

U.S. Farm Income

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Summary

According to USDA's Economic Research Service (ERS), national net farm income—a key indicator of U.S. farm well-being—is forecast at a record \$94.7 billion in 2011, up 20% from the previous year's total of \$79 billion and easily surpassing the previous record of \$87.4 billion achieved in 2004. Record revenues from strong livestock markets, coupled with sharp gains in crop revenues (also record high), are expected to offset a \$20 billion increase in input costs to account for the forecast higher net returns.

The major drivers behind strong farm income projections are the outlook for record U.S. agricultural exports in 2011 (projected up 16% to \$126.5 billion), and continued growth (mandated by federal usage requirements) in the U.S. corn ethanol industry. A recovering global economy (bolstered by particularly strong economic growth in China) is expected to support strong demand for cotton, feed grain, oilseeds, and livestock products. Severe drought in Russia, Kazakhstan, and the Ukraine during their 2010 growing seasons lowered export supplies from those traditional feed grain export markets and helped shift market interest to U.S. feed grains. Meanwhile, continued growth in U.S. corn-based ethanol production and strong livestock prices are expected to push corn and other crop prices steadily higher as they compete for a fixed amount of cropland. As a result, market prices for major program crops are approaching the record or near-record levels achieved in 2008, and have improved the earnings outlook in 2011 for most commodities, but especially for cotton, corn, soybean, and wheat.

Government farm payments are projected down nearly 13% in 2011 at \$10.6 billion as high commodity prices shut off payments under the price-contingent marketing loan and counter-cyclical payment programs.

Farm production expenses are forecast up 7% to \$307.5 billion in 2011, led by higher fuel and fertilizer costs, and increasing outlays for crop insurance. Livestock producers face record feed costs, which could diminish their net return prospects.

Farm asset values—which reflect farm investors' and lenders' expectations about long-term profitability of farm sector investments—are expected to rise 6% in 2011 to a record \$2,250 billion following a 3% rise in 2010. Farm land cash markets in late 2010 suggest that land values will continue to see gains related to strong crop prices in 2011.

The farm debt-to-asset ratio had been steadily declining since 1998's value of 16% to a recent low of 10.4% in 2007, before rising to 12% in 2008 and 2009. The ratio is expected to fall in 2011 to about 10.7%.

These data suggest a strong financial position heading into 2011 for the agriculture sector as a whole relative to the rest of the U.S. economy. An improving global economic outlook for 2011 is expected to reinvigorate international consumer demand while the U.S. economic recovery gains traction. Signs of this can already be seen as strong demand-led growth, primarily from export markets, has pushed most commodity prices to near record highs in early 2011, and is expected to sustain those high levels well into the 2011 planting season.

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Introduction

The U.S. farm sector is vast and varied. It encompasses production activities related to traditional field crops (such as corn, soybeans, wheat, and cotton), livestock and poultry products (including meat, dairy, and eggs), as well as fruits, tree nuts, and vegetables. In addition, U.S. agricultural output includes greenhouse and nursery products, forest products, custom work, machine hire, and other farm-related activities. The intensity and economic importance of each of these activities, as well as their underlying market structure and production processes, vary regionally based on the agro-climatic setting, market conditions, and other factors. As a result, farm income and rural economic conditions may vary substantially across the United States. However, this report focuses singularly on aggregate national net farm income and the farm debt-to-asset status as reported by the U.S. Department of Agriculture (USDA).

Annual U.S. net farm income is the single most watched indicator of farm sector well-being, as it captures and reflects the entirety of economic activity across the range of production processes, input expenses, and marketing conditions that have persisted during a specific time period. When national net farm income is reported together with a measure of the national farm debt-to-asset situation, the two summary statistics provide a quick indicator of the economic well-being of the national farm economy.

Two different indicators measure farm profitability: net cash income and net farm income.

- Net cash income compares cash receipts to cash expenses. As such, it is a cash flow measure representing the funds that are available to farm operators to meet family living expenses and make debt payments. For example, crops that are produced and harvested but kept in on-farm storage are not counted in net cash income. Farm output must be marketed (i.e., exchanged for payment) before it is counted as part of the household's cash flow.
- Net farm income is a value of production measure, indicating the farm operator's share of the net value added to the national economy within a calendar year, independent of whether it is received in cash or noncash form. In contrast to net cash income, net farm income includes the value of home consumption, changes in inventories, capital replacement, and implicit rent and expenses related to the farm operator's dwelling that are not reflected in cash transactions during the current year. Thus, once a crop is grown and harvested it is included in the farm's net income calculation, even if it remains in on-farm storage.

Net cash income is generally less variable than net farm income. Farmers can manage the timing of crop and livestock sales and of the purchase of inputs to stabilize the variability in their net cash income. For example, farmers can hold crops from large harvests to sell in the forthcoming year, when output may be lower and prices higher. Off-farm income and crop insurance subsidies and benefits, both of which have increased in importance in recent years, are not included in the

¹ For information on state-level farm income, see the "U.S. and State Farm Income Data," available as part of the Farm Income Data Files, Farm Income and Costs Briefing Room, Economic Research Service (ERS), USDA, at http://www.ers.usda.gov/data/FarmIncome/finfidmu.htm.

² For a more detailed discussion of the issues in this report, see the Briefing Room "Farm Income and Costs: 2010 Farm Sector Income Forecast," ERS, USDA, at http://www.ers.usda.gov/Briefing/FarmIncome/nationalestimates.htm.

calculation of aggregate farm income. Instead, they are included in the discussion of farm income at the household level.

Calendar Year 2011: Farm Income Forecast Up

U.S. net farm income is forecast at a record \$94.7 billion in 2011, up 20% from the previous year's \$79 billion (**Figure 1** and **Table 4**).³ When measured in cash terms, net cash income in 2011 is also projected record high at \$98.6 billion, up 8% from last year's record \$91.3 billion. The 2011 outlook for a continuation of strong farm income occurs in spite of only modest growth in the domestic economy, and is being driven, in large part, by robust agricultural export growth and continued strong demand for corn as a feedstock in biofuels production.

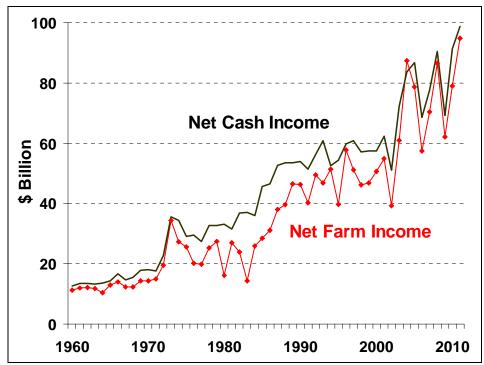


Figure I.Annual U.S. Farm Sector Income, 1960 to 2011F

Source: USDA, Economic Research Service, "2011 Farm Income Forecast," February 14, 2011, at http://www.ers.usda.gov/Briefing/FarmIncome/.

