The Outlook for U.S. Agriculture

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I would like to welcome you all again to the 94th annual Agricultural Outlook Forum. We have a great program for you as the Secretary just mentioned. Over the next two days we will also have our normal sessions on the outlook for crops and livestock, and will undertake intense examination of what producers will be facing going into the new crop year.

Our key theme of the Outlook this year is "Roots of Prosperity" (slide 1). Several distinguishing features that contribute to a prosperous U.S. agriculture are its ability to respond to changing economics and to adapt to changing growing conditions. In addition, U.S. agriculture benefits from its many and varied forms: from crops to livestock, from specialty crops to aquaculture, from upstream input companies to downstream food manufacturers. All the while, an open market helps guides innovation and adjustments.

This annual forum provides an important opportunity for all of us at USDA to discuss some of the upcoming challenges and opportunities we see on the horizon. This morning, Secretary Perdue talked about how the agricultural economy will benefit from tax and regulatory reform, from infrastructure investment, and from efficient and effective farm policies. But he also highlighted challenges facing many producers.

Our key speakers later this morning will talk about global food demand coupled with low commodity prices and how that is affecting their businesses and customers, and what they are doing to adjust not only domestically, but also globally. First, we have Dr. Adesina, World Food Prize Laureate for 2017. He is also the President of the African Development Bank and will be speaking to us about how unfettered markets and technology can help address food security. Following, Dr. Adesina, we will hear from James Collins from DowDuPont, Celia Gould from the State of Idaho, Bill Lovett from Pilgrim's, and Joe Stone from Cargill, and later this evening, Dr. Mehmood Kahn from PepsiCo. Those industry and state leaders will be talking to us about the challenges facing agriculture and what they are doing about it.

Tomorrow morning we will hear from Deputy Secretary Censky, Under Secretary McKinney, Under Secretary Ibach, and Assistant-to-the-Secretary Hazlett, who will describe the coming year for trade, regulations, and rural development.

Many questions remain for the 2018 Agricultural Outlook. Turning to the agricultural outlook, 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, we have just experienced a historic fire season. We saw more than 70,000 wildland fires last year that burned more than 10 million acres of forests. Fires also affected our grasslands with more than 779,000 acres burned from Kansas and the Southern Plains, to the Northern Plains, sparked by widespread drought in those states. We have seen drought affect Central and Southern California more recently and spread across much of the central wheat growing areas leading to worries about this season's winter wheat crop.

We also experienced a record number of Category 4 hurricanes making landfall in the United States, devastating agricultural production across the South and Caribbean. Producers counting on a bountiful harvest at the end of the summer saw wind and rain destroy more than $3 billion in crops and livestock, with long-lasting impacts on tree, vine, and bush crops in particular. Yet, 2017 saw record production of crops in a number of states. We harvested our largest soybean crop ever. Despite hurricanes, cotton yield was a record high, and corn production was second highest ever.

Despite its strong roots, looking forward into 2018 and beyond, there remain concerns and questions for the U.S. agriculture sector. How will the Agriculture Committees adjust the Farm Bill to meet competing demands across commodities during a time of continuing budget austerity? The recent budget deal helped smooth some edges for the upcoming debate with changes to the cotton and dairy programs, but other concerns remain. That legislation also contained more than $2 billion in funding to help producers and communities affected by the disastrous storms last year.

We saw $140.5 billion in exports leading to a trade surplus of $21.3 billion in 2017. However, as underscored by recent swings in cash bids for sorghum, questions remain about current trade dispute action, revised trade agreements, and prospects for new partnerships.

We expect continued progress in agricultural productivity, from higher yielding crops --- corn and soybeans have hit record or near record yields in each of the last 4 years --- to more productive livestock and poultry. However, we know that record yields and production will not materialize every year and that some sectors continue to struggle with persistent pest and disease problems. In the current price equilibrium, with many producers already burning through available capital reserves and taking on more debt, how will the current portfolio of U.S. farms adjust --- through consolidation, through specialization, or through some other strategy?

I want to begin by looking at several recent survey indices regarding sentiment about economic well-being over the next six to twelve months (slide 2): the Purdue/CME Group Ag Economy Barometer survey of producers, the University of Michigan index of consumers, the NAHB housing index, the Federal Reserve Agcredit 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 2017. From that viewpoint, consumer, business, home builder, and banking indices all indicate similar feelings of optimism regarding the future economy compared to sentiments surveyed last year.

