the Farm Bill on July 11 by a vote of 35 to 11. The commodity program titles of these two bills contained many similar provisions that might provide a glimpse into what a 2013 Farm Bill might look like. Both bills contained three general provisions for commodity programs: (a) the Direct/Countercyclical Program and ACRE program were eliminated; (b) the nonrecourse marketing loan program was continued at the existing level of loan rates; and (c) a revenue-based program was introduced to make payments when actual revenue per acre falls below a benchmark revenue level (this program was similar to the ACRE program but differed from ACRE in some details). In addition, the House committee bill included a target price option for producers, with higher target prices than those now in existence. There were no direct payments provided in the target price program included in House committee bill.

Though these two bills contained many differences in details, these differences were relatively minor and certainly could have been resolved by a conference committee if the House

committee bill had been passed by the full House. Thus, these bills might provide a glimpse into the shape the next Farm Bill might take. In particular, these bills represent a significant shift away from the direct payments that have been used since the 2002 Farm Bill. These payments have faced increased political scrutiny in the prevailing political environment. Direct payments, which require no action on the part of producers, became income transfers from taxpayers to farmers (or, more likely, to landowners in the form of higher land rents). Given that farm household income in now similar to non-farm household income, such transfer became politically indefensible in Congress.

The revenue-based payment approach contained in the two bills has two primary consequences that appear to be important in today's political environment. First, they provide a safety net based on revenue rather than a direct income transfer made without regard to existing commodity prices of farm income level. Second, a revenue-based payment program provides some protection for price and yield risk (as noted above, the DCP program provides no yield risk protection and provides very little price risk protection in today's market environment). Thus, the move toward a direct payment program appears to be much more defensible on a political basis and much more suited to the risk management needs of farmers. For these reason, the commodity titles of these two bills probably provide a glimpse of what the next farm programs will look like.

If this is correct, why did the House fail to pass the Farm Bill in 2012, or even bring the House committee bill to the floor of the House for a vote? To answer this question, we must look beyond the commodity title of the Farm Bill to the broader context in which a Farm Bill exists. It has been true for many years that it is impossible to pass a Farm Bill that contains only farm commodity programs. The major turning point in history was the 1973 Farm Bill, in which a coalition of farm state legislators and urban/suburban legislators coalesced around a combination of two programs – commodity programs and food stamp programs – to pass the Agriculture and Consumer Protection Act of 1973.

This coalition, which represented a mix of farm organizations, labor unions, poverty activists, and other urban/suburban interests became the centerpiece of the coalitions that passed all subsequent Farm Bills. As the issues affecting agriculture and the food system expanded to include environmental issues, food safety, energy, animal welfare, and more, the coalitions needed to pass a Farm Bill continued to expand. Always at the center of this coalition, however, was the farm program/food stamp coalition.

To understand the failure of the House committee bill to pass the full house, we must look to the overall policy changes posed by the House and Senate bills. In looking at the overall budgets for the two bills, the two bills are similar in many respects. Both decreased the budget for commodity programs and conservation programs. Both increased the budget for crop insurance programs. The one major difference between the bills was in the area of nutrition programs (food stamps, school lunch program, etc.). The Senate bill reduced the budget for these programs by $4 billion, while the House committee bill reduced the budget for these programs by $16 billion. This is where the movement of the House committee bill stalled. If the bill had moved to the House floor, it almost certainly would have faced amendments that would have reduced the budget cuts for nutrition programs.

The House leadership, however, was under pressure to prevent such amendments – and so members wanted larger cuts. But the leadership also knew that the bill probably would not pass without amendments increasing spending on nutrition programs. In this sense, the

coalition politics and the geographic politics (for example, a Democrat from a corn growing region in Iowa is very likely to have similar views to a Republican from a corn growing region of Illinois) that had prevailed in past Farm Bills broke under this pressure of these conflicting demands. When this occurred, the coalition/geographic politics of past Farm Bills were replaced by a politics that is much more along party and ideological lines. In particular, when the issue of nutrition program spending became an issue of ideological differences, rather than a part of a coalition of farm and nonfarm interests, it was impossible for any Farm Bill to pass in the full House.

Thus, on the one hand, the 2012 Farm Bill gives us a glimpse of what the future might look like with respect to the structure of farm programs (i.e., revenue based programs that are aimed at risk management objectives rather than income transfers). On the other hand, the overall picture of the policy making process is both troubling and uncertain. It is troubling in the sense that it might signify a breakdown of the policymaking process and coalition that has prevailed since 1973. If the farm policymakers of 1973 entered that coalition because they did not believe they could pass a stand-alone farm program in an increasingly urban/suburban Congress, what is the chance of passing such a bill 40 years later? It is uncertain in the sense that the question must be asked: if that coalition has broken down, what new coalition can replace it? These are the real policy questions that will be worth watching in 2013.

2013 INPUT COSTS
Bill Knudson

Commodity prices continue to be strong. It appears that while some input prices, particularly seed prices, have increased overall, input prices appear to have stabilized. Fertilizer prices are mixed; nitrogen fertilizer prices have increased slightly while it appears that the price for phosphorus and potash are stable or declining slightly. Current diesel prices are stable, and overall there appears to be more potential for a reduction in diesel prices than an increase. Interest rates will remain low, and are likely to remain low for the foreseeable future.

Fertilizer

Fertilizer prices appear to be stable. According to the USDA, the price of anhydrous ammonia in Iowa averages $876 per ton, and the price of urea is $592 per ton. Nitrogen prices remain rather high especially given the low price of natural gas. MAP is $672 per ton and 0-0-60 potash is $612 per ton. Prices appear to be holding steady or declining slightly. A continuation of the drought might put upward pressure on prices if shipping along the Mississippi River is disrupted. The inability to ship fertilizer and other inputs up the Mississippi River will put upward pressure on fertilizer prices.

There are two other things to consider when analyzing these figures. The first is prices are likely to rise as farmers make their purchases as planting season approaches. The second is these figures are Iowa figures. Prices in Michigan may vary somewhat and could be higher.

Seed

Corn and soybean seed prices have increased, while the price wheat seed appears to be stable. In November 2012, Purdue University estimated the per acre cost of soybean seed to be $69, an increase of 11.2% over the 2012 estimate; the per acre cost of corn seed is estimated to be $115, a 7.5% increase over the 2012 estimate; and the per acre cost of wheat seed is estimated to be $41, which is unchanged over 2012.

It should be noted that some corn seed varieties may be in limited supply due to the drought. Overall, there does appear to be adequate seed supplies, but there will be shortages of individual varieties.

Fuel

Diesel fuel prices also appear to be stable. According to the U.S. Energy Information Administration, the retail price of diesel was $3.82 per gallon in the Midwest in January 2013. This is 10 cents per gallon higher than the previous year. Demand for petroleum products in the U.S. continues to decline while domestic production continues to increase. These factors could put downward pressure on diesel prices.

While overall it appears more likely that diesel prices will decline rather than increase, disruptions in supply due to possible events in the Middle East could cause prices to rise. If the global economic recovery accelerates, the price of diesel may also increase.

Interest Rates

Interest rates remained low throughout 2012, and will likely remain low in 2013. According to the Federal Reserve Bank of Chicago, interest rates in the region which includes the Lower Peninsula, most of Indiana and Illinois, Iowa and the southern and western part of Wisconsin, were 5.21% for operating loans and 4.86% for real estate loans in the third quarter of 2012. Interest rates for farm loans have declined by 0.4 to 0.5% from 2011.

Interest rates are likely to remain stable in 2013. While the economic recovery is underway it remains feeble and there is some concern that the economy could slip back into a recession. The Federal Reserve will continue its expansionary monetary policy for the foreseeable future. Recent activity by the Fed has left interest rates unchanged.

DROUGHT OR FROST, MICHIGN FARMLAND VALUES MOVING UP AGAIN
Eric Wittenberg and Steve Hanson

Michigan farmland values saw another year of strong growth overcoming the challenges presented by the spring frost and summer drought. Even though 2012's early frost and season-long drought reduced yields, grain prices increased and interest rates remained at historic lows. This combined with a strong outlook for crop prices in 2013 helped to continue the upward pressure on farmland values and cash rents.