Notes: All values are in nominal terms, i.e., not adjusted for inflation. 2009 is preliminary, 2010 is forecast.

A recovering global economy (led by China) has supported strong demand for cotton, feed grain, and livestock products. In addition, severe drought in Russia, Kazakhstan, and the Ukraine during their 2010 growing seasons lowered export supplies from those traditional feed grain export markets. As a result, strong international demand for U.S. agricultural products is pushing market prices towards their 2008 highs (**Figure 2** and **Figure 3**) and has improved the earnings outlook for most agricultural commodities, but especially for cotton, grain, and oilseed producers.

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³ ERS's 2011 farm sector income forecast, last updated on February 14, 2011, is available at the Farm Income and Costs Briefing Room, at http://www.ers.usda.gov/Briefing/FarmIncome/nationalestimates.htm.

100 **Rice** 80 Cotton **60** Soybeans Wheat 20 Corn 0 0 2002 2004 2006 2008 2010

Figure 2. Monthly Farm-Prices-Received for Major Field Crops

Source: USDA, National Agricultural Statistics Service, January 31, 2011.

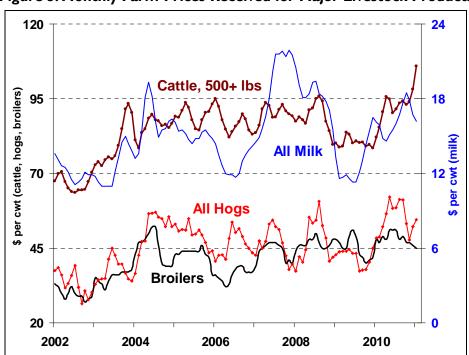


Figure 3. Monthly Farm-Prices-Received for Major Livestock Products

Source: USDA, National Agricultural Statistics Service, January 31, 2011.

Note: cwt = hundredweight or units of 100 lbs.

Market Overview

U.S. Ethanol Policy Sets the Stage for Higher Commodity Prices

During the 2005-2009 period, crop output and sales were influenced by the rapid expansion of U.S. corn-based biofuel production, due in large part to strong federal incentives. The U.S. cornethanol industry has grown rapidly from 2004, when 3.4 billion gallons of ethanol were produced using an estimated 1.2 billion bushels (or 12% of the U.S. corn crop), to 2010, when 13.2 billion gallons were produced using an estimated 4.7 billion bushels (representing a 38% of the 2010 U.S. corn crop). This additional demand has helped to push corn and other crop prices steadily higher since 2005 as they compete for a fixed amount of cropland (**Figure 2** and **Table 7**).

The U.S. ethanol sector received a substantial boost in December 2007, when the Energy Independence and Security Act (EISA) was signed into law (P.L. 110-140). EISA greatly expands the mandate for corn-based ethanol use from 10.5 billion gallons in 2009 to 15 billion gallons by 2015.⁶ In addition, strong export demand through 2007 and the first half of 2008, aided in part by a weak dollar, helped to draw stocks for major grains and oilseeds to historically low levels in 2008, thus supporting higher market prices.

Financial Crisis Stymies Growth in 2009

After reaching record net cash income and near-record net farm income in 2008, the U.S. farm economy slowed considerably in 2009 owing to the international financial crisis, falling global demand, and weak commodity prices for most major field crops and livestock products. The economic conditions that arose in late 2008—the global financial crisis, economic recession, rising unemployment, limited credit availability, and plummeting asset values—persisted into 2009 and contributed to a severe weakening of consumer demand through most of 2009. As a result, domestic and international demand for biofuels, as well as meat and dairy products (and subsequently feed grain), eroded dramatically.

Various Factors Will Influence 2011 Market Conditions

The U.S. economy has slowly recovered through 2010, but job growth has been minimal. As a result, U.S. consumers have been very cautious in their spending behavior. However, retail demand began to regain steam mid-way through 2010. In addition, robust economic growth in major global markets in 2010 (including China, India, Brazil, and other parts of Asia and the Middle East) has reinvigorated international consumer demand. When coupled with a weak U.S. dollar and events that occurred in international feed grain markets—drought in Russia, Kazakhstan, and the Ukraine, plus strong Chinese demand for corn and feedstuffs—U.S. agricultural export values surged in 2010 and are projected to reach an all-time high in 2011.

⁴ For more information, see CRS Report R41282, *Agriculture-Based Biofuels: Overview and Emerging Issues*, by Randy Schnepf.

⁵ Ethanol production estimates, Renewable Fuels Association, at http://www.ethanolrfa.org/industry/locations/; corn use estimates are from *World Agricultural Supply and Demand Estimates (WASDE)*, World Agricultural Outlook Board (WAOB), USDA, February 9, 2011; available at http://www.usda.gov/oce/commodity/wasde/.

⁶ For more information, see CRS Report R40155, *Renewable Fuel Standard (RFS): Overview and Issues*, by Randy Schnepf and Brent D. Yacobucci.

USDA's February projections for 2010/2011 marketing year U.S. ending stocks for corn and soybeans are at or near historic low levels. U.S. and global wheat ending stocks, while projected down sharply, are at what would otherwise appear as comfortable levels; however, the actual supply of wheat in international markets is less clear due to a formal export ban put in place by Russia and export quotas imposed by Ukraine—both countries are major wheat exporters. As a result of USDA's low corn and soybean ending-stock outlook, the uncertainty surrounding supplies in international markets, and the looming competition for planting acres in the United States this spring, prices have risen substantially for all major field crops. Furthermore, commodity market prices will likely be very sensitive to any news regarding possible changes in the supply and demand outlook through the summer and into the fall harvest season.

Livestock prices for all major species—cattle, hogs, poultry, and dairy—also strengthened in 2010, driven in part by recovering U.S. retail demand and a booming export market. Supplies of beef will be limited in 2011 due to tightened supplies of feeder cattle. Fed cattle prices leveled off in mid-2010, while feed prices continued to rise, thus tightening feedlot margins. The ensuing restricted feeder cattle supplies are expected to support U.S. beef prices into 2011 (**Table 7**). In addition, livestock markets have also been impacted by recent international events. Severe animal disease outbreaks in Japan and South Korea are forcing open their markets to imports of U.S. beef and pork. As a result, the commodity price outlook appears positive for livestock as well as crops.

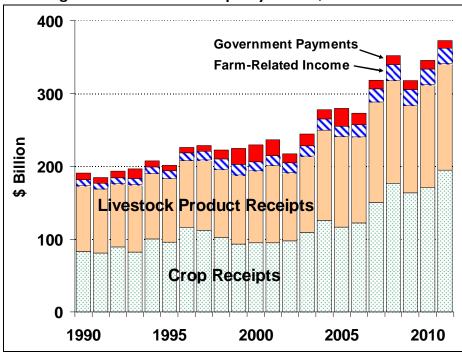


Figure 4. Farm Cash Receipts by Source, 1990 to 2011F

Source: USDA, Economic Research Service, "2010 Farm Income Forecast," February 14, 2011, at http://www.ers.usda.gov/Briefing/FarmIncome/.

