

The Outlook for U.S. Agriculture

Robert Johansson
Chief Economist, USDA
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Welcome to this year's 93rd annual Agricultural Outlook Forum (see slide 1). As Acting Deputy Secretary Mike Young mentioned, we have a great program this year.

I would first like to again thank our two distinguished speakers this morning, Iowa Governor Terry Branstad and House Agriculture Committee Chairman Mike Conaway. Second, I would like to draw your attention to our industry panel following the coffee break this morning. Executive leaders from John Deere, Land O'Lakes, and Rabobank will provide their perspective on how their companies will meet the challenges and opportunities of the agricultural economy in 2017 and beyond. Also, "thank you" to Agri-Pulse CEO Sara Wyant for moderating that session. Finally, "thank you" to the many speakers and participants who have joined us to enrich our sessions over the next two days. Without your participation our forum would not be nearly as useful to policymakers, to our stakeholders, or to our agencies as we come together to discuss a host of important agricultural issues that we are likely to face in 2017.

Many things have changed since last year, giving us plenty to discuss in the plenary session and the breakout sessions that follow later today and tomorrow. For example, the historic drought in California appears to be broken, we are busy marketing the largest U.S. corn and soybean crops ever, China has started to back out of its stock-building policies for corn and cotton, and yet global stocks for some commodities have grown. Farm productivity continues to advance and exports are increasing, yet farm income has fallen over the last several years more quickly than any time since the mid-1970s. Market sentiment, like market signals, is mixed.

I want to begin by looking at several recent survey indices regarding sentiment about economic well-being over the next six to twelve months: the Purdue/CME Group Ag Economy farmer survey, the University of Michigan index of consumers, the NAHB housing index, the Federal Reserve survey of bankers, and the Creighton University Mainstreet economy survey, plotted with the price received by farmers for a bushel of corn. All are normalized to be 100 in February 2016. It is difficult to compare these over such a short period of time, and the surveys ask different questions. However, farmer, consumer, business, and home builder indices all indicate increased optimism regarding the future economy compared to sentiments surveyed in February of 2016. On the other hand, bankers seem more reflective (see slide 2), with the Federal Reserve survey of bankers on the likelihood of loan repayment rates tracking fairly close to an declining index of corn prices received by farmers –that is as corn prices fall, bankers believe they will see lower loan repayment rates.

In my talk today, I will dig into some of what is behind those mixed sentiments by focusing on two main questions: what is the condition of the current agricultural economy and what are the prospects for production and prices looking forward (see slide 3).

Farm income is headed sideways. When Congress debated the 2014 farm bill, the United States was recovering from the Great Recession and just coming off the highest levels of federal deficits since World War II. At the same time farm income was also reaching historic levels, peaking in 2013 at more than \$120 billion. Today, many producers are in a different situation. Farm income has fallen dramatically since 2013 (see slide 4), falling almost 30 percent in real terms. That is the largest 4-year drop in farm income in 40 years, when real farm income fell more than 45 percent between 1973 and 1977.

We have seen record production in major commodities over the past few years, and as a result prices are down significantly. Net farm income in 2016 is forecast to be \$68.3 billion and is expected to remain flat in 2017 at \$62.3 billion (see slide 5). Baseline projections show flat farm income throughout the 10-year forecast period. This chart also shows previous USDA 10-year forecasts for farm income, illustrating that the current forecast is being drawn down by expectations of a continued period of flat prices. In our outlook, over the next ten years crude oil prices are assumed to stay below \$70 in real terms, interest rates on the 10-year Treasury bond reach 3.6 percent, and GDP growth and inflation are assumed to remain around 2.1 percent. This chart demonstrates that realized farm income will be higher or lower as a result of factors that occur during the year.

While the farm income forecast is down by almost 50 percent in nominal terms since the peak in 2013, farmland values remain relatively strong. While they have come down off their highs from two years ago, those values continue to underlie a relatively strong debt-to-asset ratio, which is now expected to be 13.9 percent in 2017, up from the low point in 2012 of 11.3 percent, but well below the peak of more than 22.2 percent in 1985. To reach that point today would still take a dramatic increase in debt payments or a loss in farmland value of more than 50 percent (see slide 6).