Michigan State University's annual land value survey has been conducted in the spring of each year since 1992 by the Department of Agricultural, Food, and Resource Economics and collects information on the value of different types of land across the state of Michigan. The 2012 survey reported that on average land values increased around 8% statewide over the previous year. The growth in the market was strong across cropland, sugar beet land, irrigated land, and land with fruit bearing trees (ranging from 6.8 to 9.5%). Average farmland values in spring 2012 were reported to be:

	Southern Lower Peninsula	**Michigan**
Tiled field crop land	$4,115	$3,866
Non-Tiled field crop land	$3,371	$3,029
Sugar Beet land	$4,806	$4,610
Irrigated land	$5,144	$4,717
Land with fruit trees	$7,529	$6,894

The USDA, in its "Land Values and Cash Rents 2012 Summary", reported Michigan's agricultural cropland prices increased 11.1% to an average price of $4,090 per acre for calendar year 2011. The most recent data on land prices from the Federal Reserve Bank of Chicago found Michigan land prices increased about 7% from October 1, 2011 to October 1, 2012. All other states in the Federal Reserve's Seventh District (Iowa, Wisconsin, Illinois, and Indiana) showed even greater increases, ranging from 8% to 18% during this same reporting period with Iowa showing the largest increase.

Leasing continues to grow as a tool to control farmland. Last year, 57% of the crop acres were controlled through leasing arrangements, compared to 47% a decade ago. Of the leased land, 81% was leased on a cash rent basis. According to the 2012 MSU survey, cash rent rates increased significantly across tiled cropland, non-tiled cropland, sugar beet, and irrigated cropland. Cash rents for land in the southern Lower Peninsula and across the entire state averaged double-digit percentage increases over the previous year. Average Michigan cash rent levels in spring 2012 were:

	Southern Lower Peninsula	**Michigan**
Tiled field crop land	$145 per acre	$139 per acre
Non-Tiled field crop land	$111 per acre	$ 99 per acre
Sugar Beet land	$194 per acre	$189 per acre
Irrigated land	$229 per acre	$217 per acre

These are average rents and they can vary significantly with location, competition, and expected yield.

Additional details on land values and cash rents across the state are reported in the Department of Agricultural, Food, and Resource Economics Selected Agricultural Economics Reports that can be found on the web at http://www.aec.msu.edu/aecreports/index.htm.

Michigan farmland values are influenced by both the agriculture and non-agriculture sectors. Land values are affected by a combination of factors including the renewable energy industry, commodity markets, interest rates, commercial and residential development, and increasingly non-farm investors. Proximity demand (the desire for land based on its location), the need to obtain land for animal waste management, and the need to obtain land to capture economies of scale with respect to farm machinery also impact land values in many local markets. While Michigan agriculture is very diverse, major commodity crops, along with livestock, continue to play an important role in determining the value of farmland in many areas of the state. In 2012, the outlook for crop prices was strong and milk prices were good which helped push farmland values up.

Energy and oil prices have become a major factor impacting agricultural profitability and are affecting land prices in complex ways. The actual impacts remain difficult to predict because, while higher energy costs increase the cost of production, they also increase the demand for bio-based fuel alternatives such as ethanol and bio-diesel which could increase demand for agricultural outputs (e.g., corn for ethanol production). At the same time, increased demand for corn and soybeans increases the cost to dairy and livestock producers. While energy prices have dropped from record 2007-08 levels, they will likely stay steady in 2013, currently the price is hovering around $100 barrel or more.

The Federal Reserve has continued to hold the Federal Funds Rate (the interest rate banks charge each other for overnight loans) constant at 0.25 %. This action has been one factor helping to keep short-term interest rates low. *The Wall Street Journal* Prime Rate (the base rate on corporate loans posted by at least 75% of the nation's 30 largest banks) typically runs 3% above the Federal Funds Rate and is currently at 3.25%. The linkage between long-term and short-term interest rates seems to have strengthened as today's financial markets have moved to relatively lower long-term lending rates. Interest rates for farm real estate loans have continued to decline to historically low levels. The Federal Reserve Bank of Chicago reports third quarter 2012 real estate loan rates averaged 4.86%. GreenStone Farm Credit Services reports current agricultural real estate loan rates starting at 5.05% for 20-year fixed rate and 4.25% for 1-year adjustable rate loans. This means the cost to finance land purchases has decreased providing the investment stimulus to purchase farmland real estate. It also signals that the return on non-land investments is lower, making land a more attractive investment alternative.

The continued climb in farmland values has been driven by record farm income leading to the strong steady expansion. Strong commodity prices have helped drive up both profits and land values. But what does this mean for the return on land investments? One way to peek at land return is by looking at the rent-to-value ratio which is a simple way to measure the current rate of return to land. We can use the MSU survey data to get an idea what the current return to Michigan farmland has been over time. The figure below shows the rent-to-value ratio for tiled cropland in the southern Lower Peninsula since the MSU survey began in 1992. You can see the current return to land has fallen from around 6% in the early 1990s to around 3% today. So

in recent years, land prices have moved with cash rents so that the current rate of return has hovered right around 3%.

We also know that the return to land is linked to interest rates. Let's look at what has happened to interest rates over time and see how that compares to changes we've seen in the current return to land. The figure below also shows the Chicago Federal Reserve interest rates for farm loans on real estate since 1992. During the early 1990s, farm real estate interest rates held in the 8-10% range. Like the current return to land, these rates have declined over time and are now around 5%. It's worth noting that the gap between the current return to land and farm real estate interest rates has narrowed some in recent years which may be a signal that land returns are still relatively strong.

The value for non-farm agricultural land remained relatively steady in 2012 as the Michigan economy shows signs of strengthening. The 2012 MSU survey found the average non-agricultural-use value for undeveloped land in Michigan to be $5,972 per acre for residential development and $12,851 per acre for commercial/industrial development, both decreasing slightly from the previous year. However, the value for recreational development land increased slightly to $3,063 per acre.

Where are land prices heading this year? Farm income is expected to be strong again in 2013 and most farmers have strong liquidity positions (cash) and robust earnings to service debt. Also, farm operations have the ability to lock in low fixed interest rates. Commodity prices will likely decrease from last year's high but should not go below the cost of production. At some point the land value climb will level off but unless we experience some surprises in farm income or interest rates, Michigan agricultural land values are likely to show strength again during 2013. The value of quality land in good locations will likely continue its upward movement in most markets. Agricultural producers and outside investors will likely continue to focus on the quality and location factors continuing to put upward pressure on "good" farmland in prime locations.

2013 ANNUAL CROPS OUTLOOK
Jim Hilker

Corn

The 2013 Annual Corn Outlook presented here will include the 2012-13 and 2013-14 corn marketing years; the baseline numbers are presented in Table 1. By baseline, I mean given what I know and expect to date; we all know a lot can and will happen to change these expectations. We are in our third year of both U.S. and world extremely tight corn/feed grain stocks, and seventh year of these higher and more volatile corn prices. And, it does not appear the situation will change much for the remainder of the 2012-13 or in 2013-14 corn marketing years if we have a trend or below trend corn yield for the 2013 corn crop. This is despite the rest of the world having a record 2012-13 corn crop.

There is every reason to believe that the price volatility that we have seen in the corn markets since the fall of 2006 will continue. When you have tight ending stocks-to-use ratios, two things happen, high prices and high price volatility. When you have tight ending stocks it takes relatively small changes in either supply or demand expectations to get large price fluctuations.

There are many supply and demand factors to consider. How the debt crisis in Europe plays out, world GDP growth, or lack thereof, oil/gas prices, U.S. and world weather, etc., etc., will play a role due to a large degree of being unknowns. At this point, the market is projecting an 80% chance that December 2013 futures will be between $4.00 and $7.75 per bushel. Or, to put another way, there is a 10% chance the corn price will be below $4.00 per bushel, and a 10% chance the corn price could be above $7.75 per bushel come harvest time!

