STATUS OF

Wisconsin Agriculture 2010

- **Status of the Wisconsin Farm Economy**
- **Current Outlook: Farm Products, Farm Inputs and the General Economy**
- **Framing the Financial Crisis for Wisconsin Agriculture**

Department of Agricultural and Applied Economics
College of Agricultural and Life Sciences
University of Wisconsin-Madison

Cooperative Extension
University of Wisconsin-Extension

Status of Wisconsin Agriculture, 2010

An annual report by the Department of Agricultural and Applied Economics, UW-Madison and Cooperative Extension, UW-Extension

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Preface

Status of Wisconsin Agriculture is an annual agricultural situation and outlook report authored (except where noted) by faculty in the Department of Agricultural and Applied Economics. The report contains three parts. Part I provides a brief overview of the financial environment in the Wisconsin farming sector. In Part II, market analysts review current conditions in major Wisconsin commodity sub-sectors and offer their forecasts for 2010. Part III contains a series of articles that address issues related to the major downturn in the Wisconsin farm economy in 2009 and post-recovery evolution of the state's farming sector.

Status of Wisconsin Agriculture may be downloaded free from the internet at http://www.aae.wisc.edu/www/pub/. If you do not have internet access, contact Ms. Linda Davis, Department of Agricultural and Applied Economics, UW-Madison, 427 Lorch Street, Madison, WI 53706, to obtain a printed copy of the report.

The faculty of the Department of Agricultural and Applied Economics welcomes your comments and questions on material in this report. We also encourage your suggestions regarding rural Wisconsin issues that we might address in subsequent editions.

Acknowledgements

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Ed Jesse, editor
Department of Agricultural and Applied Economics
Henry Taylor Hall
University of Wisconsin-Madison
Madison, WI 53706

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Status of Wisconsin Agriculture, 2010

Executive Summary

Following two years of generally fond memories, most Wisconsin farmers suffered through a year they would like to forget. Livestock producers, especially those selling milk and hogs, faced severe financial challenges. They received low prices for the products they sold and paid high prices for the feed they purchased, creating large flows of red ink, a rise in accounts payable and a drop in equity. Weather dealt a nasty end-of-year blow to corn and soybean producers. Combines sat idle in October and early November, normally the peak harvest season, because of waterlogged fields. When they finally started rolling, the combines reaped wet crops that were susceptible to molds and required extensive, expensive drying.

Total receipts from Wisconsin farm marketings dropped by an estimated $1.8 billion (18 percent) in 2009, with nearly 80 percent of that decline resulting from much smaller milk checks. Crop revenue was off by $270 million, mainly from lower corn prices. The lower crop and livestock sales receipts were partly offset by cheaper fertilizer, fuel and feed and higher government payments (mainly Milk Income Loss Contract payments to dairy farmers). But these offsets did little to staunch the bleeding. Wisconsin net farm income in 2009 was under 2008 by an estimated $1.45 billion—a fall-off of 56 percent.

Wisconsin farmers began the year in a strong financial position, with the lowest ratio of debt to assets in at least 50 years. They finished it weakened by a loss of asset value and increased debt. Dairy farmers alone saw their equity fall by an estimated $1.8 billion. Losses were concentrated among larger dairy operations, which had fewer belt-tightening options. These larger farms also carry more debt per dollar of sales, making them more vulnerable to the restrictions on credit that have come with the recent financial crisis. But despite serious financial problems for some, Wisconsin dairy farms as a whole entered 2010 with a debt-to-asset ratio of about 0.18, which is generally considered to be a robust financial position in the business world.

Review of 2009

The U.S. economy was dominated in 2009 by what has been tagged as the "Great Recession." High unemployment cut consumer spending, affecting both the amount and type of food purchased. The Great Recession was not confined to the United States. Global economic woes cut world trade by almost 12 percent in 2009. The value of U.S. exports of all farm goods was down 15 percent. Dairy exports were off 50 percent.

Farmers' production costs were generally lower in 2009. Fertilizer prices were down about one-third and gas and diesel prices were about 10 percent less. But LP gas prices shot up near year-end because of heavy demand to dry abnormally wet corn. Interest rates on farm loans remained low, but some farmers had trouble getting credit. Farmland rents went up slightly, but stayed below the cost of servicing a mortgage to purchase the same land.

For dairy farmers, the year began with a bang—the sound of milk prices hitting the floor. By February, the Wisconsin All-Milk price had dropped $9/hundredweight behind year-earlier levels and that gap continued until fall. The crash in milk prices was caused in large part by evaporating

export markets, which left more milk to be absorbed by domestic markets already crimped by recession. Producers were slow to respond to lower prices. Milk production did not fall below 2008 levels until mid-year, which inflated inventories of manufactured dairy products.

While marginally lower than 2008, high feed prices along with sluggish domestic and foreign demand hurt the bottom line of livestock and poultry producers. Per capita U.S. meat consumption fell for the second year in a row, ending up the lowest in a dozen years. Exports of beef, pork and broilers were all off from 2008 volumes. Total meat production fell by 3 percent, the largest year-to-year decline in 27 years, but that wasn't enough to bolster prices in the face of lighter demand. Hog producers' pocketbooks took the biggest hit, with hog prices down 14 percent.

Although some of the crop is still in the field, USDA forecasts a record 2009/10 U.S. corn yield and a total harvest of 12.9 billion bushels, just under the previous year's crop. Boosted by ethanol production, the industrial use of corn is expected to exceed feed use in 2009/10. Wisconsin's corn crop is forecast at 423 million bushels, up from 2008/09 by 29 million bushels thanks to an average 9 bushels/acre gain in yield. U.S. soybean yields and total crop size are both expected to set new records in the 2009/10 crop year, with a total harvest of 3.3 billion bushels. USDA says Wisconsin harvested 67 million bushels of soybeans in 2009, 20 percent more than 2008.

Recovering from the huge 2008 crop, Wisconsin cranberry marshes produced an 11 percent smaller crop in 2009, but higher prices will result in a smaller reduction in revenue. Apple production was up 3 percent and the tart cherry crop was close to 2007 after a near crop failure in 2008. Wisconsin grew a large fall potato crop in 2009. Unfortunately, so did other major states, causing prices to fall well under 2008 by year-end. Wisconsin processing vegetable growers produced larger crops of sweet corn and green peas in 2009, but slightly less snap bean tonnage.

Prospects for 2010

Recovery from the Great Recession has been slow and that will carry over into 2010—GDP growth will not likely exceed 2.5 percent. The economy will be driven by tailwinds in the form of fiscal and monetary policies designed to stimulate the economy in 2009, which will continue and perhaps become more aggressive in 2010. But these will be countered by headwinds in the form of high unemployment, which will limit consumer spending and, as a result, dampen business investment and new hiring. Weakness in the U.S. dollar should promote increased agricultural trade, but how much trade expands depends more on the pace of economic recovery in buying countries.

Fertilizers should be even cheaper in 2010 than in 2009. Fuel prices are more iffy, but a major increase in crude oil prices is not visible on the horizon. Aggressive efforts by the Federal Reserve to keep interest rates low in order to promote business investment will keep the cost of credit low to farmers. But the availability of credit will be an issue in the face of tighter loan qualification standards, less money to loan, and some bankers' reticence to make agricultural loans.

Dairy farmers will fare much better in 2010. The national dairy cow herd will continue to shrink for most if not all of the year. The expected 2.4 percent decline in cow numbers will more than offset a 1.8 increase in milk per cow (the long-time trend in milk yields), reducing milk production

by about 2 billion pounds from 2009. Combined with growth in domestic consumption and stronger exports, this will tighten markets and strengthen prices. Expect a Wisconsin All-Milk price for the year of around $17.50 per hundredweight, up $4.50 from 2009. The cost of dairy feed is a big question mark, but large national corn and soybean crops should keep a lid on those prices.

Total meat production is expected to fall again in 2010. Smaller pork and beef output will offset possibly larger output of broilers. Meat consumption in the United States will also decline again, but not by as much as production drops. Meat exports should recover all or most of what they lost in 2009. Modest price increases are expected for cattle (fed cattle, feeder cattle and utility cows). Hog prices should rise, perhaps enough to erase 2009's 14 percent decline. No big changes in prices for broilers, turkeys and eggs are forecast.

The very large U.S. corn and soybean crops harvested in 2009 are expected to hold prices for the 2009/10 crop year under those of 2008/09. USDA expects a U.S. average farm price for corn in 2009/10 of $3.55 per bushel, down 50 cents from last year and 65 cents under 2007/08. The forecast average farm price for soybeans is $9.50 per bushel, compared to about $10.00 in the previous two crop years. Planting intentions for the 2010 corn and bean crops have not yet been announced.

This year's special article is a set of papers commissioned by the UW-Madison Program on Agricultural Technology Studies (PATS) addressing the theme, Framing the Financial Crises for Wisconsin Agriculture: Perspectives on Resiliency and Impacts.

I. Status of the Wisconsin Farm Economy

Ed Jesse (608-262-6348) and Bruce Jones (608) 265-8508

Wisconsin Farm Income

After two consecutive record-setting years, Wisconsin net farm income plummeted in 2009. We estimate it to be $1.1 billion, which is less than half of 2008's $2.6 billion and the lowest net farm income since 2002. U.S. net farm income also fell, but only by a third, compared to Wisconsin's drop of 56 percent. Wisconsin was hit harder because of a disproportionately large drop in the price of milk relative to changes in farm prices for other commodities.

Sales of commodities from Wisconsin farms in 2009 were off $1.8 billion from 2008. Nearly 80 percent of that decline came from milk sales, which were down $1.4 billion.

Wisconsin farmers got some relief in 2009 from a decrease in the costs of many inputs, which had soared in 2008. In particular, expenditures for fertilizers and lime were down 28 percent and fuel costs were 32 percent lower. But these savings on purchased inputs did little to offset farmers' massive loss of revenue.

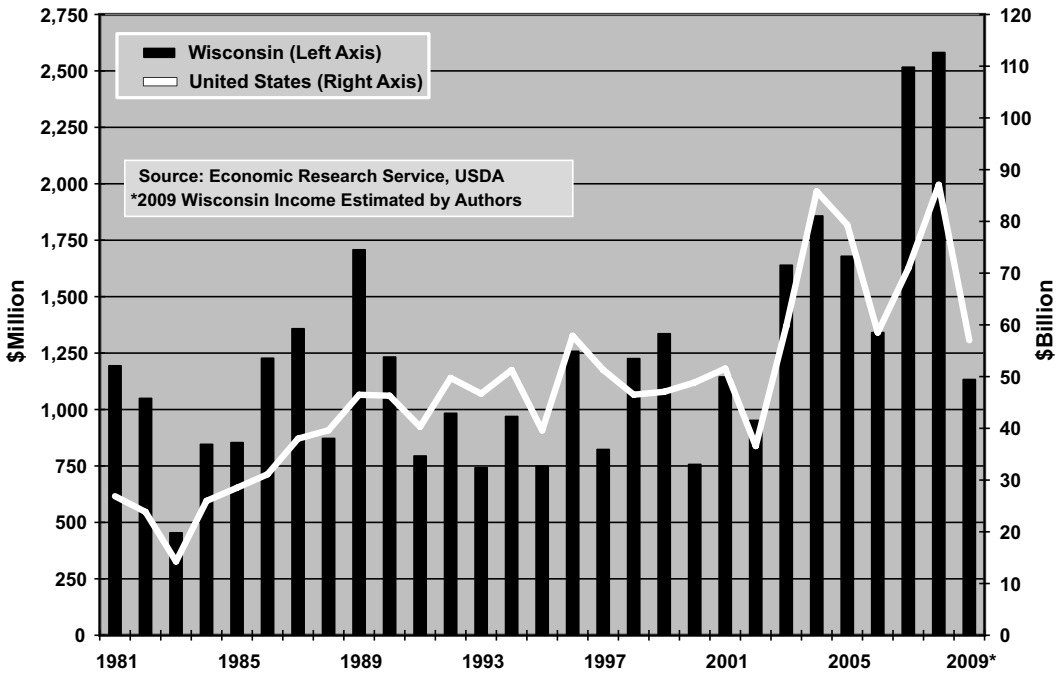
Wisconsin Farm Balance Sheet

Dairy farm revenue for most of 2009 fell far short of operating costs, causing many dairy farmers to tap financial reserves, liquidate assets or borrow operating capital to make up the shortfall. Equity was eroded through a decrease in assets or an increase in liabilities.

Fortunately, the Wisconsin farm sector—in the aggregate—was on solid financial ground going into 2009. Following the mid-1980s crash in land values, Wisconsin farmers paid off debt and enjoyed steady increases in land values through the 1990s. Land values have escalated during the current decade, especially since 2005, while farm debt increased only modestly. At the end of 2008, the debt-to-asset ratio for Wisconsin farms in the aggregate stood at 0.11, lower than at any time over the last 50 years.

However, aggregate figures hide some red flags pertaining to the composition of farm assets and debt across farms by economic class. Commercial farms—responsible for the bulk of commodity sales—hold a small share of total farm assets relative to their share of farm sales and a disproportionately large share of debt. Farms with sales of less than $100,000, most of which are rural residences whose owners have full-

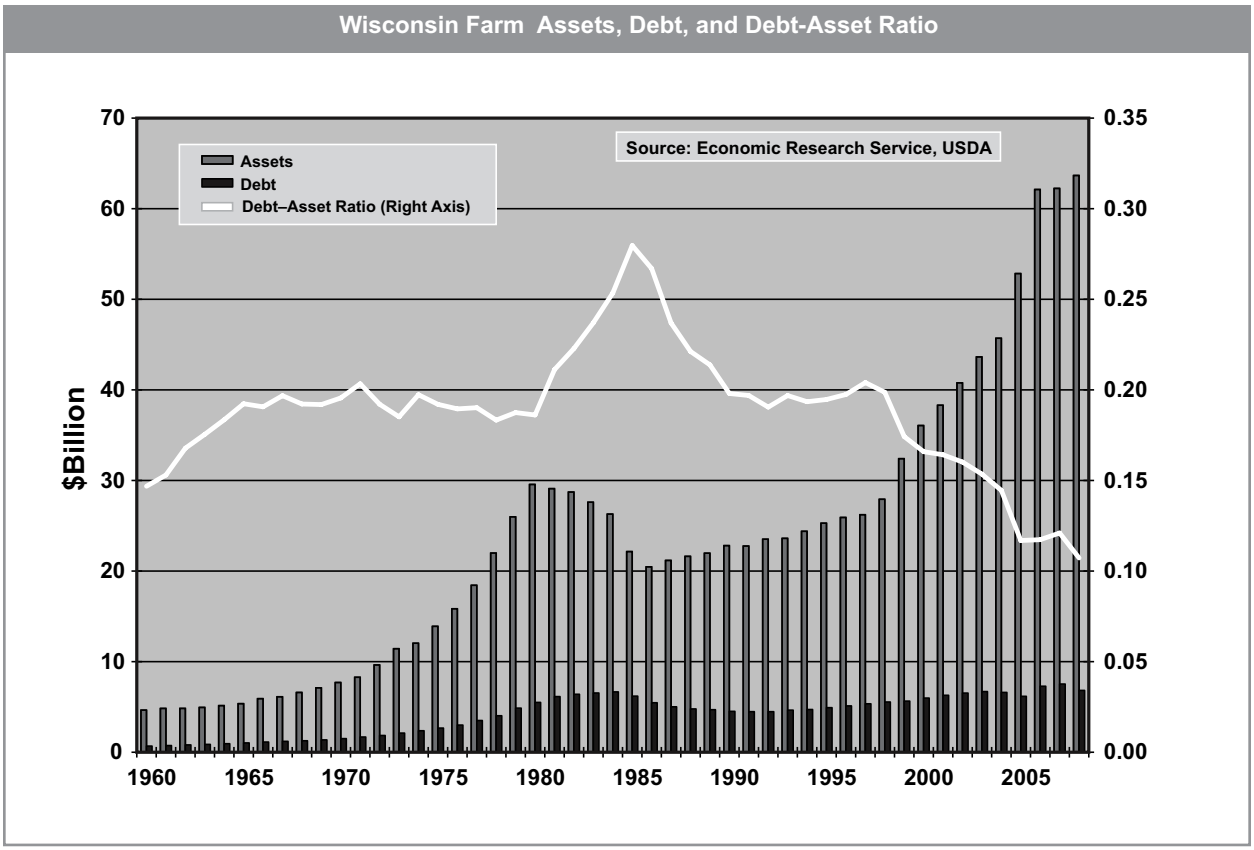
Net Farm Income: U.S. and Wisconsin



Derivation of Wisconsin Net Farm Income ($1000)

		2007	*2008*	*2009 (Est*)*
	Value of crop production:			
	Food grains	104,980	164,637	115,000
	Feed crops	1,233,338	1,806,784	1,450,000
	Oil crops	330,043	413,115	400,000
	Fruits and tree nuts	232,473	287,091	300,000
	Vegetables	435,894	571,797	600,000
	All other crops	329,253	330,707	350,000
	Home consumption	3,562	4,283	6,000
	Inventory adjustment	75,575	-87,210	0
	Total Crops	2,745,118	3,491,204	3,221,000
plus:	**Value of livestock production**:			
	Meat animals	972,826	938,366	830,000
	Dairy products	4,594,365	4,571,343	3,200,000
	Poultry and eggs	430,320	469,296	415,000
	Miscellaneous livestock	334,126	336,698	335,000
	Home consumption	18,373	22,091	22,000
	Value of inventory adjustment	-22,148	-52,137	0
	Total Livestock	6,327,862	6,285,657	4,802,000
plus:	**Revenues from services and forestry:**			
	Machine hire and custom work	126,266	84,925	83,000
	Forest products sold	20,740	20,750	21,000
	Other farm income	252,658	429,361	470,000
	Gross imputed rental value of farm dwellings	900,926	975,053	845,000
	Total	1,300,590	1,510,089	1,419,000
equals	**Value of agricultural sector production**	10,373,570	11,286,950	9,442,000
less:	**Purchased inputs:**			
	Farm origin	1,629,189	1,987,965	1,970,000
	Manufactured inputs	1,335,875	1,576,659	1,290,000
	Other purchased inputs and Services	1,956,346	2,111,167	2,052,000
	Total	4,921,410	5,675,791	5,312,000
plus:	**Government transactions:**			
+	Direct Government payments	207,972	229,991	400,000
-	Motor vehicle registration and licensing fees	14,018	13,882	15,000
-	Property taxes	380,000	354,239	370,000
	Total	-186,046	-138,130	15,000
equals	**Gross value added**	5,266,114	5,473,029	4,145,000
less:	**Depreciation**	1,265,870	1,343,640	1,362,000
equals	**Net value added**	4,000,244	4,129,389	2,783,000
less:	**Payments to stakeholders**			
	Employee compensation (total hired labor)	862,025	905,059	950,000
	Net rent received by non-operator landlords	111,271	155,232	175,000
	Real estate and non-real estate interest	510,369	487,601	525,000
	Total	1,483,665	1,547,892	1,650,000
Equals	**Net Farm Income**	**2,516,579**	**2,581,497**	**1,133,000**

*Wisconsin estimates are based on November 24, 2009, U.S. estimates (Economic Research Service, USDA). Preliminary state farm income estimates for 2009 will be published by USDA in August 2010.



time off-farm jobs, account for nearly half of Wisconsin farm assets and less than 30 percent of farm debt. The 1,400 Wisconsin farms with 2008 sales exceeding $1 million had an average year end debt-to-asset ratio of 0.23, more than double the state average. The 60,000 Wisconsin farms with sales less than $100,000 had a debt-to-asset ratio of 0.064. These smaller farms with very strong balance sheets are not at financial risk. Large farms, with a much smaller share of assets comprised of equity, are generally more vulnerable.

Dairy Farm Balance Sheet[1]

Wisconsin dairy farms, which were hit hardest by the drastic fall in net income in 2009, have a composition of assets and debts that is different and more troubling than that reported for all farms. Compared to the average for all farms, large Wisconsin dairy farms (more than $1 million in sales) hold a larger share of total assets (20 percent) as well as debt (37 percent) and had a debt-to-asst ratio of 0.275 in 2008. Dairy farms with less than $100,000 in sales held less than 10 percent of both assets and debt and had a debt-to-asset ratio of 0.09. This suggests that dairy farms overall are more financially vulnerable than other farms and that larger dairy farms may be particularly stressed in 2010.

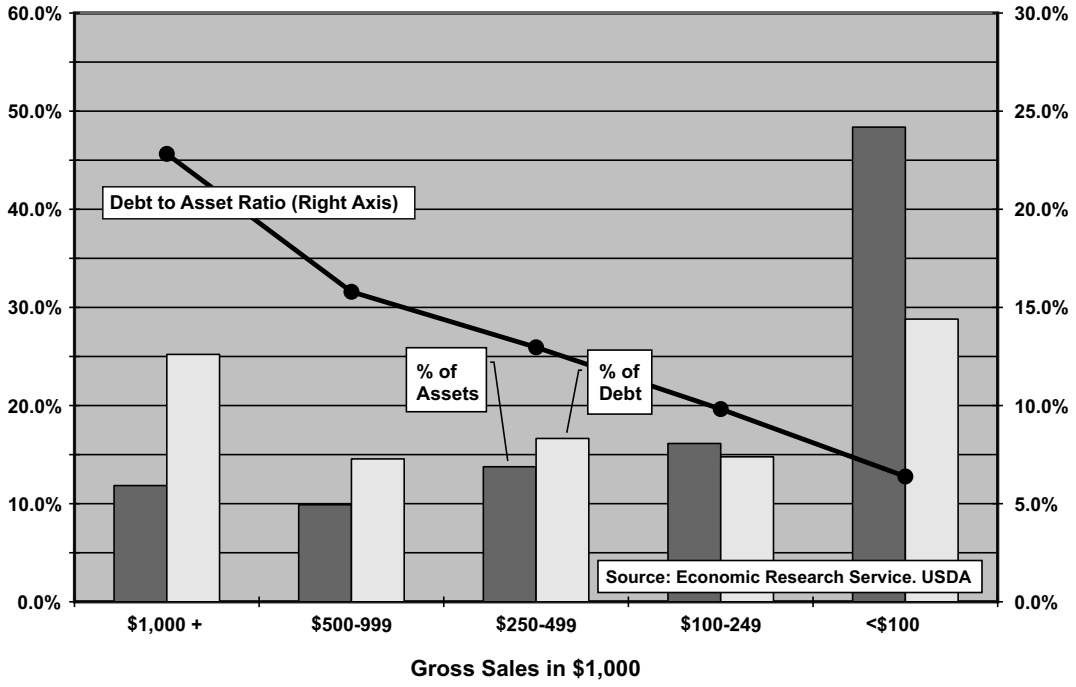
However, we need to consider differences in productivity by dairy farm size. While the largest Wisconsin dairy farms held only 20 percent of total dairy farm assets, they generated a disproportionately large share of gross returns to assets (net farm income before interest expenses and operator labor returns). Because of greater asset productivity, dairy farms with more than $1 million in sales accounted for about 35 percent of the total gross returns produced by all dairy farms in 2008.

Because they held more debt relative to assets, large dairy farms' interest per dollar of gross return to assets was higher than smaller dairies. The ratio of interest expense to gross returns to assets—a financial measure comparable to the debt-to-asset ratio—was over 0.15 for dairies in the largest two size classes and only about 0.10 for the smallest size class.

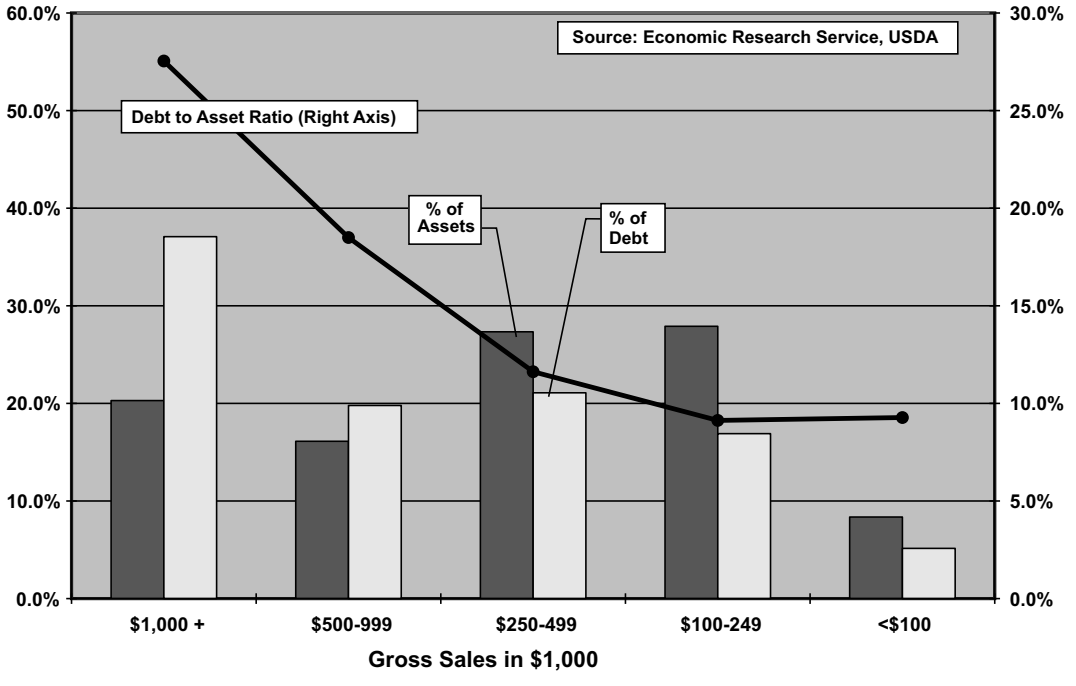
While the largest dairies have a higher ratio of interest expense to gross returns to assets compared to that of smaller operations, this ratio is lower than expected given that these operators average about 27 cents of debt per dollar of assets. Normally, these two ratios are similar in value. This emphasizes the relatively high rate of returns to assets that the largest farms were able to generate.

[1]This section makes extensive use of data provided through the Agricultural Resource Management Survey (ARMS) database maintained by the Economic Research Service, USDA. Wisconsin data can be accessed at: www.ers.usda.gov/Data/ARMS/app/States.aspx.