That is the story at the aggregate level, but as with most national statistics we know that there are sectors or regions that may be struggling more than others. For example, when we look at debt-to-asset levels by farm business sector forecasts for 2017, we note that about one in five cotton, wheat, hog, and poultry farms have a debt-to-asset ratio of more than 40 percent. Those farms are in a highly or very highly leveraged situation and are more vulnerable to low prices (see slide 7). We also know that young farmers and those that rent more of their land typically will have higher debt-to-asset ratios (see slide 8). When we look at debt-to-asset levels by farm business sector in 2016 by operator age, we can see that more than one-third are highly or very highly leveraged (20 percent highly leveraged, 16 percent very highly leveraged). Shares of highly and very highly leveraged farm businesses fall to less than one-fifth for operators aged 35-44 (10 percent highly leveraged and 8 percent very highly leveraged), to only 9 percent for operators aged 55-64 years, and to only 5 percent for operators 65 and older.

Farmers have been borrowing to cover operating costs. Demand for USDA's FSA loans increased markedly last year, reaching record high obligations of \$6.3 billion in 2016, including record assistance to beginning and historically underserved farmers and ranchers. However, the latest Kansas City Federal Reserve report indicates that the volume of new farm loans was down significantly in the fourth quarter of 2016, falling by 40 percent from the same period in 2015. Some of that decline is a result of record yields last year. Another reason appears to be input costs, as prices for seeds, fertilizer, and feeder cattle (down 30 percent year-over-year) declined more than expected between 2015 and 2016. But some is likely due to tighter lending in the face of continuing low commodity prices and some the effect of lower demand from reduced expenditures on machinery and other expenses that can be delayed. While loan volume may be down, current levels of real debt are approaching the record levels from the early 1980s or more than \$350 billion (see slide 9), with real estate debt in 2017 projected to exceeding a record \$210 billion.

However, with interest rates remaining low, those high levels of debt are not associated with the very high interest payments we saw in the 1980s. At their peak, interest payments relative to net farm income in 1985 exceeded 60 percent; today they remain close to 20 percent (see slide 10).

Loan repayment rates are declining, as suggested by my earlier chart on banker responses to the Federal Reserve Bank surveys. Farmers are refinancing current debt and seeking longer repayment terms at slightly higher interest rates. Delinquencies rose only slightly last quarter for both real estate and non-real estate loans and remain modest by historical standards and below levels seen in much of the last decade (see slide 11). Despite the small uptick in nonperforming agricultural loans to \$2.6 billion, commercial agricultural and other small banks continue to see high returns on assets, reaching 0.91 percent in the third quarter of 2016, the highest third quarter rate of return since 1998. I am sure we will hear more about this later today and tomorrow in our sessions on financial conditions.

Despite the rise in delinquencies and increase in debt levels, the more severe issues with farm bankruptcies associated with the 1980s crisis are still far off according to recent data from the Economic Research Service (see slide 12). Here we see that the rate of farm bankruptcies is still running at less than 2 per 10,000 farms. The rate was nearly double that in 2003 and 10 times that in 1987.

Another place we might expect to see the tightening financial situation reflected is in land values and rental rates for farmland as farming profitability erodes. A large component of the cost of production is buying or renting land. Land values are also the largest component of the relatively strong asset base of U.S. agriculture today. Both land rents and land values have started to decline as measured by National Agricultural Statistics Service (NASS) surveys (see slide 13) and also by land value surveys conducted by universities and by the Federal Reserve Banks. That decline has thus far been slow in most areas compared to the increases we observed in land values between 2011 and 2013 when land values were increasing by double digits each year.

Looking back to the 1980s, we saw the capitalized land value of cash rents diverge from observed land values. That is clearly shown with data from the 7th Federal Reserve District, which also shows that land values followed those capitalized rents back down by the late 1980s, losing approximately 50 percent of their peak values over a 6-year period (see slide 14). What do we see today? The current capitalized land value of cash rents has been running above land values since about 2007, illustrating headroom for even higher land values. However, that gap is starting to close (see slide 15). To illustrate, assume that land values and cash rents fall by 5 percent in 2017 and that interest rates average the current rate of 2.5 percent. Then, we would expect the two measures of land values would begin to converge at roughly \$8,000 per acre for cropland in Iowa.

