CFAES DEPARTMENT OF AGRICULTURAL, ENVIRONMENTAL, AND DEVELOPMENT ECONOMICS

Are Our Farms Financially Secure?

Report for Farm Science Review: Ask the Expert

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This report provides background information to the presentation at the Ask the Expert session at the Farm Science Review, organized by the Ohio State University, which was held on September 21, 2021. This report addresses questions on farm sector forecasts and financial stress faced by farmers in US and Ohio during 2021 and an outlook for the future years.

- 1. Net farm income and net cash income: What should farmers expect for farm income this year? What are the trends in U.S. and Ohio net farm income and net cash income? What factors affect farm income components this year?
- USDA farm income forecasts are indicators of economic performance and financial health of the U.S. farm sector.
- Timeline: The farm income forecasts are released three times a year, typically in February, August, and November/December. USDA produces four forecasts for farm income before the first official estimate. For year 2021, the first forecast was released in February 2021, which the USDA recently revised in September. There will be two more revisions in December 2021 and in February 2022, before the first official estimates become available in August 2022.
- USDA uses a value-added accounting framework, and produces projections for each component of the three main indicators: value-added, net farm income and net cash income. The entire model involves hundreds of equations.
- Data sources: Prices paid indices published by NASS, World Agricultural Supply and Demand Estimates (WASDE), Agricultural Resources Management Survey (ARMS), and various external sources.

September Updates:

- Both measures of farm income are forecast to continue increasing in 2021 compared to 2020. Net cash farm income is forecast to increase to 134.7 billion dollars, or up 21.5% relative to 2020, and net farm income is forecast at 113 billion dollars, up 18.5 billion dollars or 19.5%.
- The increase in net farm income is mainly driven by increased cash receipts from commodity sales, up 64.3 billion dollars or 18%. This is the first increase in total cash receipts since 2017.
- The decline in direct government payments is somewhat moderating income growth, down 18 billion dollars or 39% from last year.
- Federal commodity insurance indemnities are forecast to increase almost 3 billion dollars.
- Total production expenses are forecast to increase 26 million dollars or 7%, another factor moderating growth in net cash income.
- Balance sheet: Farm sector assets and equity are both forecast to increase slightly while debt is forecast to decline slightly in 2021.
- Average net cash income for farm businesses is forecast to increase to about 93,700 or 12% from last year.
- For households that operate a farm, median household farm income is forecast to decrease a half a percent to slightly under \$80,000 in 2021.



- Higher prices contribute most to the growth in crop cash receipts. For livestock, both higher prices and higher quantities sold contribute similar amounts to the total increase in livestock cash receipts.
- After declining in 2020, corn cash receipts are forecast to increase by 38% and soybean cash receipts are forecast to increase by 39%.
- After declining in 2020, cash receipts for cattle calves, broilers, and hogs are all expected to increase in 2021.
- The 2020 values are now estimates, and state level farm income estimates for 2020 are available for the first time. Ohio net farm income for 2020 was estimated at 2.7 billion dollars, while the US net farm income was estimated at 94.5 million dollars.
- Ohio net cash income and net farm income usually follow the national trend. The bullish outlook of commodity prices for corn, soybeans, and livestock suggests that Ohio farmers are likely to receive higher cash receipts this year.
- 2. Commodities outlook: What are the projections for acreage, price, and yield of major field crops for the 2021-2022 marketing year? What factors affect commodity prices this year?
- Corn: The 2021/22 U.S. corn outlook for September is for larger supplies, increased feed and residual use, greater exports, and higher ending stocks.
 - Area: planted acres (90.8 to 93.3 million acres, up 0.6 million from the August report), harvested acres (82.5 to 85.1 million acres, up 0.6 from the August report)
 - Yield: 172.0 bu/acres to 176.3 bu/acres (up 1.7 from August forecast)
 - Price: \$4.45/bu to \$5.45/bu (down 30 cents from August forecast)
- Soybeans: U.S. soybean supply and use changes for 2021/22 include higher beginning stocks, production, exports, ending stocks, and lower crush.
 - Area: planted acres (83.1 to 87.2 million acres, down 0.4 m from August report), harvested acres (82.3 to 86.4 million acres, down 0.3 from August report)
 - Yield: 50.2 bu/acres to 50.6 bu/acres (up 0.6 from August forecast)
 - Price: \$10.90/bu to \$12.90 (down 80 cents from August forecast).
- Wheat: The outlook for 2021/22 U.S. wheat this month is for reduced supplies, slightly higher domestic use, unchanged exports, and decreased ending stocks.
 - Area: planted acres (44.3 to 46.7 million acres), harvested acres (36.7 to 38.1 million acres)
 - Yield: 49.7bu/acres to 44.5 bu/acre
 - Price: \$5.05/bu to \$6.60/bu, revised down 10 cents from August forecasts
- Cotton: Increased US production at 18.5 million bales, higher price (66.5 to 84 cents per pound)
- Export demand from China is mainly driving the prices of corn and soybeans in the short term.
- 3. Long-term outlook, Baselines: What is the long-term outlook of acreage, yield, and price of the major field crops?
- The 10-year outlook published in the USDA baseline reports shows that the prices of corn, soybeans, and wheat are expected to remain stable until 2030.
- Corn yield is expected to grow steadily reaching 200 bushels/acre in 2030. Modest increases in soybean and wheat yields over the decade are expected.
- Corn and soybean planted acres are expected to remain above 80 million acres throughout the decade, while wheat is expected to remain stable at over 40 million acres.
- In the absence on any structural changes in demand and supply conditions, prices are not expected to rise above a long-run average.
- 4. Long-term outlook, Baselines: What are the sources of long-term baseline projections for the US farm sector? How accurate are these projections? How are they used by farmers and policymakers?