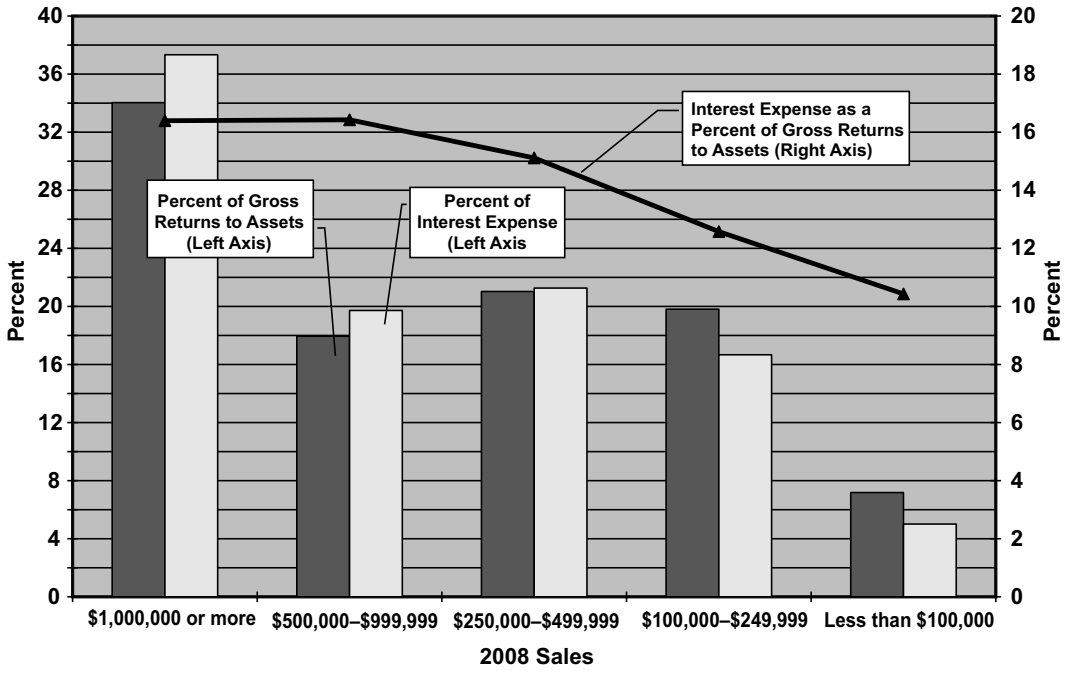
Wisconsin Farm Assets and Debts by Farm Size, 2008, All Farm Types



Wisconsin Farm Assets and Debts by Size Class, 2008, Dairy Farms



Income Variables for Wisconsin Dairy Farms by Size Class, 2008



Changes in Dairy Farm Equity Related to Financial Stress

USDA's Agricultural Resource Management Survey estimated total Wisconsin dairy farm assets at the end of 2008 at $20.8 billion and total debt at $3.1 billion, leaving total equity at $17.7 billion. Equity was split 1/3-2/3 between dairy farms with more than $500,000 in sales and those with less than $500,000 in sales in 2008.

Wisconsin dairy farm balance sheets weakened in 2009 from the combination of a loss in asset value and an increase in debt. The value of assets fell for three main reasons: (1) the value of dairy cows and heifers decreased because of much lower milk prices; (2) the value of land and buildings dropped because of lower earning value; and (3) dairy farmers were forced to sell some assets (e.g., financial assets) to offset negative cash flow.

We estimated the loss in the value of the state's dairy cow inventory by subtracting reported USDA-NASS Wisconsin replacement cow prices in October 2009 ($1,200) from those in October 2008 ($1,940). This yielded a $740/cow loss in value, which we reduced slightly to account for higher expected replacement cow prices later in 2009, then multiplied by the number of dairy cows in the state in November 2009 (1.258 million cows). This gave us an estimated loss of cow value of about $850 million.

To estimate the loss in the value of heifers, we assumed a ratio of 46 heifers per 100 cows, which comes to about 575,000 heifers on Wisconsin dairy farms in 2009.[2] We applied a loss in heifer value of $600 to derive an estimated total loss of about $350 million. Combined with the estimated loss in cow value, this

Estimated Wisconsin Dairy Farm Assets and Debt by Sales Class, December 31, 2008. $Million

Sales Class	*Assets*	*Debt*	*Equity*
$1,000,000+	4,227	1,164	3,063
$500,000 - 999,999	3,358	621	2,737
$250,000 - 499,999	5,695	662	5,033
$100,000 - 249,999	5,812	531	5,282
< $100,000	1,741	161	1,580
Total	**20,833**	**3,139**	**17,695**

Source: Agricultural Resource Management Survey

[2]USDA reports dairy heifers by state only for January. The January 2009 Wisconsin heifer count was 650,000. The U.S. heifer/cow ratio reported for July was 5 heifers per 100 cows less than the U.S. ratio in January. We reduced the January Wisconsin ratio by the same amount to derive July heifer numbers.

Projected Wisconsin Dairy Farm Assets and Debt, By Sales Class, December 31, 2009, $ Million

	Assets		*Debt*		*Equity*	
Sales Class	*2009*	*Change from 2008*	*2009*	*Change from 2008*	*2009*	*Change from 2008*
$1,000,000+	3,766	(461)	1,269	105	2,497	(566)
$500,000 - 999,999	3,068	(290)	672	51	2,396	(341)
$250,000 - 499,999	5,327	(368)	722	60	4,605	(428)
$100,000 - 249,999	5,443	(369)	560	29	4,883	(399)
< $100,000	1,663	(103)	131	0	1,502	(78)
Total	**19,267**	**(1,566)**	**3,384**	**245**	**15,884**	**(1,810)**

Source: Projected by authors.

adds up to a total estimated loss in dairy herd value of $1.2 billion. In allocating this loss across dairy farm size categories, we assumed equal cow and heifer values. This may not be a valid assumption, but we had no means of differentiating cow and heifer value by herd size.

We estimated the loss in the value of Wisconsin dairy farm land and buildings to be 3 percent in 2009, which corresponds to the January-July 2009 change in Wisconsin farmland value reported by USDA-NASS and the change in "good" Wisconsin farmland from October 1, 2008 to October 1, 2009 reported by the Federal Reserve Bank of Chicago. We applied this percentage equally across dairy farm size categories. The total estimated reduction in land value for all Wisconsin dairy farms was $390 million.

We have no basis for estimating losses associated with the sale of assets to cover dairy farm operating losses. Instead, we crudely estimated operating losses and then assumed that these were offset entirely by borrowed funds. This was clearly not the case, but the effect on dairy farm equity is the same whether assets were sold or money borrowed to cover losses.

While it is impossible to measure the cash flow deficits incurred on Wisconsin dairy farms in 2009, we do have imperfect measures of gross and net cash income. We used the Wisconsin All-Milk price applied to monthly milk production as our measure of gross dairy income and added to that an estimated $240 million in MILC payments for the year. We used USDA-ERS estimated cash operating costs as our measure of cash expenses. Subtracting cash costs from cash receipts yielded an estimate of total 2009 cash flow of negative $245 million. This loss was allocated across farm size categories in proportion to their percent of the total livestock income in 2008.

The estimated total value of assets held by dairy farms dropped about $1.6 billion in 2009. Debt, which is actually a combination of asset liquidation and borrowing to offset negative cash flow, rose by an estimated $245 million. The net effect is an estimated $1.8 billion drop in equity for all Wisconsin dairies.

The reduction in assets and equity are distributed somewhat uniformly across the four size classes of dairies with sales in excess of $100,000. However, the bulk of new borrowing was done by the largest farms.

The overall debt-to-asset position of all Wisconsin dairies rose from around 0.15 in 2008 to roughly 0.18 in 2009. This indicates the weakened financial position of the Wisconsin dairy industry. Nonetheless, a debt-to-asset position of less than 0.20 still represents a sound financial position overall, despite some serious problems at the individual farm level.

The largest dairy farms are likely to present some challenges for agricultural lenders in 2010. These dairies are already heavy users of credit. They had 27 cents of debt per $1 of assets in 2008 and by 2009 they had about 34 cents of debt per dollar of assets. This elevated debt-to-asset position will be a concern to lenders who have to ensure that loan balances do not become too large relative to the value of collateral such as cows and farm real estate.

While we believe it is important to provide a ballpark estimate of the loss in equity in the Wisconsin dairy farm sector due to low milk prices in 2009, we must emphasize that this estimate is tentative. We made numerous assumptions to derive the components of equity loss, and the validity of many of these assumptions cannot be easily verified. Some assets, like cows and heifers, could regain value quickly with a strong rebound in milk prices. The value of other assets, such as land, depend more on conditions outside of dairying than on milk prices. And it is impossible to accurately forecast when added debt will be repaid or discharged or when farmers will replace assets sold to cover losses.

II. Current Outlook: Wisconsin Agricultural Commodities, Production Inputs and the General Economy

In this section, analysts offer their insights on economic conditions for Wisconsin agriculture. Forecasts are provided for major Wisconsin farm commodities, farming inputs and the general economy. Because of the lingering effects on agriculture of the global financial crisis that began in late 2008, we begin this section with a detailed discussion of the current macroeconomic environment and what to expect in 2010 after what was a financially challenging 2009 for most Wisconsin farmers. Interested readers are encouraged to contact authors for more current or more detailed information regarding their analyses.

The General Economy and Agricultural Trade

Bill Dobson (608-262-6974)

Synopsis

Many economists have labeled the 2008-2009 contraction as the Great Recession, categorizing it as the sharpest economic downturn since the Great Depression of the 1930s. The 2008-2009 recession clearly was among the worst in recent history, global in reach, and one that will produce a legacy of high unemployment and subdued economic growth in the United States.

The stages of the Great Recession of 2008-2009 as measured by changes in real Gross Domestic Product (GDP) will trace out a U-shaped figure with a broad and irregular bottom and a gently sloping right side that denotes a slow recovery. While real GDP grew by a welcome 2.2 percent in the 3rd quarter of 2009, this does not signal the return of strong, sustained economic growth. Indeed, expect real GDP growth in 2010 to average only 2.0 to 2.5 percent. Moreover, unemployment, which rose to 10.2 percent in October 2009, is likely to stay above 7 percent until 2013 or 2014.

Aggressive U.S. fiscal and monetary policies have helped to reduce impacts of the economic crisis that began in 2008 and produce a potentially sustainable recovery. But headwinds have developed in the wake of the Great Recession that will hamper the emergence of a smooth and rapid recovery. These come in the form of stubbornly high unemployment, weak business investment, budget problems of state governments, challenges for the domestic auto industry, problems in commercial real estate markets and credit problems for small businesses.

The U.S. agricultural sector was hit hard by the global recession. The USDA estimated that U.S. net farm income fell to $54 billion in 2009, down $33.2 billion (38 percent) from the near record total of $87.2 billion for 2008. Problems in the sector contributed to a rare 3.2 percent drop in U.S. farm real estate prices on January 1, 2009. U.S. agricultural exports in fiscal 2009 fell to $96.6 billion, down 16 percent from the record, year-earlier total of $115.3 billion. The weak U.S. dollar and other developments promise to help maintain U.S. agricultural exports in 2010 near the 2009 level. U.S. agricultural businesses experienced many of the problems that beset their counterparts in the non-agricultural sector. But longer-term prospects of many agribusinesses appear reasonably bright.

After 2010, U.S. policymakers will face the challenge of reducing federal deficits to manageable levels. Failure to meet the challenge will

Macroeconomic Statistics for the U.S. Economy

Year or Quarter	*Real GDP Growth*	*Unemployment Rate*	*Inflation Rate (CPI)*	*Housting Starts*	*Federal Surplus/Defecit*
	%	*%*	*%*	*Mil. Units*	*$ Billion*
2000	3.7	4.0	3.4	1.57	236.1
2001	0.8	4.7	2.8	1.601	126.9
2002	1.8	5.8	1.6	1.710	-160.3
2003	2.5	6.0	2.3	1.854	-375.2
2004	3.6	5.5	2.7	1.950	-411.1
2005	3.1	5.1	3.4	2.073	-321.0
2006	2.7	4.6	3.2	1.812	-248.2
2007	2.1	4.6	2.9	1.342	-161.5
2008	0.4	5.8	3.8	0.900	-454.8
2009 Q1	-6.4	8.1	-2.4	0.528	-448.9
Q2	-0.7	9.3	1.3	0.540	-304.9
Q3	2.2	9.6	3.6	0.590	-330.8

*Sources: Global Insight, U.S. Executive Summary, various issues 2007-2009. Quarterly housing start figures for 2009 represent estimates of annualized figures for the series.

push interest rates higher and could rekindle inflationary pressures.

Nature of the Great Recession

The 2008-2009 recession included three consecutive quarters of declining real GDP growth. This exceeds the technical definition of a recession, two consecutive quarters of GDP shrinkage. But this understates the impact of the recent downturn.

Statistics describing the 2008-2009 recession and figures to watch during the economic recovery appear in the table on the previous page. The figures and subsequent material on tailwinds and headwinds affecting the economy provide insights regarding why the nation's real GDP growth is likely to average only 2.0 to 2.5 percent in 2010. This is substantially lower than the average U.S. real GDP growth rate of 3.3 percent (excluding recession years) during 1990 through 2007.

The sharp contraction in business activity that accompanied the recession is reflected in the real GDP growth and unemployment figures. The U.S. economy shed some 7.2 million jobs from the start of recession to the end of the third quarter of 2009. And only twice since WWII has the unemployment rate exceeded 10 percent—in the 4th quarter of 2009 (and for a yet unknown number of additional periods) and during September 1982 to June 1983.

The table actually understates unemployment. For example, if discouraged job seekers who have quit looking for work and workers who are underemployed are added to the unemployment figures for the third quarter of 2009, the figures rises to about 17 percent. The larger figure is important because as the economy recovers, those who stopped searching for jobs will re-enter the job market, swelling the total number of job seekers. Also, many part-time workers will be upgraded to full-time work before new workers are hired. Efforts to reduce unemployment are further complicated by the fact that the U.S. economy must generate about 100,000 jobs per month just to keep pace with jobs required by a growing population. These and related developments will keep U.S. unemployment and underemployment high for several years.

For the first three quarters of 2009, Wisconsin's average unemployment rate (8.4 percent) remained below the U.S. figure (9.0 percent). However, Wisconsin's unemployment trajectory differs from the nation's. The unemployment rate declined modestly in Wisconsin late in 2009 while it increased nationwide. In 2009, Wisconsin's highest unemployment rates were recorded in Janesville and Racine, where sharp cutbacks in manufacturing jobs caused double-digit unemployment for most of the first three quarters of 2009.

The housing-start figures show the massive shrinkage of home building that occurred prior to and during the recession. U.S. housing starts for the first and second quarters of 2009 were only about a quarter of those in 2005. While housing starts probably bottomed out in the first or second quarter of 2009, the number of new houses being built in mid-to-late 2009 still exceeded the 430,000 new houses that consumers have purchased annually in recent times. Moreover, sellers of new homes compete with those trying to sell existing homes. While U.S. home sales increased modestly in September and October 2009, the combination of oversupply plus home foreclosures—possibly as high as 3 million in 2009—will prevent a strong upswing in housing prices in the near future.

U.S. inflation was relatively low in 2009. Moreover, excess capacity in many businesses and high unemployment will limit wage increases. These two factors will limit overall U.S. inflation for the foreseeable future. Importantly, the subdued inflationary outlook has implications for the impact of the large fiscal deficits being run by the U.S. The fiscal 2009 deficit equaled about $1.4 trillion and deficits as large as a trillion dollars a year are possible for the next decade. In the next year or two the deficits pose little or no inflationary threat. But persistently large deficits could add to inflationary pressures and almost certainly will push up interest rates over the longer-run. The higher interest rates will be needed to give domestic and foreign customers incentives to buy the larger quantities of U.S. Treasury securities that will be issued to finance the deficits.

Tailwinds and Headwinds

How strongly the U.S. economy emerges from the 2008-2009 recession will depend partly on the net effect of complex tailwinds and headwinds buffeting the economy. The analysis of these forces focuses on factors that will affect growth in real U.S. GDP (the total value of goods and services produced).

Tailwinds. The tailwinds include aggressive fiscal policy measures adopted in 2008 and 2009 by the Bush and Obama Administrations and monetary policy measures implemented by the Federal Reserve, increases in business sector productivity gained through cost–cutting, debt reductions on the part of consumers, and firms' efforts to replenish inventories depleted during the recession.

One prominent fiscal policy measure was the economic stimulus packaged passed into law in February 2009, the main components of which appear in the following table.

Economists at Global Insight estimated that the stimulus would add about 0.8 percentage points to 2009 real GDP growth and 1.3 percentage points to 2010 growth. These predictions should be interpreted with

Allocation of Funds from the Fiscal Stimulus Package Passed in February 2009		
Use	***Amount ($Billion)***	***% of Total***
Tax Relief	288	36.6
State & Local Fiscal Relief	144	18.3
Infrastructure/Science	111	14.1
Aid for Displaced Workers	81	10.3
Health Care	59	7.5
Education & Training	53	6.7
Energy	43	5.5
Other	8	1.0
Total	***$787***	***100.0%***

Source: White House as reported in Wall Street Journal, September 2, 2009.

caution, since it is difficult to predict accurately the size of the economic growth multiplier associated with a diverse package of fiscal stimuli.

The stimulus program has been criticized because many outlays under the program were slow to be implemented and failed to stem the big increases in unemployment in 2009. This may be a shortcoming of the legislation. However, the legislation should help to sustain the recovery, since outlays will be stretched out into 2010 and beyond.

The nation also implemented a number of other programs in 2008 and 2009 in the effort to pull the U.S. economy out of the recession. One is the Troubled Asset Relief Program (TARP). The first $350 billion of TARP funds was used mainly to buy stocks and warrants issued by large banks and to bolster bank balance sheets. In 2009, the TARP evolved into a multi-purpose bailout and loan fund. In connection with the latter purpose, in late 2009 the Obama Administration began to implement measures to make it easier for smaller banks to access TARP funds.

The Term Asset-Backed Securities Loan Program Facilities (TALF) was launched in March 2009 by the Federal Reserve. The TALF serves primarily to increase the availability and extension of consumer credit, which had stalled in the wake of the global financial crisis. The types of consumer credit made more readily available by the TALF included new credit cards, auto loans, student loans and small business loans. As of early November 2009, about $90 billion in lending was facilitated by the TALF.

The Public-Private Investment Program (PPIP) was introduced early in 2009 to deal with toxic assets (mainly residential mortgage backed securities and commercial mortgage backed securities) in the financial system. The federal government's objective for PPIP was to draw private investment capital (together with government capital) into the mortgage-backed securities market. The PPIP provided a market for securitized assets and freed U.S. banks to extend new credit.

The TARP, TALF and PPIP programs were developed quickly and required modifications as they were implemented. It is no stretch to liken these programs to the experimental credit relief programs developed rapidly during the Great Depression. While imperfect, the current alphabet soup of programs helped to prevent a collapse of the U.S. financial system in 2008-2009 and made certain types of business and consumer credit more readily available. However, as noted later, small businesses, in particular, still are experiencing a credit crunch.

Efforts to spur the auto industry included the "cash for clunkers" program and a provision of the February 2009 stimulus program that allowed taxpayers to deduct state and local sales and excise taxes on new auto purchases on their 2009 federal income tax forms. "Cash for clunkers" paid up to $4,500 to any buyer who traded in a gas-guzzling clunker for a more fuel-efficient new car. Some 700,000 cars were sold under the program in July and August of 2009. However, it's likely that many of these sales were "borrowed" from future auto purchases. This is suggested by the fact that U.S. auto sales in September 2009—the first month after "cash for clunkers" ended—were 10.4 percent below August 2009 figures and 25 percent below those for September 2008. September 2009 sales by financially troubled GM and Chrysler were more than 40 percent below year-earlier levels.

The $8,000 tax credit for first-time home buyers increased home sales in late 2009. As buyers took advantage of the credit, which was originally scheduled to expire on November 30, 2009, existing homes home sales rose 9.4 percent in September 2009, up 24 percent from January 2009 lows. Prices of existing homes also appear to have stabilized in September 2009, although they were still 8 to 9 percent below year-earlier levels. Like the "cash for clunkers" program, the tax credits for first-time home buyers undoubtedly borrowed a number of sales from future months. This program has been extended to April 30, 2010, and the tax credits will be available to some home purchasers who are not first-time buyers.

The Federal Reserve was particularly active in combating the recession, implementing several programs in addition to its TALF program. As part of the effort to thaw frozen credit markets, the Fed cut the federal funds rate (inter-bank lending rate) to 0.0– 0.25 percent in December 2008 and kept it there through 2009. The Fed also assumed the role of a "bad bank" by acquiring troubled assets, including bundles of mortgage-backed securities held by Fannie Mae and Freddie Mac. In early October 2009, the Fed's balance sheet showed $692 billion in mortgage-backed securities, presumably of varying financial quality. The Fed's balance sheet also contained a new class of assets representing the remnants of badly injured companies. The Fed's balance sheet included assets valued at $2.12 trillion in early October 2009.

During the recession, the Fed raised some red flags by regularly purchasing U.S. Treasury securities. However, the purchases should not be seen as monetizing the U.S. debt, or "printing money," actions which could increase the rate of inflation. Indeed, these limited purchases of Treasury securities had little or no inflationary impact and served mostly to keep mortgage and other long-term interest rates low.

As the recession wound down, foreign investors became less risk-averse and began to seek higher returns, which triggered a partial exodus from dollar-denominated assets and weakened the U.S. dollar. The U.S. dollar was further weakened by massive prospective federal deficits and policy measures taken by the Federal Reserve. Some who hold dollar-denominated assets figure that the deficits and Federal Reserve actions eventually will produce additional inflation. As a result of these developments, the U.S. dollar-Euro exchange rate fell to $1.50 in late October, 2009, a 14-month low. The dollar strengthened modestly against the Euro in December 2009, reflecting a flight from the Euro after financial problems worsened in two Euro-zone countries—Greece and Ireland.

The weaker dollar will help expand U.S. exports. Global Insight economists predict that the U.S. current account deficit (basically the excess of imports over exports) will shrink to $544 billion in 2010, a decline of about 25 percent from the pre-recession figure for 2007. The weaker dollar promises to be particularly helpful to the export-dependent U.S. farm sector and big exporters such as Caterpillar. Larger U.S. exports and a smaller current account deficit will compensate, in a limited way, for subdued consumer spending and help to produce modest economic growth in 2010.

However, these developments will not lead the U.S. into a new period of robust economic growth. Indeed, the narrowing of the trade gap may be at an end. In September 2009, the U.S. trade deficit experienced its largest one-month percentage rise in 16 years. This raises the possibility that, as the U.S. economy recovers, imports may increase more rapidly than expected, limiting any contribution to growth from a smaller current account deficit.

Productivity increases will contribute to a stronger U.S. economy in the longer run. Productivity in U.S. manufacturing rose 1.2 percent in 2008, tying us with South Korea for the largest gain among 17 major industrialized countries. And productivity continued to improve in 2009. Over the longer run, productivity is the key to improved living standards, since it facilitates rising output, incomes and asset values. However, these productivity gains have been achieved partly at the expense of jobs. Indeed, the United States led 10 industrialized countries with a 3.4 percent decline in manufacturing employment and a 3.9 percent drop in the number of hours worked in 2008. Many U.S. workers laid off in an effort to improve productivity will not be rehired.

U.S. consumers have been gradually reducing their reliance on credit. For example, U.S. consumers reduced the share of disposable income used for mortgages, credit cards, rent and other obligations, from over 18 percent in 2007 to just over 16 percent in late 2009. But it's likely that consumer credit still hasn't been reduced to sustainable levels. The Federal Reserve put total U.S. household debt at $13.7 trillion, or 125 percent of annual after-tax income, in the third quarter of 2009. Many economists believe it will take several years for consumer to pare this figure to a more sustainable 100 percent of after-tax income. This de-leveraging will limit U.S. consumer spending for the next few years but will produce healthier household balance sheets.

The normal recuperative powers of the U.S. economy, of course, will continue to come into play in 2010. Inventories depleted during the recession will be rebuilt, especially to satisfy export demand in China and elsewhere in Asia, where the economies are recovering faster than in many other parts of the world.

Headwinds. The headwinds facing the economy are, in most cases, remnants of problems associated with the Great Recession. They include high residual unemployment, budget problems of state governments, credit problems for small businesses and uncertainty about government fiscal and monetary policies.

Continued high unemployment will limit consumer spending, which will affect business investment and hiring. Consumer spending, which accounts for about 70 percent of U.S. GDP, will be constrained by high unemployment and underemployment. Moreover, businesses will be reluctant to make new invest-

ments and expand hiring until they are assured that consumer demand will be strong enough to buy additional products and services. This creates a chicken-and-egg problem, where consumers are reluctant to expand purchases until unemployment falls, and businesses are reluctant to invest and hire until consumer spending is strong enough to absorb the new capacity. This points to slow real GDP growth of only about 2.0 to 2.5 percent in 2010, as consumers and businesses feel their way forward.

Many state governments face budget problems which will reduce the rate of growth of the overall U.S. economy. In a 2009 study, the Pew Center on the States examined in detail the problems of 11 states which face particularly difficult budget problems. The problems stemmed from widespread foreclosures, rising unemployment and poor financial management. California, other Western states and Florida—states which were hit hard by the bursting of the housing bubble—topped the list of states with budget problems. Wisconsin, Michigan and Illinois also made the Pew Center's top-11 list.

The Center on Budget and Policy Priorities forecasts that, barring more federal help, state budget cuts will shave nearly a percentage point off growth in U.S. GDP and eliminate about 900,000 jobs in fiscal 2011. These results would flow mainly from tax increases and budget cuts required to balance state budgets. Such an estimate should be viewed with caution, because it is unclear whether any organization can forecast such impacts on U.S. GDP with accuracy. But there is no question that the states' budget problems are a strong headwind facing the U.S. economy.

Government bailouts and loans were provided for large, financially-troubled banks and insurance companies and for General Motors (GM) and Chrysler—firms deemed too big to fail—with mixed results. Fortunately, many large banks returned to profitability late in 2009.

As a result of its rescue efforts, the federal government acquired a 60 percent stake in GM and a 10 percent stake in Chrysler. Both firms have emerged from bankruptcy, but Chrysler, in particular, remains in dire financial straits. Chrysler's woes are reflected in its declining share of U.S. auto sales, which fell to 8.3 percent in September 2009, down from 11.1 percent a year earlier. Chrysler also suffers because it has few new models—especially fuel-efficient models—to offer consumers. Fiat of Italy, which now owns 20 percent of Chrysler, will push to eliminate certain Chrysler and Jeep brands and introduce small, fuel-efficient cars and the premium Alfa Romeo brand in the United States as a partial replacement for discontinued Chrysler-Jeep products.