Farm programs working as designed. Given the rapid decline in agricultural sector profitability since 2013, we have seen farm programs providing a safety net to many producers. Those programs have helped farmers adjust to lower commodity prices (see slide 16).

The crop insurance program remains popular driven by popularity of revenue products, which now account for more than 70 percent of liability. And while liabilities have come down with commodity prices, current liabilities still exceed \$100 billion and the number of acres insured remains high at about 300 million (see slide 17). Additional policies for whole farms and specialty crops are also being added each year. The yield exclusion program introduced under the 2014 Farm Bill has seen increasing participation, with associated increases in liability. In 2017 the premium subsidy for crop insurance is projected by the Congressional Budget Office (CBO) to be about \$5.4 billion. However, the Supplemental Coverage Option and the Stacked Income Protection Plan for cotton remain less popular than expected.

Turning to the new commodity programs, both the Agricultural Risk Coverage (ARC) program and the Price Loss Coverage (PLC) program were designed to be counter-cyclical, triggering payments when prices or revenues fell below certain levels. Producers choosing to participate had to elect between one of the two programs in 2014, with no option for switching as economic conditions changed. As prices and revenues have been coming down, both programs have been providing assistance to producers. As of February 2nd, ARC, had made payments of \$5.9 billion for crop year 2015, with the largest shares going to corn, soybeans, and wheat base. PLC payments have totaled \$1.9 billion for crop year 2015, with the largest shares going to rice, peanuts, and wheat base. Recent ERS and CBO projections indicate payments for crop year 2016, which will be made beginning in October of this year, will be around \$5 billion for ARC and \$3.5 billion for PLC.

As might be expected with new programs, there remain questions about whether they are functioning equally well for everyone. For example, the ARC program provides payments based on county yields, which vary across counties. For example, here we see average county revenues for corn for the 2015 crop year (see slide 18). The areas in red demonstrate where average revenue in 2015 fell below the revenue guarantee for that

county. This next slide demonstrates that after ARC payments, average revenue for a large portion of counties now meet their revenue guarantee (see slide 19), illustrating how the ARC county program has performed as a counter-cyclical safety net for corn base acres. However, outlined in blue for both those maps is a central section for Illinois that shows how the program functions at a finer resolution. A farmer with corn base acres in McLean County, Illinois in 2015 with average county yield of 199 bushels per acre could expect a payment rate of \$69. However, across the county line in Piatt County, Illinois a farmer with corn base acres with average county yield of 221 bushels per acre would not receive ARC county payments (see slide 20).

Unlike the Title I commodity programs for crops, the margin protection program for dairy has not been providing payments to dairy farmers at levels expected when the program was designed in 2014. While dairy prices have fallen since 2014, tightening margins for dairy producers, feed costs have also fallen. As a result, since the program began in 2015, premium payments for participating in the insurance-like program have exceeded program payments. However, had margins tightened further, similar to levels seen in 2009 or 2012, the margin program would have likely triggered for the majority of participants in the program (see slide 21).

Outlook for crops – prices edge up slightly. I would like to turn now to what I see as the major factors influencing the market for agricultural commodities and provide the first look at area and prices for major field crops for the upcoming season. In tomorrow's commodity outlook sessions, our analysts will offer a more detailed look at USDA's projected balance sheets for the 2017/18 marketing year, providing an update to earlier estimates in the 10-year baseline projections (see slide 22).

Production has outpaced consumption for many grains and oilseeds over the last four years. Relatively high prices for much of the last decade have resulted in increased production both in the United States and around the world. We have had record or near record world crops for corn, soybeans and wheat over the last four years (see slide 23).

While world consumption has also grown, global stocks have risen, particularly for wheat (see slide 24). In addition, the strengthening dollar and increased competition have reduced prospects for U.S. exports and while domestic prices are expected to edge up modestly, they also are likely to remain close to last year's low prices, well below the highs from 2012-2014.