- The principal source of long-run information about the US farm sector is the USDA baseline report published in February of each year.
- The baseline report contains projections that describe several important aspects influencing agricultural markets in the next 10 years, such as projections of commodity prices, production, global agricultural trade, and aggregate indicators such as farm income.
- FAPRI, OECD, and CBO also produce baseline projections similar to those produced by USDA.
- Accuracy: The assumptions of baseline models include normal weather and no domestic or external shocks that would affect global agricultural supply and demand, as well as defined macroeconomic conditions, trade policies, and productivity growth rates. Baselines are not designed to predict shocks to the economy. In our recent study, we investigate how long these baselines stay informative and find that the predictive content diminishes after 4-5 years.
- The baselines provide a neutral conditional scenario against which alternative policies can be evaluated, and they have been widely used in formulating policy. For example, the commodity projections in the USDA baseline serve as an important input to estimate farm program costs while preparing the President's budget.
- Global projections in the baseline help in analyzing the relationship between US agricultural trade and the economies of other countries.
- This year's baselines are very important in the context of recovery from the ongoing pandemic and the trade wars during the previous two years as policymakers weigh their policy options.

5. Long-term outlook, Baselines: What is the long-term outlook of farm income for the next decade?

- After 2021, crop receipts and livestock receipts show steady growth throughout the decade until 2030, but cash expenses increase too, keeping the growth in net cash income modest.
- 6. Farm financial stress, delinquency rate: What do the current and the past delinquency rates tell us about the financial stability of farmers in U.S. and Ohio? How have the pandemic affected the delinquency rates?
- Farm debt at commercial banks continued to decrease in the second quarter.
- The quick recovery in farm finances from weakness in recent years has contributed to reduced levels of debt at commercial banks and is likely to continue supporting improvements in agricultural loan performance.
- Agricultural loans balances decreased by 5% from the previous year (\$182B in 2020 to \172B in 2021).
- Large decline in production loans (\$78.1B to \$69.7B, down 10.6%) compared to real estate loans (\$104.4B down to \$102B, down 1.5%) from the previous year.
- As of the second quarter, farm real estate debt remained about 8% above the average of the past decade while non-real estate debt was about 13% less than the average over the same period.
- Delinquency rates on both real estate and non-real estate farm loans were about 80 and 70 basis points less than a year ago, respectively.
- Delinquency rates remained slightly lower at agricultural banks than other lenders.
- Delinquency rates are slightly below 2% nationally this is interpreted as 2% of the value of all agricultural loans in commercial banks are 30 days or more delinquent (past four quarter average). Around 2010, the delinquency rates were about 4% and as recently as 2014, they were as low as 1%. The current delinquency rates are lower than the average delinquency rates over the past decade.
- Ohio delinquency rates are well below the national average over the past four quarters (2020 Q3 to 2021 Q2, for US, the delinquency rate was 1.92% for \$173.3B agricultural loans, and for Ohio, it was 1.49% for \$3.65B agricultural loans). Ohio has followed national trends as of late with slow and steady increases in the delinquency rate since around 2014.
- Interest rates have remained at historic lows.
- 7. Farm financial stress, bankruptcy rate: What is the current rate of chapter 12 bankruptcies in the U.S. and Ohio? How are these bankruptcy rates compared to historical rates?
- Despite the impact of pandemic, higher commodity prices and well-timed government support have

kept Chapter 12 bankruptcy rates relatively low.

- Chapter 12 of the Bankruptcy Code allows restructuring of farm finances of a "family farmer," or a "family fisherman", and helps them avoid liquidation or foreclosure.
- There were 441 chapter 12 bankruptcy filings from 2020 Q3 to 2021 Q2 in the US, down 25% from 591 in the same period last year.
- There were 8 Chapter 12 bankruptcy filings in Ohio from 2020 Q3 to 2021 Q2, which is lower than 11 in the previous 12 month period. Two filings were made in 2021 Q2.
- Ohio has consistently had about half the national average of bankruptcy filings per farmer. Ohio bankruptcy rate remained lower (1.02 per 10,000 family farms) than the national average (2.11 per 10,000 family farms)
- Some areas in the US have higher rates than others. Wisconsin, Minnesota, and Kansas led the nation in Chapter 12 filings, though there were fewer filings in each of these states than there were in the previous year.
- For historical context, current bankruptcy rates are nowhere near historical levels with well over 20 bankruptcies per 10,000 farmers in the 1980s). We are also not near recent highs in 2010 of about 3.4 bankruptcies filed per 10,000 farms and the pre-1999 rates were consistently above this rate.