Ford, which did not receive a government bailout, reported a $997 million profit for the third quarter of 2009 and claims that it will return to solid profitability in 2011. This gives Ford a leg up on GM, which lost $1.15 billion in the third quarter of 2009. Ford's third quarter of 2009 profits reflect gains in market share, driven partly by sales of F-Series light trucks and Focus and Fusion cars. However, Ford too faces challenges. In particular, the company's balance sheet showed $26.9 billion in debt at the end of the third quarter of 2009. This is probably manageable, but the company must sell into a U.S. car market that has shrunk from 16 million cars and light trucks in the early 2000s to a forecasted 11.5 million units in 2010.

Problems remain for many regional banks, smaller banks and small businesses. Many bank failures occurred in Florida and California, where the burst of the housing bubble had big impacts. In addition, a large number of Georgia and Illinois banks failed in 2009. As of late November 2009, 123 U.S. banks had failed, which is similar to the number of financial institutions that failed during the savings-and-loan crisis of the early 1990s. Only one Wisconsin bank—the Bank of Elmwood in Racine—failed in 2009.

Many banks fear problems with commercial real estate loans. In the third quarter of 2009, U.S. banks held $1.7 trillion of commercial mortgages and construction loans. Delinquencies on commercial mortgage debt played a role in the U.S. bank failures that occurred in 2009. While problems with commercial real estate will not rise to the level that emerged in residential real estate after 2007, the risk is potentially large for banks that hold large quantities of this debt.

While many large businesses have gained access to additional credit in recent months, many small ones have not been so fortunate. This is partly because banks have tightened the underwriting standards for small business loans, making it difficult for many small businesses to qualify. One reason for the tighter lending standards is that banks still hold many bad loans that they do not wish to recognize as nonperforming. If all of these bad loans were pegged as nonperforming, a number of these banks could be forced into bankruptcy. The banks hope that they can renegotiate the loans in a manner that will allow the borrowers to make their payments. Cynics call this an "extend and pretend" lending strategy. While banks wait and see whether borrowers will resume making payments, they don't want to take on additional small business loans that might go bad.

Efforts by the Obama Administration to make TARP funds and Small Business Administration loans more readily available to small companies may help alleviate this problem.

Many remain uncertain about how long government fiscal and monetary policies will continue, and in what form. Treasury Secretary Geithner says that the Obama Administration will not put forth a second major stimulus program in 2010. However, some existing stimulus programs may be extended. Among programs that almost certainly will continue are those that extend unemployment compensation benefits and mortgage relief measures for homeowners facing foreclosure. Probably the greatest uncertainty surrounds how quickly the Federal Reserve will move to raise interest rates to head off inflation. There's an old adage that the Fed needs to remove the punch bowl before the party gets out of hand. This appears germane. However, Fed Chairman Bernanke also knows that if he raises interest rates too quickly and purges the Fed's balance sheet of assets acquired during the recession too soon, he risks creating a double-dip recession, or worse.

International Trade Outlook

The International Monetary Fund (IMF) estimates that world trade in 2009 declined by nearly 12 percent from year-earlier levels, a magnitude of collapse not seen since the Great Depression. The IMF forecasts a modest expansion of 2 to 3 percent in world trade in 2010.

According to the USDA, U.S. agricultural exports in fiscal 2009 fell to $96.6 billion, down 16 percent from the year-earlier record total of $115.3 billion. The USDA forecasts that fiscal 2010 agricultural exports will be about $98 billion, which would be the second highest agricultural export total on record.

U.S. agricultural imports in FY2009 were $73.4 billion, down $6 billion (7 percent) from FY2008. USDA forecasts FY2010 agricultural imports of $77.5 billion. The U.S. agricultural trade balance fell from $36 billion in FY2008 to $23.2 billion in FY2009 and is forecast at $20.5 billion in FY2010.

The USDA forecasts modest weakness in the value of coarse grain, wheat, and rice exports in 2010. The weakness in export demand for these products is expected to be largely offset by rising export demand for U.S. animal products.

The weaker dollar and partial recovery of the world economy should spur U.S. exports of agricultural and non-agricultural products in 2010. However, U.S. exporters will be constrained by protectionism and weak export demand in parts of the global economy.

This protectionism has taken several forms, including "buy local" initiatives that have arisen in the United States (under the $787 billion stimulus package), Indonesia, Malaysia, and China, as well as other non-tariff barriers and increases in tariffs.

A dispute relating to a non-tariff trade barrier has arisen between the United States and Canada over the U.S. country-of-origin labeling (COOL) law. Canada has asked the World Trade Organization (WTO) to appoint a panel to resolve a dispute over the U.S.'s mandatory COOL law. The COOL law requires firms to track and notify customers of the country of origin of meat and other agricultural products at each major stage of production, including retail. The Canadian government claims that country-of-origin labeling imposes unfair and unnecessary costs on integrated North American supply chains and reduces the competitiveness of Canadian beef and pork, in particular, in the U.S. market. Expect it to take several years for this dispute to be settled under the WTO.

The United States raised tariffs on exports from China of certain auto and light truck tires in September 2009 under a 2000 U.S. law that authorized higher tariffs when a surge in Chinese exports damages a U.S. industry. The higher tire tariffs will begin at 35 percent in the first year and fall by 5 percentage points in each of the two following years. China countered this action by claiming that U.S. auto parts, chicken parts, and an industrial chemical used to produce nylon were sold in China at below cost (dumped). China has imposed anti-dumping duties on the industrial chemical. In early November 2009, the U.S. levied tariffs on China's exports of steel pipe. A number of additional trade issues between the two countries remain unresolved.

Perhaps of greater concern is the behavior of the Chinese yuan, which China has kept pegged to the U.S. dollar. China, it can be argued, should have a currency that is rising in value since the country has a large trade surplus and a rapidly recovering economy. By pegging its currency to the depreciating U.S. dollar, China, in effect, has engineered a large devaluation of its currency to further boost the country's exports. The United States and other traders have alleged that China's currency manipulation reduces the demand for the exports of a host of countries.

Protectionism and alleged currency manipulation also reduce the appetite for completing bilateral or multilateral trade agreements. Thus, the Obama Administration has elected not to bring bilateral trade agreements negotiated by the Bush Administration with Panama, Colombia and South Korea up for a congressional ratification vote. It is also no surprise that major trading nations have shown limited interest in completing the Doha Round of WTO negotiations, which began in 2001. Failure to complete the Doha Round is likely to have harmful longer-term effects on efficient U.S. exporters of agricultural and non-agricultural products.

In the aggregate, U.S. agricultural exports held up reasonably well in

2009 in light of the global recession. However, U.S. dairy product and pork exports, in particular, fell sharply, contributing to lower domestic prices for these products.

U.S. dairy exports totaled $3.8 billion in 2008, up $800 million from record 2007 levels, and absorbed about 11 percent of the 2008 U.S. milk supply. But those figures mask the sharp fall in U.S. dairy exports that began late in 2008 when the value of exports of U.S. nonfat dry milk, whey and butter all declined by about 50 percent from year earlier levels. U.S. dairy exports remained weak until about mid-2009. The resurrection of the U.S. Dairy Export Incentive Program, which provides export subsidies, and increased USDA dairy price support activity in 2009 helped to limit the drop in U.S. farm milk prices by a modest amount. But painful reductions in milk supply were needed to bring the U.S. dairy supply-demand balance to levels that stemmed the hemorrhaging of red ink from farm balance sheets.

U.S. pork exports also were down by 13 percent from year-earlier levels during the first eight months of 2009, contributing to the longer-term woes of pork producers. This was partly due to China's closing of its market to U.S. pork in the wake of the H1NI (Swine flu) outbreak. China had been the second largest U.S. export market for pork, with sales of $560 million in 2008. This problem was remedied in part when China re-opened its market for U.S. pork exports late in 2009.

Both milk and pork prices are expected to be strengthened modestly by higher dairy and pork exports in 2010. U.S. broiler and beef producers also are expected to benefit from larger exports in 2010. However, U.S. broiler producers will face strong competition from Brazil.

In the past, the U.S. agricultural sector often has been affected more by the supply and demand conditions for individual farm commodities than by macroeconomic conditions and global trade developments. This was not true in 2009. The global recession hit the U.S. farm sector hard.

Global developments were reflected in USDA's estimates of U.S. net farm income, which fell to $54 billion in 2009, down 33.2 billion (38 percent) from the near-record total of $87.2 billion for 2008. Problems in the farm sector contributed to a rare 3.2 percent decline from year-earlier levels in U.S. farm real estate prices on January 1, 2009.

U.S. agribusiness experienced many of the same problems that hit their counterparts in the nonagricultural sector. Deere & Co., whose farm equipment sales are strongly correlated with changes in U.S. net farm income, reported that the company's 2009 farm equipment sales would fall by about 15 percent from the previous year. This was a relatively small decline when viewed alongside the company's 2009 industrial equipment sales, which were expected to fall by more than 40 percent from year-earlier levels. Deere remained profitable, however, mainly due to cost-cutting efforts.

Smithfield, a large integrated pork producer and processor, experienced losses in 2009 as a result of an oversupply of hogs, weak export demand for pork and a debt-laden balance sheet. U.S. hog supply reductions and strengthening export demand for pork, especially from China, are expected to improve Smithfield's profit picture in late 2010 or 2011.

Pilgrim's Pride, a Texas-based broiler processor, entered bankruptcy in 2008 but was scheduled to emerge from bankruptcy late in 2009 after being acquired by giant Brazilian meat processor, JBS. The Pilgrim's Pride acquisition and other acquisitions are expected to make JBS the world's largest meat processor, surpassing U.S-based Tyson's Foods.

U.S.-based multinational conglomerates Cargill and Archer Daniels Midland (ADM) reported weak international sales in early 2009. Cargill reported lower earnings in fertilizer while ADM reported weak global food and animal feed sales. Both firms anticipated strengthening foreign sales for their products.

U.S. ethanol producers continued to struggle in 2009 as weak demand for motor fuels depressed prices and margins. Early in the fourth quarter of 2009, processors' margins increased when energy prices advanced. However, excess capacity in the ethanol industry will continue to weigh on processing margins.

What Do the Tailwinds, Headwinds, and Trade Portend?

Indications are that a sustainable U.S. recovery will emerge, which will modestly increase the demand for a host of agricultural and non-agricultural products in 2010. But weak consumer demand—traceable mainly to high unemployment—will impede the return of robust economic growth. Increases in U.S. agricultural and non-agricultural exports will help trade-dependent sectors recover in 2010. However, the aggregate benefits from expanded exports and a lower trade deficit should not be overestimated.

Mistakes in fiscal and monetary policy could, of course, short-circuit the recovery. But U.S. policymakers are not likely to err on the side of under-stimulating the economy. Witness the willingness of the Obama Administration and Congress to extend the "cash for clunkers" program, the home buyer tax credits and unemployment compensation. Unused TARP funds also will be available to bail out faltering, "too-big-to fail" firms and correct for key weaknesses in the economy in 2010.

Moreover, other alphabet soup programs could be extended to provide additional stimuli.

Problems being encountered by mortgage lenders Fannie Mae and Freddie Mac will not prevent those firms—which are currently in government receivership—from serving mortgage markets and limiting home foreclosures. Fannie and Freddie have drawing rights on $400 billion of Treasury funds. Only about $111 billion of that total had been claimed by the end of the third quarter of 2009.

The Obama Administration and Congress also are likely to propose aggressive steps to reduce unemployment, including programs to increase government hiring and tax credits for companies that create new jobs. It is unclear whether such measures will be acceptable since they would require large federal outlays at a time of record deficits.

Finally, Fed Chairman Bernanke is fully aware of problems that arose when the government failed to do enough in the 1930s to combat the Great Depression. This suggests that, if anything, Bernanke will err on the side of waiting too long to reduce monetary stimuli, which could produce higher than anticipated inflation.

The big challenge for policymakers will emerge after 2010, when fiscal policies must address the problem of deficits. C. Fred Bergsten of the Peterson Institute for International Economics notes that the $1.4 trillion U.S. federal deficit for fiscal 2009 was more than three times the previous record, and that without corrective measures, the deficits are likely to remain at about a trillion dollars annually until 2020 or later. Such large deficits are not sustainable and will force difficult decisions about taxes and spending. Failure to address the deficits, at a minimum, will bring higher interest rates, since buyers of U.S. Treasury securities will require higher returns to entice them to purchase the larger quantities of securities needed to finance the bigger deficits and the national debt. Unsuccessful efforts to reduce the deficits also could rekindle inflation and lead to a collapse of the dollar.

Farm Production Inputs and Services

Bruce Jones (608-265-8508)

Fertilizer and Fuels

Feeding crops will probably be significantly cheaper in 2010. Fertilizer prices are currently well below what they were a year ago. Nitrogen prices are down 30–35 percent from late 2008, while prices for potash and phosphorous are about half of what they were 12 months ago.

Fertilizer prices trended downward throughout most of 2009. Plentiful supplies of cheaper nitrogen were available, since suppliers anticipated that farmers' demands for nitrogen would be equivalent to what they were in 2008. The cost to produce anhydrous ammonia (the principal nitrogen fertilizer) was lower because natural gas prices fell dramatically in the last half of 2008.

There's a bit of international intrigue behind the decline in potash prices. It was the result of a price war of sorts that began in mid-2009, when a Russian potash supplier cut a deal with the Indian government that set the price of potash about 25 percent below prevailing prices. This price reduction triggered retaliation by other suppliers in Russia and Canada who had previously been controlling potash supplies in an attempt to keep prices up. Once the first price cut was made, all other suppliers followed suit to prevent the loss of potential sales.

Cheaper fertilizer should make it considerably less costly for farmers to raise corn, wheat and other crops. Experts at the University of Illinois expect per-acre fertilizer costs for raising corn to drop from around $175 in 2009 to about $90 in 2010.[3]

The big drop in fertilizer costs should make it easier for farmers to earn positive returns from corn and other crops.

Farmers also paid less for fuel in 2009 than in 2008. Gasoline prices were about 10 percent lower in late 2009 than they were a year earlier, and diesel fuel prices were down about 30 percent. This is largely because of lower crude oil prices.

Not all of farmers' energy-related costs fell in 2009. The price of LP gas was about 60 percent higher in late 2009 than a year earlier, reflecting an unexpected increase in demand. Due to very wet weather throughout much of the Midwest, farmers were forced to harvest corn and soybeans at above-normal moisture levels, so they needed more LP gas for crop drying. This boost in demand, coupled with tight supplies, drove LP prices up dramatically. The spike in LP prices is unusual in that it is tied to harvest conditions rather than higher oil prices. Assuming normal weather during the 2010 harvest, demands for LP gas to dry grain should be much lower, so prices should fall back in line with those of gasoline and diesel fuel.

[3] For details, see *Crop Budgets, 2010* at www.farmdoc.illinois.edu/manage/2010_crop_budgets.pdf and *Crop Budgets, 2009* at www.farmdoc.illinois.edu/manage/2009_crop_budgets.pdf.

What farmers pay for fertilizer and energy is highly correlated with crude oil prices, and thus highly dependent on conditions in crude oil markets. The Department of Energy is currently forecasting stable crude oil markets in 2010, with prices at or slightly higher than 2009 levels. This reflects the expectation of further recovery in the international economy, led by growth in the economies of China and other Asian countries.

Farm Credit Conditions

With U.S. financial markets in disarray, there was some concern last year as to whether credit would be available to farmers. Fortunately, the financial markets continued to function and there was no interruption of the flow of financial capital to rural areas. Credit was probably not as plentiful as it might have been had markets not been in turmoil, but it was generally available to farmers who met lenders' credit underwriting standards.

Availability of credit will not be an issue for most farmers in 2010, but there is concern about how many of Wisconsin's creditworthy farm borrowers will be requesting more operating credit than normal. This is due to cash flow problems experienced by dairy farmers in 2009.

Although most farmers will have few problems meeting lenders' collateral requirements, that isn't the only thing that lenders consider when deciding whether to extend credit. They also look at a borrower's potential cash flow, since the ability to repay loans and cash flow go hand in hand. In order to extend a loan, the lender must be convinced that the borrower will be able to generate positive cash flow in the near term.

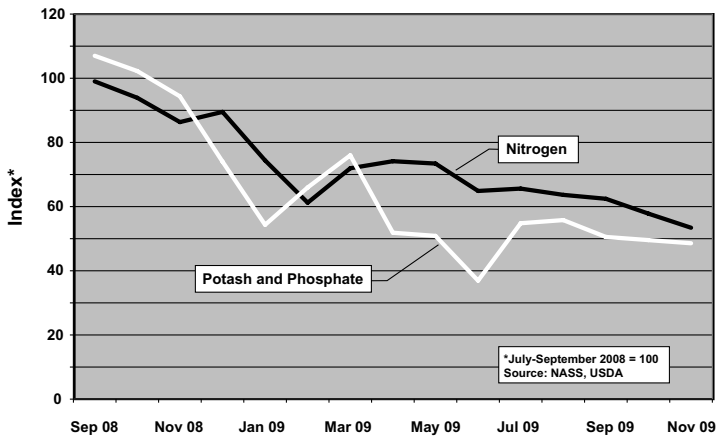
Losses stemming from the housing market collapse in 2008 trickled through the U.S. financial system. Lending institutions, particularly those with the weakest equity positions, have to be more conservative in granting loans because they cannot afford more losses. Their reluctance could result in a decrease in the supply of credit to farmers.

Private lenders will be particularly eager to limit their exposures to losses on farm loans. They will probably be seeking loan guarantees from the Farm Service Agency (FSA) on their riskier loans. While this will help keep credit flowing to high-risk farmer borrowers, these guarantees are generally distributed on a "first come, first served" basis, and there is a limit to the total amount of guarantees FSA can grant. Once that limit is reached, farmers who are most in need of credit assistance may not get it.

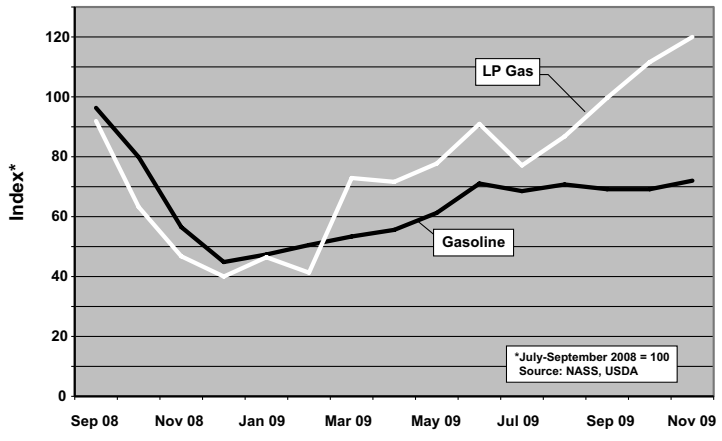
Interest rates for farm loans will remain low as long as the Federal Reserve Bank ("the Fed") continues its cheap-money policies in order to stimulate the economy. The Fed's Board of Governors has kept the Fed Funds Rate (the interest charged between banks for reserves) near zero for nearly a year. These policies kept interest rates low throughout most of 2009, and the Fed seems willing to continue them in the near term.

We aren't likely to see a dramatic increase in interest rates in 2010, but the Fed will have to let rates rise in

U.S Fertilizer Price Indices



U.S Fuel Price Indices



Agricultural Interest Rates

Period	Operating Loans	Farm Real Estate Loans
	Percent at end of period:	
Q1-2006	8.30	7.48
Q2-2006	8.76	7.85
Q3-2006	8.73	7.82
Q4-2006	8.71	7.74
Q1-2007	8.61	7.67
Q2-2007	8.65	7.70
Q3-2007	8.42	7.53
Q4-2007	7.82	7.09
Q1-2008	6.74	6.41
Q2-2008	7.06	6.51
Q3-2008	6.74	6.56
Q4-2008	6.21	6.23
Q1-2009	6.20	6.14
Q2-2009	6.18	6.16

Source: Ag Letters, Federal Reserve Bank of Chicago

order to keep inflation in check and to ensure that foreign investors, especially the Chinese, remain willing to purchase the U.S. Treasury issues used to finance federal budget deficits. Any increase in interest rates will need to be gradual and steady to avoid choking off economic recovery. As the economy starts showing signs of strength, interest rates will likely be ratcheted up to protect against demand-pull inflation, where prices are driven up as plentiful supplies of money chase limited goods and services.

Farmland Rents

Wisconsin cropland rents rose in 2009, but not as dramatically as in 2008. Average rents increased about 5 percent, from $85 per acre in 2008 to $89 per acre in 2009. Wisconsin's increase in cropland rents was larger than Michigan's but less than those in Illinois, Iowa and Minnesota.

It is not surprising that cropland rents have been on the rise. Since corn, soybean, and wheat prices

Cropland Rented for Cash: Average Cash Rent per Acre by State, 2002-2009

State	2002	2003	2004	2005	2006	2007	2008	2009
Wisconsin	67	68	70	70	71	72	85	89
Illinois	122	123	126	129	132	141	160	170
Iowa	120	122	126	131	133	140	165	180
Michigan	60	60	62	62	65	73	80	83
Minnesota	81	82	83.5	86.5	88	94	109	116

Source: NASS, USDA

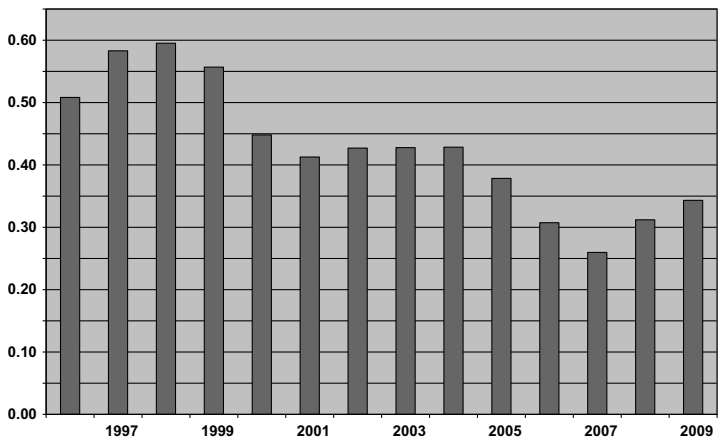
have nearly doubled in recent years, growing these crops on rented land has become more profitable. Between 2006 and 2009, cash rents in Wisconsin rose about 25 percent. During the same period they rose even more in Iowa (35 percent), Minnesota (32 percent), Illinois (29 percent) and Michigan (28 percent). These robust rates of growth in rents correspond to the big gains in crop prices.

Rents aren't likely to keep increasing at this pace, since commodity prices have leveled off. Crop prices will hold constant at best and could decrease slightly. Lower crop prices would discourage farmers from competing for cropland.

While rents are up dramatically, renting land appears to be a less expensive strategy than purchasing land and paying interest on a mortgage. Cash rents for Wisconsin cropland generally have not risen as much as interest payments on fully financed land purchases at prevailing interest rates (as reported by the Chicago Federal Reserve bank. The ratio of cash rents to mortgage interest expense fell from around 0.6 in the late 1990s to 0.40 or lower in recent years, meaning that it has become relatively less expensive to rent land rather than buy it.

Low cash rents relative to mortgage interest payments could be a signal that cash rents are set to move higher despite lower returns from growing crops. Rents could also move upward if interest rates rise. Any increase in the cost of owning land will likely stimulate more competition in the land rental market. Since interest rates are currently quite low, it's quite likely that they will increase, causing the cost of owning land to increase as well.

Wisconsin Cropland: Ratio of Cash Rent to Mortgage Interest



Dairy

Bob Cropp (262-9483)

Review of 2009

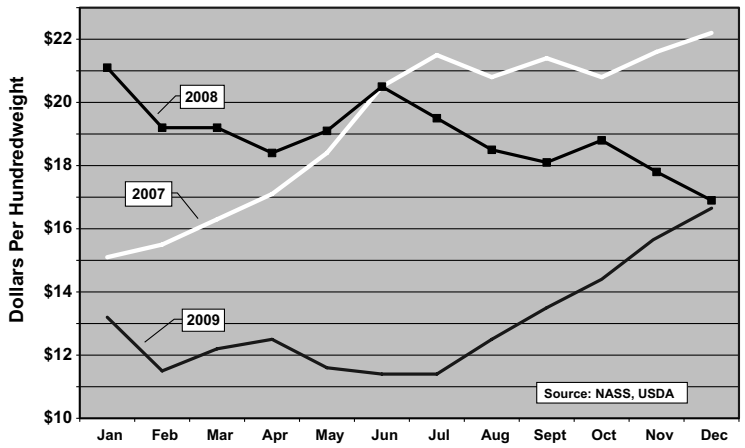
Wisconsin dairy farmers had more financial stress in 2009 than in any year since the early 1970's. Fortunately, milk prices were strong going into 2009—highest on record in 2007 and second highest in 2008. But those years also brought high prices for feed and energy, which kept returns over operating costs modest. Feed and energy prices dropped some during 2009, but milk prices plunged. The Wisconsin All-Milk Price fell as much as $9.10 per hundredweight below year-earlier levels and averaged $6.82 lower January through October. Returns over feed costs reached a low of $1.71 per hundredweight for February 2009 and averaged just $2.53 January-through-October. Returns over feed costs had averaged $9.22 per hundredweight during 2008.

This wasn't the decade's only bad stretch for dairy farmers—there were major price declines in 2000, 2002 and 2006—but this one was different. Each of the earlier price drops were due to a relatively large increase in U.S. milk production. The 2009 plunge in milk prices was caused by a fall in demand. Production in 2009 increased just 0.4 percent for the first six months, was flat in July and fell below year-ago levels in August (0.1 percent), September (0.6 percent) , October (1.1 percent) and November (1.0 percent). At the same time, however, the downturn that began in 2008 curbed the growth in domestic dairy sales and reduced U.S. dairy exports.

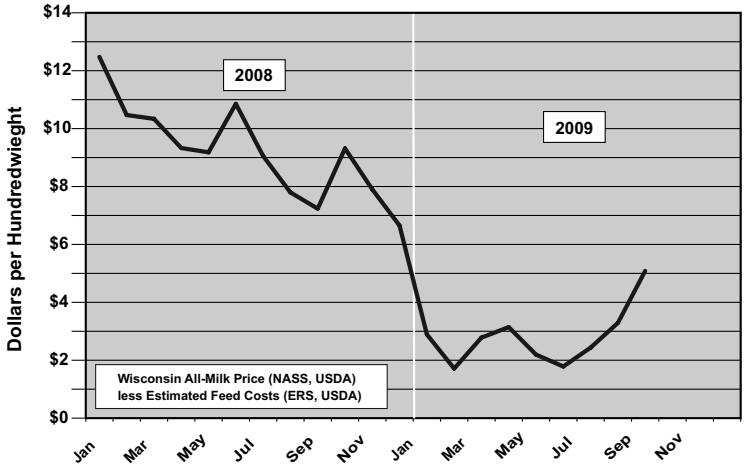
Domestic dairy sales grew just 0.4 percent in 2008 due to very high retail prices.[4] USDA forecasts improvement for 2009, with growth of 2 percent. But the economic downturn has also brought a shift in eating habits. Consumers are eating out less, which has brought a shift in the composition of domestic dairy product consumption. This shift improved beverage milk sales in 2009, but slowed sales of butter and cheese, particularly mozzarella, both of which are consumed mostly in restaurants. From January through October, beverage milk sales were up 1.2 percent from the same period in 2008. Domestic sales of cheese, butter and cream products were also expected to show relatively good increases during the October to December period, thanks to lower wholesale and retail prices along with store specials.