U.S. prices for most agricultural crops are expected flat to slightly higher for the 2017/18 marketing year (see slide 25). Despite high inventories, wheat prices are estimated at \$4.30 per bushel, up nearly 12 percent from last year. Record yields and improved exports have helped U.S. producers to partially offset the low prices in 2016/17. The sharply reduced winter wheat acreage has helped firm up domestic prices and should lend support to new-crop wheat prices. As a result, U.S. farm businesses specializing in wheat production are forecast to see a 5 percent increase in net cash income in 2017. Corn prices are projected to edge up to \$3.50 per bushel for the 2017/18 marketing year, up 3 percent from last year, but down than 50 percent from 2012's record high price. Soybeans

prices are forecast at \$9.60 per bushel, up about 1.1 percent from last year, but down about 35 percent from the record in 2012. Cotton prices are projected at 65 cents per pound, down 6 percent from the prior year. The all-rice price is forecast up modestly year-over-year at \$10.70 per hundredweight, up 2 percent from last year.

With commodity prices rising slightly from low levels we expect to see an increase in idled acres, acres that had been brought into production as commodity prices rose through 2012. Looking at the lagged price index, we would have expected plantings to decline further last year, but good spring planting weather and lower prevented-planting acreage resulted in an 8-crop planted area of approximately 253 million acres. Assuming more normal prevented-planting acreage and observing the lagged price index highlighting continued pressure on margins, we expect 8-crop planted area to fall this year. Lower crop returns will push some area out of production while shifts in relative returns will reallocate planted area among crops (see slide 26).

Through more than half of February, new-crop corn futures have averaged close to \$4.00 per bushel, up about \$0.10 from all of February a year ago. Soybean prices over the same period have averaged about \$10.20 per bushel, nearly 2.6 times the corn price and about \$1.35 above a year ago (see slide 27). The last time the ratio during February was this favorable to soybeans was in 1997, which preceded the takeoff of corn ethanol in the United States and robust growth in China's soybean imports. A more recent historical comparison could be 2014, when a rapid increase in China's soybean import demand over the first half of 2013/14 drove the ratio up to nearly 2.5 during February, helping to pull soybean plantings up 8 percent while corn area declined 5 percent. This price ratio drives our expectations for the increase in soybean area.

Based on current conditions we expect the 8-crop area to fall by almost 2 percent to 249.8 million acres, down 3.6 million acres from last year (see slide 28). We have already seen winter wheat area come in even lower than trade expectations of the time suggesting producers are already adjusting their plantings. Along with lower winter wheat seedings, we are likely to see fewer acres planted to corn, rice, and other feedgrains. Alternatively, cotton and soybeans are expected to pick up some of that planted area in 2017, rising to 11.5 million acres and 88 million acres respectively. This would push the ratio of soybean area to corn area yet closer to parity in 2017/18. Along with weather, changes in prices and input costs between now and planting time will determine final planted acreage.

Combined corn and soybean acreage is expected to total 178.0 million acres, up 0.6 million acres from 2016. Corn area is expected to decline by 4 million acres to 90.0 million as soybeans rise by 4.6 million acres to 88.0 million. With lower area and a return to trend yields, production is expected to decline, but large beginning stocks temper the decline in supplies. Strong competition from South America in the second half of 2016/17 and into the U.S. harvest will likely curtail any significant increase in exports.

Along with corn, these area changes from last year also have to be examined in the context of larger-than-average prevented plantings in 2015 followed by below average prevented plantings in 2016. Area for the minor feed grains (barley, oats, and sorghum) is

expected to decline. Sorghum area in particular is expected to fall as prices have declined relative to corn on slowing trade demand. Rice area is expected to decline by more than 17 percent to 2.6 million acres on abundant U.S. and global supplies. The fall in area is driven almost entirely by long-grain plantings, which are forecast to decline by 22 percent to 1.9 million acres, while medium- and short-grain plantings decline by a modest one percent. The all-rice price is projected up modestly to \$10.70 per hundredweight, up \$0.20 from last year's relatively weak prices.

