

Webinar: Farm Income and Financial Forecasts, February 2017 Update Transcription (February 7, 2017)

Good afternoon everyone and welcome to our webinar, Farm Income and Financial Forecasts February 2017 update. My name is Kellie Mendonca and I will be your host. This webinar is being recorded and will be posted at a later date on the ERS website. At any time during the webinar, you may enter a question into the chat feature at the bottom left corner of your screen and our speaker will answer at the end of the presentation. Our speaker today is Jeffrey Hopkins. Jeff is the chief of the Farm Economy Branch in the Resource and Rural Economic Division at the Economic Research Service U.S. Department of Agriculture. The Farm Economy Branch releases data and analysis on farm sector and farm household well-being. Three times a year ERS releases a forecast of income, expenses, assets and debt. Today is the first forecast release for the 2017 calendar year. I think we're ready to start. So Jeff you can now begin your presentation.

Thank you Kellie. This is Jeff Hopkins and I'm pleased to be with folks today.

Thank you for joining. This morning we released

our, at 11 o'clock, we released our farm income forecast for 2016 and 2017. Our 2016 estimates won't be referred to as estimates until August when we get our final bits of data in. But this is our first forecast for the 2017 calendar year. So please to get to it right away, let me just advance the slide to the summary. These are the main points that I'll be covering today and I'm going to try and do this in an order, an orderly fashion. We'll talk about the sources of income for the sector, then talk about expenses. And then finally we'll talk about the farm sector balance sheet which is to say assets and debt. So overall our main finding is that net cash farm income for 2017 is forecasted at 93 and a half billion dollars. That's up 1.8 percent from the 2016 forecast for net farm income, for net cash farm income. We also have an alternative measure of well-being for the sector which is net farm income includes everything that the net cash farm income measure includes but even more. It's a broader measure of profits that is forecasted at 62.3 billion dollars which is down from the 2016 forecast by 8.7 percent. I'll be talking about the value of ag sector production including breaking it down by commodity. The forecast is for value protection to fall for the third straight year.

But the rate of decline has slowed compared to previous periods. Also talk a little bit about government payments. Those are projected to fall relative to 2016 value and be right at 12.5 billion. We breakout government payments from commodity insurance indemnities, we report those separate. So the previous figure didn't include commodity insurance indemnities. Those are forecast to rise slightly in 2017.

And basically we're putting them at the 20 year loss ratio for indemnities which is higher than where they were at in 2016. Total production expenses are forecast to remain stable.

But individual components of those production expenses are varying over time, in 2017 relative to 16 so I'll talk a little bit about that.

Finally farm sector assets are, are down a value equal to 1.1 percent and debt is up more sharply 5.2 percent overall, over 7 percent for real estate debt and about 2 percent for non-real estate debt, the difference between assets and debt is equity overall we're forecasting for 2017 for equity to be down by 2.1 percent.

Okay. So the first slide is showing net farm income which I mentioned we're forecasting down in 2017. It's been down, our forecast is that it will be decreasing for the fourth straight year after the 2013 high in real terms.

That is to say accounting and adjusting and taking out inflation the net farm income is down 49.6 percent relative to what it was at the peak in 2013. But looking at the chart you can see that farm incomes are, they tend to be fairly volatile over time. And in essence where we're at now is pretty close to the average. It's below the average for the, for the running average for the previous 10 years. We're below that in terms of net farm income, net cash farm income is a different story that's a little bit closer to the 10 year moving average. But this measure of farm income is the broadest measure of well-being for the sector. It includes all the cash income and expenses. It also includes some important non-cash value flows including capital consumption, including the value, the imputed rental value of a house that may be occupied by the operator on the farm business. And it also includes inventory changes. And my next slide will highlight inventory changes for 2017.

So this slide is what we call a waterfall chart and it shows at the far left side, what net farm income is forecasts to be in 2016 which is to say \$68.3 billion. And on the right hand side we have net farm income forecasts for 2017 62.3 billion dollars, a difference of 6 billion dollars or 8.7 percent.