Farm milk prices took a bigger hit from the loss in U.S. dairy exports than from changes in domestic sales. U.S. dairy exports had climbed 9.4 percent in 2007 and 14.5 percent in 2008, countering anemic gains in domestic use. Those exports represented 9.2 percent of U.S. milk production in 2007 and 10.8 percent in 2008. But exports began to decline during the last half of 2008. Exports in the first half of 2009 were half of what they were during the first half

Wisconsin All-Milk Price



Wisconsin Dairy Returns over Feed Costs



[4] The milk equivalent of domestic use and exports of dairy products are expressed here as a weighted average of reported sales on a fat basis (40 percent) and skim-solids basis (60 percent).

U.S. Dairy Exports, October and Year-to-date, 2009 vs. 2008

Dairy Product	*October*		*January-October*	
	Million Lbs.	*% Change*	*Million Lbs.*	*% Change*
Nonfat dry milk	64.5	+19	473.0	-40
Cheese	20.3	-5	191.0	-24
Butter	8.8	-40	39.0	-79
Dry whey	47.0	+13	394.8	-1
Whey protein concentrates	27.2	+33	163.8	+13
Lactose	43.4	+35	403.2	+17

Source: USDA, FAS

of 2008 on a volume basis and even less on a value basis.

A look at dairy exports for October 2009 indicates some strengthening. Nonfat dry milk exports for October were 19 percent higher than 2008, but year-to-date exports were 40 percent lower. Dry whey exports were 13 percent higher than a year ago, and exports of whey protein concentrates were 33 percent higher in October and 13 percent higher year-to-date. Lactose exports were 33 percent higher in October and 17 percent higher year-to-date.

USDA expects exports for 2009 to be just under 15 billion pounds milk equivalent, about three-fourths of what they were in 2008, and equal to about 8 percent of projected 2009 U.S. milk production.

On a dollar basis, exports for the first nine months totaled $1.605 billion, 48 percent less than during the first nine months of 2008. For the year, exports will exceed $2 billion, the third highest on record. Nevertheless, the loss of export volume in 2009 was equivalent to about 5 billion pounds of milk. This meant that compared to 2008, about 3 percent more milk had to clear domestic markets.

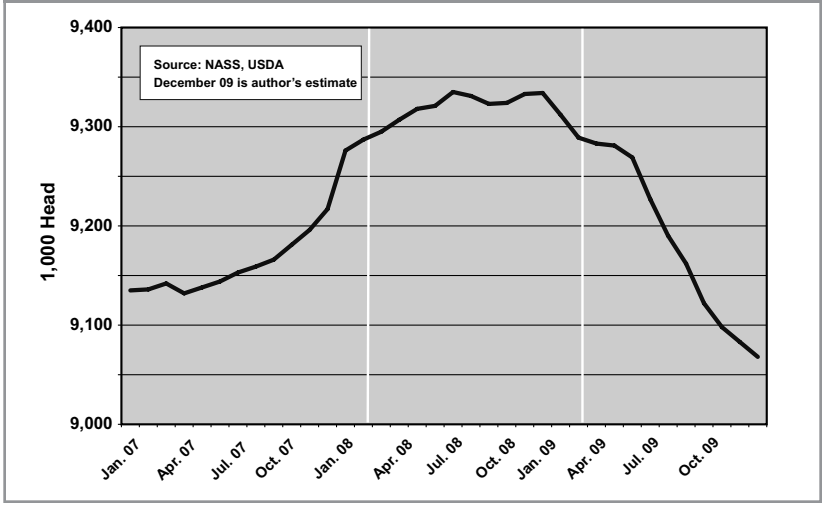
U.S. dairy imports are often blamed for lower milk prices, but in 2009 imports were lower than a year ago. For the first nine months of the year, imports totaled $1.581 billion, down 18 percent, netting a small dairy trade surplus of $23.6 million. On a volume basis, during the first nine months of 2009 the United States imported 15 percent less cheese, 23 percent less casein, 53 percent less caseinates, and 8 percent less milk protein for food use than in the same period for 2008.

With the slowdown in domestic sales and the loss of dairy exports, a recovery of farm milk prices in 2009 required a reduction in milk production, which in turn required fewer milk cows. But higher milk prices during 2007 and most of 2008 had spurred dairy producers to add cows. U.S. milk cow numbers increased every month from May 2007 through January of 2009. The January 1, 2009 USDA livestock inventory report showed that milk cows were up 1 percent, to 9.33 million milk cows, from a year earlier. The same report shows that numbers of replacement heifers had dropped less than 1 percent to 4.41million head. That represents 48.3 heifers for every 100 milk cows, more than enough to expand the U.S. dairy herd.

Low milk prices and poor returns over feed cost encouraged dairy producers to slaughter more cows during the last half of 2008 and throughout 2009. In addition, three rounds of the National Milk Producers Federation CWT herd retirement program removed about 250,000 cows from the U.S. herd during 2009. As of November 2009, the number of milk cows had declined to 9.091 million, 2.6 percent fewer than a year earlier. Cow numbers will continue to decline, with the number of cows for the year averaging around 9.20 million head, down 1.2 percent from the 2008 average.

Poor returns over feed costs also slowed the increase in milk production. While milk production per cow had increased an average of 1.8 percent over the previous 10 years, it increased by just 0.7 percent over year-earlier levels from January through June and by 1.6 percent from July through October. The estimate for 2009 is an average of 20, 565 pounds, an increase of 0.8 percent. With 1.2 percent fewer cows for the year and an average of 0.8 percent more milk per cow, total milk production for the year is esti-

U.S. Milk Cows: 2007-2009



mated at 189.2 billion pounds, down 0.4 percent from 2008.

Most of that drop in milk production happened out west, where dairy producers have experienced more financial stress because they received lower farm milk prices and paid higher prices for feed. California, the top dairy state produced around 39.5 billion pounds of milk in 2009, about 4 percent less and its lowest production since 2006. In Idaho, the nation's third largest milk-producing state, production could drop 1.7 percent to 12.1 billion pounds. In contrast, Wisconsin continues to produce more milk. For the year, it is estimated that the state's milk cow numbers will average 1.257 million head, up 0.4 percent from 2008. Milk production per cow in Wisconsin is estimated at 20,016 pounds, up 2.4 percent. This will put Wisconsin's total milk production at 25.2 billion pounds, an increase of 2.9 percent over 2008 and surpassing the previous record high of 25 billion pounds set back in 1988.

The combination of soft domestic milk sales, the loss of dairy exports and continued increases in milk production kept dairy product stocks more than ample to meet current demands. November 30 stocks of butter were 18.5 percent higher than a year earlier, while American cheese stocks were up 10.6 percent and total cheese stocks were up 17.4 percent. Nonfat dry milk prices were near or below the CCC support price of $0.80 per pound for the first seven months of 2009. CCC purchased surplus nonfat dry milk weekly until mid-August, when prices began to strengthen. Government stocks of nonfat dry milk peaked at 247.1 million pounds on July 31 but fell to 200.9 million pounds on October 31.

The recent slowdown in milk production is reflected in reduced production of nonfat dry milk, which was down 6.4 percent January through September compared to a year ago. Non-government stocks of nonfat dry milk stood at 121.7 million pounds on September 30, 14.2 percent below a year ago, thanks to lower production and some improvement in domestic sales and exports. Reported production of dry whey through September was 3.1 percent lower. This drop in production along with improved domestic sales reduced dry whey stocks 25.4 percent below a year ago.

Although stocks of dairy products were ample to excessive, dairy product prices strengthened significantly in October and November due to improvement in domestic and foreign sales and falling milk production. CME 40-pound cheddar blocks had averaged less than $1.15 per pound in May and June, but improved to $1.72 in early December before fallling back to $1.45 by year's end. CME butter prices averaged $1.20 per pound in August but were up to $1.52 in November and back down to $1.33 by year's end. Western nonfat dry milk prices were under $0.85 per pound January through July, but averaged $1.34 in December. Western dry whey sold for as little as $0.15 per pound in January and February but averaged $0.3950 in December.

These higher dairy product prices greatly improved farm milk prices late in 2009. The Class III price was up to $12.82 per hundredweight in October and $14.08 in November compared to $9.97 in June and July. The average December Class III price is estimated at $14.80. If so, the Class III price will average $11.35 for the year—$6.09 below the 2008 average of $17.44.

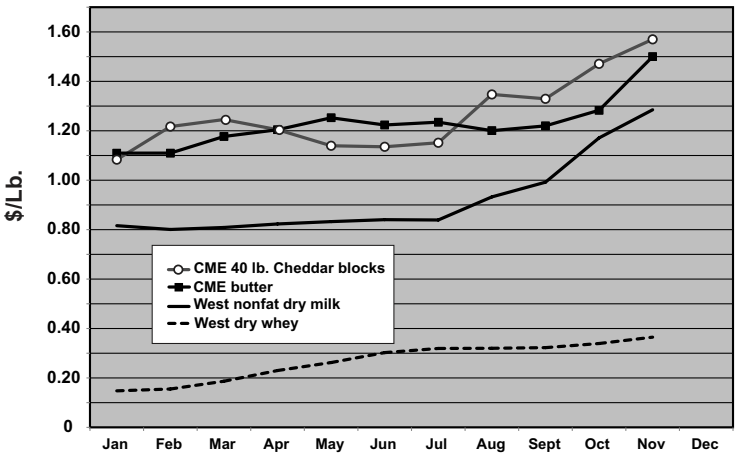
The Class IV price hit its yearly low of $9.45 per hundredweight in February. It climbed to $11.86 in October and $13.25 in November and is estimated at $14.50 for December, for a 2009 average of $10.85, $3.80 lower than 2008. The Wisconsin All-milk price hit its low of $11.40 per hundredweight in June and July and

Stocks of Dairy Products on November 30: 2009 vs. 2008

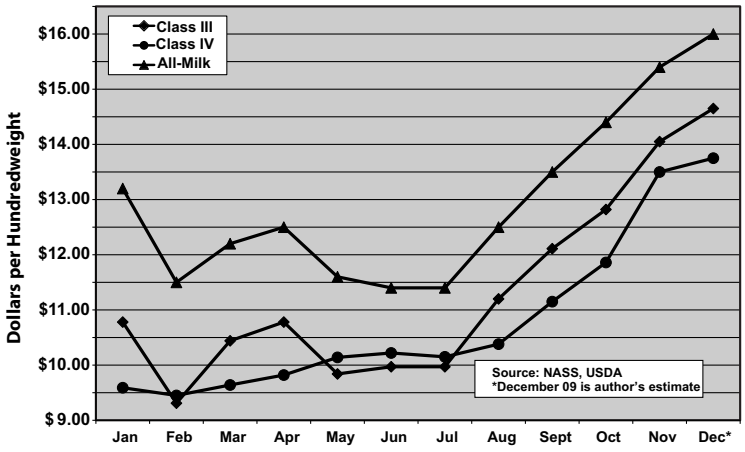
Product	*Million Pounds*	*% Change from 2008*
Butter	142.2	+18.5%
American cheese	582.7	+10.6%
Total cheese	961.4	+17.4%
Nonfat dry milk (Manufacturers' stocks)	90.1	-38.3%
Dry whey	45.6	-27.6%

Source: USDA, NASS. *Note:* Nonfat dry milk and dry whey stocks are as of October 31. Nonfat dry milk stocks do not include CCC inventory.

Dairy Product Prices, 2009



Class III, Class IV and Wisconsin All-Milk Price, 2009



increased to $16.60 by December. The average for the year was $13.07, down $5.86 from 2008.

In addition to market prices, dairy producers received MILC payments on eligible milk. MILC payments were triggered in February of 2009, reached a high of $2.0056 per hundredweight in March and declined to $0.35 in November. There were with no payments in December. MILC payments on eligible milk over the 12 months of 2009 averaged $1.51 per hundredweight.

Outlook for 2010

Farm milk prices will continue to strengthen in 2010 and average much higher than in 2009, driven by a continued decline in cow numbers and milk production, improved domestic sales of milk and dairy products, and growth in dairy exports. The strength of these forces will determine how much milk prices increase as the year progresses.

Milk cow numbers are likely to decline at least through the first three quarters of the year. The low milk prices experienced during 2009 eroded equity on many dairy farms, and it will take several months of improved milk prices—perhaps into 2011—to restore these losses. In the meantime, financial institutions will be leery of lending money for dairy expansions and startups. Dairy cow slaughter will remain relatively high until returns over feed cost become much more favorable, at least through the first six months of 2010. And the number of producers leaving the business is likely to be higher during the winter and early spring of 2010. Milk cows are expected to average 8.976 million head in 2010, down 2.4 percent from the estimated 2009 average.

While milk prices will continue to improve, relatively high feed costs may keep returns over feed costs unfavorable through the end of the second quarter and possibly into the third quarter, particularly in the Western states. In December 2009, corn futures were near $4 per bushel for all 2010 contracts. Soybean meal may average a little lower in 2010. In December 2009, soybean meal futures were at or slightly below $300 per ton for all 2010 contracts. Forages could average lower in 2010. October 2009 alfalfa hay prices were down as much as 50 percent in California and Idaho, 25 percent in New Mexico, 9 percent in New York and 13 percent in Wisconsin.

The combination of unfavorable returns over feed costs early in the year and the financial stress could also cause some producers to buy less grain and concentrates, which may limit increases in milk per cow. Partially offsetting these factors is the replacement of lower-producing cows with higher-producing heifers. Average milk per cow in 2010 is estimated to increase 1.8 percent to 20,935 pounds.

With an average of 2.4 percent fewer milk cows producing 1.8 percent more milk per cow, 2010 milk production would total 187.9 billion pounds, 0.7 percent less than 2009. USDA's December 2009 milk supply and demand estimates also has 2010 total milk production at 187.9 billion pounds.

The very slow economic recovery in 2010 will probably continue to slow the growth of domestic sales of milk and dairy products. USDA's November forecasts show very limited growth in domestic milk sales—only 0.3 percent for the year. This adds up to an increase of about 450,000 pounds of milk. But there are indicators that domestic sales

Milk Cow Numbers, Milk per Cow and Total Milk Production, U.S. 2008-2010

		2009 Estimate		*2010 Forecast*	
	2008 Actual	*Number*	*%Change*	*Number*	*%Change*
Milk cows (1,000 head)	9,315	9,200	-1.2	8,976	-2.4
Milk per cow (pounds)	20,396	20,565	+0.8	20,935	+1.8
Total milk production (billion pounds)	190.0	189.2	-0.4	187.9	-0.7

Source: 2008—USDA, NASS; 2009 and 2010—author's estimate

may do better. As of October 2009, retail prices of all dairy products were 8.2 percent lower than a year ago. With increases in farm milk prices and dairy product prices, we can expect retail prices to also increase. On the other hand, near the end of 2009, retailers were offering more specials on beverage milk, cheese and butter to attract shoppers, and this practice could continue well in 2010. Beverage milk, butter and cheese prices will likely continue to be a good value to consumers in 2010. Butter and cheese sales through restaurants may also do better in 2010. For example, major pizza chains are launching new pizzas topped with more cheese in order to entice consumers to eat more pizza. Other types of restaurants may use more cheese in their recipes as well.

The faster-than-predicted improvement in world economies bodes well for dairy exports. Moreover, milk production by two major competitors, New Zealand and Australia, is increasing less than predicted, which will slow the growth in their exports. A drop in milk production in most European countries has significantly reduced their surpluses of dairy products. As a result, the EU has suspended all dairy export subsidies. World prices of cheese, butter, nonfat dry milk and dry whey all increased substantially during the last half of 2009 and are currently well above U.S prices. USDA forecasts that, on a total solids basis, 2010 dairy exports may be equivalent to nearly 9 percent of total milk production. Just as the loss of exports was a major factor in reducing milk prices in 2009, export growth may be a key factor for improving them in 2010.

Increased domestic sales and dairy exports could boost 2010 sales of milk by nearly 3 billion pounds. This would increase commercial disappearance over that of 2009 by about 1.5 percent.

Projected 2010 Dairy Product Prices

Quarter	*Product*			
	Cheddar Cheese (40-lb.block)	*Butter*	*Nonfat Dry Milk*	*Dry Whey*
	Dollars per Pound			
Jan–Mar.	$1.58 - $1.62	$1.37 - $1.39	$1.15 - $1.17	$0.35 - $0.36
Apr.–June	$1.65 - $1.70	$1.40 - $1.45	$1.17	$0.36
July–Sept.	$1.72- $1.78	$1.45 - $1.52	$1.18	$0.35
Oct.–Dec.	$1.79 - $1.84	$1.54 - $1.58	$1.15 - $1.17	$0.32 - $0.34

Source: Author's estimates.

This projected milk supply and demand situation will strengthen dairy product prices and farm-level milk prices in 2010. CME 40-pound Cheddar block cheese prices should increase throughout the year, from around $1.58–$1.62 per pound in the first quarter to $1.79–$1.84 in the fourth quarter. CME butter prices may decline to $1.37–$1.39 per pound in the first quarter, then climb steadily to $1.54–$1.58 in the fourth quarter. Nonfat dry milk prices may remain fairly stable at the $1.15–$1.18 per pound range all year. But since less nonfat dry milk will be produced, prices may well end up higher than this if exports improve as forecast. Anticipated increases in exports will also support dry whey prices, keeping them in the $0.32–$0.36 per pound range, or even a bit higher, through 2010.

If these higher dairy product prices materialize, farm-level milk prices will also improve substantially. The Class III price is expected to be around $14.70–$15.20 per hundredweight during the first quarter and improve to $16.75 to $17.15 in the fourth quarter. The Class IV price should go from $13.55–$13.80 in the first quarter to $14.30–$14.45 in the fourth. The Wisconsin All Milk price range is forecast to climb from $16.20 to $16.65 in the first quarter to $18.20–$18.65 the fourth.

In summary, average price forecasts for 2010 are as follows:

• Class III—$15.95 per hundredweight, up $4.60 from 2009

• Class IV—$14.05 per hundredweight, up $3.25

• Wisconsin All-Milk price—$17.50, up $4.43.

These estimates are based on the increases in domestic sales and exports and the decline in milk production predicted above. Any deviations from these forecasts could change dairy product and milk prices considerably. Forecasts will no doubt change as new market information becomes available in 2010. Dairy producers must keep abreast of market developments and attempt to manage the risk of changing milk prices.

Projected 2010 Class III, Class IV, and Wisconsin All-Milk Prices

Quarter	*Class III Price*	*Class IV Price*	*All-Milk Price*
	Dollars per Hundredweight		
Jan–Mar.	$14.70 to $15.20	$13.55 to $13.80	$16.20 to $16.65
Apr.–June	$15.45 to $15.95	$13.85 to $14.05	$16.95 to $17.45
July-–Sept	$16.15 to $16.70	$14.15 to $14.45	$17.65 to $18.10
Oct.–Dec.	$16.75 to $17.15	$14.30 to $14.45	$18.20 to $18.65

Source: Author's estimates.

Livestock and Poultry

Patrick Luby (608) 262-6974
Brenda Boetel* (715) 425-3176

2009 in Review

Meat consumption in the United States fell in 2009 to an estimated 211 pounds per capita. This is the lowest since 1997 and about 5 percent below the record high of 221.6 pounds set in 2007. The current two-year decline in meat consumption involves all four major meats. Consumption of red meat and poultry per capita in 2009 declined 2.1 percent (4.5 lbs) from the previous year.

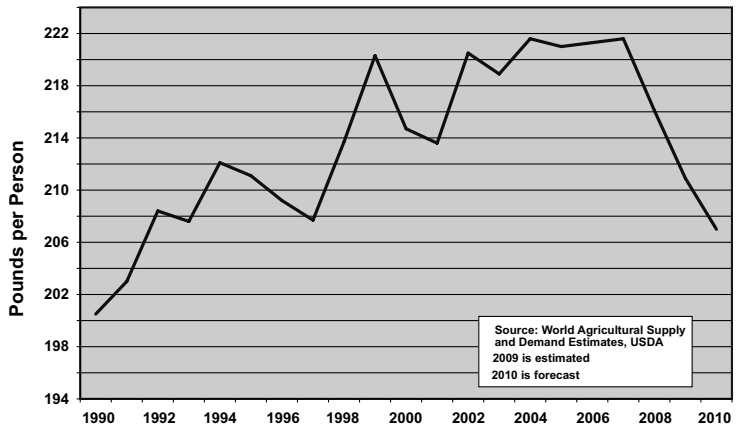
For the first time in many years, exports of all four major meats may have declined in 2009. However, in each case, the declines were fairly modest, especially considering that they came in the face of a worldwide recession and followed a very strong export market in 2008.

The byproduct market also declined. The international market drives the byproduct value for cattle. In 2008, high oil and feedstuff prices drove byproduct values to record highs of nearly $12.00 per hundredweight on a live steer basis, but those prices collapsed along with the economy. By March 2009, the byproduct value was only $5.90 per hundredweight. Byproduct values improved later in 2009 in response to tighter cattle supplies and gains in the domestic and global economies, but were still $2–3 lower than 2008 levels.

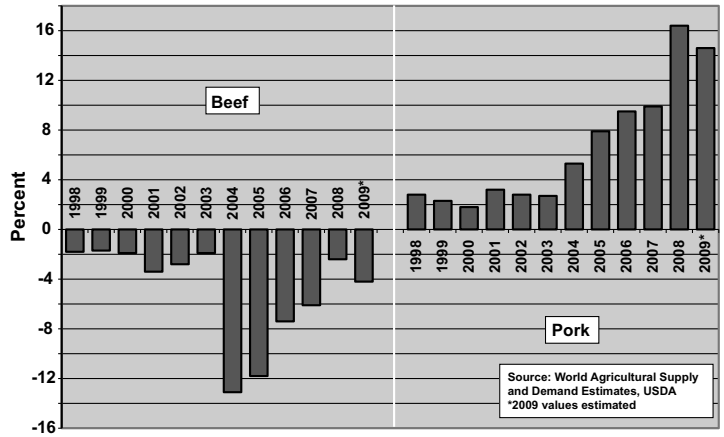
U.S. meat production in 2009 declined about 3 percent from 2008. This was only the third decline in production in the last 27 years, and it was by far the largest (production declined by 0.23 percent in 2003 and by 0.06 percent in 2004).

**Brenda Boetel is an assistant professor, Department of Agricultural Economics, UW-River Falls and a commodity marketing specialist, Cooperative Extension, UW-Extension.*

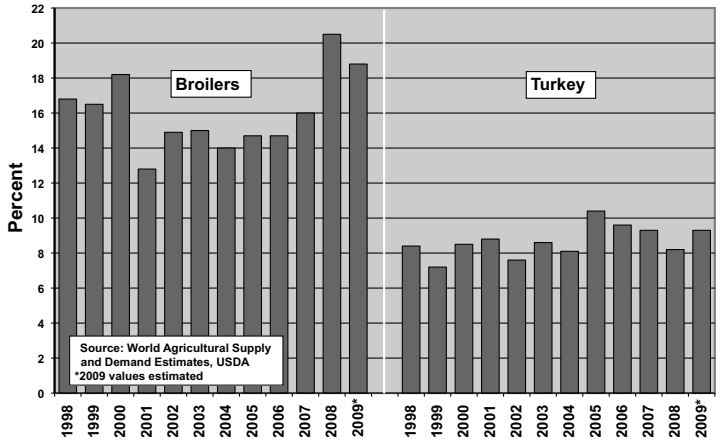
U.S. per Capita Meat Consumption



U.S. Foreign Trade Balance (Exports–Imports) as a Percent of Production: Beef and Pork



U.S. Foreign Trade Balance (Exports–Imports) as a Percent of Production: Broilers and Turkey



The main pressures on the supply side were a substantial three-year increase in the cost of feed, particularly corn, as well as persistent droughts in the western United States. The rise in corn prices coincided with the rapid increase of use of corn to make ethanol.

U.S. average corn prices broke the $3-per-bushel barrier in November 2006. They have averaged $3.97 per bushel since then, hitting an all-time high of $6.56 in June 2008. From November 2003 through October 2006, U.S. corn prices averaged $2.16 per bushel. From then to the end of September 2009, they averaged $3.77.

The size of the U.S. corn crop actually increased 8 percent, from an average of 11,003 million bushels for 2003-2005 to 11,891 million bushels for 2006-2008. But despite the larger crops, the amount of corn used for domestic feed declined 7 percent, from 6 billion bushels in 2003-2005 to 5.6 million bushels in 2006-2008.

Although livestock producers' costs increased from 2008 to 2009 and U.S. meat production was down 3 percent, average prices of choice cattle, feeder cattle, cows, hogs, broilers and turkey all declined. About the only bright spot for producers was that hay prices were below the 2008 record highs.

Cow slaughter changed only slightly in 2009 on the heels of a vigorous three-year rise (from the smallest slaughter in 42 years in 2006). Dairy cow slaughter was up about 12 percent due to three rounds of the CWT herd retirement program. Slaughter of beef and other cows was down about 9 percent. Cow slaughter in 2009 remained about 41 percent below the record high recorded in 1975, but about 20 percent above the recent low of 2005.

2010 Forecast.

Following the 3 percent decline in U.S. meat production in 2009, a smaller drop of about 1 percent is expected in 2010. A small increase may be experienced in poultry production against a modest decline in pork and beef.

A wild card in the outlook in 2010 is the quality of the 2009 corn crop. The crop was planted late because of a cold and wet spring. Summer was marked by favorable precipitation but fewer than normal growing degree-days, and a wet and cold October delayed harvest. The harvested corn appears to have an above-normal moisture content. When a similar situation occurred with the 1972 crop, some animals failed to eat and gain weight in a normal fashion the following year. Pork production unexpectedly fell more than 9 percent in 1973. Drying and storage technology is far advanced from what it was 37 yearsago, but the industry should be alert to any problems.

