

Webinar: Farm Income and Financial Forecasts August 2017 Update, Transcription, August 30, 2017

Good afternoon everyone and welcome to our webinar Farm Income and Financial Forecasts August 2017 update. My name is Kellie Mendonca and I will be your host. Our speaker today is Carrie Litkowski. Carrie is currently team leader for the Economic Research Service's Farm Income Team. Previously Carrie served as an economist at the Bureau of Economic Analysis where she was responsible for the production of farm income and employment statistics nationwide. Carrie earned her bachelor's in Economics and Political Science from Colorado State University and she holds a master's degree in economics from American University. I think we're ready to start so Carrie you may begin your presentation. Thank you Kellie. This is Carrie Litkowski and I'm pleased to present the results of our latest farm income forecast which was released this morning. This release updates our 2017 forecast from February with newly available data including survey based information on crop planting and production and data from the August release of the world agricultural supply and demand estimates from USDA. With this release we're also commemorating our 2016 forecast into an estimate that incorporates NASS estimates of state and U.S. production and expense data gathered from the 2016 agricultural resource management survey, ARMS. Also state level farm income estimates for 2016 are now available.

Overall our main finding is that net cash farm income is forecast to be up almost thirteen percent from 2016 and net farm income is forecast to be up three percent. After two years of decline, the value of the agricultural sector production is forecast to increase in 2017 relative to 2016. Most of this increase is due to growth in animal and animal product receipts and there was some growth in insurance indemnities which I will talk about. After two years of decline, farm expenditures are forecast to increase in 2017 and I will break down that growth. Farm sector assets, debt and equity are all expected to rise in 2017. And I would also talk

about median farm household income which is expected to remain relatively unchanged in 2016.

Our two primary measures of farm sector income are net cash income and net farm income both of which are forecasted increase in 2017 after three consecutive years of decline. Note in this chart and in several others we display values in terms of 2017 constant dollars. So we're adjusting the values for prior years relative to 2017 to account for or match current inflation. Net cash income is forecast to increase nearly thirteen percent in 2017 in nominal or current dollars or nearly eleven percent in inflation adjusted dollars. This expected increase is bringing net cash income back to the average level for 2000 through 2016. On the other hand net farm income is forecast to increase three percent in nominal dollars or one and a half percent in constant dollars. Net farm income is up but is still expected to be below the average for 2000 through 2016. The smaller increase in net farm income compared to net cash income is because net farm income is a broader measure of an income that includes both cash and noncash income and expenses which I'll explain a little more in the next slide.

We derive net farm income by measuring its component parts which then allows us to decompose the forecast increase in 2017. On this chart we have the 2016 estimate of net farm income on the left which is forecast at 61.5 billion in nominal dollars. On the right we see the 2017 forecast at 63.4 billion. The bars in green show the components contributing to growth while the bars in red show the components detracting or taking away from growth. Relative to 2016, livestock or animal and animal product receipts are forecast to increase 13.6 billion and contributed the most to the growth in net farm income. Also contributing to the growth was the three billion dollars increase and all other changes which includes farm related income. Most of this increase was due to total commodity insurance indemnities. There was a slight .5 billion increase in crop cash receipts. The component with the biggest forecast decline from 2016 is crop inventories. For which the value is expected to fall nine

billion. Sales from inventories are not included in net farm income because they average represent sales from production in prior years and that production was recorded in the year in which it was produced. This is one reason why the growth in net cash income in 2017 is stronger than the growth in net farm income. Net cash income on the other hand record sales when they were made and doesn't adjust for changes in inventories. Also showing growth in net farm income is the 4.6 billion increase forecast for production expenses. It's represented in negative value here because expenses are subtracted in the calculation of net farm income.

Looking deeper into cash receipts. On the previous chart we saw that livestock cash receipts increased notably while crop cash receipts increased marginally. In total cash receipts increased 14.1 one billion in 2017 relative to 2016. This chart decomposes the changes in cash receipts into two separate effects. The price effect where quantity is held constant and a quantity effect with prices held constant. The other changes shown on this chart include crops for which data doesn't exist that allows us to separate out the price in quantity effects. 12.6 billion of the change in total cash receipts or about ninety percent is due to higher quantity sold. Only 1.0 billion is due to higher calendar year prices received. For crop cash receipts, the price and quantity effects are nearly offsetting. For livestock cash receipts about forty percent of the increase is from quantities and sixty percent from prices.

Again in 2016, total crop cash receipts are forecast to be relatively unchanged but when we look at receipts by commodities we can see that some commodities are forecast to decline while others are forecast to increase. Corn cash receipts are forecast to fall less than one percent from 2016 continuing the year after year decline from the high in 2012. Calendar year corn prices are expected to be lower and offsetting any increase in quantity sold. For the second year in a row soybean cash receipts are forecast to increase reflecting higher prices and higher quantities sold.