And it's useful in understanding what's

driving that change to look at the individual components that make up farm income.

Now oftentimes when we're showing this slide for year on year changes the overwhelming impact is due to prices, commodity prices either for crops or for livestock. The way to read this chart is that relative to 2016, there are only very small changes in crop receipts. \$1 billion less in crop receipts in 2017 relative to 2016. So rather than focus on what is usually relevant let's look at the drivers that are impacting the 2017 forecast and the bars in red are indicating decreases in net farm income and the bars in blue are showing what is increased relative to 2016. So the biggest impact here is due to crop inventory changes. So crop inventories are commodities that are produced and have but they are actually attributed to a prior year's production. So if you're only looking at net cash flows, you would say a commodity that was sold or is forecast to be sold in 2017 results in cash income. That's true but if it came from an inventory, our measure of net farm income has already accounted for that production in a previous year, so net farm income has already counted the value of these inventory sales and therefore the inventory sales that we think are going to occur in 2017 whereas they're accounted for a net cash farm income, they're reduced from net

farm income and the change in crop inventories is \$8.2 billion for 2017 relative to 2016.

So those inventories sales, they've disappeared and they've been sold. Those are, are actually a reduction from net farm income.

Happy to take any follow up questions that people have on that. The other main change for 2017 relative to 2016 is a 4.8 billion dollar increase in a type of income that's kind of a catch all category and it is mainly included in that 4.8 billion is an increase in commodity insurance indemnity payments to be received by farmers.

So for the value of indemnity payments for 2017, basically what we're doing is using a 20 year average loss ratio for those programs and assigning commodity indemnity levels that are appropriate for the 20 year average. 2016 commodity insurance indemnities were very low so this shows up as, as an increase.

So a 6 billion dollar difference, you're only going to find this in net farm income though if you only look at the net cash farm income values for 2017 it turns out that they're pretty even relative to 2016 and you can see that if you eliminated the crop inventory effect from net farm income you'd be pretty flat compared to compared to 2016. So that's just an overall view of, of what's happening.

I'll get into some additional detail in the slides that follow. So first I want to talk about cash receipts for crop, for crop commodities and then livestock commodities.

Our forecast for 2017 is that the biggest crop commodities, corn and soybeans are going to be flat relative to the 2016 forecast values.

And for that reason there's not a whole lot of difference in crop commodity receipts overall.

This masks some underlying large changes to individual commodities and probably the most prominent is cotton where cotton receipts are expected to grow 21 and a half percent in 2017 relative to 16 that's being supported by both higher forecast prices for cotton and higher production. So both prices and quantity are increasing for cotton and that's driving cotton receipts higher.

On the other hand, wheat receipts are declining, over time they're forecasted declined by 16.6 percent, moving to livestock, crop or animal and animal product crop, commodity receipts we have an impact, and if you remember from the earlier waterfall chart for the sector as a whole, the impact is zero.

But for certain commodities it can be significant. Cattle and calf receipts are down 6.7 percent in 2017 according to our forecast relative to 2016. Also very, a very similar story is cotton, dairy cash receipts are forecast

13.7 percent higher where that is both a function of increased price expectations as well as increased production. So both P and Q on this receipt measure are headed higher and that's resulting in the increase in dairy cash receipts of 13.7 percent. Broilers and hogs are pretty changed, and I'll just say again the sector as a whole is little changed relative to 2016.

The next chart is showing net cash farm income over time from starting at the year 2000 and going to the year, to the forecast year 2017.

The bar, each of these bars, each year is bar divided into two segments. The dark green segment is net cash income except for government payments.

And then the light green bar is government payments. So take them together and it's total net cash farm income it's a similar story as we have with net farm income, there's volatility over time.