Notes: 2010 is preliminary, 2011 is forecast. Receipts from crop and livestock product sales, and government payments, are described in more detail below. Farm-related income includes income from custom work, machine hire, agri-tourism, forest product sales, insurance indemnities, and cooperative patronage dividend fees.

Cash Receipts

After slumping in 2009, both crop prices (especially wheat, corn, sorghum, soybeans, and cotton) and livestock prices (especially milk, cattle, and hogs) are expected to improve dramatically throughout the 2010/2011 marketing year, driven largely by international market demand (**Table 7**). As a result, livestock receipts are forecast up 3%, while total crop receipts are forecast to rise a robust 14% (**Table 2**). The combined value of cash receipts from sales of both crop and livestock commodities is projected at record \$402.7 billion in 2011, up \$28.4 billion (9%) from 2010 (**Table 4** and **Figure 4**), and well above the previous record of \$318.3 billion in 2008.

Crops

Crop cash receipts in 20110 are projected at \$194.9 billion, up over 24% from 2010 (**Figure 5**). Sales of field crops (i.e., feed, food, oil crops, and cotton) are expected to rise nearly 23% from 2010 to \$129.2 billion. This total includes feed crop (i.e., corn, sorghum, barley, and oats) sales of \$63.5 billion, up 21%, food crop (i.e., wheat and rice) sales of \$16.4 billion, up 15%, oil crop (i.e., soybeans, sunflowers, rapeseed/canola, and other minor oilseeds) sales of \$41 billion, up 27%, and cotton sales of \$8.3 billion, up 35%. As a result, the crop sector is projected to account for over 52% of total U.S. gross cash receipts in 2011 (**Figure 4**).

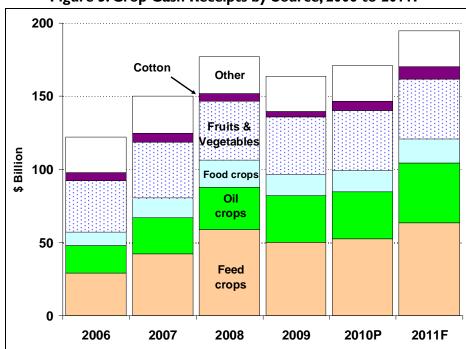


Figure 5. Crop Cash Receipts by Source, 2006 to 2011F

Source: USDA, Economic Research Service, "2011 Farm Income Forecast," February 14, 2011, at http://www.ers.usda.gov/Briefing/FarmIncome/.

Notes: 2010 is preliminary, 2011 is forecast. See Table 2 for details.

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⁷ For details regarding individual commodity market developments, refer to the monthly commodity outlook reports prepared by USDA's Economic Research Service (ERS), available at http://www.ers.usda.gov/Publications/Outlook/.

With respect to the individual crops, receipts for corn and soybeans are projected record large at \$55.3 billion and \$38.8 billion in 2011, while wheat market sales are projected up nearly 20% at \$13.6 billion.

Livestock

In terms of the value of production, the livestock sector is projected to show strong growth in 2011, with record-high cash receipts of \$145.8 billion, up 3% from 2010 (**Figure 6**). This compares with 2009's depressed livestock cash receipt total of \$119.8 billion. Higher market prices are projected for most major livestock categories, particularly milk (up 10.8%), hogs (up 8.1%), and choice steers (up 10.6%) in 2011. Only broiler and egg prices are projected lower, down 0.5% and 5%, respectively.

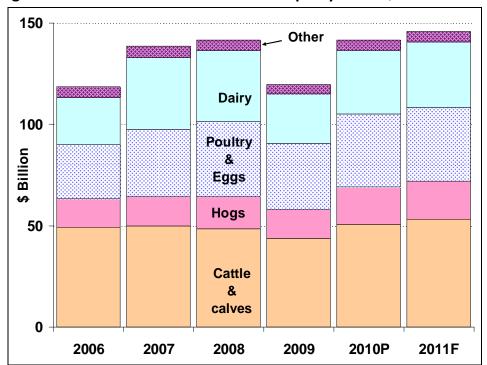


Figure 6. U.S. Livestock Product Cash Receipts by Source, 2006 to 2011F

Source: USDA, Economic Research Service, "2011 Farm Income Forecast," February 14, 2011, at http://www.ers.usda.gov/Briefing/FarmIncome/.

Notes: 2010 is preliminary, 2011 is forecast. See Table 2 for details.

Government Payments

Direct government payments are forecast lower by nearly 13%, at \$10.6 billion, in 2011, well below the record of \$24.4 billion in 2005 and the lowest total since 1997 (**Figure 7**). Government payments are expected to represent a relatively small share (2.9%) of projected gross cash income of \$372.5 billion.

Payments under the three price-contingent programs (marketing loan benefits, CCP, and ACRE) are expected to fall to a combined \$40 million dollars in 2011. CCP payments are forecast at zero, while marketing loan benefits are expected to pay out only \$20 million in combined loan

deficiency payments, marketing loan gains, and certificate exchange gains. Finally, payments under the Average Crop Revenue Program (ACRE) program are forecast at \$20 million in 2011, down from \$430 million last year. Nearly all of this decline is due to higher cotton and rice prices, as other program crop prices were above program payment triggers for all of 2010 and are expected to remain so throughout 2011 (**Table 7**).8

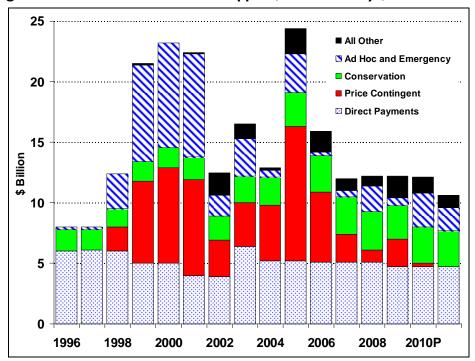


Figure 7. U.S. Government Farm Support, Direct Outlays, 1996 to 2011F

Source: USDA, Economic Research Service, "2011 Farm Income Forecast," February 14, 2011, at http://www.ers.usda.gov/Briefing/FarmIncome/; and USDA, Risk Management Agency, Current Year-to-Date National Summary of Business Reports, at http://www.rma.usda.gov/data/sob.html.

Notes: Data are on a fiscal year basis and may not correspond exactly with the crop or calendar year; 2010 is preliminary, 2011 is forecast. Direct payments include production flexibility contract payments enacted under the 1996 farm bill and fixed direct payments of the 2002 and 2008 farm bills; price-contingent outlays include loan deficiency payments, marketing loan gains, and counter-cyclical payments; conservation outlays include Conservation Reserve Program payments along with other conservation program outlays; Ad Hoc and Emergency includes emergency supplemental crop and livestock disaster payments and market loss assistance payments for relief of low commodity prices; and "all other" outlays include peanut quota buyout payments, milk income loss payments, tobacco transition payments, ACRE payments, and other miscellaneous expenditures.