Even though some of these indices, such as the survey of bankers from the Federal Reserve, are positive in direction, the actual value is negative. That is to say, that while bankers expect loan repayments of agricultural loans to be lower than last year, they are less negative in that expectation compared to their thoughts last year. Farmers seem more reflective. Farmers' optimism was higher in February of 2017 and has remained lower --- following the price of corn down since this time last year, although along with a slight increase in the price of corn, there appears to have been some recent optimism.

In my talk today, I will dig into some of what is behind those mixed sentiments by focusing on three questions: what is USDA currently projecting for income, prices, and production; what might change those projections; and what does that mean for the agricultural economy?

Real farm income is projected to fall. 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, the positions of the farm and non-farm economies seem reversed and many producers are in a different situation. Net farm income looks likely to remain more than 50 percent in real terms below its 2013 peak for a third year in a row.

Falling net farm income is largely the result of falling commodity prices, which in the long term are the result of continued productivity growth outpacing population growth (slide 3). The remarkable increases in food production have outstripped demand. That has resulted in falling prices for agricultural commodities over the past half century. Since 1960, soybean production has increased more than 1,000 percent, while real soybean prices have fallen by 47 percent. Corn production has grown by more than 400 percent, and prices have fallen by more than 60 percent.

As a result, net farm income is expected to remain flat over the next ten years (slide 4) and, when accounting for inflation, to fall in real terms. USDA's long-term projections based on the November 2017 forecast show 2017 farm income peaking at $65 million in 2018, before falling again and remaining below that peak until the end of the baseline period. In inflation-adjusted terms, however, we can see our baseline projected farm income remaining flat over the next two years, then falling slowly before stabilizing at levels below those of recent decades. The most recent update to this outlook for 2018, released two weeks ago, shows the expectation for 2018 to be even lower, with a fall in net farm income in 2018 to $59.5 billion.

What might improve the outlook for farm income? While cheaper and more abundant food benefits the growing global population, it can pressure incomes for farmers. However, there are several factors that could provide farm income support (slide 5). First, demand may increase, which would push prices up. Improved global economic growth would draw more households into the middle-class boosting overall food demand. Also, stronger growth abroad should improve the strength of those currencies, such as in Brazil, which will, by definition, make the dollar weaker by comparison and improve our competitiveness in selling to global markets. Similarly, improved trading agreements and infrastructure can open up new markets to U.S. producers, which would also boost demand for U.S. products.

On the supply side, weather conditions (good or bad) will affect global production and thereby push up or draw down global stocks and therefore prices for commodities. Recent dryness in Argentina has pulled down our estimates for their soybean crop, whereas beneficial rains in Brazil—seen in the map to the left—have pushed up their potential by roughly the same amount this month. Farm policies in some countries could also affect prices, such as China's attempts to reduce artificially inflated commodity stocks.

Lastly, economic conditions in the U.S. agricultural sector remain stable, but have been trending towards higher stress over the past few years. The 2014 farm bill programs have in many cases provided a safety net for those producers, but not for all sectors. The new farm bill will likely look to remedy some of those gaps, with that process already begun with the recently passed Bipartisan Budget Act of 2018 (BBA).

Prospects look good for increasing demand. While demand for U.S. farm products is relatively stable and not as able to absorb increases to domestic production, international demand remains key to growing the U.S. farm economy. Despite some recent export challenges, the International Monetary Fund (IMF) raised its 2017-19 growth forecasts sharply in January, showing marked growth in the last year and continuing stable over the next few years (slide 6). That effectively increases global purchasing power by $325 billion over the next two years.

Much of the growth in global demand will be in developing countries that are projected to see a significant increase in the number of middle-class households (slide 7). As middle-income households increase in emerging markets and developing countries, we expect demand for U.S. products, especially livestock and dairy products and the grains and oilseeds that make up livestock feed, and processed products, to increase. The number of middle-class households in China will nearly double, approaching 370 million households by the year 2026. The number of middle-class households in India is expected to nearly triple by 2026. Of course, economic growth coupled with purchasing power are what really drive export market potential. India and Sub-Saharan Africa are poised to offer new market potential in coming years, but still lag the purchasing power of the new Chinese middle-class by nearly 15 years.