The all-cotton area is projected at 11.5 million acres in 2017, an increase of 1.4 million acres or 14 percent above 2016. The rebound in cotton area, the highest since 2012, is driven by relative returns as producers respond to a jump in prices in 2016. The U.S. has seen solid export demand in 2016/17 even as the Chinese move to reduce their huge stocks. While cotton prices are projected 4 cents lower to 65 cents a pound in 2017, expected prices and returns remain competitive with other crops including corn, soybeans, and sorghum.

Outlook for livestock and dairy is for continued record total meat and dairy production. Although prices for livestock, poultry, and milk declined in 2016, lower feed costs and improved forage conditions provided the impetus for expansion of flocks and herds. In the case of hogs and turkey, further support for growth reflects recovery from disease outbreaks in the U.S. that affected hog production in 2014 and turkey production in 2015 (see slide 29). We project that total meat and poultry production will hit another record high of more than 100 billion pounds in 2017, as production of beef, pork, broiler, and turkey all increase. Milk production is also projected to reach a record 217.4 billion pounds in 2017 with later-year herd expansion and growth in milk per cow (see slide 30).

Beef production is forecast to increase as the supplies of cattle have increased. The cattle herd expanded in 2016 for the third year, as continued improvement in pasture and forage conditions and falling feed prices encouraged producers to retain animals for herd expansion in late 2015. The number of beef cows on January 1, 2017 was up 3 percent from 2016 and the number of beef replacement heifers was up 1 percent from a year ago. The last month's USDA National Agricultural Statistics Service (NASS) cattle inventory estimated cattle numbers On January 1, 2017 at just under 93.6 million head, 2 percent higher than 2016.

Meat and poultry production in 2017 is expected to outpace demand. Thus, we are projecting lower prices for cattle and hogs, with broilers prices relatively flat compared to last year's levels (see slide 31). Fed steer prices are forecast to decline to \$112 per hundredweight, down about 7 percent as increased cattle supplies move through feedlots. Hog prices are expected to fall below \$44 per hundredweight, down nearly 6 percent from last year. Broiler prices are expected to average 85 cents per pound, up fractionally from 2016. Solid demand for cattle and hogs has moderated price declines in the face of large supplies. With continued strong domestic and global demand for dairy production, 2017 milk prices are expected to rise by almost 11 percent from last year to just over \$18 per hundredweight. Despite large stocks and expanding supplies, solid domestic and foreign demand is expected to provide some support for product prices. Dairy producers,

benefiting from low feed prices and improved milk prices, will see improved margins driving the herd expansion and growth in milk supplies. Between feed costs and milk prices, as measured by the Margin Protection Program (MPP), margins are expected to average near \$10, well above the highest level of coverage.

Marketing outlook shows opportunities for trade. Increasing agricultural trade remains a key component of future growth in the agricultural economy. In general, strong competition and reduced demand led to falling U.S. export sales in fiscal year (FY) 2016, but improved global economic conditions are generating more demand in FY2017, despite the relatively ample global commodity stocks (see slide 32).

Global GDP growth per capita is forecast up to 1.6 percent in 2017 from 1.2 percent in 2016. Per capita income growth in Brazil, Russia, India, Indonesia, and China is expected to be 3.7 percent in 2016, increasing to 4.3 percent in 2017 as recessions in Brazil and Russia abate. The improved export fundamentals have resulted in USDA revising upwards the expected value of trade in FY2017 by \$2 billion from our November projection and up more than \$6 billion year-over-year. Export volumes are also up compared to last year for most commodities and groupings. Major bulk products (grains, soybeans, cotton, and unmanufactured tobacco) are forecast to rise in aggregate more than 10 million metric tons relative to FY2016.

Overall, U.S. agricultural exports are forecast at \$136 billion for FY 2017, with a rebound in Chinese demand and strong export sales in the beginning of this year. In FY2017, U.S. exports to China are projected at \$22.3 billion, up more than \$3 billion from 2016 and making it the top export market for U.S. agriculture. Exports to Canada and Mexico are also projected to increase. Together those three countries purchase 45 percent of total U.S. agricultural exports (see slide 33).