This chart shows everything in real or inflation adjusted terms. So you can see from here that except for the years of 2011, 12, 13, 14, the current 2016-2017 net cash farm income is actually similar to what we had in the years prior to 2011 through 2014. So much more like the average that preceded it. Now the reason that I broke the net cash farm income into two components was just to show the influence of government payments in overall net cash farm income.

And I also wanted to compare the size of direct

government payments to net cash from income for the 2014 period to the present. So the current farm bill versus the period before that 2000 to 2013, we do have government payments with slight counter-cyclical component to it.

Meaning when income goes down, payments go up.

There's a, you can detect that in the

2014 period to the present but it was much more pronounced in the prior period when, when incomes would go down, payments would, would respond by increasing. And in fact the overall

level of payments as a component of net farm income, net cash farm income is 11 percent for the

2014 to the 2017 period. That's a smaller share than we had in the period before that from 2000 to 2013 when direct payments were up to 20 percent of net cash farm income. So when you talk about

farm income do we include government payments?

Yes we do. That's a part of farm income.

And just to give some additional information on the breakdown of these government payments over time.

This next chart shows from 2002 to 2017 the level of government payments and this is in nominal dollars so dollars of the day I haven't taken out

inflation from this but it shows government payments over time by type of program and the bar on the bottom the green segment is conservation payments.

This includes Conservation Reserve Program payments, ACRE retirement payments as well as working land payments fairly constant over time in nominal terms

certainly in real terms nominal terms of growing slightly. The next segment are those payments that are a function of crop prices. So these are things that when prices go down payments are activated and they usually have something along the lines of a reference price or a loan rate or something like that, that triggers the payment.

And that is basically what we have in nowadays called the PLC or price loss payments.

The, those payments are, those type of payments are shown in yellow. The payments in blue are fixed payments. So these are irrespective, both prices and you can see in the chart the interplay between the blue payments, the blue type of payments and the yellow type of payments, the blue type of payments, direct payments went away and the 2014 farm bill and they were replaced largely by the payments that are a function of crop prices or crop revenue and those are the yellow payments.

The fourth type of payment shown in this chart are all other payments which includes ad hoc and disaster payments. They've been very low in 2016.

We're forecasting them to be low as well in 2017.

The current farm bill payments except for the conservation payments they would all be in the yellow segment. The PLC payments and the agricultural risk payments agricultural risk coverage payments, those programs they constitute two thirds of all government payments that farmers receive and of those we

have, our forecast is for one type of payments a price loss coverage payments or PLC payments to rise by 1.24 billion in 2017 relative to 2016 and for the agricultural risk coverage payments to fall by about a half billion dollars.

Most of the increase for PLC payments is going to go to wheat and peanut acreage whereas the ARC payments, the payments that are likely to decline.

Those are mostly to corn and soybeans acreage and

happy to take any other questions you have on government payments. So up a bit up until now

we've been talking about sources of revenue or sources of income and now I'll tell you a little bit

of the story that we see for 2017 for

production expenses. This chart shows the data

line shows nominal or a dollars of the day

production expenses from 1970 to the present

including our 2017 forecast and the dark

solid line is showing an inflation adjusted

expenses level. Overall production expenses

are highly cyclical. They've been declining as

net farm income has been declining over the past

three or four years. And in general we're

showing production expenses to be flat in

nominal terms for 2017 although in real terms

that's a decline relative to 2016.

And in real terms that is three consecutive years

meaning 2015, 2016, 2017 that real expenses have declined.

We haven't seen that sort of streak since the 1980s

in terms of a reduction in spending so we think that that's a significant reduction in spending has been one of the sources of support for farm incomes particularly in 2015 and 2016.

And this story is still evolving.

We really won't know the production expense story in its entirety until August of next year when we get in our survey data of, of farms, our national survey data, when people actually tell us how much they spent. Really what we're relying on right now is a forecast of changing prices for these components. And recent history in terms of trends for spending.

So that's the aggregate story.