Stronger growth overseas means increased stability in other economies, which will make them more attractive as targets for investment. For countries that buy U.S. agricultural goods, we see more stability in 2017 and 2018, with the dollar falling so far this year (slide 8). The dollar has generally declined since late summer as world growth, notably in developed countries, has exceeded expectations and in anticipation of a spread of monetary "normalization" in other major economies --- less quantitative easing and more market-directed interest rates. The dollar gained in 2017 against the Japanese yen (hurt as Japan had sluggish growth), Mexican peso (hit by rising inflation and concerns over NAFTA negotiations), and China yuan (suffering from capital controls and slowing growth early in the year). The Canadian dollar appreciated with petroleum prices. The Taiwan dollar and Korean won gained with faster-than-expected trade growth.

For countries that compete with the United States for export markets we generally saw more stability in 2016, and appreciation against the U.S. dollar in 2017 and 2018 (slide 9). However, Argentina's peso still suffers from high inflation and an uncertain policy environment. The ruble owes its appreciation in 2017 and so far in 2018 to a bounce in oil prices. Brazil's real gained in 2017 from an improved fiscal policy environment, lower inflation, and higher raw material prices (notably soybeans and iron ore). A more stable government has helped boost the real so far in 2018, but the October 2018 general election may introduce some variability this summer.

Increasing agricultural trade remains a key component of future growth in the agricultural economy (slide 10). In general, improved global economic conditions and slight weakening of the U.S. dollar resulted in a $10.9 billion increase in fiscal year (FY) 2017 exports compared to FY 2016. Exports this year are projected near FY 2017 levels, at $139.5 billion, and the agricultural trade surplus is forecast to narrow slightly to $21 billion from $21.3 billion in FY 2017.

FTA partners --- in particular Canada and Mexico, but also including South Korea, Colombia and other Latin American countries --- are increasingly important for U.S. agricultural exports (slide 11). In 2017, nearly 45 percent of U.S. agricultural exports went to FTA trading partners. Still, China is projected to continue to be the top market for U.S. agriculture, with FY 2018 exports projected at $21.6 billion.

Outlook for crops – prices edge up slightly. Turning to major factors influencing the market for agricultural commodities, and the first look at area and prices for major field crops for the upcoming season, we can see that production has outpaced consumption for many grains and oilseeds over the last four years, recovering in part from the large drawdown in stocks following the 2012 U.S. drought and as a result of the high prices seen over much of the last decade. In tomorrow's commodity outlook sessions, our analysts will offer a more detailed look at USDA's projected balance sheets for the 2018/19 marketing year, providing an update to earlier estimates in the 10-year baseline projections (slide 12).

We have had record or near record world crops for corn, soybeans and wheat over the last four years leading to increases in global stocks for major commodities, even as world consumption has grown (slide 13). Global rice stocks are the highest level since 2000/01 and wheat stocks are at the highest level since 2015/16. Global soybean stocks are up from their levels from last year and are a new record high. Corn stocks have edged down this year, but are still higher than the years of significant annual growth in ethanol production.

The combination of rising stocks and continuing large global production have limited upside potential for prices; however, we do expect increase in demand relative to production in the upcoming year (slide 14). Wheat prices are expected to rise modestly to $4.70 per bushel, up 2 percent from last year, in part as last year's drought in the Northern Plains and current dry conditions across much of the winter wheat areas have supported prices. Driven by record yields in 2017, corn prices ended the year down at $3.30 --- lower than our expectations at this time last year. Looking forward, we expect a small rebound in prices and a return to trend yields.

Not all crops are expecting to see a higher price. Soybean prices, forecast at $9.25 a bushel, are likely to be down fractionally, as large U.S. stocks hold prices in check. Cotton prices rose slightly in 2017/18 even as producers in the United States and around the world expanded area. Cotton prices in 2018/19 are projected at 63 cents per pound, down 9 percent, but current cash prices still make cotton an attractive planting option. The all-rice price is forecast to fall to $11.90 per hundredweight, down from last year, which had been supported by sharply lower U.S. area.