China became the largest importer of U.S. agricultural products beginning in 2011. But more generally, over the past 10 years, agricultural export volumes to China have increased by more than 125 percent (see slide 34). A key component of the global slowdown last year that propped up the dollar value and reduced global demand was a slowing economy in China. The forecast for China GDP growth is raised this year compared to last year due to recovering growth in its trading partners, lower input prices, and a less-stringent monetary policy. China's GDP growth is expected to slow to 5.9 percent in 2017 down slightly from 2016, but up from last year's forecast. Despite continued tariff-rate quotas for wheat, rice, corn, cotton, and sugar that allow limited import volumes and domestic price support programs for grains, demand growth for imported agricultural commodities in China is expected to continue to grow. For example, China's cotton imports are expected to grow by about 9.6 million bales, after a sharp decline in recent years, to more than 14 million bales by 2026/27.

But more than any other agricultural commodity, China's soybean imports have grown sharply since the late 1990s, now accounting for nearly two-thirds of world soybean trade (see slide 35). Global soybean trade is projected to increase by 25 percent over the next

ten years, adding 36 million metric tons and reaching almost 180 million metric tons by 2026/27. China's soybean imports are forecast to account for 85 percent of that increase.

The projected exports of soybeans and soybean products to China over the next ten years are based in part on an assumption that the number of middle-class households in China will continue to grow (see slide 36). Population gains in developing countries along with economic growth and expansion of the middle class are particularly important for the projected growth in global food demand. Populations in developing countries, in contrast to those in more-developed countries, tend to be both younger and, with economic growth, experience more urbanization –factors that generally lead to the expansion and diversification of food consumption. Those households will start demanding more meat protein and processed foods in their diet.

Looking at other potential markets that could provide significant new demands for food commodities, India is expected to be the fastest growing major economy in the world over the next decade. Growth in real GDP is expected to average 7.6 percent per year, with slowing population growth pushing gains in per capita income above rates achieved since 2000. Higher incomes, along with urbanization, are strengthening demand for more diverse diets, including more fruit, vegetables, edible oils, pulses, and animal products. And while the U.S. has made some inroads to the Chinese marketplace, it has not had as much success with opening up new markets in India (see slide 37). We will hear more about developments for U.S. trade with India in a session this afternoon.

Domestic U.S. consumption can only grow so much given our projection of U.S. population and income growth. Furthermore, U.S. livestock can only eat so much feed, and alternative uses such as ethanol for the motor fuel pool are assumed to be relatively stable over the next ten years. As a result, increases in beef, pork, poultry, dairy, feed and food grains, and oilseeds for the most part need to be sold abroad. Overall, global trade of grains and oilseeds is expected to increase over the next decade to meet rising global demand. Global trade for wheat is projected to increase by 17 percent, for coarse grains by 15 percent (25 percent for corn) (see slide 38), and for soybeans and products by 24 percent (25 percent for soybeans). Based on projected yield growth, the world will need to allocate about 50 million more acres to corn, wheat and soybeans, at U.S. productivity growth levels, to meet the increase in trade demand.

The United States is expected to remain the world's largest exporter of corn accounting for approximately 34 percent of corn trade over the next ten years (see slide 39) but that share will drift lower over time as exports from Ukraine, Brazil and Argentina increase. In particular, Brazil's exports will expand as production increases in the *Safrina* crop, the timing of which makes it a more direct competitor with U.S. supplies. Brazil is expected to remain the world's largest soybean exporter, with its share growing from 42 percent in 2016/17 to nearly 50 percent in 2026/27; the U.S. share of soybean exports is expected to fall to under 33 percent by 2026/27 on modestly growing export volumes. Production growth in the United States will come primarily from yield growth and be directed toward domestic crush and meal use while South America will see increases in both yields and area, gaining trade share. The United States is expected to remain the largest

exporter of cotton over the next 10 years, but flat U.S. trade volume with growth in competitor countries will seriously erode U.S. trade share. The EU is expected to remain the world's largest wheat supplier to the global market, with its share just under 20 percent. With U.S. wheat area flat for much of the production period, trade growth is limited by modest production increases through yield growth, trimming U.S. trade share over time. The United States was the largest exporter as recently as 2013, and is expected to regain some trade share accounting for about 27 percent of wheat trade by 2026.