U.S. Corn Production and Use, September, 2003–August,2009

	2003-2006	*2006-2009*	*Change*	
	Mil. Bu.	*Mil. Bu.*	*Mil. Bu.*	*Percent*
Corn Production	11,003	11,891	888	8
Feed Usage	6,033	5,586	(447)	(7)
Export	1,954	2,140	186	10
Ethanal Usage.	1,365	2,948	1,583	116
Food, Indus., Seed	1,370	1,328	(42)	(3)

World Agricultural Supply and Demand Estimates, USDA, various issues

Choice Cattle Prices May Increase a Little. Choice cattle prices had averaged more than $90.00 per hundredweight in 2007 and 2008, but in 2009 a severe U.S. recession with substantial unemployment cut demand, causing prices to tumble about 10 percent.

Domestic beef demand should be stable to slightly higher in 2010. Exports will likely increase as the world economy recovers, and this will also support the continued increase in byproduct value. These factors, combined with lower production, should allow a slight increase in fat cattle prices relative to 2009.

Feeder Cattle Prices Likely to Improve Modestly. After a five–year run of prices exceeding $100 per hundredweight. (Oklahoma City), feeder cattle prices declined about 6 percent in 2009. A higher price for fat cattle and smaller calf crop will support higher feeder cattle prices in 2010. Additionally, lower feed costs have a positive impact on feeder cattle price. Prices should work back up toward the $100 mark in 2010. As always, the price of feed and the price of finished cattle will be the main determinants.

Utility Cow Prices Expected to be a Little Higher. Utility cow prices (Sioux Falls) jumped 39 percent from 2002 to 2005 to $54.36 per hundredweight, but since then they have trended irregularly but lower to the upper $40s. A modest 5–10 percent improvement is anticipated in 2010.

Federally Inspected cow slaughter fell 54 percent from a record-high 10.4 million in 1975 to a 42-year low of 4.8 million in 2005. Slaughter has since recovered to about 6.1 million in 2008 and 2009. Little change in cow slaughter is expected in 2010. If employment rises in 2010, some modest price increase can be expected.

In 2009, dairy cow slaughter totaled about 2.9 million head, up about 12

percent from a year earlier. Other cows, including beef cows, added up to about 3.2 million head, down about 9 percent from 2008.

Hog Prices Should Average Higher. Hog prices averaged about 14 percent lower in 2009 than in 2008 but should regain at least half of that loss in 2010, and possibly more. If the domestic economy can rebound and export demand increases—fueled in part by a weak dollar—hog prices can erase much of their 2009 decline.

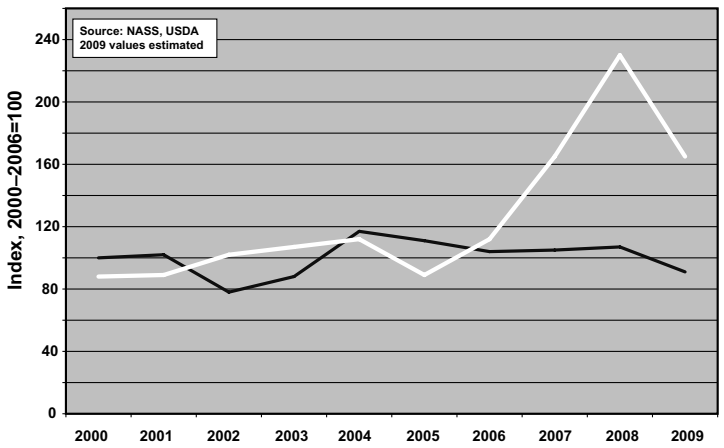
The number of hogs on farms is about 2-3 percent smaller than a year ago. The breeding stock on September 1 was down 3.1 percent to 5.9 million head, thought to be the smallest breeding herd since the 1800's. The largest breeding stock on record was 13.3 million in 1923. Today the hog/pork industry produces about three times as much pork with about half the number of breeding stock.

The annual average hog price in 2009 was about $41.00 per live hundredweight, the sixth lowest in 29 years. Low hog prices combined with very high feed prices have created losses to hog producers for more than two years. These losses should restrain hog production in 2010 and allow prices to rise.

Broiler Production to Rise a Bit; Prices May Also Edge Upward. Broiler production fell more than 3 percent in 2009, the first decline in 34 years. But under the weight of the severe recession, the average 12-city price also fell about 3 percent from 2008's record high.

The poor financial results in 2008 and 2009 and continuing high feed costs should keep production increases in 2010 very modest. If the economy and employment improve, broiler prices may show some modest strength.

U.S.Hog and Corn Price Indices



Turkey Production, Prices About Steady. While turkey production and prices both hit record highs in 2008, 2009 was a different story. Production fell about 8 percent, yet the average annual price declined a like amount. January 2009 frozen inventories of turkey meat were up 52 percent from a year earlier. This and high feed costs contributed to poor financial results in 2009.

The very high frozen inventories were reduced somewhat during 2009, and turkey production should not rise much in 2010, so prices may match 2009 averages. However, that would still put turkey prices well below 2008's record highs.

Lamb Production Down a Bit; Prices About Steady. U.S. lamb production fell another 3–4 percent in 2009, extending a long string of annual declines. Lamb production in 2009 was down 27 percent from 1990, declining each year of the decade. Lamb imports have risen 35 percent during the same time, keeping consumption nearly steady at one pound per capita. Lamb prices rose about 5 percent in 2009 and should hold that advance in 2010.

Egg Production Continues Steady; Prices Near the 2009 Average. Egg production has trended sidewise for the last several years following a slow rise earlier in the decade. Year-over-year changes have been small each year.

However, prices have often been highly variable from year to year, and often from quarter to quarter. Following a three-year 52-percent rise, egg prices collapsed about 22 percent in 2009, but they still achieved the third-highest annual price in the decade. This year should bring the usual very small change in production and a volatile seasonal pattern of prices yielding an average nearly equal to 2009.

Meat Consumption Down a Little More in 2010. Meat consumption per capita has trended upward for decades, peaking from 2004 to 2007. However, it declined by 2.5 percent in 2008 and was followed by a similar drop in 2009. Consumption will likely decline again in 2010, but by a smaller amount, to around 207 pounds per capita, which would be 6-7 percent below 2007's record of 221.6 pounds per capita. This continuing downtrend is driven by a sluggish U.S. economy, poor financial results for most livestock and poultry producers and good export demand encouraged by a weak dollar.

Corn and Soybeans

Randy Fortenbery (608-262-4908)

Synopsis

The nation's 2009 crops of both corn and soybeans are expected to show record yields despite very late harvests and concerns over yield loss from wet fall conditions. U.S. farmers will harvest a record soybean crop and their second-largest corn crop. Prices in 2009 did not match 2008 highs but were above pre-2007 levels. On the negative side, the higher prices have been offset by higher input costs, so that per-acre returns did not increase with higher average prices.

Corn

The December World Agricultural Supply and Demand Estimates pegged the average U.S. corn yield at 162.9 bushels per acre for 2009. This is 9 bushels above the 2008 average yield and 12 bushels above that of 2007's record crop. It also beats the previous record yield in 2004 by 2.5 bushels. Despite record yields, however, total production is below that of the 2007/08 marketing year, because producers harvested 7 million fewer acres in 2009/10.

USDA estimated U.S. producers planted 86.4 million acres to corn in 2009 and harvested 79.3 million of those acres for grain. Planted acres in 2009 were actually less than harvested acres in 2007 (the record crop year), and the percentage of planted acres harvested was also lower.

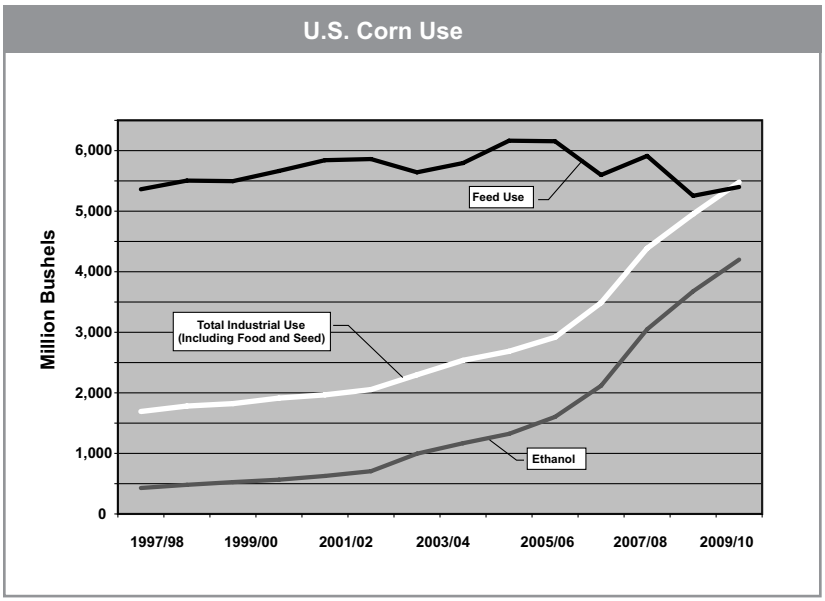
Beginning stocks for the current marketing year (stocks as of September 1, 2009) were slightly higher than last year's, but ending stocks are expected to about equal last year's. While more corn was produced relative to last year, overall demand is expected to increase even more. This will result in the stocks-to-use ratio for 2009/10 being less than last year. Nevertheless, USDA expects lower average prices for the crop harvested in fall 2009 relative to the 2008/09 marketing year.

Based on early USDA projections, total U.S. corn demand for the 2009/10 will set a record. For the first time ever, industrial use (which includes seed, food, and ethanol use) will exceed feed demand. The growth in industrial use over the last several years is mostly explained by the increase in ethanol use. In fact, ethanol use now accounts for almost 77 percent of total industrial use,

U.S. Corn Balance Sheet (Sep/Aug)

Marketing Year	*02/03*	*03/04*	*04/05*	*05/06*	*06/07*	*07/08*	*08/09**	*09/10***
	Million Bushels *(Except as Noted)*							
Beg. Stocks	1,596	1,087	958	2,114	1,967	1,304	1,624	1,674
Imports	14	14	11	9	12	20	14	10
Acres Planted (Mil.)	78.9	78.6	80.9	81.5	78.3	93.5	86	86.4
Acres Hvst. (Mil.)	69.3	70.9	73.6	75.1	70.6	86.5	78.6	79.3
% Harvested	87.8%	90.2%	91.0%	92.1%	90.2%	92.5%	91.4%	91.8%
Yield (Bu/A)	129.3	142.2	160.4	148	149.1	150.7	153.9	162.9
Production	8,967	10,089	11,807	11,114	10,535	13,038	12,101	12,921
Total Supply	10,578	11,190	12,776	13,237	12,514	14,362	13,739	14,605
Feed & Res.	5,563	5,795	6,158	6,155	5,595	5,913	5,254	5,400
Food/Seed/Ind.	2,340	2,537	2,686	2,981	3,490	4,387	4,953	5,480
Ethanol	996	1,168	1,323	1,603	2,119	3,049	3,677	4,200
Exports	1,588	1,900	1,818	2,134	2,125	2,437	1,858	2,050
Total Demand	9,491	10,232	10,662	11,270	11,210	12,737	12,065	12,930
Ending Stocks	1,087	958	2,114	1,967	1,304	1,624	1,674	1,675
Stocks to Use (%)	11.45%	9.36%	19.83%	17.45%	11.63%	12.75%	13.87%	12.95%
Average Farm Price ($/Bu.)	$2.32	$2.42	$2.06	$2.00	$3.04	$4.20	$4.06	$3.55

*USDA Estimate as of December 2009
**USDA Forecast as of December 2009



compared to less than 30 percent a decade ago. Demand from ethanol exceeds total industrial demand of just four years ago. Ethanol demand continues to grow in spite of the poor performance of ethanol plants over the last year or so.

Feed demand is expected to increase slightly relative to last year, but it is still well below demand experienced over most of the last decade. In fact, not since the 1996/97 marketing year has feed demand been less than in both this and last year.

Exports in 2009/10 are expected to recover somewhat from last year's drop-off, but they will still be below those in the 2005/06 and 2007/08 marketing years. This year's improvement is at least partially explained by a continuing decline in the value of the dollar relative to the currencies of major corn buyers. The dollar fell steadily from 2002 through early 2008, strengthened through most of 2008, and then fell again in 2009. The dollar's value correlates closely with the volume of U.S. corn exports: Exports continued to increase most years between 2002/03 and 2007/08, declined on a year-over-year basis in 2008/09, and are expected to increase again this year.

World corn production for the current marketing year is expected to be just over 31 billion bushels. The U.S. harvest represents about 42 percent of global production, which is expected to be down about 1 percent from last year's. Among major producers, year-over-year increases are expected only from Argentina (1 percent increase) and the United States. Most major producers, including Brazil, China, South Africa, the former Soviet Union, Mexico, the EU-27 and Southeast Asia, expect lower 2009/10 harvests.

Total global demand is expected to increase relative to last year (despite a softening of global feed demand), with total exports increasing by about 4 percent. Global ending stocks are expected to fall by about 9 percent this year.

Wisconsin produced its third-largest corn crop on record in 2009, exceeded only in 2005 and 2007. The 2009 crop is currently estimated at over 423 million bushels, up almost 29 million bushels from 2008. However, the state's share of the total U.S. crop is below average. From 1980 through 2008, Wisconsin's corn crop has averaged just over 4 percent of the total U.S. crop, but in 2009 we contributed only 3.28 percent. There have been only four years in the last 30 in which Wisconsin has had a smaller share of the nation's crop, and three of those were in the last 6 years.

The average corn yield in Wisconsin is estimated at 146 bushels per acre, an improvement of 9 bushels per acre over the 2008 harvest. Total harvested acres exceeded last year by only 20 thousand, so the year-over-year production increase comes almost entirely from an increase in per-acre yields.

Harvest prices for corn this year were about 62 cents per bushel below 2008 harvest prices. However, as of mid-December, the futures markets were offering about 5 cents per month for storage through July. In addition, Wisconsin basis levels were several cents weaker than normal, thus some basis improvement going forward is also expected. As a result, 2010 storage opportunities look attractive, and some price improvement can be expected as we move through the marketing year.

Like the last two years, price volatility is likely to be greater than was experienced prior to the 2007/08 marketing year. We have entered an era of both higher prices (consistently averaging above the low-$3-per-bushel level) and increased volatility. This means that storing corn without locking in a price represents a greater risk than in the past.

Soybeans

In December 2009 USDA estimated the U.S. soybean at a record 3.32 billion bushels, an increase of 12 percent from the 2008 harvest. U.S. producers set records in 2009 for both yields (estimated at 43.4 bushels per acre, just over a half-bushel above the previous record in 2006) and both planted and harvested acres (up almost 2 million over last year).

U.S. Soybean Balance Sheet (Sep/Aug)

Marketing Year	*02/03*	*03/04*	*04/05*	*05/06*	*06/07*	*07/08*	*08/09**	*09/10***
	Million Bushels *(Except as Noted)*							
Beg Stocks	208	178	112	256	449	574	205	138
Imports	5	6	6	3	9	10	13	8
Acres Planted (Mil.)	74	73.4	75.2	72	75.5	64.7	75.7	77.5
Acres Hvst. (Mil.)	72.5	72.5	74	71.3	74.6	64.1	74.7	76.6
% Harvested	98.0%	98.8%	98.4%	99.0%	98.5%	99.1%	98.7%	98.8%
Yield	38	33.9	42.2	43	42.7	41.7	39.7	43.3
Production	2,756	2,454	3,124	3,063	3,188	2,677	2,967	3,319
Total Supply	2,969	2,638	3,242	3,322	3,647	3,261	3,185	3,465
Crush Sep/Aug	1,615	1,530	1,696	1,739	1,808	1,803	1,662	1,695
Exports	1,044	887	1,097	940	1,116	1,159	1,283	1,340
F/S/R	130	109	192	194	149	93	101	175
Total Demand	2,791	2,526	2,986	2,873	3,073	3,056	3,047	3,210
Ending Stocks	178	112	256	449	574	205	138	225
Stocks To Use (%)	6.38%	4.43%	8.57%	15.62%	18.28%	6.71%	4.53%	7.01%
Avg. Farm Price	$5.53	$7.34	$5.74	$5.66	$6.43	$10.10	$9.97	$9.50

*USDA Estimate as of December 2009
**USDA Forecast as of December 2009

Beginning stocks (stocks as of September 1, 2009) going into the current marketing year totaled 138 million bushels, the lowest level in five years. However, ending stocks this year are expected to exceed both last year and the 2007/08 marketing year, totaling 225 million bushels. As a result, average farm-level prices across the United States are expected to be lower than the last couple of years, although still well above those experienced prior to 2007.

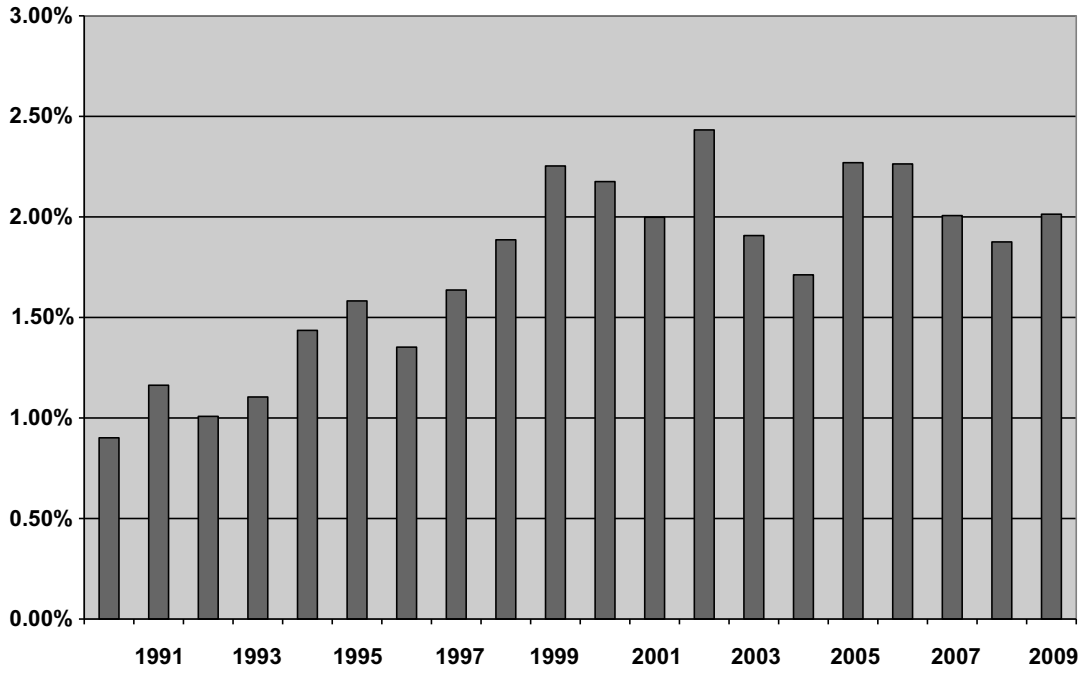
On the demand side, current expectations are for small increases in both soybean crush and exports this year. But the increase in demand won't offset the increase in production, leading to the year-over-year increase in ending stocks. As of December 2009, soybean crush was projected to total 1.7 billion bushels in 2009/10, up almost 2 percent over 2008/09. Exports are expected to be up almost 4.5 percent to a total of 1.34 billion bushels.

Like production, demand for 2009/10 represents a U.S. record. In fact, this year's demand exceeds total production in every year except the current one. The previous production record was 3.188 billion bushels in 2006. This year's consumption will beat that by about 22 million bushels.

World soybean production for the current marketing year is also forecast higher—almost 19 percent above last year's. Total world production is expected to be 9.2 billion bushels, with U.S. production representing about 35 percent of that. Both Argentina and Brazil are expected to have significant increases in soybean production, while the only major reduction will come from China. Argentinean production is projected to be up a whopping 66 percent, and Brazil is expected to produce 11 percent more than a year ago. World demand is also projected to increase, but not as much as the increase in production, leading to a projected 2.1 billion bushels increase in world ending stocks for 2009/10, up 35 percent over last year.

Like much of the rest of the country, Wisconsin produced significantly more soybeans in 2009 than in 2008. Total Wisconsin production is estimated at 66.8 million bushels, an increase of 20 percent. Wisconsin yields jumped 6 bushels per acre to an average of 41 bushels per acre. Wisconsin also harvested 40 thousand more acres this year than last. Wisconsin produced about 2 percent

Wisconsin's Soybean Crop as a Percent of U.S. Crop



of the U.S. soybean crop. Its share has been pretty consistent over the last decade.

Harvest prices for the 2009 soybean crop have averaged about 9 cents per bushel higher than in 2008 (based on national averages). Looking forward, the futures market is offering attractive returns to storage through March, and some basis improvement should be expected for Wisconsin producers. As with corn, significant price volatility is expected, so that those who are risk-averse may want to lock in storage returns for at least a portion of the crop being carried forward. The possible returns to storing soybeans into the late spring or summer do not look as attractive as those for corn.

Summary

Recent experience suggests that we have entered an era where average prices for both corn and soybeans will exceed those paid in the late 1980's, the 1990's, and the first half of the 2000s. However, along with the higher prices has come increased price volatility. This suggests two things: 1) Government programs do not provide as high a level of risk protection at current prices as they once did, and 2) risk management strategies outside the government programs will become increasingly important in determining an individual producer's bottom line.

Fruits and Vegetables

A.J. Bussan* (608) 262-3519

Synopsis

Although Wisconsin cranberry production decreased 11 percent in 2009, prices remained strong, supported by strong demand for cranberry products here and abroad.

The potato market has weakened. A combination of increased planting and higher yields across the country led to a larger volume of stored potatoes going into 2010 than 2009. Consumption was down for the fall quarter of 2009 due to 5 percent reduction in frozen processed potato consumption nationally. Open-market potato prices in the fall of 2009 were only about 30 percent of 2008 prices.

Contract prices for processed vegetables remain strong. Wholesale prices for canned and frozen sweet corn, green peas, green beans, carrots, and beets for 2008 and 2009 are up nearly 30 percent compared to 2007 and earlier. Wisconsin, Minnesota, and Illinois remain the nation's largest concentrated production of canned and frozen vegetables. Wisconsin currently ranks 2nd nationally in production of vegetables (excluding tomatoes) for processing.

**A.J. Bussan is an associate professor, Department of Horticulture, UW-Madison and vegetable crop production system specialist, Cooperative Extension, UW-Extension*

Fruit Crops

Apples

The USDA forecast for Wisconsin's 2009 apple crop is 58.5 million pounds, up 3 percent from the previous year's crop. Dry conditions, especially in the northern two-thirds of the state, may have limited fruit size, but yields should be better than last year. Scab was an issue in some orchards. The U.S. apple crop is expected to increase 4 percent over last year.

Tart Cherries

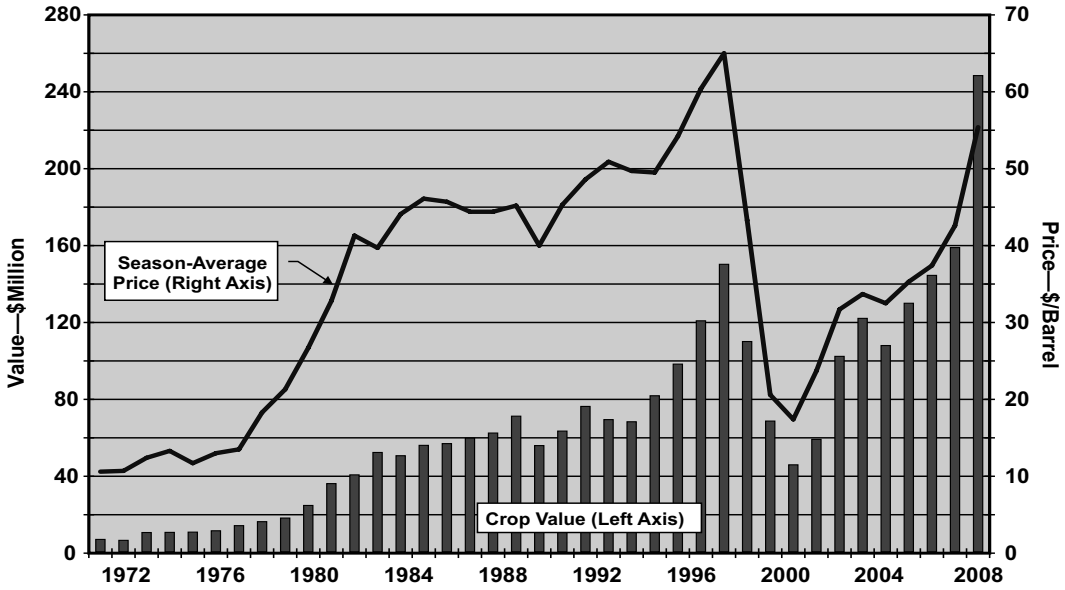
Wisconsin tart cherry production had only one direction to go. After an almost complete loss in 2008, the 2009 crop was forecast at 8.3 million pounds, which is within 20 percent of 2007 volume. The tart cherry crop was reportedly delayed due to cool and wet weather through much of the early part of the season.

Cranberries

USDA forecasts that Wisconsin's 2009 cranberry crop will be 4 million barrels (1 barrel = 100 pounds). This is down from 2008's record of 4.5 million barrels, but it would be the second largest crop on record for Wisconsin. The lower production was mainly due to marshes recovering from the huge 2008 crop. Cool weather in late spring and summer may also have reduced berry size. The unusually cool nights forced growers to frost-protect into early summer and again in early fall. Nevertheless, Wisconsin continues to lead the nation in cranberry production and once again will produce over half of the U.S. crop in 2009.

Wisconsin cranberry growers received an average price of $55.40 per barrel in 2008, and the price is

Wisconsin Cranberries: Season-Average Grower Price and Total Crop Value



expected increase marginally for 2009. Demand for cranberry products in the United States and abroad continues to expand, which has resulted in an expansion of exports and domestic utilization and steadily increasing prices since 2005.

Vegetable Crops

Potatoes

At nearly 29 million hundredweight, the 2009 Wisconsin potato crop was the largest since 2006. Wisconsin farmers planted 63,500 acres of potatoes, identical to 2008 but 2,500 acres fewer than 2006. Wisconsin potato yields in 2009 are projected to be 460 hundredweight/acre, the highest ever recorded. Nearly all the planted acres were harvested, the exception being some fields that suffered tuber damage from a hard frost on October 8. Cool growing season temperatures provided an excellent environment for potato growth and development. Solids content and tuber size were high, leading to good quality for all market sectors. Shrink (loss in storage) to date is slightly higher than 2008 due to frost damage prior to harvest of in some stored potatoes. The Wisconsin crop utilization breaks down as 9 percent for seed potatoes, 19 percent for chip potatoes, 23 percent for frozen and dehydrated, and 49 percent for the fresh market.