Ad hoc and emergency disaster assistance are projected down slightly in 2011 at \$1.9 billion, a 32% decline from 2010. In particular, eligible recipients under the Supplemental Revenue Assistance Payments (SURE) Program are expected to receive \$994 million in payments in calendar year 2011. All other disaster programs—including primarily the Emergency Conservation Program, Livestock Forage Program (LFP), Livestock Indemnity Program (LIP), and Noninsured Assistance Program—are functioning at existing statutory authority and appropriation levels. Once a county is declared eligible for disaster relief, producer participation

 $^{^8}$ For more information on commodity programs, see CRS Report RL34594, Farm Commodity Programs in the 2008 Farm Bill, by Jim Monke.

in these programs depends on the extent to which their crop or livestock losses meet a particular program's threshold.

Ad hoc and emergency disaster assistance has figured heavily in farm sector income in most of the years since 1989. In particular, the 2008 farm bill (P.L. 110-246) created a permanent fund for disaster assistance, the Agricultural Disaster Relief Trust Fund. Producers in disaster counties who are eligible for Supplemental Revenue Assistance (SURE) payments made from this trust fund began receiving payments in calendar year 2010. 10

Conservation programs include all conservation programs operated by USDA's Farm Service Agency (FSA) and the Natural Resources Conservation Service (NRCS) that provide direct payments to producers. Conservation payments grew slowly but steadily from 1998 through 2008 before dipping slightly to \$2.8 billion in 2009. Estimated conservation payments of \$3.03 billion in 2011 reflect programs being brought up toward funding levels authorized by current legislation.

Farm fixed direct payments, whose payment rates are fixed in legislation and are not affected by the level of program crop prices, are forecast steady year-to-year at \$4.7 billion, but are down slightly when compared with about \$5.1 billion in 2008. Part of this decline in direct payments may be attributable to enrollment in the ACRE which was authorized by the 2008 farm bill (P.L. 110-246) and provides revenue insurance to producers in exchange for a 20% reduction in their annual direct payment allotments.

Production Expenses

Total farm production expenses are forecast to rise by about by 7% to \$307.5 billion in 2011 (**Table 3**). However, the \$20.2 billion increase remains well below the anticipated \$26.9 billion (7.8%) rise in gross cash receipts, thus contributing to the higher farm income outlook. The otherwise substantial increase in production expenses is the highest level ever (ahead of 2008's previous record tally of \$293 billion).

Fertilizer, fuel, pesticide, and feed costs are all projected up sharply in 2011. In addition, all major categories of "other operating expenses" are also forecast higher (**Figure 8** and **Figure 9**).

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⁹ CRS Report RS21212, Agricultural Disaster Assistance, by Dennis A. Shields and Ralph M. Chite.

¹⁰ CRS Report R40452, A Whole-Farm Crop Disaster Program: Supplemental Revenue Assistance Payments (SURE), by Dennis A. Shields.

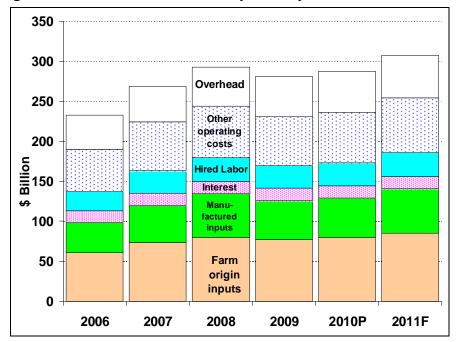


Figure 8. Farm Cash Production Expenses by Source, 2006 to 2011F

Source: USDA, Economic Research Service, "2011 Farm Income Forecast," February 14, 2011, at http://www.ers.usda.gov/Briefing/FarmIncome/.

Notes: 2010 is preliminary, 2011 is forecast. See for Table 3 details.

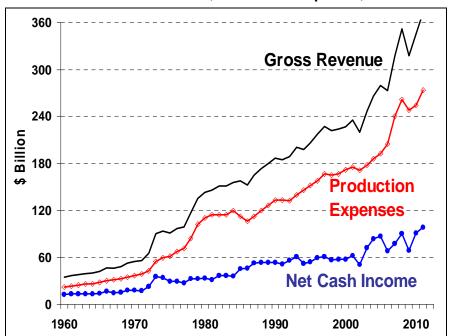


Figure 9. U.S. Farm Gross Revenue, Production Expenses, and Net Income

Source: USDA, Economic Research Service (ERS), "2011 Farm Income Forecast," February 14, 2011, at http://www.ers.usda.gov/Briefing/FarmIncome/.

Notes: All values are in nominal terms, i.e., not adjusted for inflation. 2010 is preliminary, 2011 is forecast.

Agricultural Trade Outlook

A major catalyst behind projections for stronger farm income is the outlook for strong U.S. agricultural exports in 2010 (forecast up 13% to \$108.7 billion; **Figure 10**) followed by record exports in 2011 (projected up another 16% to \$126.5 billion). Much of the increase is due to greater grain and feed shipments, owing to sharply reduced competition from Russia, Kazakhstan, and the Ukraine, and record oilseed exports to China, and growing animal product exports to East Asia.¹¹

Over the past four decades, steady growth in high-valued export products (**Figure 11**) has helped to push U.S. agricultural export value to ever higher totals; however, the current outlook is driven primarily by growth in bulk commodity shipments (primarily wheat, rice, feed grains, soybeans, cotton, and unmanufactured tobacco), which are forecast up 11% in 2010, followed by a projected 34% rise in 2011. Horticultural exports are forecast up nearly \$2 billion to \$22.6 billion in 2010, and another \$1.7 billion higher in 2011, on strong demand from Canada, the EU, and Asian markets. Beef and pork exports are expected to grow strongly through 2010 and 2011, while cotton exports are forecast up significantly at \$6 billion and \$8 billion in 2010 and 2011, respectively, as larger domestic supplies and less export competition push cotton prices to 140-year highs.

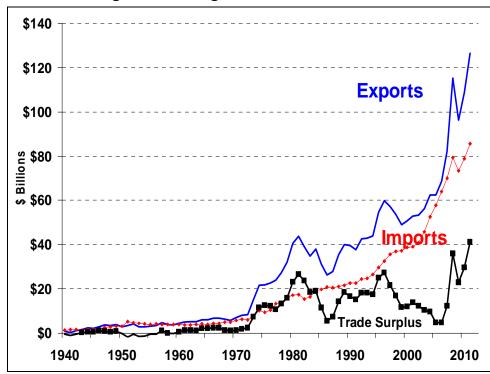


Figure 10. U.S. Agricultural Trade Since 1940

Source: USDA, ERS, Outlook for U.S. Agricultural Trade, AES-67, November 30, 2010.