Cotton cash receipts are expected to increase twenty six percent largely due to increase quantity sold for upland cotton. Cash receipts for vegetables and melons are forecast to increase seven percent. Largely offsetting these increases is fruits and nut cash receipts which are forecast to decline seventeen percent in 2017. This is being driven primarily by lower expected prices. Also projected to decline are the wheat cash receipts which have been declining since 2013.

Looking at animal than animal products, we're forecasting cash receipts to increase across the board for all major commodity groupings. After declining in 2016, receipts for cattle, dairy, broilers and hogs are all expected to increase in 2017. The largest percentage increase is for hogs and broiler cash receipts which are both forecast to increase fifteen percent in 2017 through the increases in both calendar year prices and quantity sold. Dairy or milk cash receipts are forecast to increase eleven percent following a rise in both prices and quantity sold. Cattle, cattle cash receipts are expected to increase eight percent as the quantity sold is expected to rise more than offsetting the small decline expected in prices. Animal and animal product receipts are also being supported by strong growth in exports for the first half of 2017 relative to the same period in 2016.

Another component of farm income is direct government payments which are farm program payments made directly by the U.S. government to farmers and ranchers. Government payments remained nearly flat in 2017 at thirteen billion dollars but the composition of government payments has changed over the years. Conservation payments which are shown in red on this chart have remained relatively stable in recent years and currently account for about thirty percent of total payments. Fixed payments which are shown in blue are payments from programs that have largely been phased out with the 2014 Farm Bill. Shown in green are payments that are a function of crop prices. These payments are often triggered when market prices fall below a set point. In 2015 through 2017 payments from USDA's price loss coverage, PLC, and agricultural risk coverage, ARC programs,

account for nearly all of these types of payments and are collectively expected to account for almost sixty five percent of all direct government payments. Combined ARC and PLC payments are up slightly about five percent in 2017. All other payments which are shown in purple include ad hoc and disaster payments. These have been very low in 2016 and expect to remain low in 2017. The blue line on this chart shows total government payments adjusted for inflation in 2017 dollars.

Direct government payments do not include insurance indemnity payments which also include, which also contribute to farm income. Indemnity payments are insurance payments to farmers for covered losses.

On this chart we can see the relative importance of government payments and federal commodity insurance indemnities to total net farm income. Federal indemnities fell forty seven percent in 2016 and are forecast to rise twenty percent in 2017 but are still below levels for 2011 through 2015.

Up until now we've been discussing sources of farm income or revenue now let's take a look at farm sector expenditures or spending. Here I'm showing both total expenditures in both nominal and 2017 dollars, constant dollars. It is rare to see total expenditures drop two years in a row but that's what happened in 2015 and in 2016 as farm incomes declined. In 2017, we're forecasting expenses to increase 1.3 percent in nominal dollars and in inflation adjusted dollars total expenses are forecast to fall .3 percent.

Although overall expenses in nominal dollars are forecast to increase there are some differences among the different categories of spending. This next chart compares the 2016 expenditures by category to the forecast expenditures for 2017. Above the horizontal dotted line are expenses that are expected to increase and below the line are expenses that are expected to decrease. Labor expenses which make up a significant share of total expenditures are forecast to increase for the third year in a row increasing four percent in

2017 as wage rate increases are putting upward pressure on higher labor costs. Also expected to increase for the third consecutive year are interest expenses which are forecast to increase thirteen percent due to forecasted increases in debt level and interest rates. Expenditures for fuels and oils are expected to increase in 2017 after declining in 2015 through 2016. This increase is due in large part to forecasts higher prices for diesel fuel that we get from the Energy Information Act. Agency. Livestock and poultry purchases are expected to increase for the first time since 2014. The largest category of expenses overall is feed purchased. We anticipate feed expenditures to fall three percent following declines in 2015 and 2016 largely due to lower prices. Fertilizer, lime and soil conditioner expenses are forecasted to fall ten percent based on anticipated lower fertilizer prices and fewer planted acres.

Now that we've looked at the income statement, let's look at the farm sector balance sheet which provides information on the value of physical and financial assets in the U.S. agricultural sector over time. We're forecasting an improvement in the balance sheet after declines in 2015 and 2016. Farm assets increased slightly in 2016 and are forecast to increase four percent in nominal dollars in 2017. The value of farm real estate assets which includes the value of land and land and buildings accounts for about eighty three percent of total farm assets and has increased nearly seven percent annually since 2010. It is forecast to increase nearly five percent in 2017. Farm sector debt which as shown in the blue section is forecast to increase four percent in nominal dollars. Debt is at an historic high. This increase in debt is being driven by real estate debt which is forecast to increase six percent. This reflects continued expected demand for cropland combined with anticipated low interest rates, strong balance sheet and strong crop yields. Despite the increase in debt overall farm sector equity is expected to increase four percent due to the forecasts increase in assets.