And I'll just say again the aggregate story is flat. Individual expense components are interesting to look at in and of themselves though.

And what we're doing in this chart is comparing the 2016 forecast spending levels to the 2017 forecast spending levels and on the left hand side are those components where spending is forecast to increase relative to 2016.

And on the right hand side of the chart are those inputs that we forecast spending to be decreasing.

So this chart is also useful for putting in perspective how much is spent on these different inputs. And it's I always learn something from this. For the most part the trends that you see here the one year trends are

consistent with what we've been seeing in terms of, of trends over the past couple of years that is to say labor has been going up for the last three or four years. Interest has been going up over the past three or four years.

Net rent has been fairly flat but it's forecast to increase this year.

The one exception that I would point out is energy costs and fuels and oils overall constitute just about 5 to 7 percent of total production expenses.

But we're forecasting energy costs to be increasing by 13.2 percent. Much of that is associated with the increasing cost of diesel which the Energy Information Agency is saying is going to increase by up to 40 cents a gallon.

So that's embedded in our forecast, fuels and oil expenditures have been decreasing for the past couple of years. So this reversal at least in our forecast is, is significant, in my mind the largest expense that farms have is for feed and both feed and livestock and poultry purchases have been decreasing now for a couple of years.

So those expenditures if you think about it, it kind of makes sense, the commodities that are being fed and the livestock that's being purchased the commodity price for those has been decreasing. So the total amount that farmers spend on their needs for feed and, and feeder cattle and, and, and those inputs are

going down as well.

Okay so that's the expenses side. And turning now to the balance sheet we are forecasting a slightly more negative 2017 story than 2016 and more negative than 2015 and 2014. We're showing the balance sheet to be decreasing throughout that period. For 2017, we're forecasting a 5.2 percent increase in farm sector debt and in the chart which is adjusted for inflation you can see that debt is at the highest point that it's ever been. Even after adjusting for inflation so it's at a historic high and we're showing strong growth in debt as well.

5.2 percent overall. In particular real estate debt is forecast to increase by 7.3 percent and non-real estate debt less so, 2 percent increase relative to 2016. With respect to assets we're showing, we're forecasting overall asset values to decrease by 1.1 percent.

84 percent of all the asset value that farms have is constituted by real estate.

And so as the biggest component it's decreasing by 0.3 percent in our 2017 forecast.

This is actually the same level of decrease that we have for the 2016 forecast. The reason that the overall asset isn't more like it's largest component is that the other components of farm assets including machinery and equipment, including inventories,

including financial assets, they're all decreasing at a much faster rate resulting in an overall reduction of 1.1 percent. The equity forecast is for a decline of 2.1 percent relative to 2016.

And I guess stepping back a bit and looking at this chart you can see that equity values and overall asset values are at an all time high.

And one of the things that people want to do a standard reference point is a comparison of debt to total assets for the sector. And we have that in the next slide which shows debt to asset all the way back to 1970 so this is the same time period and in fact the same information that was shown in the previous slide it's just expressing it in a slightly different way. We take the blue line, takes to the debt and divides it by the total amount of assets and the red line takes the debt and divides it by the total amount of equity.

You can see that these two ratios which are solvency ratios, let's say the risk of default is increasing now for several years and they're now above the 10 year average that both of these measures have taken for the sector as a whole still below their historic average as shown in the chart and far below the historic high.

But this level of increase in debt to asset ratio is something that we're looking at.

We have some additional information that in this presentation which you can, which you can, which I'll

be going over in a couple of minutes to talk about debt to asset ratio a little bit more and I should've mentioned all of the information that I'm sharing is available on the ERS website.

These slides will be available as Kellie mentioned but we also have a number of data visualizations that take this same data that we just released at 11 o'clock and incorporate them into the charts and the graphics and the maps that are included in those data visualizations.