¹¹ USDA, ERS, *Outlook for U.S. Agricultural Trade*, AES-67, August 31, 2010. For more information on the U.S. agricultural trade outlook see the ERS quarterly report available at the ERS Agricultural Trade Briefing Room at http://www.ers.usda.gov/Briefing/AgTrade/.

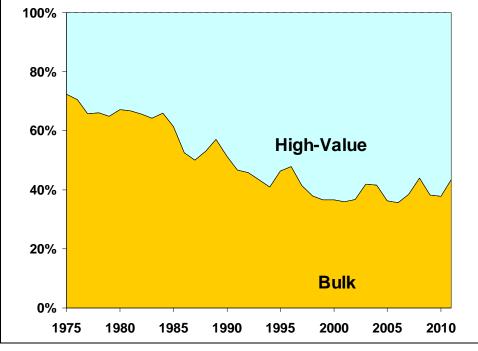


Figure 11. U.S. Agricultural Trade: Bulk vs. High-Value Shares

Source: USDA, ERS, Outlook for U.S. Agricultural Trade, AES-67, November 30, 2010.

The top five forecast markets for U.S. agricultural exports in 2010 are Canada (\$16.6 billion), China (\$15 billion), and Mexico (\$13.9 billion), followed by Japan (\$11.2 billion) and the EU-27 (\$8.5 billion). These five countries are expected to maintain the same order in 2011, but at substantially higher value levels: Canada (\$18 billion), China (\$17.5 billion), Mexico (\$16 billion), Japan (\$13 billion), and the EU-27 (\$9.1 billion).

U.S. agricultural imports are projected to be record-large in 2011 at \$85.5 billion; however, the trade surplus also is projected record-large at \$41 billion, due to the surge in exports.

Long-Run Farm Income Projections to 2020

Several institutions (both public and private)—including USDA, the Organization for Economic Cooperation and Development (OECD), the Food and Agricultural Policy Research Institute (FAPRI), and IHS Global Insight—routinely produce long-run 10- to 15-year agricultural projections for the U.S. farm sector. These annual projections cover agricultural commodities, agricultural trade, and aggregate indicators of the sector, such as farm income and food prices. The most recent projections available at the time of this report's preparation are made by USDA and cover the period 2011-2020. Appending the long-term projections for the 2012-2020 period to the current USDA agricultural outlook for 2011 produces the chart seen in **Figure 12**.

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¹² USDA Agricultural Projections to 2020, OCE-2011-1, USDA, ERS, Briefing Room: Agricultural Baseline Projections, February 14, 2011; at http://www.ers.usda.gov/Briefing/Baseline.

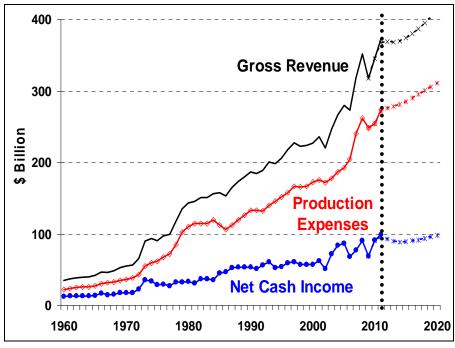


Figure 12. USDA Long-Run Farm Income Projections, 2012-2020

Source: Data for 1960-2011 are from USDA, ERS, Briefing Room: Farm Income and Costs; data for 2012 to 2020 are from USDA, ERS, Briefing Room: Agricultural Baseline Projections, February 14, 2011.

Based on October 2010 macroeconomic conditions, USDA projects net farm income levels to dip slightly to around \$88 billion in 2014 before growing again to a projected \$98 billion by 2020. The projections are highly conditional on critical long-term assumptions made for U.S. and international macroeconomic conditions, U.S. and foreign agricultural and trade policies, and growth rates of agricultural productivity in the United States and abroad.¹³

Farm Asset Values and Debt

Farm asset values—which reflect farm investors' and lenders' expectations about long-term profitability of farm sector investments—are projected up 6% in 2011 to \$2,250 billion reflecting a continually strong outlook in the general farm economy (**Table 6**).

Higher farm asset values are due primarily to stronger farm real estate values (**Figure 13**), which had fallen by 2.8% during 2008, the first decline since 1987. After rebounding in 2009, farm land cash markets in early 2010 suggest that land values could see renewed gains in 2011 related to strong crop prices in 2010. This same pattern is reflected in both cropland and pastureland values.

Meanwhile, total farm debt is forecast to decline by over 2% to \$240 billion in 2010, down from a record \$245 billion in 2009. As a result of the relative improvement between farm asset values and farm debt, farm equity (or net worth, defined as asset value minus debt) is projected higher in 2010 at \$1.880 billion.

¹³ USDA updates its long-run forecasts every February.

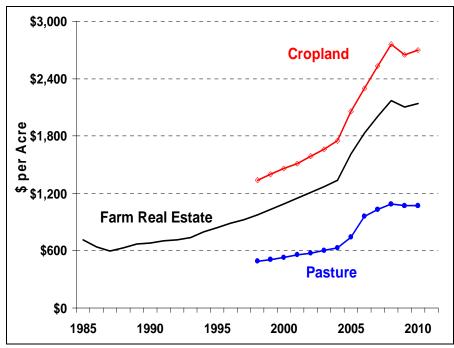


Figure 13. U.S. Average Farm Land Values, 1985 to 2010

Source: USDA, NASS, Land Values and Cash Rents, August 2010.

Notes: Farm real estate value measures the value of all land and buildings on farms. Cropland and pasture values are only available since 1998.

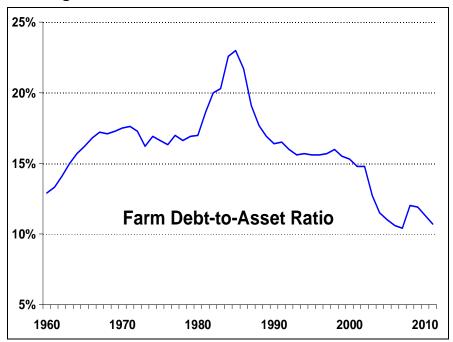


Figure 14. U.S. Farm Debt-to-Asset Ratio Since 1960

Source: USDA, Economic Research Service, "2010 Farm Income Forecast," February 14, 2011, at http://www.ers.usda.gov/Briefing/FarmIncome/.

Note: 2010 is preliminary, 2011 is forecast.

The farm debt-to-asset ratio had been steadily declining since 1998's value of 16%, to a recent low of 10.4% in 2007, before rising to 12% in 2008 and 2009 (**Figure 14**). However, it has resumed its pattern of decline falling in 2010, and is forecast to decline further in 2011 to about 10.7%. These data suggest a strong financial position in 2011 for the agriculture sector as a whole. The U.S. farm debt-to-asset ratio peaked in 1985 at 23%.