Another way to look at farm sector debt assets and equity by looking at solvency ratios which compare the amount of debt relative to equity or assets invested in the farm sector. The ratios provide a measure of the sector ability to repay financial liabilities, debts and loans through the sale of assets. Both of debt to asset and debt to equity ratios have been gradually increasing since 2013 and are expected to be up just slightly in 2017 from 2016. The ratios are now above the average for the prior ten years but still historically low and suggest that the likelihood of default within the sector remains low. Additional financial ratios are available on our website.

Up to this point, I've been discussing sector level forecasts for the entire agriculture. Now we can look at how these sector level forecasts can be expected to affect farm businesses. We define a farm business as all farms where the primary occupation of the operator is farming plus those farms that had over three hundred fifty thousand dollars in gross cash farm income. There are roughly eight hundred twenty thousand farms about forty percent that meet this definition and on this chart they are represented by the blue and red segments for commercial and intermediate farms. Residents farm shown in gray account for the majority of all farms but commercial and intermediate farms account for the largest share of farm production about ninety percent. They also account for the majority of total farm sector assets and debt.

Looking only at farm businesses, average net cash farm income for all farm businesses is expected to be one hundred eight thousand eight hundred per farm that's up six percent from 2015 but there are substantial differences among the commodity specializations and geographic farming regions. Commodity specialization is determined by a farm business having at least fifty percent of the value of production from a particular commodity. Average net cash farm income for all farm businesses specializing

in crops except specialty crops is expected to increase in 2017. The largest increase is for farm businesses specializing in cotton where average net cash farm income is forecast to increase thirty one percent due largely to expected higher cash receipts for cotton. Average net cash farm income for wheat for farm businesses is forecast to increase thirteen percent and income from corn and soybean farm businesses to increase less than three percent. Only specialty crops farm businesses are expected to see a decline in average net cash farm income due to the forecast declines in cash receipts for fruits and nuts.

Average net cash farm income for farm businesses specializing in livestock are also expected to increase in 2017 with the largest growth forecast for dairy and hog farms both rebounding from declines in 2016. Average net cash farm income is forecast to increase thirty eight percent for hog businesses and forty two percent for dairy business largely reflecting anticipated growth in hog and dairy cash receipts and it's expected export demand.

Average net cash farm income for cattle and calf farm business that are forecast to increase sixteen percent also rebounding somewhat from declines in 2015-2016. Income from poultry farm businesses are forecast to remain flat.

By looking at how agricultural production is distributed geographically we can forecast how average net cash farm income for businesses will change in 2017 by resource region, region using the ARMS data. We're forecasting the largest increase in average net cash income at fifteen percent to be in the Northern Crescent due to strong growth in dairy. In the Prairie Gateway, higher cattle cash receipts are helping to drive net cash farm income up thirteen percent. The only region where we anticipate average net cash farm income to decline in 2017 is the Fruitful Rim. This reflexes the anticipated decline in farm businesses growing specialty crops



particularly fruits and nuts. Although the decline is somewhat mitigated by expectations of strong dairy sales in the region.

Up to this point we've discussed the financial performance of the farm sector as a whole and farm businesses but this often may not give an accurate or complete picture of the well-being of farm operator households. The well being of farm operator households is determined by a combination of on and off farm activities.

Now we're looking at all two million farms not just the farm businesses and the majority of farm household income is coming from off-farm sources. In 2017, median household income from farm income is expected to be negative and a bit lower than in 2016 but this decline in farm income is expected to be offset by a slight increase in off-farm income. Overall household income is forecast to remain nearly flat increase less than one percent compared to 2016 and be at just under seventy seven thousand dollars per farm or on average.

The information I presented today is available on our website along with our estimates for 2016 and prior years including state level data on farm income through 2016. Several data visualizations of the farm income and wealth data are also available on our website and I encourage you to check them out. Thank you for joining us today and now I'd be happy to take some questions.

Thank you Carrie. We have a question from Ben. What is included in off-farm income? Great, off-farm income largely includes wage income, non-farm business earnings, dividends and transfers.

Alright and I have a question from April how important is off-farm income for the larger farm businesses? That's a good follow-up question well for as you probably could expect for residential farms these are largely hobbyists or retirement farms, nearly one hundred percent of their household income is coming from off-farm

largely because farm income has been negative for those small farms. But for intermediate and commercial farms they're a little less reliant. Although intermediate farms about ninety four percent of their total household income is coming from off-farm. So it's still off-farm is still really driving the well-being of those households. For commercial farms though it drops down to twenty percent of total household income coming from off-farm income. So for those farms, farming is their business and farming is where most of their household income is coming from.