2012-13

U.S. corn producers planted 97.2 million acres of corn for the 2012 crop, the highest on record since the introduction of hybrid corn; beating the 93.5 million acres planted in 2007. Acres harvested for grain came in at 87.4 million acres. The 2012 planting season started off okay, but soon turned very dry for much of the Corn Belt. The growing weather for different areas of the Corn Belt varied greatly over the growing season, but though the heartland of the Corn Belt, the drought was harsh.

In the end, the average corn yield for the U.S. was 123.4 bushels per acre, about 32 bushels per acre below trend yield and the biggest deviation from trend since 1988. Yields in Illinois, Missouri, Indiana, and Kentucky were all around 60-65 bushels below their trend yields. Iowa was around 35 bushels per acre below their trend yield. And then we had Minnesota, where their 2012 yield of 165 bushels per acre was near trend. And remember, this comes right after a 147.2 bushel per acre yield in 2011, which was about 8 bushels per acre below the long-term trend yield. Multiplied by the 87.4 million harvested acres gave us total corn production of 10.78 billion bushels. This is about 3.0 billion bushels less than expected.

Michigan planted 2.65 million acres, 150,000 acres more then 2011, and tied for the highest on record with the 2.65 million acres planted in the drought year of 2007. Michigan harvested for grain acres were 2.39 million, up 200,000 acres from the previous year. Michigan's average 2012 State yield was 133 bushels per acre, 20 bushels per acre below last's year's record yield. Michigan corn for grain production was 317.9 million bushels, down 17

million bushels from last year's record, but still the second highest on record due to the record number of acres harvested. But Michigan corn yields varied dramatically depending when you were located. Many producers across the southern part of Michigan had horrible yields, while many producers in upper mid-Michigan had record yields.

On the use side, there is not a lot of room to move. As seen in Table 1, ending stocks are only expected to be a very tight 602 million bushels, 5.3% of use. That means several things. One, total use is pretty much known, we only have so much corn and demand is strong, meaning the market will likely use all it can, but price will move to whatever level necessary to keep stocks at about the forecast level. What is less clear is how the use will be divided up, given the different factors that could change as we go through the remainder of the marketing year. And, whenever stocks are tight, it only takes minor changes to cause big price changes.

Feed use is expected to be 4,450 million bushels, 2% below last year's relatively low level. Beef production will be down for the year and will be the biggest cause of less corn fed. Pork production is expected to be up a little. A wild card in the market is slaughter weights of both cattle and hogs; the price of corn versus the market price for livestock could shift final use for corn 25 million bushels in either direction. Often 25 million bushels doesn't mean a lot, but when projected ending stocks are only 602 million bushels, it becomes significant.

Then we have food, seed, and industrial uses. I expect seed use to be about the same as this past year - as I expect about the same number of acres will be planted. Corn used for food and industrial uses, other than ethanol, is expected to remain about level. The 4,500 million bushels of corn projected to be used for ethanol is 61 million bushels less than last year, and about the mandated level. Ethanol producers have been producing below full cost for some time and are expected to do so for the rest of this marketing year. While some plants have been shut down, most are expected to be reopened when we see better returns, most plants are more than covering variable and cash costs. This forecast is based on oil/gas prices relative to corn prices staying in the same range they now are, that is a huge assumption. Again, it would not take much of a change in this projection to keep corn prices hopping.

Exports in 2011-12 are expected to fall way short of a year ago as shown in Table 1. The biggest reason for the projected decrease in U.S. exports is we don't really have any more to export without cutting into some other use. The rest of the world's corn crop and world coarse grain crops in total achieved record levels. Despite the rest of the world record world coarse grain crop, due to strong world demand the projected 2012-13 world corn stocks-to-use ratio will be the tightest since at least the early 1970's at 13.4%, or another way of putting it, about seven weeks of use. Last year, it was 15.0%, as it was the year before a well. Brazil and Argentina are expecting very large corn crops, as Brazil did last year, and will make up much of the U.S. lack of supply. Rest of the world corn use will actually increase. The large world feed wheat supplies are also playing a role, as wheat is being priced as a feed grain.

When you add domestic use and exports, you have total use; and at 11,267 million bushels, it is expected to be down 1,261 million bushels from last year and down 1,799 million bushels, 13.8%, from our peak use three years ago. Ending stocks, total supply minus total use, is projected to be 602 million bushels, only 5.3% of use. The only other time in my data that ending stocks as a percent of use were tighter was the 5% in the 1995-96 marketing year, and most of us remember that year. The projected 2012-13 price of $7.40 per bushel is a weighted annual average price. This would be by far the highest price on record; the previous record was last year's $6.22 per bushel.

It's not just the high projected price that we need to note, but also the likely high volatility. While I project the price of corn to be around $7.25 from now into July, given today's information, there is 20% chance the prices will be $6.30 or lower by July, and a 20% chance the prices will be $8.20 or higher by July.

2013-14

My projections for the 2013-14 corn marketing year is built around the story of high returns to corn over the past several years, and expected high returns to corn in 2013-14, both absolutely and relatively to other crops, along with continued strong U.S. and world use/demand.

As you can see on Table 1 for 2013-14, I am projecting about the same numbers of corn planted acres at 97 million acres, which would basically tie the 2012 record plantings. I am also projecting 88.2 million acres to be harvested for grain. Where do we get the acres for corn given I expected about the same number of soybean acres to be planted and a half million more acres of wheat to be planted? We planted 326 acres to the principle crops last year, 11.2 million more than in 2012, the most since planting 325.7 million acres in 2003. On top of that 1-2 million acres of expired CRP ground will be available in addition, mostly for wheat. While returns for other crops are good as well, there appears to be the available land.

I am using a 1978-2012 trend yield to project the 156.2 bushels per acre yield used in my analysis, for a projected 2013 U.S. corn crop of 13,784 million bushels; this would be a record. Others are using a shorter 1991-2012 trend yield of 158 bushels per acre. I have chosen the longer period for stability, and while possible yields continue to increase due to technology and management gains, I am not convinced the long-term rate of increase has picked up as much as the shorter trend indicates. This is not to say that the yield could not be significantly different than the trend yield, as seen on the downside in 2011 and 2012, and on the upside in 2004 and 2009, if we adjusted the 160.4 bushels per acre yield we saw in the almost "perfect" growing weather year of 2004 by the trend yield increases, we could see a yield of about 173 bushels per acre.

I am projecting total 2013-14 use to be 13,220 million bushels, which would be the highest on record. Remember, U.S. use is down this year due to lack of availability, not weak demand. I expect feed use to increase to 4,860 million bushels as the pork and broiler sectors grow going into 2014. Between the return to profitability and the increasing mandate, I am projecting corn used for ethanol to be 5,100 million bushels, a small growth rate from the pre bad yield era. The big question is will we hit a blending wall before we reach that level. I expect U.S. corn exports will return to a more "normal" level, 1,835 million bushels, given a "trend" world coarse grain crop and a continued growth in world demand.

As shown in Table 1, this story would give us projected ending stocks of 1,192 million bushels, 9.0% of use, and an average price around $5.20. It is not clear whether this scenario would increase the very tight world coarse grains stocks-to-use ratio. Back to that price volatility thing, any tighter stocks and prices will jump up quickly. On the other hand, a yield of 173 bushels per acre may solve the volatility "problem." However, we may not like the more stable prices.

While $5.20 is my median price projection for 2013-14, there are still a lot of risks as we have seen of the past. Corn prices have a 20% chance the price will be $4.20 or lower by this fall and a 20% chance the price will be $6.50 or higher this fall.