Average Farm Household Income

After two years of declines in 2008 and 2009, average farm household income returned to growth in 2010, up nearly 8%, and is projected to grow for a second consecutive year in 2011 rising 4% to \$83,352. The share of farm income derived from off-farm sources has increased steadily in recent decades and appears to have peaked at about 95% in 2000. In 2011, off-farm income sources are forecast to account for about 87% of the national average farm household income, compared with about 13% from farming activities (**Figure 15** and **Table 5**).

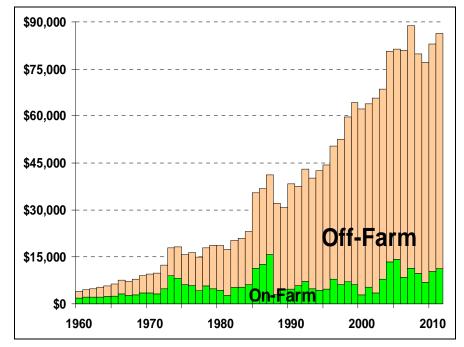


Figure 15. U.S. Ave. Farm Household Income, On- and Off-Farm Sources, Since 1960

Source: USDA, Economic Research Service, Briefing Room: Farm Household Economics and Well-Being: Historic Data On Farm Operator Household Income, February 14, 2011, at http://www.ers.usda.gov/Briefing/WellBeing/Gallery/historic.htm.

Over the past decade, farm household incomes have surged ahead of average U.S. household incomes (**Figure 16** and **Figure 17**). In 2009 (the last year for which comparable data were available), the average farm household income of \$77,168 was about 14% higher than the average U.S. household income of \$67,976 (**Table 5**).

\$90,000 **Average Farm Household Income** \$75,000 \$60,000 \$45,000 Average US \$30,000 **Household Income** \$15,000 1960 1970 1980 1990 2000 2010

Figure 16. Comparison of Farm to U.S. Average Household Income Since 1960

Source: USDA, Economic Research Service, "2010 Farm Income Forecast," February 14, 2011, at http://www.ers.usda.gov/Briefing/FarmIncome/.

Note: 2010 is preliminary, 2011 is forecast.

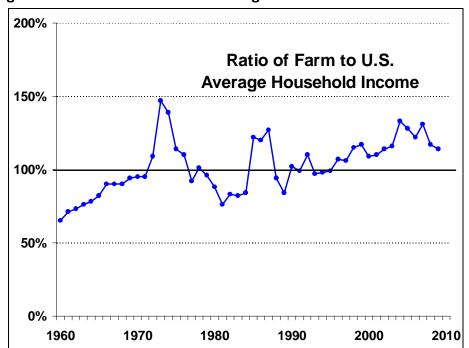


Figure 17. Ratio of Farm to U.S. Average Household Income Since 1960

Source: See above source note. 2009 is the last year with comparable data.

The share of income from farming increases with farm size as measured by gross sales (**Table 1**). "Large" commercial farm households (farms with annual sales greater than \$250,000) obtained nearly 70% of household income on-farm and accounted for 80% of the value of total U.S. agricultural production in 2009, while representing only about 10% of farm households.¹⁴

Table I. Distribution of Farms and Value of Production by Farm Size, 2009

			T-4-1116	Total HH Income				
	Family F	arms	Total U.S. Production	On-farm	Off-farm	Total		
Value of Gross Sales	Number	Share	Share	Share	Share	Value		
< \$10,000	1,281,788	60.1%	1.5%	-13%	113%	\$66,832		
\$10,000 to \$249,999	639,270	30.0%	18.4%	4%	96%	\$96,177		
≥ \$250,000	209,949	9.9%	80.1%	70%	30%	\$164,609		
All	2,131,007	100.0%	100.0%	9%	91%	\$77,168		

Source: USDA, ERS, 2009 USDA Agricultural Resource Management Survey.

Intermediate family farms (farms with annual sales in excess of \$10,000 but less than \$250,000) obtained about 4% of household income from on-farm sources, accounted for about 18% of the value of total U.S. agricultural production, and represented about 30% of family farms.

"Small" farm households (annual sales less than \$10,000) actually lost revenue from farming operations (-13% of household income) and accounted for less than 2% of the value of total U.S. agricultural production in 2009, while representing over 60% of farm households. A substantial number of these small farms are classified as rural residence farms and either receive little or no income from farm sources or have a total income level that qualifies them as limited-resource farms.

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¹⁴ For more information on farm typology, see the ERS Briefing Room, *Farm Household Economics and Well-Being: Farm Operator Household Income Forecasts*, at http://www.ers.usda.gov/Briefing/WellBeing/farmhouseincome.htm.

Table 2. U.S. Crop and Livestock Revenue (\$ Billions) by Source, 2006-2011F

Item	2006	2007	2008	2009	2010	2011a	Change (%)
Field crops	62.6	86.9	111.6	100.0	105.2	129.2	22.8%
Food grains	9.1	13.6	18.7	14.4	14.3	16.4	14.8%
Wheat	7.3	11.4	15.5	11.3	11.4	13.6	19.5%
Rice	1.8	2.1	3.2	3.0	2.8	2.7	-3.6%
Feed crops	29.4	42.3	58.9	50.2	52.5	63.5	20.9%
Corn	22.9	34.I	48.6	42.0	44.8	55.3	23.4%
Other Grains	1.3	2.2	2.7	2.3	2.2	2.4	10.5%
Hay	5.1	6.0	7.5	5.7	5.5	5.7	4.1%
Oil Crops	18.5	24.6	28.7	31.9	32.3	41.0	27.2%
Soybeans	17.3	23.1	26.4	30.1	30.5	38.8	27.4%
Peanuts	0.6	0.8	1.2	0.8	8.0	1.0	22.4%
Cotton (lint & seed)	5.5	6.5	5.2	3.5	6.2	8.3	34.6%
Other Crops	59.6	63.1	65.3	63.7	65.7	65.8	0.1%
Fruits and nuts	17.3	18.7	19.3	19.0	19.3	19.8	2.3%
Vegetables	18.0	19.3	21.0	20.6	21.8	21.1	-3.6%
All other crops	24.2	25.2	25.0	24.1	24.5	24.9	1.8%
Total Crops	122.1	150.1	176.8	163.7	170.9	194.9	14.1%
Meat animals	63.7	65.1	65.0	58.6	69.5	72.5	4.4%
Cattle & calves	49.1	49.8	48.5	43.8	50.6	53.0	4.9%
Hogs	14.1	14.8	16.1	14.4	18.4	18.9	2.9%
Sheep & lambs	0.5	0.5	0.4	0.4	0.5	0.6	12.4%
Poultry and eggs	26.6	33.1	36.8	32.5	36.2	36.5	0.9%
Broilers	17.9	21.5	23.2	21.8	24.4	24.8	1.9%
Turkeys	3.5	3.9	4.5	3.6	4.4	4.4	0.5%
Eggs	4.5	6.7	8.2	6.2	6.4	6.2	-3.4%
All dairy	23.4	35.5	34.8	24.3	31.4	32.3	2.8%
Other livestock	4.8	4.9	4.8	4.3	4.4	4.5	1.0%
Total Livestock	118.5	138.5	141.5	119.8	141.5	145.8	3.0%
Government payments	15.8	11.9	12.2	12.3	12.2	10.6	-12.7%
Other farm income ^b	16.8	17.6	21.5	22.0	21.1	21.1	0.0%
Total Farm Revenue	273.2	318.0	352.0	317.6	345.6	372.4	7.8%

Source: "Farm Income Briefing Room," Economic Research Service, USDA, February 14, 2011.

a. Forecast.. Change represents year-to-year change between 2010 and 2011.

b. Machine hire, custom work, forest products sales, insurance indemnities, and other farm income.