Okay, everything that I've shown up to now applies to the sector as a whole and what we try to do to give more descriptive information about what is happening among different types of farms is we'd like to say something about where most we'd like to say we'd like to not just talk about the sector. We'd like to talk about individual farms. So in the slides that follow we'll be talking about farm businesses and farm businesses is a term that we use to refer to farms that the occupation the primary occupation of the operator is farming rather than something else. So we include in this categorization of farm businesses all those farms that have primary occupation farming reported for the operator as well as those farms that had over \$350,000 in gross cash farm income. So in the chart that's on the screen right now

these types of farms, the primary occupation farming are shown in blue and labeled intermediate farms and the commercial farms are those that are \$350,000 or more regardless of what the primary occupation of the, of the farmer, of the operator is. So in what follows I'll be talking about the blue and the red portion of the farm sector and leaving aside the, what we call residence farms.

These are people who meet the definition of the farm but their primary occupation is something other than farming. So when we talk about these farms we're only talking about 40 percent, about 820,000 of the two million farms.

Those farms constitute about 90 percent of the value of agricultural production.

They constitute two thirds of the assets and three fourths of the debt held by the sector as a whole.

So we think looking at farm businesses is a good way to look at the total variation in the sector impacts as they affect the distribution of farms in the U.S. So this chart, this bar chart is showing from 2010 to 2017. The average net cash

income for those farm businesses that have any of these specialties. So we define the specialty let's say corn as this is the average net cash farm income for farm businesses who specialize in corn.

Meaning they got over 50 percent of their value of production from corn. So we have created these discrete groups of corn, soybean, wheat, cotton,

specialty crop and other crop farms and we are showing here what is the average net cash farm income for each of them. And the biggest impact in this was already previewed in the cash receipt information that I shared is the increase for cotton farms and increase from 223,000 dollars average net cash from income in 2016 to 298,000 dollars in 2017. So an increase over the past three years of net cash farm income for those farms that are specialized in cotton. That's a 34 percent increase and certainly significant not much overall movement for corn and soybean types of farm businesses. They're relatively flat. And as I mentioned the biggest impact here is, is for cotton. So it's a cotton story for, for crops. The biggest impact for those farms that are livestock specialized, so animals and animal products is the 42.7 percent increase in average net cash farm income for dairies. So \$250,000 forecast for 2017 relative to \$170,000 for dairy farms in 2016. 42.7 percent increases that both based on higher prices, higher production strong forces and in dairy going on right now. It's strongly supported by exports as well. On the other hand cattle and calf farm businesses their net cash farm income is down by 12.9 percent from \$41,000 to \$36,000 in 2017.

So if you look at how the distribution of agricultural production occurs in the continental U.S. and you impose the impacts that are in our farm sector model and use our information on the, on the distribution of how, how farms are, are, are found across the U.S., you can have a regional net cash farm income estimate, forecast estimate as well and compared to previous years, this map if you've been following was mostly negatives in 2016 and 2015, in 2017 with flat sector net cash farm income and with increasing farm business, net cash farm income we're seeing a number of sectors that are going to have an increase in net cash farm income relative to 2016. Foremost among them Northern Crescent that's due to dairy, the strong growth in dairy is supporting Northern Crescent incomes. Also the growth in cotton can be seen in the Southern Seaboard, Fruitful Rim region as well, where both of those are increasing. On the other hand, the Northern Great Plains is showing a decrease, the Heartland flat to slightly lower, the same with the Eastern Uplands. Those are some of the regions where you're seeing a lot of cattle, cow/calf operations and wheat which we highlighted is as being weak and problematic for, for some regions is causing them to go down. Overall six regions are increasing, three regions are decreasing in terms of the cash farm income.

The next chart I mentioned that I was going to get back to the debt to asset story and I find these charts to be an interesting complement.