TABLE 1

SUPPLY/DEMAND BALANCE SHEET FOR CORN

								Est.	Proj.	Hilker
	2004-	2005-	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
(million acres)										
Acres Planted	80.9	81.8	78.3	93.5	86.0	86.4	88.2	91.9	97.2	97.0
Acres Harvested	73.6	75.1	70.6	86.5	78.6	79.5	81.4	84.0	87.4	88.2
Yield/Bushels	160.4	148	149.1	150.7	153.9	164.7	152.8	147.2	123.4	156.2
(million bushels)										
Beginning Stocks	958	2114	1967	1304	1624	1673	1708	1128	989	602
Production	11807	11114	10531	13038	12092	13092	12447	12360	10780	13784
Imports	11	9	12	20	14	8	28	29	100	25
Total Supply	12776	13237	12510	14362	13729	14774	14182	13517	11869	14412
Use:										
Feed & Residual	6158	6155	5591	5913	5182	5125	4795	4548	4450	4860
Food, Seed & Ind	2686	2981	3490	4387	5025	5961	6426	6437	5867	6525
Ethanol for fuel	1323	1603	2119	3049	3709	4591	5019	5011	4500	5100
Total Domestic	8844	9136	9081	10300	10207	11086	11221	10985	10317	11385
Exports	1818	2134	2125	2437	1849	1980	1834	1543	950	1835
Total Use	10662	11270	11206	12737	12056	13066	13055	12528	11267	13220
Ending Stocks	2114	1967	1304	1624	1673	1708	1128	989	602	1192
Ending Stocks,										
%of Use	19.8	17.5	11.6	12.8	13.9	13.1	8.6	7.9	5.3	9.0
U.S. Loan Rate	$1.95	$1.95	$1.95	$1.95	$1.95	$1.95	$1.95	$1.95	$1.95	$1.95
U.S. Season Ave										
Farm Price, $/Bu.	$2.06	$2.00	$3.04	$4.20	$4.06	$3.55	$5.18	$6.22	$7.40	$5.20

Source: USDA and Jim Hilker. (1 - 31 - 13)

Wheat

The 2012-13 U.S wheat marketing year is eight months in, and while we will discuss the projections, it appears present projections will hold for the most part. The more interesting part is discussing the 2013-14 prospects. While the wheat story differs significantly from corn in many ways, the volatility in wheat prices will be there, but largely due to corn.

2012-13

We planted 55.7 million acres of wheat for the 2012 wheat crop, up 1.3 million acres from 2011. Winter wheat accounted for 41.3 million of those acres, up 680,000 acres. Spring wheat planted acres were down slightly at 12.3 million acres and durum wheat planted acres were 2.1 million acres. Overall, the growing season went pretty well.

Harvested acres came in at 49 million acres. The final U.S. average yield came in at 46.3 bushels per acre, equaling the record 2010 U.S. yield. This put 2012 total wheat production at 2,269 million bushels, up dramatically from the 1,999 million bushels in 2011 when the High Plains had the horrible drought.

Michigan planted 570,000 acres of wheat for 2012, down 130,000 acres from 2012. Michigan harvested 540,000 acres for grain. Michigan also set a new record wheat yield for the second year, at 76 bushels per acre, up from 75 bushels per acre for 2011.

While beginning stocks were still large at 743 million bushels, they were smaller than the previous year, which was smaller than the previous year. This put total supplies at 3,142 million bushels when 130 million bushels of imports are included.

Domestic use of wheat in the U.S. for 2012-13 is projected to be up 194 million bushels from 2011-12, at 1,375 million bushels, with food use growing some with the population and feed and seed use up 8 million bushels. Feed use is where the expansion came from as it jumped from 164 million bushels in 2011-12 to 350 million bushels this year. Much of the extra wheat fed came on the heels of a good wheat harvest just before this summer's drought shrank the corn crop and corn prices skyrocketed.

Exports are projected to be the same as last year at 1,050 million bushels. While the rest of the world wheat crop was down 60 MMT at 593 MMT, rest of the world use is projected to be down 30 MMT. Total 2012-13 U.S. wheat disappearance is projected to be 2,425 million bushels.

Projected 2012-13 U.S. ending stocks are projected to be 717 million bushels, 29.5% of use; while down from last year's 33.3% of use, it is still more than adequate. The projected world stocks-to-use ratio is expected to be a sufficient 26.2%. Then what is holding up wheat prices? It's called high corn prices. World wheat is being priced as a feed grain. The 2012-13 average weighted wheat price is expected to be a record $7.90/bu. Check out Table 2.

Again, high prices are not the whole story, volatility will continue. While I project the price of soft red wheat to be around $7.30 from now into May, given today's information, there is 20% chance prices will be $6.90 or lower by May, and a 20% chance prices will be $8.00 or higher by May. Add $0.50 for calculating all U.S. wheat.

2013-14

The winter wheat Seedings Report showed 41.82 million acres of winter wheat were planted for the 2013, an increase of about 500,000 million acres. Assuming spring and durum wheat acres remain at the same levels, I expect total wheat planted acres to be 56.2 million acres for 2012-13 as shown in Table 2. I am projecting a normal percent harvested, which would put harvested acres to be 48.2 million acres. Michigan planted 590,000 acres, up 20,000.

Using a trend yield of 44.7 bushels per acre, expected 2013 U.S. wheat production would be 2,155 million bushels. However, there will need to be an end to the drought conditions in the Great Plains to hit this level, and at this point, there are significant odds that may not happen. Winter wheat conditions in the hard red wheat areas were the worst on record last fall when reporting stopped for the winter. And while fall wheat conditions seem to have little correlation with the final yields, they have not had conditions this bad before; they are still short moisture at this point.

When added to similar beginning stocks to the previous year and expected imports, total 2012-13 supplies are expected to be 3,153 million bushels, up about 170 million bushels.

I expect domestic use to fall off in 2013-14 as feed use drops back to normal levels, given a decent corn crop. Food use may grow some with the population. I expect the world crop to recover some, and for world use to be up some as well. Therefore, I have raised my wheat exports marginally.

This scenario would leave us with total ending stocks of 651 million bushels. The projected stocks-to-use ratio would be 27.9%, which would no longer be considered large for wheat. This, along with a tighter world stocks to use ratio, I expect the average U.S. wheat price to be about the same as this past year. This would mean wheat being priced as a food grain if the corn price falls to the projected $5.20. See Table 2.

Price volatility is expected to continue. I expect soft red wheat to be $7.50 at harvest (add $0.50 for calculating all U.S. wheat). There is a 20% chance soft red wheat prices will be $6.30 or lower by harvest, and a 20% chance the soft red wheat prices will be $8.50 or higher by harvest.

TABLE 2										
SUPPLY/DEMAND BALANCE SHEET FOR WHEAT										
								Est.	Proj.	Hilker
	2004-	2005-	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
(Million Acres)										
Acres Planted	59.7	57.2	57.3	60.5	63.2	59.2	53.6	54.4	55.7	56.2
Acres Harvested	50.0	50.1	46.8	51.0	55.7	49.9	47.6	45.7	49.0	48.2
Bu./Harvested Acre	43.2	42.0	38.6	40.2	44.9	44.5	46.3	43.7	46.3	44.7
(Million Bushels)										
Beginning Stocks	546	540	571	456	306	657	976	862	743	717
Production	2158	2105	1808	2051	2499	2218	2207	1999	2269	2155
Imports	71	82	122	113	127	119	97	112	130	115
Total Supply	2775	2727	2501	2620	2932	2993	3279	2974	3142	2986
Use:										
Food	910	915	938	948	927	919	926	941	950	960
Seed	78	78	82	88	78	69	71	76	75	75
Feed and Residual	182	160	117	16	255	150	132	164	350	200
Total Domestic	1169	1152	1137	1051	1260	1138	1128	1181	1375	1235
Exports	1066	1003	908	1263	1015	879	1289	1050	1050	1100
Total Use	2235	2155	2045	2314	2275	2018	2417	2231	2425	2335
Ending Stocks	540	571	456	306	657	976	862	743	717	651
Ending Stocks,										
%of Use	24.2	26.5	22.3	13.2	28.9	48.3	35.7	33.3	29.5	27.9
U.S. Loan Rate	$2.75	$2.75	$2.75	$2.75	$2.75	$2.75	$2.75	$2.75	$2.75	$2.75
U.S. Season Ave										
U.S. $/Bu.	$3.40	$3.42	$4.26	$6.48	$6.78	$4.87	$5.70	$7.24	$7.90	$8.00
Michigan $/Bu.	$3.01	$3.13	$3.41	$5.01	$5.65	$4.00	$5.10	$6.50	$7.75	$7.50
Source: USDA and Jim Hilker. (1 - 31 - 2013)										

Soybeans

As with corn and wheat, soybean prices are high, the market has been very volatile, and the same is expected until at least mid-summer.