Okay and I've got a question from Chris. Carrie, can you tell me more about the data visualizations you mentioned?

Certainly. There are four data visualizations that are coming out with this release today. Three of them are up on the website right now. We have the farm income atlas. This is where you can see components of income by states on a map. So you can just click the state you want to see and you can look at the different components of farm income for the states. We also have digging into the U.S. balance sheet which provides an interesting graphs of assets debt and financial ratios. There is get to know your state which also has quick access for information on a particular state for a given year and it includes state raking for the farm income component. And a brand new visualization that is coming out I don't not post yet is the evolution of the farm income forecast. That's where we look historically at how accurate or reliable our farm income forecasts are over time and how they change because we asked, we do forecasts three times a year and those forecasts evolve as we incorporate updated data and with this visualization tool you can see how they evolve and to see you know how they change from one release to another.

Those are the four major, those are the 4 farm income visualizations are going to be available.

Okay. We have a question from James. Is the concentration of debt in commercial farms similar to the 1980s and does this affect how we interpret GTA and DTE ratios?

(Crosstalk)

He also is asking do you have any sense of what this looks like for grain farms? Okay. Well for the first half the question sorry I don't have the information in front of me to make the comparison on debt for commercial farms in the 80s till now. So I can't quite answer that one right now.

On the second question, I'm not exactly sure they're talking about debt for grain farmers. The information I know right now is for crop farms overall or farm businesses in that the percentage of farms that are, I'm sorry, the percentage of crop businesses that are leveraged or highly leveraged is increasing is forecast to increase in 2017.

So there are perhaps a little bit of stress in there for the crop farmer for the whole but I don't know about for the grain farmers particular.

Okay. Matt is asking, what is driving the increase in farm land values?

Good question. NASS recently came out with a report showing that farm land values are increasing or had increased from the period from June to June of 2016 to 2017. I think in general we tend to see crop land values increasing overall in that typically you have motivated buyers but you don't have a lot of motivated sellers that's kind of the general answer to that question I think. Okay. Oh we have a question from Garth. The Fruitful Rim is projected to decline by 5.7 percent. Could you please explain in more detail? Certainly. If you go back. Let me get my map back up.

The Fruitful Rim includes a lot of states like Florida and California that grow a very large share of fruits and nuts that are produced across the entire U.S. They have a large share of the majority and as I talked about in the beginning we're forecasting cash receipts for fruits and nuts to decline in 2017 largely due to lower prices. So that's what you're seeing when we graph when we apply this farm income data to a

geographic distribution by region is that those regions that have higher cash receipts from fruits and vegetables are expected to see overall decline in their average farm income businesses. Now luckily a lot of these places in the Fruitful Rim also have dairy so the declines perhaps aren't as big as they would have been if dairy hadn't been a strong because we're forecasting dairy cash receipts to increase but still the decline in fruits and nuts is expected to drive average net cash income for these regions to fall in 2017.

Yes and we have a question from Kathy. Will government payments increase because of weather, drought and flooding? How will affected farmers cope?

Yes this certainly is the topic of the week the flooding in Texas and it's a little too early to know the impact that the flooding is going to have on agriculture for U.S. and for that region we're going to continue to monitor the situation.

We're going to have to see what the scope of the damage ends up being, the amount of animal and crop losses and then also the effect on prices because they can you know you could have some losses in animals and crops but you could have increases in prices as a result of these losses.

And yes far as government payments.

You know again we will have to see what happens, what comes out of that. A lot of this area that's being affected by the flooding currently has pretty good crop insurance so it may be that crop insurance will help to cover their losses. But yeah thank you for the question. Alright we have a question from John. Net cash income is going up because farmers are liquidating inventories, isn't this a (Indistinct) of working capital?

Crop inventories are on the balance sheet and you can see them there as assets. But what we're talking about in the net farm income account is trying to get at the measure of current production or the value of current production and thus a measure of income. So you have this change in inventory or the decline in inventory may affect the balance sheet but for net cash income. It's kind of a different

approach, it's kind of mixing two different ways of looking at it. So in the farm income statement we're just trying to get at the production in the current year.

or value of the production in the current year.

Alright and we have a follow up question from Garth. Could you please explain how the relationship between farm GDP and farm income?

Okay. Great that's right up my alley having come from BEA. In the GDP accounts of course I can no longer speak for BEA. But in the GDP accounts, the farm sector contribution to GDP is roughly equivalent to the value of agricultural sector production shown in the ERS value added tables in the net farm income accounts. So when you talk about agricultural farms specifically farms share of GDP, it's looking at the value of agricultural sector production before removing expenses.

Alright well thank you Carrie. I think that's all the questions we have. So thank you all for joining us and have a great day.