Wisconsin had almost 30 percent more potatoes in storage on December 1, 2009, than on the same date in 2008. This was due both to higher yields and slower usage from September through November. This trend was mirrored at the national level, with a much larger volume of potatoes in storage than last year due to more acres and higher yields across most producing regions. A 5-percent drop in processed potato consumption nationally in 2009 is contributing to excessive inventories.

The fresh market price in December 2009 was 50 percent lower than a year earlier. Sales of fresh potatoes have been brisk, but the large volume of potatoes in storage is keeping a lid on prices.

Sweet Corn

Wisconsin is a leading producer of processed sweet corn, with 81,300 acres planted in 2009. Yields were forecast to increase by 10 percent in 2009 over 2008 due to good precipitation and minimal crop stress during the growing season. Another 6,500 acres of sweet corn were planted for fresh market. Temperatures were cooler than ideal for sweet corn, leading to a 5- to 15-day delay in crop maturity depending on the production region. As of mid-September, more than half of the state's sweet corn for processing had yet to be harvested, which is higher than normal. But frosts also came later than normal, allowing for almost complete harvest of the planted 2009 crop.

Wisconsin Potatoes (All Uses) and Vegetables for Processing, 2008

	Production (1,000 Tons)			
	Wisconsin	*United States*	*Wisconsin as % of U.S.*	*Value ($Million)*
Fall Potatoes (All Uses)	1,286.5	18,929.4	6.8%	290.7
Sweet Corn	651.6	2,832.5	23.0%	80.9
Snap Beans	326.9	808.0	40.5%	61.9
Carrots	77.3	404.7	19.1%	6.2
Green Peas	76.1	411.8	18.5%	20.2
Cucumbers	39.5	566.2	7.0%	8.2

Snap Beans

Snap bean production in Wisconsin was estimated at 305,510 tons for 2009, down 2 percent from 2008. Wisconsin farmers had contracts to plant 39 percent of the nation's 2009 snap bean acreage. Despite a reduction in planted acreage, slightly higher yields kept production near 2008 levels. Cool summer growing conditions slowed snap bean growth and development, but minimal stress conditions and excellent root health led to good yields.

Green Peas

Wisconsin produced an estimated 85,240 tons of green peas from 40,400 planted acres in 2009. This was up from 2008 due to both increased plantings and higher yields. Wisconsin producers were contracted to grow just under 20 percent of the national green pea crop in 2009. The hottest week of the summer in early June caused some stress on peas, but healthy roots and cool conditions during pod fill led to good yields in 2009.

Cucumbers

Wisconsin growers planted 6,300 acres of pickling cucumbers in 2009, about 6 percent of the U.S. total. Cucumber harvest was delayed due to cool conditions, but limited crop stress led to excellent yields.

Onions

Wisconsin onion production in 2009 is expected to reach 1 million hundredweight, triple that of 2008. Farmers planted onions on 2,000 acres in 2009, and yields are expected to reach 500 hundredweight/acre. The entire crop was harvested for the first time in several years, as there were no major precipitation events, minimizing flooding of muck crops. Wisconsin produces less than 2 percent of the national onion crop.

III. Framing the Financial Crisis for Wisconsin Agriculture: Perspectives on Resiliency and Impacts

Introduction

Alan Turnquist and Brad Barham[1]

The world economic situation was remarkably difficult in 2009. Declines in spending and reduced availability of credit affected all sectors of the economy. Agriculture had a particularly difficult year. As the previous sections of this report show, the impacts of the economy-wide recession were exacerbated for much of U.S. agriculture by other factors such as high input costs and drastically reduced prices.

While agriculture throughout the nation and the world suffered losses in 2009, some regions, organizations and producers were in better shape than others. As a state, Wisconsin's mix of products, production practices and industry structure have impacted the way in which we have been affected. Likewise, the structure and timing of decisions on the farm level has impacted the way in which individual producers are faring.

The articles that follow seek to offer some further perspective on what the farm financial crisis has meant to Wisconsin's producers. Most of the articles go beyond the past and present and look to future implications. The pieces focus on dairy but consider other agricultural sectors as well.

The first two articles take a broad perspective. Brian Gould analyzes how Wisconsin dairy has fared in comparison to other states and regions in the United States, then Ed Jesse and Steven Deller discuss the importance of international trade both to Wisconsin's agriculture and the state in general. Next, Paul Dietmann brings us down to the farm level with a look at how individual producers have managed through this most difficult year, and Brad Barham describes how one cooperative is navigating the downturn by managing supply and prices of its producers. Finally, Phil Harris offers practical advice to producers on managing tax liability in times of financial distress.

Looking at these experts' reviews, a few salient points emerge. Agriculture at both the state and national level is increasingly reliant on exports. The loss in export revenue was at the heart of the financial downturn for dairy and crop producers in 2009. Restoring farm profitability in the nation will depend on the recovery of these crucial agricultural export markets.

For individual dairy producers, it is clear that the timing and nature of investment was crucial. Those who had made major investments in equipment and facilities and entered 2009 with debt often suffered greater financial stress than those who had prepaid expenses such as feed and fuel. Farm and household structure also made a difference: Those with significant cash outflows for inputs such as hired labor or purchased feed were less able to adapt to a credit-constrained environment. Operators who relied more on themselves and family for labor, and those who grew most of their own feed, had more flexibility in dealing with these challenges.

As a whole, the Wisconsin dairy sector weathered the storm better than did most other states and regions in the country. Production increased here while it declined significantly in most other major dairy states. While many Wisconsin producers did incur losses, the ability of our farmers to find new, better and distinctive ways to manage their farms resulted in better financial outcomes than in other states. Wisconsin's relative success in part reflects a land base which allows for a diverse array of integrated crop-livestock production systems. It also reflects the expertise and craftiness of our milk producers as well as the many institutions and individuals who provide them with information, products and services. As Paul Dietmann concludes: "One year of extraordinary difficulty will not negate all of the positive factors that work in our state's favor."

Regional Differences in the Response to Low Milk Prices: Herd Size, Production and Profitability

Brian W. Gould[2]

Since the beginning of 2009, the dairy industry has experienced unprecedented decreases in farm-level milk prices. At the same time, the costs of many inputs were relatively high. This cost-price squeeze yielded negative cash flows for most producers.

Over the first 11 months of 2009, the Wisconsin average All-Milk price was $12.74, down 33 percent from the 2008 average of $19.11 and the lowest 11-month average since 2002. We estimate that the Wisconsin average Mailbox price will be $12.52/hundredweight, down from $18.81/hundredweight in 2008. With respect to feed costs, the average prices paid for corn grain and soybeans by producers in Wisconsin were $3.78/bu and $10.07/bu, respectively. These prices are up approximately 30 percent higher from the January-November period of the previous 5 years.

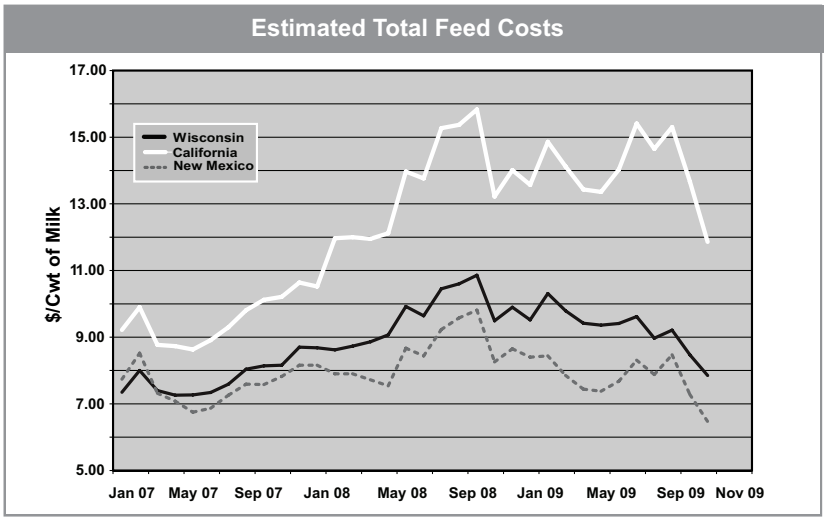
Dairy farmers in other regions suffered from the same negative cash flow problems as Wisconsin, but the severity of losses and the response by farmers to those losses varied across regions. These differential impacts reflect differences in farm structure, product mix and technology and other factors. What follows is a review of how dairy sectors in a number of the major producing states responded to the challenges of the last year.

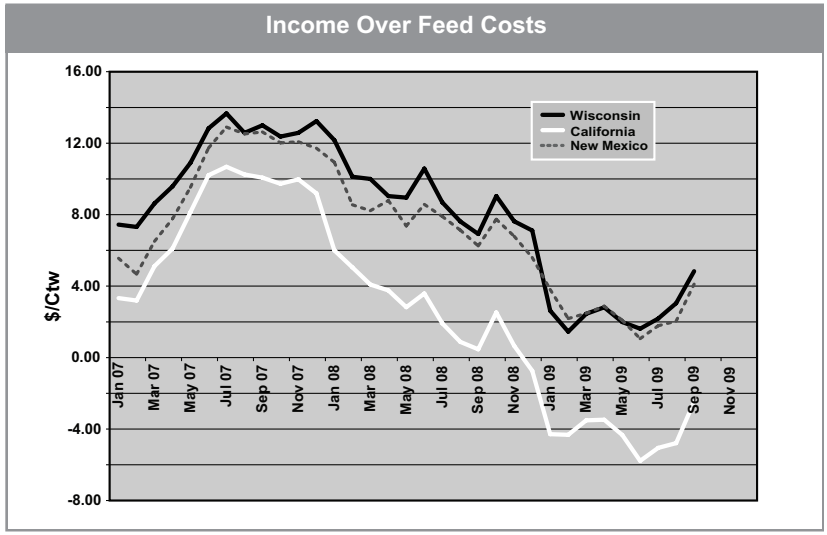
Regional Differences in Farm Profitability

We can get a rough idea of the relative profitability of dairying across states by using data on milk prices and feed costs to compute milk income over feed costs (IOFC). By using state-specific mailbox prices and estimates of (per-hundredweight of milk) purchased and non-purchased feed costs from the Economic Research Service (ERS) of USDA, we estimated monthly IOFC for Wisconsin, California and New Mexico—three states with very different dairy systems.[3] New Mexico and Wisconsin show similar total feed costs. California has had higher feed costs since 2007. Subtracting these monthly cost estimates from each state's monthly average mailbox price generates our IOFC estimates.

There is a distinct similarity in the way that state IOFC profiles change over time, with decreases starting in the second half of 2007. Wisconsin's IOFC values are substantially higher than those of California, the state that produces the most milk. In January 2008, the estimated Wisconsin IOFC was $12.17/hundredweight, compared to $6.00 for California and $10.93 for New Mexico.

In July 2009, the month with the lowest IOFC estimates, the estimated Wisconsin IOFC was $2.18/hundredweight, an 82.1 percent decline. In comparison, New Mexico's estimated IOFC was $1.78, while California's was -$5.05/hundredweight, indicating that its mailbox





price could not cover estimated feed costs. By our calculation, California had a negative IOFC from Dec. 2008–Sept. 2009, the last month for which mailbox price information is available. Other dairy states in the Midwest and Northeast, such as Michigan, New York and Pennsylvania, have IOFC estimates similar to those of Wisconsin.

Regional Participation in the CWT Herd Retirement Program

Another indicator of relative financial stress among dairy sectors in different regions is the level of participation in the Cooperatives Working Together (CWT) herd buyout program. In response to the extremely low milk prices and high feed costs, CWT initiated three rounds of this program in 2009.[4]

The table below compares milk-producing regions in terms of number of milk cows slaughtered, milk capacity removed, milk removed per accepted bid and share of milk removed from production under each of the nine CWT herd reduction rounds from 2003 through 2009. The importance of the Midwest as a source of CWT-induced herd-size reduction decreased during this time period. In the 2003 reduction program, 18.3 percent of the total milk removed originated from the Midwest. In comparison, during rounds 2008-2 and 2009-1, less than 10 percent of the milk originated from the Midwest. All told, since the CWT program began in 2003, the Midwest accounted for 12.8 percent of the total milk capacity reduction, compared to 33.7 percent for the Southwest and 38.1 percent for the West. During 2009, the Midwest reduced its herd size via CWT participation much less than the region's share of U.S. milk production. While it accounted for 29.7 percent of U.S. milk production during all of 2008, the Midwest accounted for just 9.4 percent of the total amount of milk capacity removed under the 2009 CWT rounds.

In general, states' participation in CWT is consistent with the relative profitability of dairying. In particular, large western and southwestern dairy farms, which have seen especially high feed costs and lower profitability, have accounted for a disproportionately large share CWT herd retirements in recent rounds.

Regional Comparison of CWT Herd Reduction Enrollment

Region	*2003*	*2004*	*2005*	*2007*	*2008-1*	*2008-2*	*2009-1*	*2009-2*	*2009-2*	*Total*
	Number of Cows									
Northeast	2,848	3,871	4,798	6,300	2,776	2,295	5,121	5,740	2,423	36172
Southeast	3,342	4,066	3,803	5,583	3,987	3,750	6,400	4,084	2,746	37761
Midwest	6,463	8,479	12,345	5,770	3,849	3,290	8,153	8,625	3,940	60914
Southwest	8,190	16,184	16,130	14,519	5,180	17,522	43,121	31,476	8,219	160541
West	11,881	17,878	26,993	20,611	8,793	23,773	38,245	24,188	9,169	181531
Total	**32,724**	**50,478**	**64,069**	**52,783**	**24,585**	**50,630**	**101,040**	**74,113**	**26,497**	**476919**
	Pounds of Milk (Mil. Lbs)									
Northeast	54.6	68.9	92.9	117.7	54.6	43.7	104.3	108.8	41.4	686.9
Southeast	59.1	62.1	63.4	89.0	64.4	65.4	107.2	65.8	40.1	616.5
Midwest	111.6	141.9	209.8	98.9	66.3	64.4	147.3	164.6	65.6	1,070.4
Southwest	146.6	284.0	291.6	279.7	84.6	304.6	844.4	672.1	166.0	3,073.6
West	237.3	351.5	515.9	415.9	161.8	497.9	759.9	511.9	204.7	3,656.8
Total	**609.2**	**908.4**	**1173.6**	**1001.2**	**431.7**	**976.0**	**1963.1**	**1523.2**	**517.8**	**9,104.2**
	Mil. Pounds per Accepted Bid									
Northeast	1.37	1.30	2.16	2.68	1.88	1.99	2.54	1.58	1.18	——-
Southeast	1.85	1.59	1.20	1.46	1.84	2.34	2.06	1.34	1.22	——-
Midwest	0.79	0.95	1.15	0.83	0.90	1.34	1.18	1.96	1.31	——-
Southwest	2.71	3.94	3.56	4.99	2.35	7.81	13.40	17.69	7.55	——-
West	7.42	7.17	6.37	7.85	5.99	10.16	8.84	15.06	14.62	——-
Total	**2.04**	**2.50**	**2.66**	**3.01**	**2.15**	**5.25**	**5.35**	**5.56**	**3.36**	**——-**
	Regional Distribution of Milk Removed (Percent)									
Northeast	9.0	7.6	7.9	11.8	12.6	4.5	5.3	7.1	8.0	7.6
Southeast	9.7	6.8	5.4	8.9	14.9	6.7	5.5	4.3	7.7	7.9
Midwest	18.3	15.6	17.9	9.9	15.4	6.6	7.5	10.8	12.7	12.8
Southwest	24.1	31.3	24.8	27.9	19.6	31.2	43.0	44.1	32.1	33.7
West	39.0	38.7	44.0	41.5	37.5	51.0	38.7	33.6	39.5	38.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

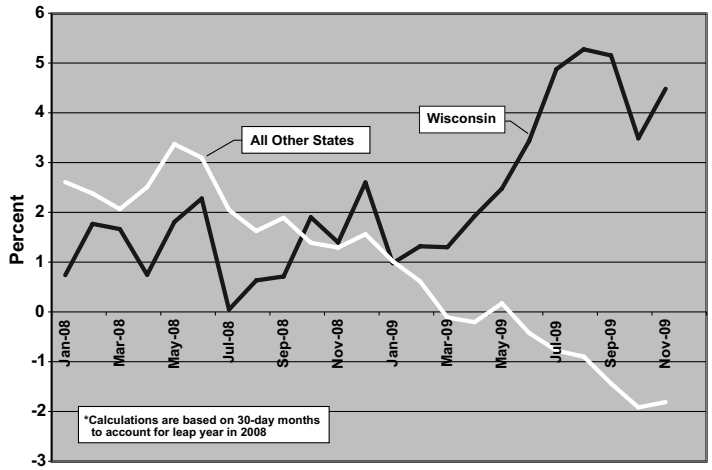
Regional Changes in Milk Production During 2009

Despite a difficult financial year, Wisconsin increased its milk production in the first 11 months of 2009. In contrast to Wisconsin, the combined production in other states has been declining since March of 2008.

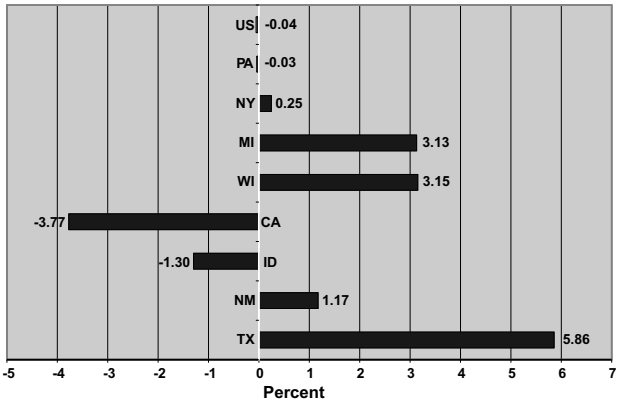
Comparing Wisconsin milk production with the western states of California, New Mexico Idaho, and Texas, only Texas and Wisconsin had positive production growth rates over all of 2009. California has shown a negative growth rate for all months. Except for the month of January, so has Idaho, the fourth-largest milk-producing state. New Mexico's milk production had positive growth in the first six months of 2009, but declined July through November.

The difference in the rates of growth in key dairy states has substantially affected their 2009 milk production. In January through November 2009, the most recent data available, California produced approximately 3.8 percent less milk than it did in 2008. In contrast, Texas produced 5.9 percent more. Through November, Michigan and Wisconsin each produced about 3 percent more milk in 2009.

Monthly Change in Milk Production from Previous Year



Change in Milk Production, Selected States and U.S., Jan-Nov 2009 vs. 2008



Changes in milk production result from changes in the number of cows being milked and in the average productivity per cow. Wisconsin's production growth is primarily due to increased yields resulting from favorable weather and forage conditions in 2009. The state did increase its herd size slightly, however, growing by 4,000 cows (0.3 percent) between January and November 2009. Cow numbers declined in most other key dairy states. California lost 80,000 cows, or 4.3 percent of its herd, between January and November. New Mexico had the largest relative herd size reduction; its cow numbers declined 5.7 percent. Over the same period, the U.S. dairy herd shrank by 242,000 cows, or 2.6 percent.

In contrast to these declines in dairy herd size, average milk yields increased in most states between 2008 and 2009. Wisconsin had particularly strong gains in per-cow productivity in the latter half of 2009. These increases in yield likely resulted from very favorable weather conditions for many producing areas as well as the elimination of less productive dairy herds or cows. In contrast, the average milk yields in California decreased during 2009. These results reflect the combined effect of changes in herd size and age composition, feed quality, feeding rates and weather.

Implications for Cheese Manufacturing

The cheese market is strong and growing rapidly. Over the last 30 years, per capita consumption of fluid milk has decreased by more than 20 percent, while per capita consumption of cheese has increased by more than 85 percent. When the dust settles from the 2009 dairy crisis, Wisconsin will be in an improved market position compared to other major cheese-producing states.

A majority of the milk produced in Wisconsin is used to manufacture cheese. Wisconsin leads the nation in cheese production, accounting for 25.4 percent of total U.S. production in 2008. California ranked second with a 21.6 percent share. Among federal milk marketing

orders (FMMOs), the Upper Midwest order, which includes Wisconsin, is the most dependent on the cheese market—more than three-quarters of milk deliveries are used to manufacture cheese. Slightly more than 43 percent of the milk produced in California was used to make cheese in 2008.

Under both the California and FMMO pricing systems, wholesale Cheddar cheese prices are the primary determinant of the price of milk used to make cheese. During 2008, the average monthly Cheddar cheese price was $1.90 under FMMO pricing and $1.87 under California pricing. For the first 10 months of 2009, these prices averaged $1.24 and $1.23, a decline of more than 33 percent. With these prices, the average 2008 announced price for Class III milk was $17.63 under FMMO and $17.11 under the California system. In 2009, these prices both decreased by approximately 37.5 percent.

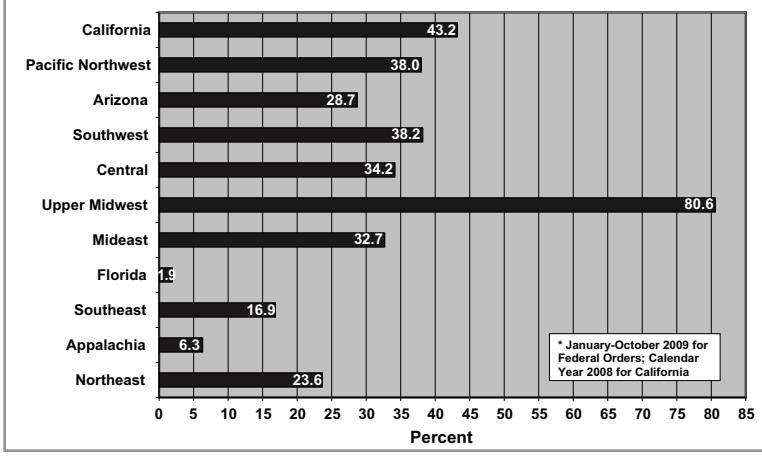
Given its dependence on the cheese market, it is not surprising that Wisconsin has used its increased milk production to make more cheese. California, with its reduced milk supply and lower price for milk used for cheese manufacturing, began to see a general decline in cheese production early in 2007. In contrast Wisconsin and other milk-producing states have increased cheese production. Wisconsin produced 3.7 percent more cheese in Jan.-Oct. 2009 than over the same period in 2008. Other U.S. producing regions increased their production 3.4 percent, except for California, which decreased cheese production by 2.5 percent. This drop in implies that over the last year, California's market share of U.S. cheese production has decreased by almost a full percentage point.

The implication for Wisconsin is obvious. Our milk is being used to support a segment of the dairy industry that continues to grow. The vitality of the state's cheese industry is evidenced by the continued growth in the face of difficult pricing conditions. In the end, Wisconsin's improved market position is a positive result of the poor market conditions that faced the dairy industry in 2009.

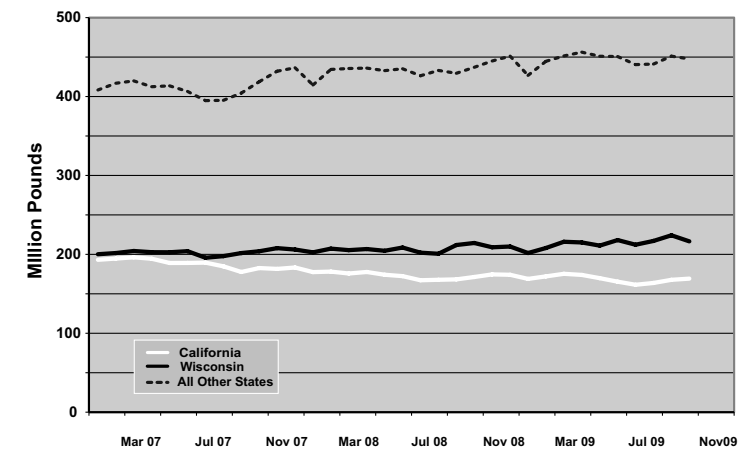
Summary

The recent downturn in farm milk prices has presented a challenge to the Wisconsin dairy industry. However, at least as measured by changes in milk production and income over feed costs, Wisconsin's dairy producers have fared better than those in some other major milk-producing areas. Over the last year, Wisconsin's contribution to the U.S. milk supply has increased along with its importance in terms of cheese production. We have managed to keep our herd size intact and have reduced our participation in the voluntary CWT herd reduction program. Improved milk prices and the state's capacity to integrate feed procurement bode well for future growth in Wisconsin's dairy industry. Looking forward, we anticipate continued volatility in milk prices. The challenge for dairy producers will be to adapt their approach to milk marketing by adopting price risk management strategies to take advantage of favorable prices when they occur.

Percent of Mllk Deliveries Used for Cheese, Federal Milk Marketing Order Areas and California*



Monthly Cheese Production



The Importance of International Trade to Wisconsin Agriculture[5]

Ed Jesse and Steven Deller[6]

Introduction

Any discussion of what should be done to help Wisconsin farmers recover from the current economic downturn should consider that an increasingly large share of the state's dairy and other agricultural products are being sold outside of the United States. As noted in other parts of this report, the global economic collapse that began in late 2008 sharply reduced agricultural trade. The large drop in export revenue caused much of the fall-off in U.S. and Wisconsin net farm income in 2009. That means that restoring U.S. farm profitability will require economic recovery in emerging economies that represent rapidly growing markets for U.S. farm products, as well as in the United States itself.

In this section, we review the growing importance of international trade to U.S. and Wisconsin agriculture. We also assess the "multiplier effect"—the ricocheting impact of Wisconsin agricultural exports across the state's economy. In considering this analysis, keep in mind that in 2008 the nation and Wisconsin had record large agricultural exports, meaning that the economic impacts calculated for that year are larger than those generated in 2009 and perhaps in 2010.

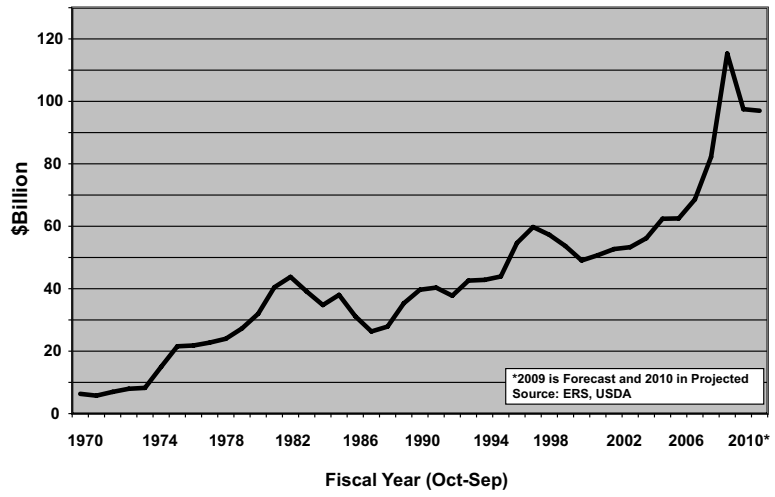
U.S. Agricultural Exports

Farmers in the United States have become increasingly reliant on foreign sales as a source of income. U.S. agricultural exports topped $40 billion in 1981, reached $60 billion in 1996, and hit a record $115 billion in 2008.