Table 3. U.S. Farm Production Expenses (\$ Billions) by Source, 2006-2011F

ltem	2006	2007	2008	2009	2010	2011a	Change (%)
Farm origin inputs ^b	61.1	73.4	79.8	77.0	79.0	85.I	6.5%
Feed	31.4	41.9	46.9	45.0	45.2	49.7	10.1%
Livestock	18.6	18.8	17.5	16.5	19.5	19.3	-0.8%
Seed	11.0	12.6	15.1	15.5	15.3	16.1	5.3%
Manufactured inputs ^c	37.5	46.3	55.0	49.0	49.5	55.6	12.2%
Fertilizer & lime	13.3	17.7	22.5	20.1	18.2	20.9	14.4%
Fuels & oils	11.3	13.8	16.2	10.6	15.6	18.1	16.0%
Electricity	3.8	4.3	4.5	4.6	4.6	4.7	3.3%
Pesticides	9.0	10.5	11.7	11.5	11.1	11.9	7.2%
Total interest charges	14.4	15.1	15.4	15.2	15.0	15.4	2.7%
Short-term interest	6.4	6.9	6.7	6.4	6.4	6.3	-0.8%
Real-estate interest	8.0	8.3	8.8	8.7	8.6	9.0	5.3%
Other operating exp.d	76.9	89.5	93.7	89.5	91.8	98.2	6.9%
Repair & maintenance	12.5	14.3	14.8	14.7	15.5	16.6	7.1%
Hired & contract labor	24.2	28.6	29.7	28.7	28.8	30.1	4.5%
Custom work	3.5	3.8	4.1	3.9	4.0	4.3	7.5%
Marketing, storage, etc.	9.1	10.3	10.1	10.3	10.4	11.3	8.6%
Miscellaneous	27.6	32.3	35.0	31.9	33.2	35.9	8.3%
Overhead expensese	42.9	44.9	49.0	50.4	51.1	53.3	4.3%
Capital consumption	26.2	27.0	28.7	30.1	30.6	31.4	2.5%
Property taxes	9.0	10.3	10.7	10.4	10.6	10.9	3.0%
Non-operator net rent	7.6	7.6	9.3	9.8	9.9	11.1	11.2%
Total Production Exp.	232.7	269.2	293.0	281.0	287.3	307.5	7.0%

Source: "Farm Income Briefing Room," Economic Research Service, USDA, February 14, 2011.

- a. Forecast.. Change represents year-to-year change between 2010 and 2011.
- b. Farm origin inputs include purchases of feed, livestock and poultry, and seed.
- c. Manufactured inputs include fertilizers and lime, pesticides, petroleum fuel and oils, and electricity.
- d. Other operating costs include repair and maintenance of capital items, machine hire and custom work, marketing storage, transportation expenses, and other miscellaneous expenses.
- e. Overhead expenses include property taxes, net rent to a non-operator landlord, and capital consumption.

Table 4.Annual U.S. Farm Income Since 2004
(\$ billions)

Item	2004	2005	2006	2007	2008	2009	2010	2011a	Change (%)
1. Cash receipts	237.9	241.0	240.6	288.5	318.3	283.4	312.3	340.7	9.1%
Crops ^b	114.4	116.1	122.1	150.1	176.8	163.7	170.9	194.9	14.1%
Livestock	123.5	124.9	118.5	138.5	141.5	119.8	141.5	145.8	3.0%
2. Government payments ^c	13.0	24.4	15.8	11.9	12.2	12.3	12.2	10.6	-12.7%
Fixed direct paymentsd	5.2	5.2	5.1	5.1	5.1	4.7	4.7	4.7	-1.8%
CCPe	1.1	4.1	4.0	1.1	0.7	1.2	0.2	0.0	-100.0%
Marketing Loan Benefits ^f	3.5	7.1	1.8	1.1	0.3	1.1	0.1	0.0	-83.0%
Conservation	2.3	2.8	3.0	3.1	3.2	2.8	3.0	3.0	1.5%
Ad hoc and emergency	0.6	3.2	0.3	0.5	2.1	0.6	2.8	1.9	-31.9%
All others	0.2	2.1	1.7	1.0	8.0	1.8	0.9	1.0	11.3%
3. Farm-related incomeh	15.7	14.4	16.8	17.6	21.5	22.0	21.1	21.2	0.6%
4. Gross cash income (1+2+3)	266.5	279.8	273.2	318.0	352.0	317.6	345.6	372.5	7.8%
5. Cash expenses ⁱ	182.9	192.8	204.8	240.3	261.6	248.5	254.2	273.9	7.7%
6. NET CASH INCOME	83.7	87.0	68.4	77.7	90.4	69.1	91.3	98.6	8.0%
7. Total gross revenues	294.9	298.6	290.2	339.5	379.6	343.2	366.3	402.2	9.8%
8. Total production expenses ^k	207.5	219.8	232.7	269.2	293.0	281.0	287.3	307.5	7.0%
9. NET FARM INCOME	87.4	78.8	57.4	70.3	86.6	62.2	79.0	94.7	19.8%

Source: USDA, Economic Research Service, briefing rooms: Farm Income and Costs: Farm Sector Income, and Costs: Farm Sector Income, available at http://www.ers.usda.gov/Briefing/FarmIncome/; U.S. farm income data updated as of February 14, 2011.

- a. Data for 2010 are preliminary, 2011 are USDA forecasts. Change represents year-to-year change between 2010 and 2011
- b. Includes Commodity Credit Corporation loans under the farm commodity support program.
- c. Government payments reflect payments made directly to all recipients in the farm sector, including landlords. The non-operator landlords' share is offset by its inclusion in rental expenses paid to these landlords and thus is not reflected in net farm income or net cash income. For more information on U.S. farm commodity programs, see CRS Report RL34594, Farm Commodity Programs in the 2008 Farm Bill, by Jim Monke; for more information on conservation programs see CRS Report RL34557, Conservation Provisions of the 2008 Farm Bill, by Tadlock Cowan, Renée Johnson, and Megan Stubbs.
- d. Direct payments include production flexibility payments of the 1996 Farm Act through 2001, and fixed direct payments under the 2002 Farm Act since 2002.
- e. CCP = counter-cyclical payments.
- f. Includes loan deficiency payments (LDP); marketing loan gains (MLG); and commodity certificate exchange gains.
- g. Peanut quota buyout, milk income loss payments, and other miscellaneous program payments.
- h. Income from custom work, machine hire, agri-tourism, forest product sales, and other farm sources.
- i. Excludes depreciation and perquisites to hired labor.
- i. Gross cash income plus inventory adjustments, the value of home consumption, and the imputed rental value of operator dwellings.
- k. Cash expenses plus depreciation and perquisites to hired labor.