Of course, we know there are multiple factors that could affect those prices over the coming years. Longer-term projections used for budgetary purposes often indicate relatively flat prices over the next 10 years (slide 15). However, we know that there can be shocks, from drought to global GDP changes, which can influence where those prices will end up in any given year. For example, if we look more closely at our corn price estimates for the year 2020, we see a potential lower bound price of $2.02 per bushel and an upper bound price of $5.56 per bushel (slide 16). Those low corn price scenarios coincide with ending corn stocks over 40 percent higher than the projection for the 2017/2018 marketing year, along with yield outcomes beyond the expected national average. Higher price outcomes, conversely, reflect scenarios with low yields and low ending stocks.

We also know that prices and ending stocks are influenced by our ability to trade. Changes in production around the world, through policy and weather, as well as trade policy itself will influence our export volumes (slide 17). For example, China's corn support and TRQ policies led to higher import demand for other feeds, such as DDGS and sorghum. That had the effect of increasing the prices of those feeds higher than the price of corn when China's demand was strong (and the opposite when China threatened or imposed trade restrictions).

Producers of course will base their planting decisions not on prices alone, but on relative prices (slide 18). So far through February, the soybean-to-corn price ratio is roughly where it was at this point in 2017, running at nearly 2.6, despite more than 6 million additional acres of soybeans planted last year. Clearly one factor supporting soybean area and that price ratio has been robust soybean demand from China, while corn and corn equivalent imports have been stymied. For example, in 2014, 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.

However, with acreage of corn and soybeans nearly equal in 2017, is there room for further soybean expansion at the expense of corn? Or do agronomic and rotational issues require that type of price ratio to maintain area parity but limit the ability for soybean area to overtake corn by a significant degree? It is those price ratios, but also those agronomic constraints that drive our expectations for corn and soybean area in 2018 (slide 19).

With commodity prices flat to rising slightly from last year, we expect acreage to respond similarly. For corn and soybeans, current price expectations and rotational constraints again push the combined area to 180 million acres, evenly split between the two crops. We expect that the continued expansion of trade in soybeans will continue to put pressure on corn but more likely other crop area in the future. Our latest long-term baseline suggests soybean area will match or exceed corn area for much of the next decade supported by import demand from China.

Wheat area is expected to reverse a 4-year trend and expand this year. While winter wheat seedings for 2018 were essentially flat from last year, current price strength in spring wheat suggests we could get some expanded area in the Northern Plains. Cotton area is expected to expand by over 5 percent, following price increases over the last two years. Rice area is also expected to expand on expectations that resulting favorable prices will pull in acres in 2018. Our look at other feed grains, that is sorghum, barley and oats, suggests increased area based on information from November. Overall, with commodity prices flat to rising and input prices, from nitrogen to land rents flat to falling, we expect a slight expansion in the aggregate 8-crop area. Of course, conditions will continue to change and we will re-evaluate all those crops following the prospective plantings report in March.

China's expected demand for soybeans will grow in importance over the next decade. While we see more subtle changes for coarse grains and wheat, and a much more diversified set of destinations, for soybeans the story continues to hinge on China (slide 20). China now accounts for 65 percent of the total trade in soybeans. North Africa and Middle East currently account for 20 to 30 percent of the trade in coarse grains and wheat. Those trends are likely to continue with growth in soybean sales to China and grain sales to Africa and the Middle East (slide 21).

Trade will remain a critical factor, as the decline in U.S. trade share of the last several years is expected to slow (slide 22). With our aggregate farm area largely constrained, production gains are therefore driven by increasing yields that vary year to year. With rapid expansion of domestic ethanol production, our trade share in several commodities fell. That situation was punctuated in corn by the drought of 2012. When we look longer term, with slowing growth in ethanol production and a stabilizing wheat area, we expect to largely maintain trade shares. For soybeans, continued area growth in South America will erode our trade share and will be affected as well by the need to supply growing domestic crush demand.

Outlook for livestock and dairy is for continued record total meat and dairy production. With low and stable feed costs over the past few years and projected going forward, the outlook for livestock and dairy is for another year of record total meat and dairy production (slide 23). We project that total meat and poultry production will hit nearly 104 billion pounds in 2018, as production of beef, pork, and broilers all increase (slide 24). Milk production is also projected to be at a record 218.7 billion pounds in 2018 with a modest herd expansion and stronger growth in milk per cow.