So once again we're only looking at farm businesses. So those 40 percent of farms that are responsible for 75 percent of the debt, two thirds of the asset and 90 percent of the production. And what this chart is showing are the share of crop farms that's on the left and the share of animal, animal/product farms that's on the right. The share of them that have a debt to asset ratio that is greater than 0.4, that's what the solid line is or I'd say greater than point greater than 0.4 and up to 0.7. And then the broken line is showing .71 and above. So this is the share of the farms that would have greater, you add them together greater than 0.4, 0.4 as a benchmark.

If, you know an individual has less than 40 percent of their assets in the form of, of debt then kind of it's, it's not a sign of stress. So if you look at on crop farms 6.3 plus 5 percent that's 11.3.

This is to say that 88.7 percent of farm, of crop farm businesses have debt to asset ratio below 0.4 not really a source of concern.

However 6.3 of them, 6.3 percent have a debt to asset ratio greater than 4 and 5 percent have a debt to asset ratio greater than, than 0.7, .71.

So these are the ones that we're keeping an eye on in seeing how this, this share changes over time. I said at the beginning if I didn't I should have that the level of net farm income is the lowest since 2002. So referencing the 2002 level in this chart, you see that with net farm incomes as low as they were every year prior to 2002 the share of farms that are highly leveraged still is not approaching what it was at 2 percent, what they were at 2002. But the share has been increasing over time. In some cases sharply and the exception is animal and animal product farms where 4.9 percent of them have a debt to asset ratio of greater than 0.7. And that is greater than what we were seeing in 2002. So as I mentioned this is something that we're going to be looking at and following over time.

Okay, so leaving aside the farm business, we're going to talk about the farm household as a whole and farm households get income both from their farming operation and many of them have off-farm sources of income as well. And this chart which I just put up is showing the median farm income and the median off-farm income for farm households as well as the total household income. We produce a forecast for 2017 for median farm household income of \$79,733 that is represents a 3 percent rise relative to 2016, the decrease in farm incomes at the sector level as shown by the decrease in the median

farm income in this chart, median farm income is actually negative across all 2 million farms minus 1,437. But most farm households continue to get the majority of their income from off-farm sources and the purple bar in this chart is simply showing that the, the importance of off-farm income and that it is forecast to increase relative to 2016. So with that I'd be happy to take questions. And Kellie why don't you go ahead.

Thank you Jeff we do have some questions.

I have a question from Jeremy.

Is it accurate to say this forecast expects farm profits to decline this year in large part to a drop in the price of corn?

So our broadest measure of farm profits is farm income and relative to last year we would say that the drop in farm income is due to a drop in income from you know it is, it is from crops right because it's the increase in sales from inventory.

We actually counted that inventory.

We counted the value in the previous year so we're not going to count it now in terms of cash flows, we should we, we are showing an increase in sales out of inventory. So the actual crop commodity forecast for corn, the price forecast is not that drastically different than 2016.

We're basically using the World Agricultural Supply and Demand Estimates that were released in January. So the impact is, is as forecast by them.

Okay we have another question from Christian. Why is total household income higher than off-farm income if farm income is negative?

That's great. So what we're reporting here is the median for each of these series. So we're reporting the farm income at the median and then we're reporting the off-farm income at the median and the distribution of farm income and the distribution of off-farm income aren't the same. Not everybody has the same share of farm income represented in their total income stream as everybody else. Some people make lots of money on the farm. Some people lose money on the farm and that isn't necessarily correlated with how much they make on or off the farm. If these were averages you could add farm income and off-farm income and come up with total household income. But this is the median for each of the components and you can add medians in that way.

All right we have a question from Bradley. Are the income projections consistent with the commodity baseline forecast tables released

in December in advance of this month's long term baseline projections?

Thank you Bradley. What is driving the farm income forecast for this release is the January WASDE Report. The baseline report will be driven off of the December WASDE Report. So a slight difference there in that our, our data is just a little bit more recent.

Alright we have a question from John. The statistical properties of USDA surveys generally allow correct national level aggregation for just a couple of items, often acreage and production. Other items can be compared among regions but not aggregated. How will your survey allow for correct national aggregates for such a wide variety of farm expenses in August? Wouldn't it be better to gauge expenses from industry sources?