Table 5. Average Annual Income per U.S. Household, Farm versus All, 2004-2011F

(\$ per household)

	2004	2005	2006	2007	2008	2009	2010	2011F
Average U.S. Farm Income by Source								
On-Farm Income	\$13,325	\$14,227	\$8,541	\$11,364	\$9,764	\$6,866	\$10,414	\$11,174
Off-Farm income	\$67,279	\$67,091	\$72,502	\$77,432	\$70,032	\$70,302	\$72,606	\$75,178
Total Farm income	\$80,604	\$81,318	\$81,043	\$88,796	\$79,796	\$77,169	\$83,020	\$86,352
Average U.S. Household Income	\$60,466	\$63,344	\$66,570	\$67,609	\$68,424	\$67,976	na	na
Farm Household Income as Share of U.S. Avg. Household Income (%)	133%	128%	122%	131%	117%	114%	na	na

Source: USDA, ERS Briefing Room: Farm Household Economics and Well-Being: Historic Data On Farm Operator Household Income, at http://www.ers.usda.gov/Briefing/WellBeing/Gallery/historic.htm; as of February 14, 2011.

Note: Data for 2011 are USDA forecasts.

Table 6. Average Annual Farm Sector Debt-to-Asset Ratio, 2004-2011F

(\$ billions)

	2004	2005	2006	2007	2008	2009	2010	2011F
Farm Assets	1,588.0	1,779.4	1,923.6	2,055.3	2,023.3	2,057.1	2,121.1	2,250.4
Farm Debt	181.9	196.4	203.6	214.1	242.7	245.4	240.3	241.6
Farm Equity	1,406.1	1,583.0	1,720.0	1,841.2	1,780.6	1,811.8	1,880.8	2,008.8
Debt-to-Asset Ratio (%)	11.5%	11.0%	10.6%	10.4%	12.0%	11.9%	11.3%	10.7%

Source: USDA, ERS Briefing Room: Farm Household Economics and Well-Being: Farm Business Balance Sheet,, at http://www.ers.usda.gov/data/FarmBalanceSheet/fbsdmu.htm; as of February 14, 2011.

Note: Data for 2010 are preliminary, 2011 are USDA forecasts.

Table 7. U.S. Prices and Support Rates for Selected Farm Commodities Since 2005

Commoditya	Unit	Year	2005/06	2006/07	2007/08	2008/09	2009/10Fb	2010/11Fb	% change from 2009/10 ^c	2011/12Fb	% change from 2010/11 ^d	2010 Loan rate ^e	2010 Target Price
Wheat	\$/bu	Jun-May	3.42	4.26	6.48	6.78	4.87	5.60-5.80	17.0%	_	_	2.75	3.92
Corn	\$/bu	Sep-Aug	2.00	3.04	4.20	4.06	3.55	5.05-5.75	52.1%	_	_	1.95	2.63
Sorghum	\$/bu	Sep-Aug	1.86	3.29	4.08	3.20	3.22	5.15-5.85	70.8%	_	_	1.95	2.57
Barley	\$/bu	Jun-May	2.53	2.85	4.02	5.37	4.66	3.80-4.00	-16.3%	_	_	1.85	2.44
Oats	\$/bu	Jun-May	1.63	1.87	2.63	3.15	2.02	2.30-2.50	18.8%		_	1.33	1.44
Rice	\$/cwt	Aug-Jul	7.65	9.96	12.80	16.80	14.00	12.15-12.65	-13.9%			6.50	10.50
Soybeans	\$/bu	Sep-Aug	5.66	6.43	10.10	9.97	9.59	11.20-12.20	22.0%		_	5.00	5.80
Soybean oil	¢/lb	Oct-Sep	23.4	31.0	52.0	32.16	35.95	51.0-55.0	33.8%		_	_	_
Soybean meal	\$/st	Oct-Sep	174.2	205.4	335.9	331.2	311.27	340-380	15.7%		_	_	_
Cotton, Upland	¢/lb	Aug-Jul	47.7	46.5	59.3	47.8	62.9	79.0-84.0	29.6%	_	_	52.00	71.25
Choice Steers	\$/cwt	Jan-Dec	87.3	85.4	91.8	92.27	83.25	95.38	14.6%	102-109	10.6%	_	_
Barrows/Gilts	\$/cwt	Jan-Dec	50.1	47.3	47.I	47.84	41.24	55.06	33.5%	58-61	8.1%	_	_
Broilers	¢/lb	Jan-Dec	70.8	64.4	76.4	79.7	77.60	82.9	6.8%	80-85	-0.5%	_	_
Eggs	¢/doz	Jan-Dec	65.5	71.8	114.4	128.3	103.0	106.3	3.2%	98-104	-5.0%	_	_
Milk	\$/cwt	Jan-Dec	15.14	12.90	19.13	18.29	12.84	16.29	27.0%	17.70-18.40	10.8%	_	

Source: Various USDA agency sources as described in the notes below.

- a. Season average farm price for grains and oilseeds are from USDA, National Agricultural Statistical Service, Agricultural Prices. Calendar year data is for the first year, e.g., 2000/2001 = 2000; F = forecast from World Agricultural Supply and Demand Estimates (WASDE) February 9, 2011;—= no value; and USDA's out-year 2011/2012 crop price forecasts will first appear in the May 2011 WASDE report. WASDE reports are available at http://www.usda.gov/oce/commodity/wasde/. Soybean and livestock product prices are from USDA, Agricultural Marketing Service (AMS): soybean oil—Decatur, IL, cash price, simple average crude; soybean meal—Decatur, IL, cash price, simple average 48% protein; choice steers—Nebraska, direct 1100-1300 lbs.; barrows/gilts—national base, live equivalent 51%-52% lean; broilers—wholesale, 12-city average; eggs—Grade A, New York, volume buyers; and milk—simple average of prices received by farmers for all milk.
- b. Data for 2009/2010, and 2010/2011 are USDA forecasts; 2011/2012 data are USDA projections.
- c. Percent change from 2009/2010, calculated using the difference from the midpoint of the range for 2010/2011 with the estimate for 2009/2010.
- d. Percent change from 2010/2011, calculated using the difference from the midpoint of the range for 2011/2012 with the estimate for 2010/2011.
- e. Loan rate and target prices are for the 2010/2011 crop year. For more information, see CRS Report RL34594, Farm Commodity Programs in the 2008 Farm Bill, by Jim Monke.

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