The rate of growth in pork production in the near term will largely reflect demand for slaughter hogs due to increases in slaughter capacity. Continued growth is expected to reflect increasing gains in pigs per litter and increases in both domestic and export demand. Broiler production is also expected to rise as solid returns maintain the steady growth of the sector.

Beef production is expected to grow rapidly in the near term, then is expected to slow, reflecting a long-run balanced growth between supplies and demand (slide 25). While beef production is forecast to increase as the supplies of cattle have increased, the current poor pasture and forage conditions across the Plains remain a concern affecting both the timing of cattle placement in feedlots and potentially breeding decisions in the coming months. The near-term rapid growth reflects the rebuilding of herds after an extended period of drought covering portions of important cow-calf regions (slide 26).

The expansion in meat production for 2018 is expected to depress prices (slide 27), continuing the decline from the highs we saw in 2014. Fed steer prices are forecast to fall to $119.25 per cwt, down about 2 percent as domestic demand limits losses on larger supplies. Hog prices are expected to decline to $48 per hundredweight, down nearly 5 percent from last year, but supplies and slaughter capacity are expected be aligned as new capacity comes online this year. That combination is expected to support hog prices despite a jump in hog numbers.

Milk prices continue to come under pressure with the all-milk price expected to fall 9 percent this year, driven lower by product prices. All major product categories are expected lower year-over-year. Butter and cheese prices show some decline while prices for more export-oriented products like NDM and whey will reflect continued large international supplies. With relatively flat feed prices and a decline in milk prices, margins are under greater pressure this year.

Projected export volumes remain flat for beef, but show increases for both chicken and pork (slide 28). Foreign markets have become increasingly important for beef, pork, and poultry and are expected to grow over time. Those markets will also be important in 2018 to limit price declines on expanding meat supplies. For dairy products, long-term growth in milk production will reflect flattening of the herd size along with continued gains in milk per cow. Exports are expected to continue to expand this year and into the future. The more modest trade growth on a fat basis shows the effects of domestic demand for products like cheese and butter, while trade on a skim solids basis shows export demand for products such as nonfat dry milk and whey.

Farm incomes flat, but farm economy shows signs of resilience. As mentioned by the Secretary, regulatory reform, tax reform, the potential for improved trade agreements, and investments in rural infrastructure will improve the outlook for farm operations. Similarly, we expect to see details of what a new farm bill might include later this year. Those are not reflected in this snapshot of the current farm economy (slide 29).

While farm income is expected to remain flat, the debt-to-asset ratio for U.S. farms continues to be relatively low, held down by steadily increasing asset values that reflect, in part, firm land values (slide 30). Though the debt-to-asset ratio has been slowly rising, from 11 percent in 2012 to a forecast 13 percent in 2018, the current debt-to-asset ratio remains far below the peak of 22 percent in 1985. Without a dramatic increase in debt or loss in farmland value, the debt-to-asset ratio is unlikely to near that level. The more dramatic story is the decline in working capital, which I will return to in a moment.

First, I want to break down the debt-to-asset ratio story below the aggregate level (slide 31). While the overall national debt-to-asset ratio remains low, when we disaggregate that by commodity specialization, we can see that some producers are more vulnerable to continued low commodity prices. Based on the ERS farm income forecast in February 2018, 1-in-3 poultry farm businesses and 1-in-5 cotton farm businesses are highly or very highly leveraged, indicating a debt-to-asset ratio greater than 40 percent. For these farms, low commodity prices pose a greater threat.

While rising debt-to-asset levels are a growing concern for some producers, let me return to the falling level of working capital (slide 32). Falling working capital indicates that producer resources are being stretched, leading to greater dependence on borrowing. Producers have reduced input costs where possible in recent years and increased income by selling inventory that may have been held in reserve for higher prices, but expectations are for increases in costs, as interest rates, fuel costs, and wages rise. We can see that current levels of real debt are approaching the record levels from the early 1980s, more than $400 billion in 2018 dollars, with real estate debt in 2018 expected to exceed the record $218 billion (in 2018 dollars) set in 1981. From 1994 to 2017 inflation-adjusted farm debt increased by 81 percent, or 3 percent per year on average. Farm debt is forecast to increase another 1 percent in 2018.