The value of U.S. meat exports is expected to increase in 2017 on increased trade volume in all major categories. Exports are expected to be up from last year as larger supplies and lower prices increase the attractiveness of U.S. products to foreign consumers. Broilers were affected in 2015 by the closure of markets to U.S. poultry as a result of the discovery of Highly Pathogenic Avian Influenza (HPAI). A number of those markets have reopened, supporting increased exports, although some remain closed limiting growth opportunities. However, a relatively strong dollar, Russia's continued ban on imports of U.S. meat, and relatively slow economic growth in a number of markets may also constrain export growth for meats. Nonetheless, exports over the longer term are projected to grow. Over the next 10 years, broiler exports are expected to grow by about 20 percent, pork exports are expected to expand about 22 percent, and beef and veal exports are expected to grow by 37 percent (see slide 40).

Outlook for food prices also to remain flat. The farm price for commodities accounts for only a small portion of the overall cost of food in the United States. Currently, the commodity price represents about 17 cents of the food dollar (see slide 41).

With flat or declining commodity prices coupled with falling energy prices, we have seen food prices in the United States fall year-over-year since December 2015, representing the longest sustained fall in food prices in 60 years (see slide 42). Annual inflation for food-at-home was minus 1.3 percent in 2016, down two and a half points from 2015. Currently, the Bureau of Labor Statistics reports a year-over-year change from one year ago at minus 1.9 percent. ERS currently forecasts inflation for food-at-home between zero and one percent for 2017. Some foods are likely to show more or less inflationary tendencies compared to overall food inflation. For example, with the improved drought outlook for California, lower fruit and vegetable prices are more probable.

Low food prices for U.S. consumers are something to which we have become accustomed, at least when compared to rising disposable household income (see slide 43). In general, this chart illustrates that U.S. consumers spend about 10 percent of their disposable household income on food, which is the lowest or near lowest globally. U.S. disposable personal income reached about \$13 billion in 2014, and the median household typically would spend about 9.7 percent of its income on food. However, the upper quintile in the United States spent roughly 7 percent of its disposable income on food, whereas the lowest quintile spent between 32 percent and 35 percent of its income on food. Looking at the aggregate amounts of food expenditure that represents (see slide 44), we note that the top 40 percent of households based on income account for nearly 60 percent of food expenditures in the United States.

Conclusions (see slide 45). Our long-run expectations for global agriculture reflect assumptions that support longer-run increases in consumption, trade, and prices of agricultural products. However, record global crops for many grains and oilseeds and moderate demand growth over the past few years have contributed to stock building and prices declines in recent years. Because global stocks for most commodities have grown, markets will be less sensitive to global production disruptions and concerns about price volatility should diminish. That, coupled with the strong dollar, contributes to a continued competitive trade environment in 2017. We have seen commodity prices soften, and food prices for most commodities are expected to show little inflation in 2017. Those trends are expected to continue into 2017.

Over the next several years, the agricultural sector as a whole will continue to adjust to lower prices for most farm commodities both in the United States and abroad. Domestically, lower commodity prices will likely lead to reduced planted area, which is forecast down about 3.6 million acres for the 2017 major field crops. Essentially flat prices for crops imply overall farm incomes are unlikely to be markedly different from last year, unless unforeseen weather or policy events alter the global supply or demand landscape.

However, despite low commodity prices, debt-to-asset ratios remain near historically low levels, and a majority of farm households are expected to see increases in household income in 2017, a sign of a strong overall economy. Producers still have access to relatively inexpensive credit and are likely to continue to use operating loans to mitigate slowing revenues relative to costs, although some tightening of credit availability based on tightening production margins is expected. In addition, we would expect to see farmers renegotiate cash rental agreements, which will, in turn, contribute to a softening of land values. Farm programs will benefit many producers, falling energy prices will continue to lower input costs, and new crop insurance products will cover more products at higher coverage rates than in previous years.

Thank you.