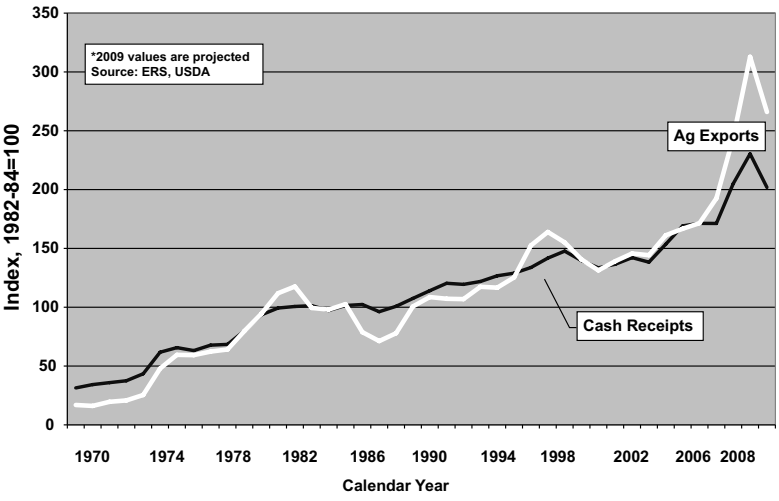
The value of U.S. agricultural exports has grown at a faster rate than the value (to farmers) of U.S. crop and livestock production. Exports are now a leading indicator of farm income. Increases in exports boost farmers' cash receipts in the same year or the following one, while decreases in exports pull receipts down.[7] This effect is especially pronounced in 2008 and 2009. The record cash receipts enjoyed by U.S. farmers in 2008 were due in large part to record U.S. agricultural exports, while the large decline in cash receipts in 2009 can be directly attributed to an unprecedented fall-off in the value of exports.

Foreign sales are particularly important for U.S. grain, oilseed and cotton producers. The nation exported more than half of its wheat, rice and cotton harvest in 2007-08 as well as 43 percent of its soybeans. And while we

Value of U.S. Agricultural Exports



U.S. Farm Cash Receipts and Agricultural Exports*



Major U.S. Export Crops, 2007-08 Crop Years					
Commodity	*U.S. Production*	*U.S. Exports*	*Share of U.S. Crop Exported*	*World Exports*	*U.S. Share of World Exports*
	Mil. MT		*Percent*	*Mil. MT*	*Percent*
Corn	331.2	61.9	18.7%	98.61	62.8%
Soybeans	72.9	31.5	43.3%	79.52	39.7%
Wheat	55.8	34.4	61.6%	117.20	29.3%
Rice	6.3	3.4	52.8%	31.09	10.8%
Cotton	4.2	3.0	71.4%	8.35	35.9%

Source: USDA. World Agricultural Supply and Demand Estimates, October 2009

exported less than 20 percent of our corn, the United States had a larger share of the global market for corn—63 percent of total world exports—than for any other major U.S. grain crop.

Three crops—soybeans, corn and wheat—accounted for more than 45 percent of U.S. agricultural export value in 2008. Animal products (live animals and meat, poultry products and dairy products) added another 16 percent, fruit and vegetable products represented about 10 percent and cotton comprised 4 percent, while the remaining 25 percent came from a long list of products.

The importance of agricultural exports to a given state depends on the mix of commodities produced in that state. California was the leading agricultural exporter in 2008, because much of its large production of fruits, vegetables, tree nuts, rice and cotton was sold overseas. Several Corn Belt and Great Plains states follow, due to their feed grain, wheat and oilseed production. Wisconsin ranked 15th, with a total agricultural export value of $3 billion.

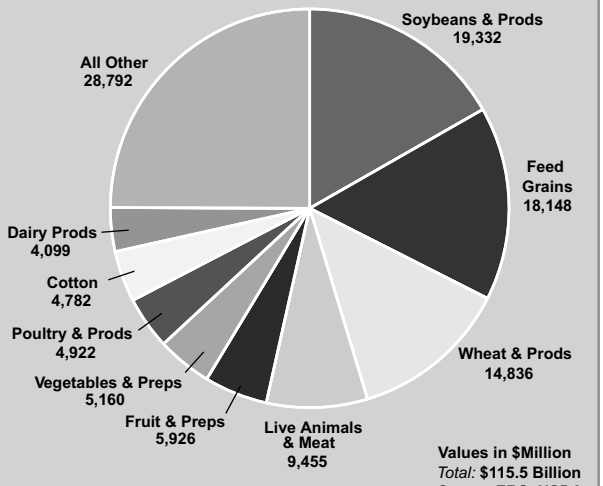
Wisconsin Agricultural Exports

Wisconsin's export mix differs significantly from that of the nation, reflecting the unique nature of Wisconsin agriculture. Not surprisingly, dairy products—primarily cheese and whey products—accounted for nearly a third of total Wisconsin export value in 2008. Next came feed grains (mainly corn), soybeans, live animals and meat, and vegetables. Together, these commodity groups represented 75 percent of Wisconsin's export value.

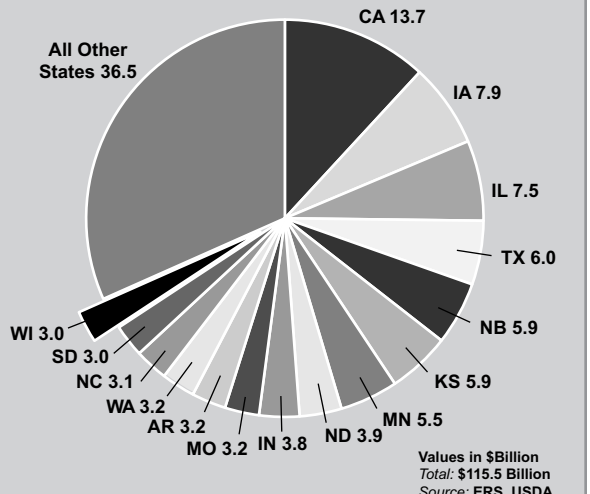
Wisconsin led the nation in dairy exports in 2008, accounting for nearly one-fourth of the nation's total of $4.1 billion. California, which dominates in exports of nonfat dry milk, was in second place, followed by New York. Exports from these three states represented more than half of the total value of U.S. dairy exports.

Wisconsin also ranked among the top ten in exports of vegetables (6th), hides and skins (4th) and animal fats (5th).

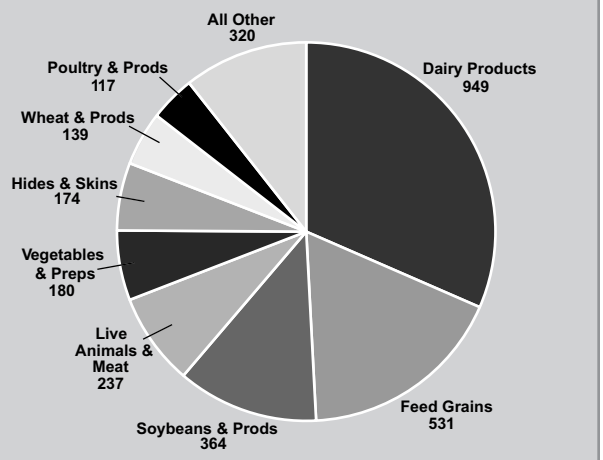
U.S. Exports of Agricultural Products, FY 2008



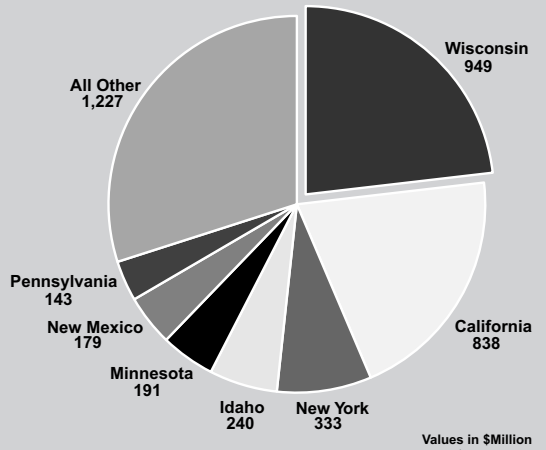
U.S. Agricultural Exports by State, FY 2008



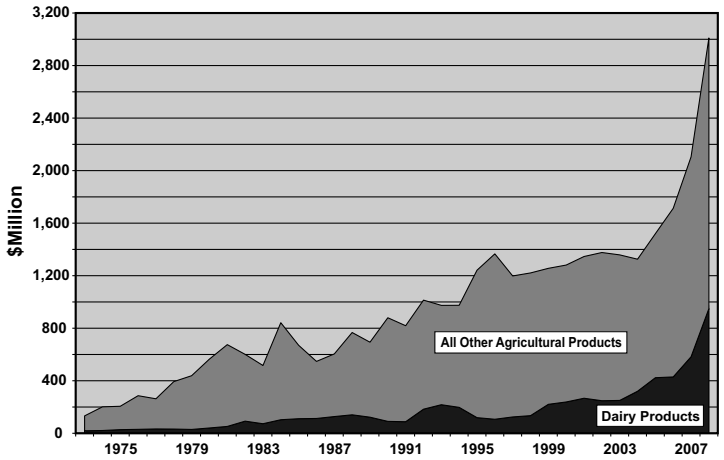
Wisconsin Exports of Agricultural Products, FY 2008



U.S. Exports of Dairy Products by State, FY 2008



Wisconsin Agricultural Exports



Wisconsin agricultural exports grew slowly but steadily from 1973 to 2005, from less than $200 million to $1.5 billion, and then nearly doubled between 2005 and 2008. This recent surge in value reflects both larger volumes of dairy exports and much higher world prices for most commodities.

Except for wheat exports (which reflect exceptionally high world prices in 2008), dairy exports showed the largest percentage growth and accounted for more than 40 percent of the total increase in export value between 1999 and 2008. Growth in the value of poultry exports was greater than that of live animals and meats, reflecting rapid growth in export markets for broilers and turkeys as well as the expansion of Wisconsin's poultry industry. Fruit exports (cranberry products) reached $33 million in 2008, small in comparison to vegetable exports (mainly frozen potato products), but growing at a faster rate.

Wisconsin Agricultural Exports, FY1999 and FY2008

Product	*1999*	*2008*	*Change, 1999-2008*	
	$Million		$Million	Percent
Dairy Products	221	949	729	330%
Feed Gains	275	531	256	93%
Soybeans & Prods.	147	364	216	147%
Live Animals & Meat	186	237	51	28%
Vegetables & Preps.	128	180	52	40%
Hides & Skins	74	174	101	136%
Wheat & Prods.	23	139	116	505%
Poultry & Prods.	38	117	79	211%
Feeds and Fodders	38	70	32	85%
Fats, oils, & Greases	25	51	26	101%
Fruit & Preps.	13	33	20	158%
Seeds	3	4	1	22%
Other	86	162	77	89%
Total	***1,256***	***3,010***	***1,754***	***140%***

Economic Impact of Wisconsin Agricultural Exports

The impact of agricultural exports is felt throughout Wisconsin. If Wisconsin lost its $3 billion in agricultural exports (without a commensurate gain in domestic sales), the state would also lose not just $3 billion, but a total of $4.5 billion in industrial sales.

That's because, for every dollar of agricultural foreign exports, there is an additional 49 cents in industrial sales elsewhere within the Wisconsin economy. Part of this multiplier effect represents farmers' purchases of input

Economic Impact of Wisconsin Agricultural Exports, FY2008					
	Direct	***Indirect***	***Induced***	***Total***	***Multiplier***
Industry Sales ($Mil.)	3,010.0	1,146.0	340.4	4,496.5	1.494
Employment	34,068.0	10,116.0	3,281.0	47,464.0	1.393
Employee Compensation ($Mil.)	166.9	268.4	98.2	533.5	3.196
Proprietors Income ($Mil.)	44.4	47.1	10.4	101.9	2.294
Total Income ($Mil.)	967.0	554.1	189.0	1,710.2	1.768

supplies, equipment and other non-labor related expenses. A much smaller part comes from labor-related expenditures—workers spending their income in the local economy.

Producing $3 billion worth of agricultural exports directly supports just over 34,000 jobs, but that increases to about 47,500 jobs once the multiplier effect is considered. These exports generated about $533 million in wages and salaries, $102 million in proprietor income and nearly $1.7 billion in total income. Every dollar of income generated in Wisconsin's agricultural sector to supply the $3 billion in foreign exports generated an additional 77 cents elsewhere in the state's economy.

Through the multiplier effect, nearly every sector in Wisconsin is touched by agricultural foreign exports. The economic activity required to produce the $3 billion worth of agricultural exports accounts for the large impacts not just in the agricultural sector, but also in forestry, fishing and hunting and manufacturing. About $43 million in new sales is generated in the utilities industry alone, with 73 jobs created and almost $29 million in total income. The finance and insurance industry accounts for $114 million in new sales due to agricultural exports along with 800 jobs and about $70 million in total income. Even Wisconsin's arts, entertainment and recreational industry benefits from the state's agricultural exports. Wages and salaries spent on the arts, entertainment and recreation generated $5.5 million in sales, along with 140 jobs and $3 million in total income.

Clearly, the state's foreign agricultural export markets are becoming increasingly important not just to the farm sector but also to the larger Wisconsin economy. As these foreign markets expand and Wisconsin agriculture is better positioned to capture them, the entire state will benefit.

Distribution of the Economic Impact of Wisconsin Agricultural Exports, FY2008					
	Industry Sales	***Employment***	***Employee Comp.***	***Proprietors Income***	***Total Income***
	$Million		$Million.	$Million	$Million
Ag, Forestry, Fish & Hunting	2,793.5	36,562	155.6	55.5	984.7
Mining	1.6	5	0.1	0.3	1.0
Utilities	43.4	73	7.7	0.6	28.7
Construction	25.4	245	9.3	2.1	12.3
Manufacturing	762.2	2,214	108.3	3.6	146.3
Wholesale Trade	109.0	680	38.4	3.3	70.0
Retail Trade	45.2	800	17.4	1.8	30.9
Transportation & Warehousing	81.6	636	27.2	3.6	42.2
Information	20.3	85	4.0	0.3	8.7
Finance & Insurance	114.0	802	38.7	2.5	69.7
Real Estate & Rental	207.5	1,516	13.6	12.7	159.1
Prof., Scientific & Tech. Servs.	100.0	1,131	32.9	10.6	52.9
Management of Companies	23.1	108	10.4	(0.0)	12.9
Administrative & Waste Services	25.0	447	10.1	1.1	13.9
Educational Services (non-public)	9.2	153	4.2	0.2	4.7
Health & Social Services	54.9	648	27.4	1.6	33.4
Arts, Entertainment & Recreation	5.5	142	2.2	0.2	3.0
Accommodation & Food Services	30.2	614	8.5	0.6	13.5
Other Services	29.4	496	10.4	1.3	14.5
Government & Non-classified	15.4	109	7.1	-	7.9
Total	**4,496.5**	**47,464**	**533.5**	**101.9**	**1,710.2**

A Scan of the Farm-Level Financial Situation At the End of 2009

Paul Dietmann[8]

As discussed elsewhere this publication, 2009 was a very difficult year for dairy producers. Very low milk prices, high production costs and severe constraints in agricultural credit markets combined to create one of the most serious cash flow crises in memory. Nobody expected milk prices to remain in the neighborhood of $20/hundredweight indefinitely, but the speed of the price drop caught most producers off-guard and unable to adjust quickly enough to mitigate the negative impacts of the decline. This article considers some of the farm-level ramifications of the financial difficulties the dairy industry faced in 2009.

How much debt was added in 2009?

Wisconsin dairy industry prognosticators generally agree that in 2009, our dairy farmers likely suffered roughly a $1,000/cow loss for the year. Given that we have about 1.25 million dairy cows in Wisconsin, a back-of-the-envelope calculation would suggest that our dairy producers added $1.25 billion of debt in 2009. But while producers may have lost $1,000/cow, the addition to their debt load is much lower, because losses do not equal added debt.

Loss predictions are generally based on the average expected monthly gross revenue per cow minus the average monthly cost of production (COP). COP typically includes all variable and overhead costs on a cash basis. In other words, the calculation assumes that all production costs are being paid in the current month using cash from that month's gross income. Overhead costs in the calculation often include a charge that represents a return to the owner's labor, management and equity investment in the farm operation. But most producers take a smaller family living draw during difficult times, so such a "loss" does not mean that money will need to be borrowed to offset it.

A number of other adjustments to COP estimates must be made to arrive at an estimate of added debt load. The first involves prepayment of expenses. In 2007 and 2008, dairy producers enjoyed two of the best years in recent history. Not all producers were flush with cash, but many were more concerned about managing income tax liability than about generating enough income to cover operating expenses. Interest rates on savings, money market funds, and CDs were in the 1 percent range, so there was no incentive to build cash reserves. Some producers paid for intermediate capital investments such as equipment and buildings out of current cash flow. Others chose to pay down term debt. Some chose to prepay operating expenses, but given extraordinarily high prices for fertilizer, seed, and feed at the end of 2008, this was not a very attractive option for most inputs (fuel was the exception). Even so, it is likely that many producers prepaid at the end of 2008 for at least a portion of their 2009 inputs to reduce their tax liabilities.

Another adjustment to COP involves the valuation of home-raised feeds. Feed is generally the largest expense for dairy and other livestock operations. COP estimates often value home-raised feeds at current market prices. This assumes that all feed (home-raised and purchased) is a cash expense during the current month. In reality, during 2009 many producers were feeding corn and corn silage that had been produced and stored in the fall of 2008. The cost of that feed was the cost to plant the crops in May 2008 plus the cost incurred in the fall to harvest and store them—not their market value when fed. Thus, producers in Wisconsin who raised their own feed were not necessarily incurring losses equal to the market value of that feed.

Also not considered in COP calculations is income from sources other than milk, cull cows and bull calves. Survey data from the USDA Economic Research Service (2007) indicates that the average Wisconsin dairy farm had $14,278 of crop sales, which is roughly 4 percent of gross farm income. A number of our producers do an excellent job of raising calves and experience low cull rates; thus they have excess breeding stock to sell, which is not included in estimated income. With the advent of sexed semen, there are more heifers being born and so more surplus breeding stock to market.

COP also doesn't reflect off-farm income. USDA-ERS data shows that the average U.S. dairy farm operator works 100 hours off-farm each year and has a spouse who works 400 hours. It's a bit hard to believe that the average Wisconsin dairy farmer works 100 hours off-farm each year, but it seems quite plausible that the average dairy farm household generates income from 500 hours of off-farm employment each year. At $10 per hour, that would add $5,000 per year to the household income of the average dairy farm family.

The income side of the COP calculation typically includes the projected Milk Income Loss Contract (MILC) payment for the month. However, producers can only receive payments on 2.985 million pounds of milk during the federal fiscal year. A 200-cow dairy with an average production of 23,000 pounds/cow/year would have exhausted their MILC eligibility in August of 2009. The income side also does not consider the positive

impact experienced by producers who forward-contracted milk in 2008 for 2009 delivery.

Taking into account all of these adjustments needed to bring calculated COP into line with the real world, along with the cost-cutting measures taken by dairy producers in 2009, actual cash losses and added debt are likely to be significantly less than suggested by raw numbers based on cash-flow deficits. In Section 1 of this report, Jesse and Jones estimate that dairy farms in total added $245 million in debt in 2009, or about one-fifth of the added debt calculated using the back-of-the-envelope estimate of $1,000 per cow.

What is the impact on producers?

All producers have been affected by the economic situation in 2009, but some have suffered more than others. A dairy operation's debt load, debt structure, timing of major capital investments, purchased feed cost and reliance on paid labor all affect the producer's level of financial strain. In addition, weather exacerbated the financial suffering of some producers—in particular, those who endured a multi-year drought in northern Wisconsin or two years of flooding in parts of the south.

One indicator of financial stress is the volume of calls to the Wisconsin Farm Center's farmers' assistance hotline. The number of calls began to increase in early 2008 as production expenses rose and took a large jump in early 2009 after milk prices crashed. Some callers were on the verge of bankruptcy or foreclosure. Some had no food and no money to buy it. Some could no longer afford to pay their health insurance premiums. An increasing number of callers have faced utility disconnection due to unpaid bills. This level of stress is taking a toll on families. We have fielded calls from producers contemplating suicide and from family members concerned about domestic abuse. This highlights the gravity of the situation for many farmers. Clearly the impact goes far beyond economic hardship.

Despite the increased traffic to the Farm Center hotline and the substantial difficulties faced by many producers in 2009, a relatively small number of the state's milk producers are in imminent danger of going out of business. The most vulnerable were victims of poor timing—operators who started their dairy operations or undertook a major expansion or other capital investment in the past two years, or lost an off-farm job, or faced significant weather challenges in the 2007 or 2008 growing seasons. Producers who had to purchase significant amounts of feed in 2008 were generally left in a precarious financial position at the beginning of 2009.

Producers who entered 2009 with high debt levels on a per-cow basis were in serious trouble at year's end. Many highly leveraged producers were denied additional credit to carry them through this period of low prices and have been unable to pay operating expenses. Some used credit card debt to maintain their operations. These producers are accruing interest at rates much higher than those being paid at the height of the farm crisis of the 1980s. The Farm Center has worked with producers who are carrying credit card debt well in excess of $100,000 and accruing interest at rates as high as 29 percent.

On the other end of the spectrum, some producers employed a more fiscally conservative approach and entered 2009 with significant prepaid expenses and strong cash reserves. A financial analysis in the summer of 2009 of one extraordinarily well-managed 180-cow operation provides a profile of prudent farm financial management. The operation has no debt. The owners prepaid all of their fuel and seed and a significant portion of their fertilizer and feed at the end of 2008. Their high-producing herd is milked in a parlor retrofitted into an old stanchion barn. They raise and sell excess crops and breeding stock. The two families that own this operation each took sizeable living draws from the dairy in 2008 and made significant contributions to a Simplified Employee Pension (SEP) plan. None of the four owners work off-farm. This farm was still operating at a profit through the summer of 2009.

Larger-scale producers tended to be in a more vulnerable position than smaller, family-scale operators. Larger operations exhausted their MILC payments earlier in the year. They are also likely to have payroll obligations that need to be met, while operations that primarily rely on family labor will often forego family living withdrawals when times are tough. Many large operations are buying significant quantities of feed and have other operating expenses such as manure pumping/hauling that require a cash outlay rather than the use of unpaid family labor. These expenses require cash and tend to be fairly inflexible. On the other hand, larger operations tend to be more likely to use futures markets or other forward-contracting strategies to manage the risk of price fluctuations, and may have mitigated some of the losses stemming from these ongoing costs. Nevertheless, an agricultural lender recently commented to the Farm Center that his smaller-scale dairy farm customers were losing $50-75/cow each month, while his large-scale producers were losing $150/cow or more.

How much debt can farmers handle?

Will additional debt bury Wisconsin dairy producers, or will they be able to service it? Many went into 2009 with relatively strong financial positions, which improved their ability to survive such a difficult year. And farm equity has been rising since 1987 and has risen at a remarkably rapid rate since 2000 (see Section I). Equity is important, because it represents a reserve that

can be borrowed against to get through difficult times. Unfortunately, dairy producers' equity declined in 2009, since cows are worth much less today than they were a year ago. Machinery seems to be holding its value. The value of land has not been well-tested by the market, but it was previous noted that farmland fell in value by 3 percent in 2009. But despite an aggregate drop in equity, many producers should still be in a strong enough position to collateralize additional debt as long as loan funds are available.

Borrowing money is one thing, paying it back is another. In the current economy, cash is king. Much more important than the amount of equity that farmers can use as collateral for new loans is their ability to cover additional principal and interest payments with available cash flows. Lenders aren't deciding to loan funds based on equity, but rather on the producer's ability to generate enough net cash farm income to make loan payments. A producer with marginal cash flow is simply not able to borrow money in the conventional credit market.

As a result of the sub-prime lending debacle, all lenders are under greater scrutiny by regulators. They are being forced to hold larger loan loss reserves, which reduce funds available for loans. Loans that are not performing according to terms are being downgraded, which limits lenders' ability to extend additional credit to those borrowers. Banks are very concerned about their risk ratings. A reduced rating inhibits a bank's ability to raise capital to lend. Also, in recent years some Wisconsin community banks were sold to larger banks that have little experience in agricultural lending. These banks do not seem to be interested in increasing their farm loan portfolios, and some seem to be trying to jettison their agricultural borrowers.

U.S. farmers are generally conservative in their borrowing, even when their income increases. From the late 1980's through recent years, the aggregate level of farm debt has been less than half of the maximum amount of debt that farmers could theoretically service with farm income. Approximately 70 percent of U.S. farmers hold no debt. However, the farm operations carrying debt tend to be those with higher gross sales of agricultural products and account for the majority of the country's production (see Section I). Farmers who carry debt generally have more than enough equity to adequately collateralize loans, but many had trouble making loan payments in 2009 because of negative cash flow.

Who is carrying the debt now?

Many farmers have balance sheets strong enough to enable them to take on additional debt. Net cash flows are likely to soon return to levels that will allow farmers to cover payments on that debt. The challenge is in gaining access to additional capital through commercial credit markets. These markets are all but frozen right now. Commercial lenders are not eager to loan capital at a time when farm cash flows are inadequate to service new debt. Also, lenders report that they are spending a significant amount of time servicing existing loans (deferring principal payments, rescheduling or restructuring debt, etc.) so they are not inclined to write new ones.

Federal and state loan programs have proven to be important sources of credit. The Wisconsin USDA Farm Service Agency Farm Loan Program made $86 million in direct operating loans to Wisconsin farmers in the fiscal year ending September 30, 2009 and provided guarantees to back another $98.5 million in operating loans. The WHEDA CROP Loan program this year has provided guarantees backing $27 million in commercial operating credit. Approximately 72 percent of the CROP guaranteed loans went to dairy producers.