2012-13

Soybean producers planted 77.2 million acres last spring, up 2 million acres as returns looked to be good, and planting conditions were good. But conditions soon turned very dry and at one time it appeared the U.S. soybean yield would be in the mid 30's. However, some late season rains came and the final average U.S. soybean yield was 39.6, about 4 bushels per acre below trend. Producers harvested 76.1 million acres, making productions 3.015 million bushels.

Beginning stocks at 160 million bushels was relatively low and when added to production meant 2012-13 supplies would be 121 million bushels lower then 2011-12 at 3,204 million bushels. Exports, part of total supply, will be a bit higher than normal at 20 million bushels.

Use got off to a fast start as Argentina was coming off a poor soybean crop and world supplies were relatively tight. Exports have been very strong for the first half of the marketing year, but will tail off shortly – as soon as the U.S. runs out of supply and the likely record South American crop becomes available. Total exports are expected to be 1,345 million bushels, down only 17 million from last year, but down 156 million bushels from the record exports of 2010-11.

Crush has also been strong as oil and meal exports were strong in the first quarter, again due largely to export demand. Again like whole soybeans, exports will likely slow as supplies are limited. Crush is expected to be 1,605 million bushels, down about 100 million bushels from last year, mostly because we don't have any more soybeans to crush.

Total use for 2012-13 is expected to be 3,069 million bushels, down 86 million bushels from last year, but leaving projected ending stocks at a tight 135 million bushels. This leaves stocks to use at a very tight 4.4%. The average expected weighted season price is $14.25, breaking last year's record price of $12.50. See Table 3.

It is not just the high projected price, but also the likely high volatility. While I project the price of soybeans to be around $14.20 from now into July, given today's information, there is 20% chance the prices will be $10.60 or lower by July, and a 20% chance the prices will be $15.5 or higher by July.

2013-14

As discussed with corn, the acres are there given the projected high returns. I expect producers to plant the same 77 million acres they did this past year. Which would mean 76 million acres would be harvested in a typical year. The 35-year trend yield for soybeans would put the trend yield for 2013 at 43.9 bushels acre. This puts projected 2013 soybean production at 3,337 million bushels. If this occurs, it would be the second largest soybean crop on record, only 20 million bushels below 2009. However, the projected total supply of 3,493 million bushels would only be the fourth largest on record due to the low beginning stocks.

Crush is expected to recover to the 2011-12 levels at 1,705 million bushels on availability and continued strong world and domestic demand. Exports are expected to recover

for the same reasons to 1,480 million bushels. This could change dramatically given South America's 2014 production. No reason at this point to believe seed use or residual will change. Total 2013-14 soybean use is projected to be 3,300 million bushels.

While this would put 2013-14 projected ending stocks at 193 million bushels, 58 million more than this year, the stocks-to-use ratio would still only be 5.8%. This would put the 2013-14 average season projected price at $12.50. This still a high price with fairly tight ending stocks, and that means continued volatility.

While $12.50 is my median price projection for 2013-14, there are still a lot of risks. Soybean prices have a 20% chance the prices will be $10.60 or lower by this fall, and a 20% chance the prices will be $14.50 or higher this fall.

TABLE 3										
SUPPLY/DEMAND BALANCE SHEET FOR SOYBEANS										
								Est.	Proj.	Hilker
	2004-	2005-	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
(Million Acres)										
Acres Planted	75.2	72	75.5	64.7	75.7	77.5	77.4	75.0	77.2	77.0
Acres Harvested	74.0	71.3	74.6	64.1	74.7	76.4	76.6	73.8	76.1	76.0
Yield/Bushels	42.2	43.0	42.9	41.7	39.7	44.0	43.5	41.9	39.6	43.9
(Million Bushels)										
Beginning Stocks	112	256	449	574	205	138	151	215	169	135
Production	3124	3063	3197	2677	2967	3359	3329	3094	3015	3337
Imports	6	3	9	10	13	15	14	16	20	15
Total Supply	3242	3322	3656	3261	3185	3512	3495	3325	3204	3493
Use:										
Crushings	1696	1739	1808	1803	1662	1752	1648	1703	1605	1705
Exports	1097	940	1116	1159	1279	1499	1501	1362	1345	1480
Seed	88	93	80	93	90	90	87	90	89	90
Residual	105	101	77	0	16	20	43	1	30	25
Total Use	2986	2873	3081	3056	3047	3361	3280	3155	3069	3300
Ending Stocks	256	449	574	205	138	151	215	169	135	193
Ending Stocks,										
%of Use	8.6	15.6	18.6	6.7	4.5	4.5	6.5	5.4	4.4	5.8
U.S. Loan Rate	$5.00	$5.00	$5.00	$5.00	$5.00	$5.00	$5.00	$5.00	$5.00	$5.00
U.S. Season Ave										
Farm Price, $/Bu.	$5.74	$5.66	$6.43	$10.10	$9.97	$9.59	$11.30	$12.50	$14.25	$12.50
Source: USDA and Jim Hilker. (1 - 31 - 13)										

2013 ANNUAL LIVESTOCK OUTLOOK
Jim Hilker

Cattle

Feedlots had a tough 2012. Cattle feeders were way in the red every month, with losses ranging from $25.00 to over $250.00 dollars per head. Losses were in the $100.00 per head range in January. The returns discussed above are full costs and are calculated assuming the feed is bought monthly and all feed is bought versus grown by the cattle feedlot. Michigan cattle feeders that grew much of their own feed, of which many do, and had near average yields or better, and in Michigan it was a very mixed bag, may have cash flowed okay in 2012 and had accounting profits, i.e., taxes to pay. However, it is a lot easier to sell high priced corn than feed cattle.

As we look into the remainder of 2013, economic profits for feedlots will be hard to come by. Due to less feeders being available this year than last, i.e., high prices as discussed below and continued overcapacity of feedlots and packers, margins for both will remain very tight. And these losses will come as we have historically high fed cattle prices.

Cow calf returns on average were positive for a third year in a row in 2012, after being negative in 2008 and 2009. However, the returns varied tremendously as you might guess. In the drought stricken cow calf areas of the High Plains, the losses were huge and liquidation of all or parts of many herds was rampant. Where they had grass and hay, profit were large. Better profits are expected in 2013, but one still needs grass/hay, and it is not clear the droughts in many parts of the country are over.

The January 1, 2013 Cattle Inventory Report reported the U.S. had 89.3 million head of cattle and calves as of January 1, 1.60% below a year ago, and the smallest since pre 1953 (the length of my data). USDA estimated the total U.S. cowherd, including dairy, at 38.5 million head, 2.2% smaller than a year ago. The beef cow herd was estimated at 29.3 million head, a whopping 2.9% smaller than a year ago.

Beef cow replacements on January 1, 2013 were 5.4 million, up a marginal 1.9%. This increase is only 3/10's of one percent the beef cow herd. It is hard for me to see a real increase in the size of the beef cow herd next January 1. As mentioned, the drought may not be over, and heifer and cull cow prices remain very high and temping. We would be lucky to hold even.

USDA reported the 2012 calf crop at 345.3 million head, 2.9% smaller than 2011's, and the smallest calf crop in my data, so pre 1950. This is the 18th year in a row the calf crop has decreased in numbers! As of January 1, the calculated available supply of feeder cattle outside feedlots was 25.56 million head, 0.7% higher than last year, but 5% lower than 2011, and way lower than any prior year. And, the only reason feeder supplies were not lower than last year is because fewer lightweight feeder cattle were not forced into the feedlots last fall like in the fall of 2011.

Cattle on feed in all feedlots January 1 were 13.35 million head, down 5.5% relative to last January 1. The January 1 Cattle on Feed Report for feedlots over 1,000 head showed 11.19 million cattle on feed, down about the same, 5.6%.

All cattle and calves in Michigan on January 1 were at 1,120,000 head, up 0.9% from the previous year. All cows that had calved were at 490,000 head, up 2.1%. Beef cows were up 3.7%, at 113,000. Dairy cow numbers were put at 377,000, up 1.6%. Beef cow replacements were up 1,000 at 28,000, while dairy cow replacements were down 1,000 head at 157,000 head. Michigan's 2012 calf crop was 385,000, down 1.3% from the previous year. The survey does not distinguish between beef and dairy calves. Michigan had 155,000 cattle on feed January 1, up 3.3% from last year.