While low interest rates have limited the burden of that debt for producers, interest payments as a share of net farm income have been increasing more steeply than the debt-to-asset ratio (slide 33). Still, at the current 26 percent of net farm income, interest payments remain well below the 60 percent share seen in the mid-1980s when interest rates were much higher.

FSA farm loan demand remains high despite a 6-percent decline following record loan levels of $6.3 billion in 2016, but is seeing significant restructuring of loans. Commercial banks are also reporting strong loan demand, but loan maturity periods are being extended, reflecting increasing constraints on producer ability to repay. The share of non-performing loans, those on which payments are no longer being made, also began to rise in 2015 (slide 34) for both operating and real-estate loans.

Despite the increase in debt levels and the rise in non-performing loans, we still do not see anything like the farm bankruptcies associated with the 1980s crisis (slide 35). In 1987, 23 out of every 10,000 farms declared bankruptcy. Although the bankruptcy rate has risen in the last couple years to 2.4 bankruptcies per every 10,000 farms, bankruptcies were over 10 times more likely 30 years ago and remain below the most recent peak of the last decade.

Farm programs working with mixed results. As mentioned earlier, we expect Congress to start proposing new farm bill legislation. They will be looking at how the 2014 farm programs have operated, at current economic conditions, as well as at limits required to balance budgets. The farm programs put in place in 2014 to assist farmers facing difficult economic conditions (slide 36) have been providing assistance to producers as farm incomes have declined, but the changes made in some programs have meant that not all producers have experienced the same level of support, particularly cotton and dairy.

Taking a step back, U.S. farm policies have evolved over time, moving from reliance on programs that controlled how much and what producers could plant to an array of programs leaving producers the chance to make decisions based on market signals and their own risk management preferences (slide 37). Crop insurance has become increasingly important, as we can see with premium subsidies increasing as a share of support to producers since about 2007. Average annual premium subsidies over the last 10 years have been $5.7 billion, contributing more than a third of the average $15 billion per year in commodity, crop insurance, and conservation assistance.

Going into the farm bill process this year, the impacts of the major disasters affecting agriculture this past year are still being felt. In 2017 producers had to bounce back from severe freezes, drought, wildfires, and four hurricanes, three of them of category 4 strength. Crop insurance played a key role in responding to those natural disasters (slide 38). We can see the concentrations of increased crop insurance indemnities per county over the 10-year average in Florida and the Northern Plains, where we saw severe hurricane and drought damage this year, with red showing payments 60 percent higher than average. The purple and blue, in contrast, show payments that were 60 percent lower than average, reflecting excellent production in many areas.

However, for producers who did not have crop insurance or coverage under the NAP program, or had low levels of coverage, there were many impacts from those hurricanes and other disasters that have left them in a very difficult situation heading into a new crop year with relatively low prices. The BBA has provided additional assistance to producers for losses due to 2017 disasters, including $2.36 billion for losses to crops, trees, bushes, and vines from hurricanes and wildfires; $400 million for emergency conservation assistance; and livestock and tree assistance program changes that are retroactive for losses beginning January 1, 2017.

Turning to the main Title I commodity programs, the most recent CBO baseline from last June projects declining spending for most commodities (slide 39). Spending by commodity reflects primarily the distribution of base acres and projected prices and the way the ARC and PLC programs work. Higher spending on corn, for example, reflects the fact that the ARC program made payments based on the difference between rapidly declining corn prices and a rolling average revenue guarantee that incorporated peak corn prices into the benchmark for the first few years of the farm bill. Other base acre commodities reflect similar patterns. The effect of declining ARC payments can be seen as payments associated with corn, wheat, and soybeans decline. Expectations that producers will be able to switch elections in 2019 show up as increased or at least fairly stable payments under PLC, reflecting low but relatively stable projections for commodity prices.

Cotton (in red) was not a covered commodity under 2014 Farm Bill, which is reflected in the fall of payments after cotton transition payments and the cotton ginning cost share program ended in 2017. The BBA established seed cotton as a covered commodity eligible for the ARC/PLC programs. That change will likely increase payments associated with cotton by about $3 billion over 10 years, although it is not expected to increase overall commodity program expenditures, since the increase is expected to be offset by an end to generic acre payments and reduced participation in the STAX crop insurance program.