Yeah that's a great question John. Basically what is driving our forecast at this point for expenses is a we do, we do bottom up forecasting which is to say that any expense is going to consist of a price and a quantity. And we're forecasting both prices and quantities separately. So I'm not sure that you would be able to get that level of this aggregation

of prices and quantities from industry sources.

What we do is use the USDA data which they're required to collect on prices and we look at historical trends and forecast the prices and the quantities for each of these.

You're right though that we really don't have, there is no information on expenditures until we get the information that from, from the survey, from the ARMS Survey which is released in August.

So this past August we revised the 2015 farm income estimate based on what we saw in the ARMS Survey.

It was a surprise because forecasting prices and forecasting quantities was not really capturing the economic response that farm businesses were making to reduce their spending. We didn't, we weren't able to document that until we had the data on which to do it. So the ARMS data is really a key component for us. And you know we don't know of anything that, that could match it.

In the meantime we make do with, with what we can.

But it's, it's no substitute for the actual data that we get from farmers.

All right we have a question from Copycat.

So the farms in the dash line are not included in the farms in the solid line?

I believe he may be referring to Slide 17.

Yes I have to Slide 17 here. They're not included,

so these are mutually exclusive groups.

The dashed line is farms that have, let's say highly leveraged .71 and higher. The solid line is that discrete category of .41 to .7.

There's a typo here, it says .41 to .71 but it's .41 to .7 And so that's one group and then the other group is .71 and above.

You can take two of them together, you can take those two numbers 6.3 and 5.0, that's 11.3.

So 11.3 have 0.4 and above just all the way from .41 to higher than that which is to say that 1 minus or 100 minus 11.3 have a debt to asset ratio that's below 0.4.

So 88.7, 88.7 percent of crop farms have a debt to asset ratio less than .4 and 11.3 have higher than .4, And you can break that into two different groups.

Good, we have a question from Demona. Farm households includes all farms, correct?

That's right Demona. It's all 2 million farms.

And a question from Matt. Do you see more concerns with liquidity ratios or solvency ratios?

Yeah that's a, that's a good question you can find them both on the ERS website. I do think that there are

more I guess concerns about liquidity than solvency. Liquidity is not as drastic as solvency issues, solvency that's the risk of going bankrupt. The liquidity risk is at risk of not being able to to make debt service payments. So there's a number of ways that you could look at the, at the solvency debt to asset ratio. But there are a number of other ratios which I would refer to you including the times interest earned measure also a measure of working capital current ratio.

There are other ratios that you can consult that are on the ERS website and we've updated them for the 2017 forecast so you can look at what our outlook is for 2017 for liquidity ratios, solvency ratios and efficiency ratios, profitability ratios. There's a whole number of things you could look at on the implications of our forecast.

All right we have a question from Chase.

Do you look at the breakdown of off-farm income by any chance or have any of those statistics available to share?

Yeah I would refer you to the Farm Household Income Data Product website. We do much of this data comes from the Agriculture Resource Management Survey and there we ask questions about off-farm income both for the operator and the spouse. We consider retirement

income, income from investments as well as wage income and income from operating a non-farm business. There's a number of different ways you can, you can look at off-farm income sources and how those have changed over time. So yes you can, you can find that.

Michael has a question. The forecast rent expense is predicted to go up. What is driving the forecast of an increase when other sources indicate that rent will be going down?

Yeah. So this is, it includes rental payments but it nets out payments for expenses that operators make on their own, say if they pay property taxes, if they pay part of the spending associated with share rental contracts. This is not a big change in terms of expenses but it's not the cash rent or share rent estimate that's really driving this.

Other sources of, of net rent are in fact behind this, we have share rents not declining, I'm sorry we have cash rents not declining but remaining fairly flat. We have share rent remaining fairly flat. Government payments received, that's something that's netted out.