The following estimates are made in conjunction with the Livestock Marketing Information Center, which I belong to. It's a group supported by Universities to provide efficiencies, i.e., less duplication of work by folks such as myself. U.S. beef production is expected to be down 4.5% for 2013, as slaughter is expected to be down 5.0%, with dressed weights being up 1.5%. Steer prices are expected to average in the $127-131 per cwt. range for all of 2013, after averaging $122.86 for 2012. The 7-800# feeder steers are expected to average $148-152 per cwt. in 2013, up a bit from $148.81 for 2012, with 5-600# feeder calves averaging $164-170/per cwt., versus $168.26 in 2012.

In the first quarter of 2013, beef production is expected to be down 3.0%. Steer prices are expected to average $127-129, with feeder steers averaging $146-149, and feeder calves averaging $164-168. In the second quarter, production is expected to be down 5.0%, with steer prices averaging $128-131, feeder steers averaging $146-151, and feeder calves averaging $165-171.

In the third quarter, production is expected to be down 3.8%, with steer prices averaging $126-130, feeder steers averaging $148-154, and feeder calves averaging $164-173. In the fourth quarter, production is expected to be down 6.4%, with steer prices averaging $128-133, feeder steers averaging $149-156, and feeder calves averaging $163-170.

Hogs

Farrow-to-finish hog operations had a poor year in 2012 with regards to profits, versus mixed in 2011 and 2010, and taking a beating in 2009 and 2008. After being profitable four out of the first seven months of 2012, the average loss is about $30/head over the last five months of 2012. I expect losses to continue into early summer when prices are expected to pick up and perhaps feed prices will level to begin going down. So we will call the second half of the year likely mixed with regards to the profit picture.

Pork production was up 2.2% in 2012, but per capita consumption of pork was down a tad in 2012 versus 2011. Per capita consumption was down slightly despite the increase in production due to pork exports being up 6.0%. Pork exports equaled 23.6% of 2012 production.

All hogs and pigs on December 1, 2012 were 100% of 2011. The breeding herd on December 1, 2012 was even with December 1, 2011. Hogs kept for marketing, were even. The fall September-November farrowings, this spring's production, were even, but the fall pig crop was up 1.0% as pigs per litter were up 1.0%. The continued climb in pigs saved per litter is remarkable. December-February winter farrowing intentions, next summer's production, were up 1.0%, and March-May farrowing intentions, next fall's production, were up 1.0%. If we continue to climb in pigs saved per litter, we could see a bigger increase in production.

The Michigan breeding herd stayed even at 110,000 head, relative to December 1, 2011 and 2010. Our hogs kept for market, at 970,000 head, were 3% higher than last year. Pigs saved per litter for Michigan were 10.08 up from 9.95, up 1.3%.

Pork production is expected to be about the same to down 0.3% in 2013 versus 2012 as slaughter is expected to be up 0.1% with weights being down 0.5%. Carcass prices, National Weighted Average Base (multiply by .76 to have live price projections) are expected to average in the $85-90 per cwt. range for all of 2013, up 4.2% relative to 2012. This price assumes the USDA's projected exports occur, holding steady after last year's increase, and domestic demand levels off to strengthen a bit. This scenario would lower per capita consumption 1.4% as the population increases.

In the first quarter of 2013, pork production is expected to be down 2.1%, with carcass prices averaging $84-88 per cwt., up 2.2%. In the second quarter, production is expected to be down 1.7%, with carcass prices averaging $88-93 per cwt., up 6.1%. In the third quarter, production is expected to be up 1.1%, with carcass prices averaging $88-93 per cwt., up 6.8%. In the fourth quarter, production is expected to be up 1.3%, with carcass prices averaging $80-86 per cwt., about the same as this past fall.

2013 DAIRY SITUATION AND OUTLOOK
Christopher Wolf

Class III milk price averaged $17.44 per hundredweight (cwt.) in 2012, with a high of $21.02 per cwt. in October, and a low of $15.23 per cwt. in May. U.S. milk production for 2012 totaled over 200 billion pounds for the first time - an increase of more than 2% from 2011. Milk per cow increased to also reach an all-time high with the average U.S. milk cow producing 21,696 pounds. Meanwhile, U.S. milk cows totaled 9.213 million in December, a 29,000 cow decrease from January 2012 levels.

In Michigan, the mailbox milk price (an estimate of what dairy farmers are actually paid) averaged $17.31 per cwt. over the first 10 months of 2012, with a high of $20.45 in October and a low of $15.23 in May. There were 375,000 milk cows in Michigan as of November, representing an increase of 6,000 cows over a year earlier. In fact, Michigan was one of only a handful of major milk producing states that increased milk production in 2012. Michigan milk production was up 4.4% in November 2012 over 2011. Similarly, Wisconsin (+5.6%) and Minnesota (+4.5%) had significant milk production increases over 2011. On the other side, California (-2.3%), New Mexico (-4.0%), and Texas (-3.7%) were states that had declining milk production with heavy culling and herd liquidation in some cases.

With a significant swath of the country severely affected by drought, and some states in the South for multiple years at this point, it is clear that the Upper Midwest region's ability to produce feed crops provides a significant advantage in milk production. Even with these milk production difficulties plaguing major parts of the country, and continued high feed prices, aggregate U.S. milk production has been strong. While purchasing feed used to be primarily driven by income tax issues on many farms when feed cost was low, since 2007, timing of purchased feed has emerged as a major influence on dairy farm profitability.

Cheese prices peaked in October with cheddar blocks reaching $2.09 per lb. on the Chicago Mercantile Exchange (CME). Since that time, prices have declined into the $1.60 per lb. range as of the last week of January. Cheese buyers appear content to wait following the holiday season, cheese production is up a bit, and cheese imports have surged. Figure 1 displays the U.S. net trade position (in terms of quantity of total cheese exports less imports) from 2003 through 2012. The long-term gain in exports compared to imports is clear. The decline in the net cheese trade balance at the end of 2012 was a consequence of the increase in imports rather than a decline in exports.

The end-of-the-year weakness in cheese prices has translated to a drop in Class III milk price. As of the end of January, the futures market expects a bottom in March at about $16.60 per cwt., and a relative recovery with a peak in September at about $18.50 per cwt. Those low spring prices would result in low milk-to-feed margins with a recovery to normal levels by the autumn months. Of course, this forecast is based on available information and there are a number of factors to watch including: whether, and to what extent, milk production recovers in the South and West; feed production and prices in the U.S. in 2013; milk production in New Zealand and its effects on export markets, domestic consumer demand particularly the effect of household income, and the longer-term economic outlook for the European Union.