While estimates suggest positive PLC payments on new seed cotton base acres over the next 10 years, not all producers may choose to allocate generic acres to seed cotton base. For farmers with generic base, seed cotton base acreage will be calculated as the higher of 1) 80 percent of their generic base acres or 2) their average acreage—planted and prevented—for seed cotton between 2009 and 2012. Producers may also reallocate their generic base to another covered commodity. Comparing planted acres of upland cotton to 80 percent of generic base acres, it appears for many farmers 80 percent of their generic base acres is higher than their average cotton acreage between 2009 and 2012 (slide 40). It seems likely that some producers will choose to allocate those acres to the covered commodities they have planted on generic acres.

The BBA also established new parameters for the Margin Protection Program for Dairy (MPP). Dairy producers will be able to cover production history up to 5 million pounds at the $5.00/cwt margin without a premium, and premiums for higher margins have been reduced. Margins will be calculated and indemnities paid on a monthly basis. Dairy margin payments under the previous parameters resulted in low participation and few payments to producers, and even negative payments, as premiums and fees have consistently been above payments under the program. The new program is expected to increase payments by about $1 billion over 10 years, or $100 million per year. Dairy producers who enroll production history in the MPP program may receive higher payments in some years as a result of the increased frequency of payment calculation (slide 41).

Comparing the program design from the 2014 Farm Act program with the BBA program in years of very low margins, like 2009, when milk prices were very low, and 2012, when feed prices were very high, payments calculated on a monthly basis will provide much higher payments per hundredweight over the course of a year. In addition to the change in payment calculation, producers will pay lower premiums, which may increase participation, especially at higher margin coverage levels.

Conclusions (slide 42). There are a lot of factors that could shift farm income higher or lower than our current forecast. Prices may be higher due to growing global economic growth driving demand for agricultural commodities. Farm programs as adjusted by the BBA or the upcoming farm bill may be better designed to meet producers' needs under stressful conditions. New Administration initiatives for tax reform, regulatory reform, and infrastructure are all expected to boost economic activity in rural America.

However, we also expect agricultural productivity to continue to increase, which should keep supply ahead of demand on average going forward. South America continues to expand production of oilseeds and corn. Russia and Ukraine have been rapidly expanding production of wheat, corn, and other grains. Much of that increase in production is being exported, keeping prices competitive for most commodities. As a result, long-run expectations are for net farm income in the United States to fall in real terms.

Despite the increased competition from producers in South America and the Black Sea, we continue to look to trade as a critical outlet for growing U.S. production that can sustain farm incomes. Over the next year, we expect a falling dollar to help support export levels, continuing the long-term surplus in U.S. agricultural trade. Despite several years of global production outpacing consumption, we forecast wheat and corn prices to be higher next year, and soybeans to remain steady, although weather and changing international trade policies may affect that outcome. With continuing strength in export demand for soybeans, however, we expect soybean acreage to reach parity with corn in 2018. Meat and milk production are forecast to reach record highs of 103 and 219 million pounds, and we expect export volumes to continue to increase for both.

The agricultural sector still faces economic stress, and while relatively firm land values have maintained healthy debt-to-asset ratios for most producers, debt is increasing as working capital continues to fall. Rising interest payments are combining with rising input costs to pressure producer returns, as commodity prices remain low. We see some increasing erosion in loan performance, but farm bankruptcies remain at low levels. Farm programs have offered support to many producers weathering these economic challenges, as well as the natural disasters that hit farm country this year. The crop insurance program has proved its value once again by providing timely indemnity payments following disaster losses, and the BBA will extend farm safety net assistance to cotton and dairy producers and offer additional assistance to producers coping with disaster losses.

Lastly, I would like to note that the 2017 U.S. Census of Agriculture is underway, in addition to the other changes going on in agriculture. As of today, the total return rate is 40 percent, although it varies across regions. We have received 28 percent of responses via Internet and 69 percent via Mail. We encourage you to respond as fully and in as timely a fashion as possible to this important census of U.S. agriculture. It provides critical information on the U.S. farm sector for all of us.

Thank you.