We have that declining. Actually one of the biggest drivers of this expense may in fact be the pass through of commodity indemnity payments which

we're forecasting to be increasing in 2017.

So that net rent it does include the net value of
of commodity indemnity payments.

So don't look at it, don't look at it as here's
ERS's forecast of cash rental rates or cash
rental expenses. It's it's really a
composite category that includes changes in
a number of those subcategories.

Jeff, we have a question from Keith.

How important is off-farm income for the larger farm
business, farm households? Is off-farm
income above 50 percent of farm household income
for these large farms?

Yeah that's, that's a great question.

And the median off-farm income for commercial
farms is an important source of the overall
household income. We have data that I'd be
happy to share with you but even for those large
commercial farms, we're seeing that you know like
median farm household income to be, median off-farm
household income to be above \$40,000.

So a significant source of overall income.

It's, it's not 95, 100 percent but it's 40
percent or higher at least on, on at the median level.

So it's, it's a significant source of income even for
commercial farm businesses.

Here's a question from Andrea.

What is the average yield per acre you are using for corn and soybeans?

Yeah. Thank you Andrea. I would have to refer you to the WASDE Report for January.

We used the same production in yields and prices that were in the January World Agricultural Supply and Demand Estimates.

So we, we mimic theirs. I don't actually have it in front of me right now. But if you check that, that's what we used.

Alright, and another question you present a forecast for net cash farm income and for net farm income, what is the difference between the two and which one should I pay attention to?

Okay great. We do include them both and they're both measures of well-being. So you could use either one. As an economist I guess I would have a preference for using the one that's more inclusive and that isn't biased just towards those sources of income and expenses which are cash flows but also including non-cash flows. The main difference between the two measures is that the net farm income is more inclusive. It has three components that I would just talk about briefly.

One is capital consumption and that's a big line item expense. This is the economic depreciation. So it's a cost associated with vehicles and machinery and everything else on the farm and the capital consumption measure is part of farm income and in most years it's going to be something along the lines of \$40 billion. Another non-cash component that's only found in net farm income is the imputed rental value of the operator's dwelling. This is a source of value that's included in net farm income and for most years it's going to be about \$20 billion. So it's an important source. The third one is the inclusion in net farm income of inventory changes. So inventory changes are, are important for the 2017 forecast and only the farm income measure really treats those in a way that is consistent with value added accounting which is to say it applies the value at the point at which it was created. The inventory was created in a prior year so it counted the, the value at that point. So I have a slight bias there but the net cash farm income measure I think has a really strong interpretation which is to say net cash farm income is the money you have, is the cash that you have left over. It could be used to support the household. So it will pay for living expenses.

It will also pay for new investments and it's available to pay down debt, not the interest payment on the debt but to actually pay down the principal. So as you know of concept of cash income it has a really good interpretation which is I think useful for monitoring as well.

Alright, we have one more question, where can I get more information on the farm income forecast and what's your email address in case we'd like to ask you further questions?

Yeah I'm happy to answer that.

We have a group of people who work on the farm income team and so we kind of have a group email address. It's called Farm Income Team, all mashed together, at ERS.USDA.GOV. (farmincometeam@ers.usda.gov)

And when people write in and ask a question, we consider it as a group and then come out with a group response, it's not an empty mailbox whatsoever.

We pay a lot of attention to it.

So encourage your questions and your comments and you can find that e-mail address if you didn't write it down. It's on the Farm Income and Wealth Data Product website.

So it's at the bottom, it's the contact information. We update our forecast three times a year. So if you go on there now, you'd be able to, if you go on the ERS Home Page it'll take

you right to that site at least on my computer if I
Google "farm income", it takes me to the
ERS website. Kind of, you won't have
a problem finding it.

Thank you Jeff. I think that's all the
questions we have time for. Thank you all for joining
us and have a great day.

Thank you.