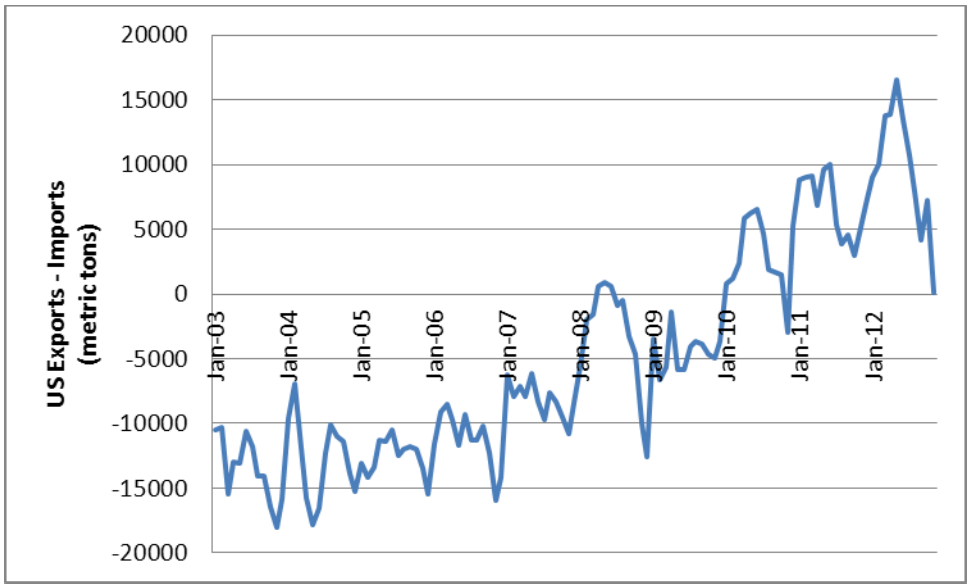

Figure 1. Net US cheese trade, 2003-2012

Another factor that bears watching is the on-going saga of the Farm Bill as it relates to dairy farmers. By punting on the 2012 version of the Bill, and continuing the status quo, one impact is the continuation of the Milk Income Loss Contract (MILC) program. Effective, retroactively to September 2012, eligible dairy farmers will receive a payment for September ($0.59 per cwt.) and October ($0.02 per cwt.) 2012, as well as projected modest payments for the winter and spring 2013 months. The outlook for dairy policy is less clear at this point in time. It seems likely that margin protection in some form will be in the mix. However, the off-set of this program with required participation in a market stabilization program has produced strong opposition. Regardless, it seems unlikely that we will have the status quo with respect to dairy policies a year from now (of course, I probably would have said the same thing a year ago so take that with a grain of salt). In addition to the Farm Bill, it is possible that immigration reform will happen in 2013 which may have consequences for dairy farms utilizing paid labor.

TAXES IN 2012 AND 2013
Larry Borton

Tax planning becomes challenging when the rules change after the end of the year. The 2013 rules passed in the Taxpayer Relief Act in January made permanent a number of items that kept tax rates consistent with 2012 until income reaches the higher brackets. It also set estate tax rules without sunset provisions. 2012 rules for direct expensing surprised us while the alternative minimum tax exemptions were expected. More of the Affordable Care Act tax rules will begin affecting taxpayers in 2013, while other major requirements will hit in 2014.

Because changes to the tax law were passed just prior to the beginning of tax filing season, the IRS needs time to reprogram and check their computers as well as redesign many forms. Since the forms will not be ready for most farmers to file by March 1, their option to file and pay without paying estimated taxes has been extended to April 15. The IRS will publish procedures to follow that will allow this later filing without being penalized.

Direct expensing is important to small businesses and the limit increased retroactively to $500,000 from $139,000 for 2012. This made it the same as 2011 and 2013, with the phase-out beginning at $2 million of qualified property placed into service. Qualified property includes items like dairy or breeding livestock, farm machinery and equipment, single purpose livestock structures, greenhouses, tile or fences. It can be used on either new or used property. While the amount of direct expensing can be changed after the end of the calendar year until filing, adjusting income after the end of the year may not be possible. This makes tax planning after retroactive changes very challenging.

Bonus depreciation has been extended to 2013 at the 50% level for original use property. This means it can only be taken on new property and includes almost all depreciable property used on the farm. It is required to be used unless one makes an election to not use it. A general purpose building, like a farm machine shop, qualifies for bonus, but not for direct expensing. We can continue for another year (2013) to use direct expensing on used equipment and then use both direct expensing and/or bonus depreciation on new items. Most fruit and vine growers are not eligible for bonus depreciation because they have elected out of the uniform capitalization rules and must use the Alternate Depreciation System which excludes use of bonus.

The alternative minimum tax (AMT) is a separate method for computing income taxes. The exemption amounts for tax years beginning in 2012 were increased to $78,750 for married, filing jointly (MFJ), and $50,600 for single filers (S). These amounts are permanent rather than temporary. They are indexed for inflation beginning in 2013. Taxpayers with adjusted gross incomes between the exemption amounts and $400,000 are most likely to be affected with this tax. The AMT has rates of 26% and 28%. Higher incomes already have rates above these and, therefore, are not affected by it. Taxpayers with incomes below the exemption amounts normally just pay the regular tax.

The January 2013 law keeps most tax rates the same for the majority of taxpayers. The standard deduction for married taxpayers at lower incomes is permanently double the deduction of single taxpayers. The 10% ordinary income bracket remains. Most increases for taxpayers come from the expiration of the payroll tax holiday which makes an employee's social security tax withholding at 6.2% instead of the 4.2% of 2011 and 2012. Similarly, the 2013 self-employment tax rate increases from 13.3% to the former 15.3% tax rate. The capital gains rate

includes the 0% for long term gains and qualified dividends at taxable income below the 25% ordinary bracket (for 2013, $72,500 for married filing jointly and $36,250 for single filers), and increases to 15% as it has for the last few years. While these rates are similar to recent years, the new raised tax rates affect higher income taxpayers.

The highest tax bracket is the same as it was a dozen years ago at 39.6% for taxable income above $450,000 (MFJ) or $400,000 (S). The long-term capital gains rate returns to 20% for taxpayers with higher taxable income. A phase-out of a portion of itemized deductions and exemptions was also reinstated for higher bracket incomes. Additionally, beginning in 2013 the Affordable Care Act (Obamacare) has a Medicare tax of 0.9% on earned income above $250,000 (MFJ) or $200,000 (S), plus another Medicare tax of 3.8% on net investment income on taxpayers with income above these same thresholds. Net investment income includes interest, dividends, annuities, royalties, rents, passive activities, and net gains from the sale of property. Exclusion eliminates this tax on gains from sales of property used in a trade or business. We anticipate that net investment income would include gains from the sale of land that has been cash rented to another farmer but not include property with shared rent when the income and expenses are reported on a Form 1040 (Schedule F). This is because filing Schedule F means it is property used in a trade or business.

The estate tax provisions of the new law made $5 million, indexed for inflation ($5.25 million in 2013), exempt from estate tax, and the maximum transfer tax rate increased from 35% to 40% for estates larger than the exemption levels. It also made portability permanent so that a husband and wife essentially have over $10 million that can be excluded from estate tax.

Other provisions include extending the American Opportunity credit for college students another five years, the qualified tuition and fees deduction for two years, the $250 educator expense deduction for two years, and the enhanced deduction for charitable contributions of real property for conservation purposes for two years. The $1,000 per child credit available for qualifying children under age 17 is now permanent and won't revert back to $500.

Michigan income tax rates actually decreased from 4.35% to 4.33% for 2012 and will decrease to 4.25% for 2013. However, many credits and deductions were lost including much more restrictive rules for getting the Homestead Property Tax credit. Also, more of the retirement income that used to be exempt will now be taxable, depending on age. Note that the Farmland Open Space and Preservation Act rules did not change and still uses Household Income in calculating the credit while the Homestead credit uses Household Resources in its calculation. Also, production agriculture is subject to the corporate income tax if the business is organized or taxed as a C corporation. This is a change from the previous MBT and SBT.

Two provisions of the Patient Protection and Affordable Care Act will not take effect until 2014, but should be mentioned. First, the mandatory coverage for individuals requires U.S. citizens to maintain a government-prescribed minimum amount of health insurance coverage. Not having the required coverage may result in a penalty according to the legislation, but the Supreme Court has called it a tax so an appropriate term would be to call it a penalty tax. Second, the mandatory employer coverage for companies with 50 or more full-time equivalent employees must provide acceptable health coverage or also pay a penalty tax.

When looking at the future of tax rates, it appears they must increase. The federal government has promised much to many people and does not have the income to pay for it. Once promises have been made by law it is very difficult for lawmakers to take entitlements

away. There are also a number of states and cities encumbered with large debts. At some point they will appeal to the federal government for help. At our state level recent calls for road repair will require generating more revenue. All these factors may lead to higher tax rates. The increased revenues may not be just income taxes; they may also include other sources like energy or carbon taxes.

A reasonable, long-term goal for individuals is to get adequate income through the tax system while paying no more than the required tax. This is quite different from a plan of paying zero income tax. Two general suggestions may help when thinking about tax planning in the future. First, as a small business with higher tax rates on the horizon, perhaps more income should be taken now. Second, there is still a federal zero rate on capital gains at lower income levels, plan to use it if possible.