While additional credit is being extended to the most financially sound borrowers by commercial lenders and the Farm Credit System, a considerable amount of debt is being accumulated on credit cards, Farm Plan and other revolving credit products. The allocation of this debt is difficult to quantify. Anecdotal evidence suggests that a significant amount of debt is also being held by unwilling lenders: farm supply companies, custom operators, veterinarians, utility companies and others who provide products or services to farmers. The risk is mounting that some of those businesses could fail because of large accounts receivable balances. The debt held by suppliers and service providers needs to be transferred to commercial lenders, where it can be structured and amortized to reduce the risk of default. The current situation is precarious and unsustainable, because farmers will be forced into bankruptcy and will pull their suppliers in that direction.

Risks going forward

Risk of subsequent volatility in agricultural product markets. The pressure on dairy producers appears to be easing. At the end of 2009, milk prices were rebounding and production costs were on the decline. Wisconsin's milk production not only held up through the crisis but increased to break a long-standing record. However, it will take three to five years for farmers to recover from the lingering effects of 2009. Many producers who survived 2009 would not be able to withstand another extended period of negative cash flow. A comparable cost-price squeeze would cause the loss of many more dairy farms and jeopardize Wisconsin's dairy industry.

Risk of drastic declines in land values. The market value of dairy cows has declined by about one-third over the past year. Land values appear to have declined slightly, although the market has been largely untested.

Lenders are very nervous about the potential for rapid erosion of asset values. Many lenders have been updating balance sheets semi-annually or even quarterly for their most highly leveraged farm borrowers. If we begin to see forced sales of farmland, land values could decline quickly, creating a snowball effect and making it even harder for farmers to get credit.

Risk of slow stabilization of agricultural credit markets. The longer it takes for credit to become more readily available, the larger the number of farms that will be pushed out of business. Producers have become heavily dependent on access to credit. Denying that access is like denying access to other production inputs; farmers can survive for a while but ultimately won't be able to remain competitive and their businesses will perish. Banks need to have their confidence in the dairy industry restored to get credit flowing again.

Risk of failure of a major agricultural lender. The failure of New Frontier Bank, based in Greeley, Colorado, illustrates the dangers facing agricultural borrowers if their lending institution goes bust. New Frontier failed in April, 2009. On August 18, the FDIC auctioned off 418 agricultural loans with a total book value of $455 million. The auction was conducted online and results will not be made public for months. In past FDIC auctions, loans sold at a 25–50 percent discount to book value. Borrowers with large loan balances who were successfully making their scheduled principal and interest payments have been unable to find other lenders willing to take them on. Borrowers who were not meeting loan payment obligations worry that successful bidders will quickly foreclose and seize and sell farms in order to profit from their loan purchases. A recent piece on the Brownfield Network indicated that at least six dairy producers who had loans with New Frontier have filed for bankruptcy to protect their assets against actions by those who bought their loans.

Risk of failure of farm suppliers or service providers. If farm suppliers and service providers are unable to collect the bills owed to them, there is a risk that some of them could go out of business. The loss of these businesses could result in less competition and longer travel distances to obtain needed products and services, thus driving up production costs. And if the business in question is a farmer cooperative, farmer members will lose their equity in the co-op.

What will be different after 2009?

The events of 2009 will change farm financial management. While the farm crisis of the 1980's stemmed from inadequate levels of equity, the current crisis is related to cash flow, so cash management will become much more important in the future. Prior to this year, farmers had little incentive to build cash reserves, so they tended to put excess cash flow to work, investing in new equipment and buildings or paying down debt. Going forward, producers will have reason to build cash reserves to help carry them through lean times. Some lenders are beginning to require that producers zero out their operating loans at least one month each year. There is a much greater emphasis on having working capital in the form of cash rather than in feed inventories, a practice which has become common in recent years.

This new emphasis on cash management will change how producers make investment decisions. They will need to postpone or revise capital investments to preserve cash. Producers will need to be able to understand and analyze their financial statements and to stress test any potential capital investments to gauge how those could affect their operations in the event of a drop in cash flow.

Banks are likely to remain extraordinarily cautious in their lending to farmers for quite some time. While most agricultural lenders understand the cyclical nature of farming, loan decisions are often being made far from the lender's desk. Some banks have pulled out of agricultural lending altogether, and others are trying to reduce their exposure in the farm sector. We are hearing reports of regulators increasing their scrutiny of agricultural loans. Credit is going to be tighter for a while.

Government assistance in the short term will be important to restoring confidence in the agricultural credit markets. The USDA Farm Service Agency has increased the number of direct and guaranteed loans to farmers— a crucial move. The Wisconsin Housing and Economic Development Authority has also increased its level of loan guarantees. Beyond extending additional credit support, it will be important for UW System institutions and the Wisconsin Technical College System to continue helping farmers improve their farm financial management skills.

During 2009, Wisconsin's dairy sector faced some incredibly difficult challenges, but it will emerge strong. Producers had invested more than $1 billion in capital improvements in the five years leading up to 2009, and dairy processors made an equal investment in their facilities. Wisconsin continued increasing production in 2009 while other regions of the country saw precipitous declines. The structure of Wisconsin's dairy industry at the farm level is more sustainable than in some other parts of the country. Our producers grow a larger percentage of their own feed and have a larger land base that provides equity to draw upon during tough times. Our climate is more conducive to growing quality forage. The expertise and work ethic of our producers cannot be beat. One year of extraordinary difficulty will not negate all of the positive factors that work in our state's favor.

Price Stability in an Era of Roller-Coaster Rides

Brad Barham[9]

In 2008-09, Organic Valley Cooperative undertook an old-school strategy of supply management in the face of tremendous downward price pressures on U.S. dairy markets. Supply management strategies were once commonplace in U.S. agriculture (Mueller, Helmberger, and Paterson) and remain a mainstay of the Canadian and European dairy industries. They involve government, cooperative or other restrictions on production by farmers to maintain higher prices and price stability. While the success of this strategy depended in part on the strong market position and high barriers to entry that exist in the case of Organic Valley Cooperative, a deeper look into this response points out two things pertinent to the Wisconsin dairy industry. One is that farmers working together can often find creative ways to achieve their goals of higher income and price stability. The second is that Wisconsin's diversity of farm strategies and business enterprises provides a basis for resilience in performance and continued experimentation with distinctive approaches that is worth noting during hard times.

What did Organic Valley do to Manage Supply?

As conventional milk prices plummeted in 2009, Organic Valley made two $1-per-hundredweight cuts in price in February and May from their $24.75 base price. Then in July, the cooperative introduced a quota program that required producers to cut by 7 percent the amount of milk they delivered to the cooperative until January of 2010. This combination of price and volume reductions during the first seven months of 2009 translates into about a 14 percent reduction in organic sales revenues for Organic Valley's nearly 1,000 dairy farm members nationwide. Averaged over all of 2009, Organic Valley dairy farmers experienced about a 10 percent reduction in revenues, probably less than one-third that experienced by conventional dairy farmers, who faced milk price declines averaging well over 40 percent. This four-fold gap in percent revenue decline probably understates the profitability gap that emerged between organic and conventional dairy farmers in 2009.

One reason this strategy worked is that Organic Valley is a lead player in the organic milk market, and other major private organic processors, such as Horizon and Hood, also reduced pay prices, revised or did not renew contracts and reduced purchase volumes. Thus, organic dairy prices as a whole stabilized in the latter part of 2009. Members of Organic Valley Cooperative avoided the potential for much larger price and revenue losses and experienced a less-severe farm income shock in 2009 than did other dairy farmers around the country. With the current rebound in dairy prices, the worst of the most recent price decline may be over, and Organic Valley's production quota reductions could be lifted in part or in full early in 2010. The upshot is that supply management is alive and well in the organic dairy sector. But, the deeper message of this article requires some historical context.

Historical Reflections

Seventeen years ago, I began working as the staff economist for the UW–Madison's Agricultural Technology and Family Farm Institute (ATFFI), a research and extension program that had been recently formed. Now, we go by the name Program on Agricultural Technology Studies, or PATS (www.pats.wisc.edu). Our mandate is to study the impact of new technologies, public policies and market trends on Wisconsin agriculture, with a special focus on the welfare of family farms.

Over the past two decades, we have conducted numerous studies that document and explain many changes in the structure and organization of Wisconsin agriculture, including the increased diversity of farming systems in the dairy sector. We have highlighted the dramatic expansion of confinement dairy operations (Barham, Foltz, and Aldana), the continued importance of moderate-sized conventional dairy farms (Jackson-Smith and Barham; Jackson-Smith and Buttel) and the emergence of alternative dairy farming systems (Brock and Barham), including management-intensive rotational grazing, organic and Amish. Recently, PATS has also examined the logic and implications of the increased use of immigrant workers on Wisconsin dairy farms (Harrison, Lloyd, and O'Kane). Farming systems, and the faces of many of the people working those farms, have changed a lot over the past two decades.

Among the most important findings in this research is that part of the strength and resilience of the Wisconsin dairy sector comes from its diversity and the capacity of farmers to find new, better and distinctive ways to manage their farms. That diversity is very evident in today's dairy sector, as suggested by the many types of dairy farm systems mentioned above. It is also implicitly highlighted in Brian Gould's article, which shows that Wisconsin dairy farms have performed relatively well during the very difficult times of the past 18 months.

It is also true that the strength and resilience of the Wisconsin dairy farm sector derives from the capacity of

farmers and other industry participants to work together in networks, cooperatives, farm groups and other types of organizations. In these collaborative efforts, farmers discover ways to improve their efficacy on the farm, in the marketplace and in social and political forums that shape their well-being. The rest of this article explores one of those collaborative efforts, Organic Valley Cooperative, and how it was able to undertake an effective supply management strategy in 2009.

The 1990s Call for Price Stability through Supply Management

Organic Valley's formation brought together several currents in Wisconsin agriculture. One of these, related to supply management, dates back to the mid 1990s, when dairy farmers, especially in Western Wisconsin, were discussing the potential of farmer-led supply management initiatives to improve prices. In 1996, Congress had voted to remove explicit government support for grain prices, and milk prices were beginning the rollercoaster ride we have seen over the past 15 years. As a participant in some of those meetings, I witnessed much heated debate about whether farmer-led supply management efforts could work, and what support from the university, state agencies and other leaders might or might not do.

As a newcomer to Wisconsin dairy issues, I was quiet most of the time. When I offered my two-cents, I usually came across as a wet blanket. It just did not seem feasible to me that Wisconsin dairy farmers could achieve supply management in the U.S. market without explicit coordination with the federal government or several major national processors, and the prospects for support from those quarters seemed unlikely in an era when financial markets were booming and market deregulation was the mantra. Simply put, supply management policies were out of favor politically. Moreover, as a student of cartel efforts of mineral- and even banana-exporting countries around the world, the only time I had understood those efforts to be effective was when central coordination was provided by major, low-cost leaders for very critical resources (like oil).

On those occasions, when I was asked by farmers what I could do to help, I had little to offer except economic rationales for government support that might point to how improvements in efficiency and productivity could be associated with reducing price instability. Needless to say, the weight of history buried supply management initiatives in conventional dairy markets, other than occasional voluntary programs. And while they have been mentioned by some industry participants during the past 18 months of low dairy prices, they are not really in play in many farm organization discussions or in federal policy circles.

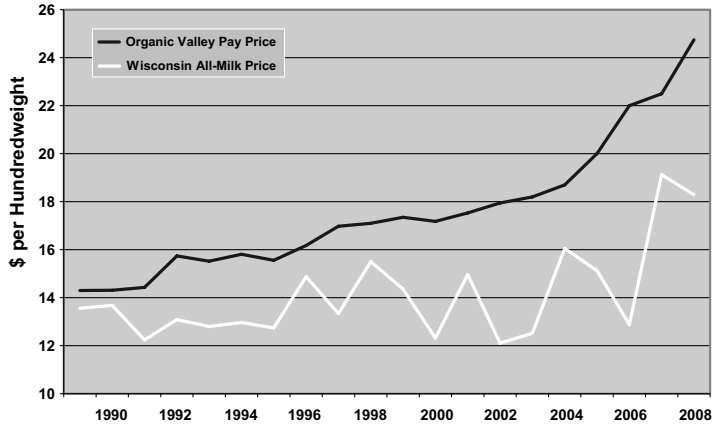
Organic Milk Supply Management in 2008-09

Take a look now at the figure that compares pay prices for Organic Valley milk to conventional milk over the past two decades. It shows the roller-coaster ride of conventional milk prices alongside a mostly steady rise in the pay price for dairy farmers associated with Organic. While it is easy to focus on the price premium associated with organics, which can be quite high at times (more than $9/hundredweight in 2006), the other major difference in comparison with conventional milk prices has been the relative stability of organic milk prices.

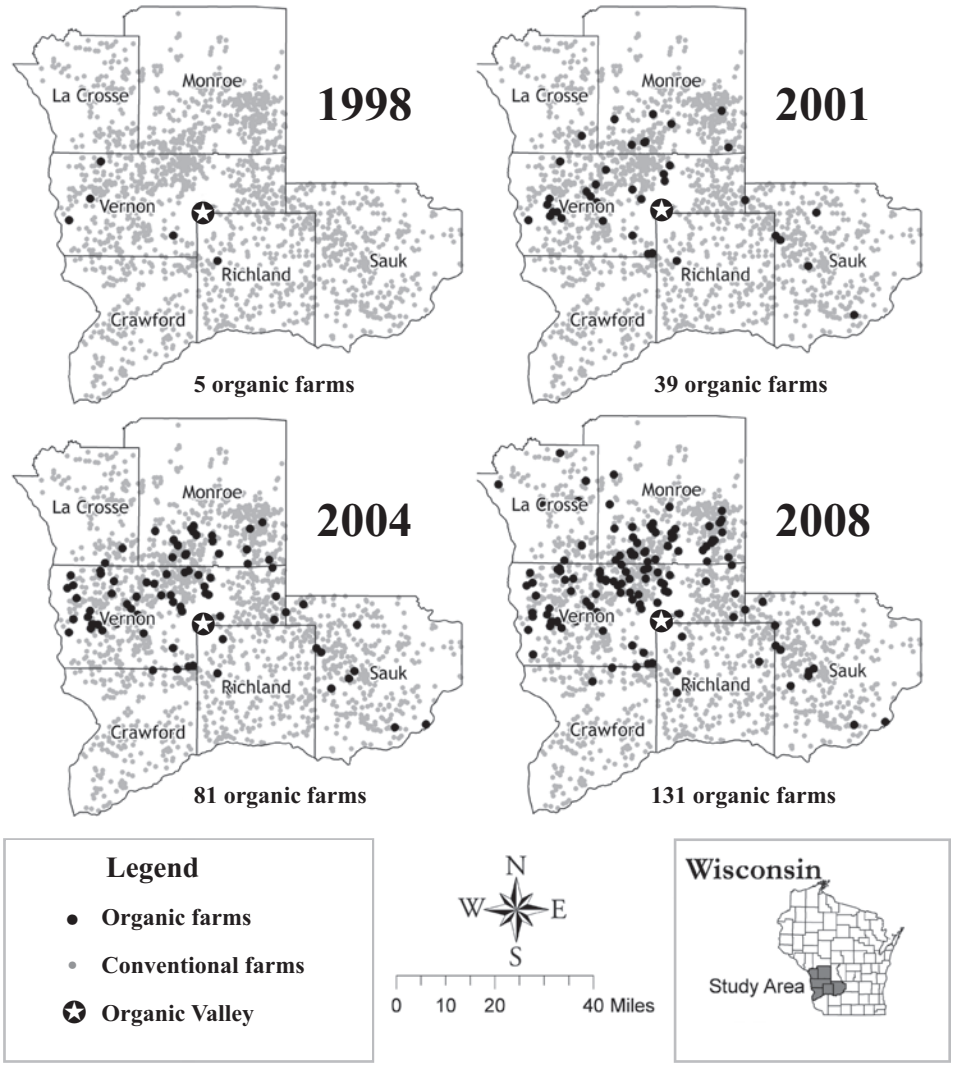
Until recently, that stability could readily be attributed to the exponential rise in demand for organic products during what Organic Valley CEO George Siemon has called the "organic gold rush" (Siemon). In several years prior to 2008, Organic Valley experienced more than a 20 percent annual growth in sales, which explains how the Cooperative went from under 100 dairy farm members in the 1990s to more than 1,000 in 2008. A regional snapshot of that growth is illustrated by a time series of maps that shows the growth in organic dairy farms in the six counties closest to Organic Valley's headquarters in LaFarge.

There was more to that price stability than just demand growth, however. From the beginning, Organic Valley organizers, many of whom were active in the 1990s supply management efforts, have attempted to coordinate supply (what they call "pools") with demand at a regional level. These pools are organized to add produc-

Pay Prices for Organic Valley and Conventional Milk in Wisconsin



Spatial Expansion of Organic Dairy Farms in Southwest Wisconsin



ers commensurate with the cooperative's penetration and sales growth in new markets. Each year, contracts with members coordinate on both price and quantity. Members seeking to make significant expansions or increases in production need the Organic Valley's explicit permission to add more milk to the cooperative's regional pool. In periods of rapid demand growth, quantity restrictions were not much of an issue, but they were written into the contract and in producer's expansion plans. This meant that joining Organic Valley Cooperative was easier during periods of initial expansion into markets than when it had become established in a market, unless demand growth was strong enough to warrant adding new members. In other words, for Organic Valley Cooperative, a fundamental aspect of developing an effective supply management strategy has been limiting the number and rights of members and coordinating their production. To reiterate, this approach is not novel to cooperatives. There is a long history of such efforts, as cooperatives have legal rights to try to shape supply conditions in a way that private firms do not.

It is no accident that in 2009, when it faced the end of tremendous demand growth and the prospect for much lower prices, Organic Valley had the supply management architecture in place to deploy. It was part of the cooperative's original organizational design, available when needed. When it was needed, the cooperative's leadership activated it. Of course, it did not hurt that Organic Valley was a national market leader of organic

dairy products, and perhaps one of the lower-cost producers as well, with less brick-and-mortar facilities that would require high volume to operate at efficient scale. Such a strategy could not have been replicated in the broader conventional dairy market without similar industry-wide supply architecture to support it.

A constant theme at PATS has been that the resilience of the Wisconsin dairy sector is likely to be enhanced by the state's diversity of farm systems and the wide range of farm organizations working to find new ways to do things and to redeploy some old strategies. Organic Valley Cooperative has clearly been an innovator in finding ways to develop the organic dairy industry on both the demand and supply side, working closely with retailers, consumer and producers to build a robust business climate for itself. However, it has also built into its design some of the old-school ways of managing supply that agricultural cooperatives have pursued in other contexts. The combination of establishing a strong position in an emerging market and pursuing a resilient management approach has helped nearly 1,000 dairy farmers around Wisconsin and the nation to avoid a more severe shock during the current Great Recession.

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Income Tax Consequences of Farm Financial Distress

Philip E. Harris[10]

Some often-overlooked aspects of farm financial stress, such as that experienced by Wisconsin dairy farmers in 2009, relate to tax treatment of distressed transactions. This section gives examples and provides planning advice for the two most common income tax consequences from these transactions: (1) recognition of gain (or loss) from transfer of assets, and (2) income from the discharge of indebtedness.

Recognition of Gain or Loss from the Transfer of Assets

The rules that require the recognition of gain or loss as a result of transferring assets do not distinguish between whether or not the assets were sold as a result of financial distress. Sellers must pay income tax on the difference between the fair market value and the income tax basis of assets that are transferred, even if the assets were repossessed by a lender to pay debt. For example, if a taxpayer owed $1 million and the debt was secured with a lien on assets that have a $980,000 fair market value and $140,000 income tax basis, a transfer of the assets (either in a voluntary sale or a repossession by the lender) would result in $840,000 ($980,000 – $140,000) of taxable gain. However, the taxpayer would receive none of the $980,000 because it would all go to the secured lender, leaving the taxpayer with $20,000 remaining debt to the lender as well as the income tax liability on $840,000 of gain.

Tax planning for the gain on the sale of assets in financial distress is the same as planning for the sale of assets when times are good. Two strategies that are particularly useful are income averaging and timing of income.

Income Averaging

The income-averaging rules allow farmers to use tax brackets from the three prior years to compute taxes on some or all of the current-year farm income. Therefore, income in the high brackets of the current year can be taxed at lower rates.

Timing of Income

If farmers can control the timing of asset sales, they may want to delay selling some assets until the following tax year. Doing so can affect both income taxes and self-employment taxes.

Bunching up self-employment income in one year can push some of that income above the social security wage base, which is $106,800 for 2009. This is an important threshold to reach, as earned income above the wage base is subject to a 2.9 percent self-employment tax rate instead of the 15.3 percent tax rate that applies to earned income up to $106,800. The income averaging rules can then be used to reduce the income tax rate on the bunched income.

Bunching up ordinary income in one year has the added advantage of emptying the 15 percent regular income tax bracket for the following year, so that long-term capital gains in the following year qualify for the lower tax rate for capital gains, which is 0 percent in 2008, 2009 and 2010.

For example, a taxpayer who has $200,000 of grain and $100,000 of land to sell could sell all of the grain in one year and the land the next year. The self-employment tax on the grain sale in excess of $106,800 is only 2.9%. In the next year, the first $67,900 of gain from the sale of land is taxed at the zero percent rate on capital gains if the taxpayer files a married filing jointly tax return and has no other income. The remaining gain is taxed at a 15 percent rate.

Discharge of Debt

Creditors of financially distressed taxpayers sometimes forgive some or all of the taxpayer's debt because the taxpayer is unable to pay or because the cost of collecting the debt is more than the debt itself. For income tax purposes, if the creditor forgives debt for any reason other than for the purpose of making a gift to the debtor, the discharged debt is potentially cancellation of debt income (CODI) that is subject to taxation.

For example, if the bank repossesses a tractor that has a $50,000 fair market value and $45,000 income tax basis and forgives the remaining $25,000 of a $75,000 debt, the debtor has $25,000 of potential CODI and $5,000 ($50,000 fair market value – $45,000 income tax basis) of taxable gain.

Exceptions to CODI

If one of the following exceptions applies, the debtor does not have to include CODI in income:

1. The taxpayer had paid the debt that was discharged, the taxpayer would have been allowed to deduct the amount paid [I.R.C. § 108(e)(2)].

2. The debt was discharged bankruptcy. [I.R.C. § 108(a)(1)(A)].

3. The debt discharged was qualified principal residence debt that was discharged before January 1, 2013.

4. The debtor was insolvent at the time the debt was discharged [I.R.C. § 108(a)(1)(B)].

5. The seller of property under an installment contract discharged the debt and the original purchaser under the contract owed the debt discharged [I.R.C. § 108(e)(5)].

6. The debt discharged is qualified farm indebtedness [I.R.C. § 108(a)(1)(C)].

7. The debtor is not a C corporation and the debt discharged is qualified real property business indebtedness. [I.R.C. § 108(a)(1)(D)].

Note that if discharged debt qualifies for more than one of these exceptions, the first applicable exception in the list is applied to the discharged debt.

Paying the Price

In most cases, the taxpayer must pay a price for not recognizing CODI. The price is a reduction of the taxpayer's following tax attributes:

1. Net Operating Loss. Any net operating loss for the taxable year of the discharge, and any net operating loss carryover to such taxable year.

2. General Business Credit. Any carryover to or from the taxable year of a discharge of an amount for purposes for determining the amount allowable as a credit under I.R.C. § 38 (relating to general business credit).

3. Minimum Tax Credit. The amount of the minimum tax credit available under I.R.C. § 53(b) as of the beginning of the taxable year immediately following the taxable year of the discharge.

4. Capital Loss Carryovers. Any net capital loss for the taxable year of the discharge, and any capital loss carryover to such taxable year under I.R.C. § 1212

5. Basis Reduction. The basis of the property of the taxpayer. See I.R.C. § 1017

6. Passive Activity Loss and Credit Carryovers. Any passive activity loss or credit carryover of the taxpayer under I.R.C. § 469(b) from the taxable year of the discharge.

7. Foreign Tax Credit Carryovers. Any carryover to or from the taxable year of the discharge for purposes of determining the amount of the credit allowable under I.R.C. § 27.

Credits are reduced $1 for every $3 of CODI that is excluded from income. The other tax attributes are reduced $1 for every $1 of CODI that is excluded from income.

Order

The general rule is that the tax attributes are reduced in the order listed above [I.R.C. § 108(b)(2)]. However, the taxpayer can elect to reduce the basis in depreciable property first [I.R.C. § 108(b)(5)].

Limit on Bases Reduction

If the debt discharge is excluded from income under the bankruptcy or insolvency exceptions, there is a limit on the reduction of the aggregate bases in the taxpayer's assets. The aggregate of the bases in the taxpayer's assets is reduced only down to the remaining debt after the discharge [I.R.C. § 1017(b)(2)].

Timing

The attribute reduction occurs after the taxes have been computed for the year of the discharge. Therefore, the attributes are used on the tax return before they are subject to the reduction under the CODI rules.

Summary

Farmers in financial distress face income tax consequences from transferring their assets as well as from cancellation of debt. Those taxes can be minimized by planning the timing of when the assets are transferred and when the debt is cancelled as well as by electing income tax options that reduce taxes. The guidelines noted here are very general in nature. It is important for farmers to consult their tax advisor before they make transactions to restructure their debt in order to make the best use of the tax-planning opportunities·

End Notes

[1] Turnquist is Outreach Specialist for the Program on Agricultural Technology Studies (PATS) Cooperative Extension, UW-Extension. Barham is a professor in the Department of Agricultural and Applied Economics and an Economist at PATS.

[2] Associate Professor, Department of Agricultural and Applied Economics, University of Wisconsin-Madison

[3] These data can be obtained from the following website: http://www.ers.usda.gov/Data/CostsAndReturns/testpick.htm#milkproduction .

[4] For more information concerning this herd reduction program refer to the following website: http://www.cwt.coop. Over the course of 3 rounds in 2009, a total of 211,000 cows will have been removed from the U.S. dairy herd from 963 farms for an average of 219 cows per accepted bid.

[5] Part of this work was supported by a grant from the Center for World Affairs and the Global Economy (WAGE) at the University of Wisconsin-Madison.

[6] The authors are emeritus professor and professor, respectively, Department of Agricultural and Applied Economics. Deller is also a rural development specialist, Cooperative Extension, UW-Extension

[7] Much of the harvest of some crops harvested in the fall of the calendar year is exported in the following calendar year.

[8] Director, Bureau of Farm and Rural Services, Wisconsin Department of Agriculture, Trade and Consumer Protection

[9] Professor, Department of Agricultural and Applied Economics, Economist, Program on Agricultural Technology Studies

[10] Professor, Department of Agricultural and Applied Economics and Center for Dairy Profitability UW-Madison, and Farm Law Specialist, Cooperative Extension, UW-Extension