FARM INCOME
David Schweikhardt

During the past decade, a large share of the instability in farm income has been determined by factors outside the agricultural sector. Factors ranging from the continued slow recovery from the 2007 credit crisis and recession, the slow economic growth in the U.S. and other developed countries, the instability in global oil markets, and the increased use of crops for ethanol and biodiesel have been significant determinants of the level and variability in farm income during the past decade. In addition, variability in income across agricultural sectors (i.e., livestock versus crop sectors) has increased as these factors have affected revenues and costs of each sector in a differential manner. In 2013, these factors will again determine the level and variability in the farm income outlook across sectors.

2012 Farm Income Summary

Net farm income in the U.S. is estimated to have been $114 billion in 2012, compared to $118 billion in 2011. The 2012 level of net farm income continued to be well above the 10-year average figure of $74 billion. Gross farm income increased in 2012, primarily due to an increase in the value of crop production ($8.3 billion increase) and an increase in the value of livestock production ($3 billion). These increases in revenue were offset by increases in several input cost categories. These increases in cost included the cost of livestock feeds (a $9.7 billion or 17.8% increase), seed (a $2.1 billion or 11.9% increase), land rent (a $1.9 or billion or 12.3% increase), fertilizer and lime (a $1.6 billion or 6.3% increase), fuel and oils (a $600 million or 3.7% increase), and interest expense (a $100 million or 0.6% increase). As discussed below, these significant differences in production cost changes account for much of the variation in the farm income outlook the crop and livestock sectors for 2013.

2013 Farm Income Outlook

Looking toward 2013, energy costs, including both natural gas and petroleum products, may provide somewhat of a bright spot for 2013. The average price for natural gas was $2.75 per MMBtu in 2012 and is projected by the U.S. Department of Energy to be $3.74 per MMBtu. This compares to a price of nearly $13 at its peak in 2008. Natural gas stocks in storage are at nearly record levels. This price outlook is largely the result of a significant increase in the production of shale gas, which is unlikely to change in the near future. Thus, the outlook for fertilizer prices is likely to remain steady in 2013 (see the input cost outlook article in this issue for more detail).

Producers purchased $16.5 billion in fuels during 2012, an increase of $600 billion over 2011. The U.S. Department of Energy is projecting that crude oil prices will average $94 per barrel in 2013, compared to $100 in 2012. This oil price would translate into an on-highway diesel fuel price of $3.87 per gallon throughout the year. This unusual stability of oil prices in 2013 is expected to result from increased production worldwide and continued sluggish growth in the demand for oil due to slow worldwide economic growth that will continue through at least 2014. As usual, events in the Middle East and other oil producing regions could create periods of instability in oil prices.

Second, land rental costs are likely to continue their increase in 2013. Farmers paid $14.2 billion in land rent to non-operator landlords in 2012, an increase of $1.9 billion, or 14.8% higher, than the 2011 level. Moreover, this represented an increase of approximately 50% since

2008. Since increases in farm income are often bid into the value of land through higher land prices and cash rents, this increase is to be expected given relatively high level of commodity prices and crop income during the 2007 to 2011 period. There seems to be little reason to believe that this trend in higher land rents will reverse in 2013. Whether such land rents can be sustained in the future will depend on the longer term trends in farm income, the future supply-demand balance for grains and oilseeds, and macroeconomic policies that determine the direction of interest rates.

Third, the trend of increasing prices for crop seed is likely to continue for the foreseeable future. As some observers have noted, biotechnology has permitted seed suppliers to determine (and capture) a greater share of the value added by the farm sector. As seed genetics continue to become an increasingly critical component of crop production, the cost of seed is likely to continue increasing for the foreseeable future. Seed costs are also likely to be determined, in part, by the prior year's production conditions. For example, seed costs in 2013 are likely to be determined, in part, by the drought of 2012. Between these two factors, the 11.9% increase in seed expenditures in 2012 could very well be repeated in 2013.

Fourth, the outlook for interest rates on production and asset loans are likely to remain unchanged in 2013. This outlook is based on the highly unusual macroeconomic environment that exists at this time. On the one hand, recent policy announcements by the Federal Reserve suggest it is unlikely that it will increase its Federal Funds lending rate until at least 2014. This suggests the upside potential for interest rates is limited in 2013. On the other hand, interest rates at most financial institutions have probably reached their lower limit in many cases. This suggests the downside potential for interest rates is quite limited in 2013. Thus, the immediate risk of increases in interest rates seems minimal, but it is very unlikely that interest rates will fall significantly below existing levels.

It must be noted, however, that two items should be considered in 2012. As noted last year in this article, lenders are likely to continue with increased scrutiny of borrowers' creditworthiness. Such scrutiny is necessary to fulfill the demands of the ultimate suppliers of credit (e.g., bond buyers, savers, etc.) who continue to show nervousness about the security of their investments (i.e., the likelihood they will be repaid). So long as suppliers of credit remain nervous about many aspects of the U.S. financial system, they will continue to demand more information about borrowers' repayment capacity. Thus, no matter how "healthy" the agricultural sector appears to be, the sector's health will not satisfy the demands of nervous investors whose trust in the financial system has been eroded.

As noted in this article last year, such an unusual macroeconomic environment presents a need for borrowers to assess their long-term interest rate risk. At some point, the Federal Reserve will increase the Federal Funds rate. At some point, inflation will lead to higher interest rates. The issue remains one of timing. When that occurs, the level of interest rate risk producers face will increase. Assuming "worst case" scenarios of either a rapid increase in rates or even significant restrictions in the availability of credit, what are an operation's financial viability and financing options? This comment is not meant to suggest that "inflation is right around the corner" or "this is just like the 1970s" as is often claimed. It means that longer-term analysis of "worst case scenarios" of increases in interest rates or limits on credit availability are likely to remain important. Only worst case scenario planning for low probability events can provide information in advance of such events.

Sectoral Variability in the Farm Income Outlook

As noted earlier, in recent years the total net farm income outlook has often obscured a highly variable situation across agricultural producers. This was particularly true in 2012 and is very likely to be true in 2013. Aggregate numbers such as "total net farm income" for the U.S. hide the differences in outlook across the crop and livestock industries. In particular, the difference in the income outlook for crop and livestock producers demonstrates the varying outlook within the total farm sector.

As a result of the drought in 2012, the quantity supplied for several crops (feed grains, oilseeds, fruits in particular) decreased. At the same time, the value (gross income) of those crops increased in 2012. This demonstrates an unusual characteristic of the agricultural sector. Because the demand for such crops is inelastic, the decrease in the quantity supplied resulted in an increase in price that was greater than the percentage decrease in quantity (i.e., small changes in quantity result in large changes in price). When the decrease in quantity is less than the increase in price, the total value of the crop (or the revenue received by crop producers) will remain relatively stable or even increase. At the same time, this price increase results in a major increase in feed expenses paid by livestock producers, thereby reducing their net income and, in many cases, resulting in major net income losses for many livestock producers. Such conditions were plainly obvious in 2012 and are a major issue in the 2013 farm income outlook.

In addition to these characteristics of the crop-livestock sectors, another recent change in risk management has widened these differences between these sectors. According to the most recent USDA report on farm sector income, while some crop producers suffered significant yield losses due to the 2012 drought, "the largest gain [in revenue is] due to both Federal and private insurance indemnity payments" that crop producers received in 2012. This is, of course, precisely how the concept of crop insurance is expected to work – by providing indemnity payments when yield losses occur.

While such indemnity payments stabilize the net income of crop producers (who had spent most of the costs of planting before the drought occurred), the lack of such risk management options in some livestock industries left those producers exposed to the risk of higher feed costs and lower net incomes in 2012. For example, livestock and dairy producers paid $ 64.4 billion for purchased feed in 2012, compared to $54 billion in 2011 and a 10-year average of $37.6 billion spent on feed expenses.

As we look toward the 2013 crop year, the uncertainty about a continuation of the 2012 drought will likely be a major source of uncertainty. The January 17 Seasonal Drought Outlook issued by the National Weather Service: http://www.cpc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.html) indicated that drought conditions are persisting in several crop regions, particularly in the Great Plains and the South. Thus, 2013 could be another year in which the variability of income across sectors will be a major management issue. As such, it could become a major issue for the longer run outlook (survival?) of some U.S. agricultural sectors and a major policy issue for Congress.