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## Interpreting USDA's Recent Farm Income Forecast

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On August 30, 2017, the USDA released the most recent forecast of 2017 net farm income. The updated projection of \$63.4 billion is \$1.1 billion (1.8 percent) higher than the initial forecast released in February. The USDA also released the official estimate for 2016 net farm income at \$61.5 billion. The August forecast therefore suggests that 2017 net farm income is expected to exceed 2016 estimates by 3.1 percent, \$1.9 billion, reversing three years of net farm income decline. This post compares the recent net farm income release to USDA net farm income forecasts and estimates since 1975.

### Net Farm Income

**Net farm income** is the official U.S. Government estimate of farming's contribution to the national economy. The USDA defines net farm income as "the residual income leftover after all the factors of production are paid. It represents the returns for operator labor, management, and equity, as well as any other unpaid resources used for farm production instead of elsewhere." For more information on USDA's net farm income forecasts, see the recent *farmdoc daily* article from [August 25, 2017](#).

The increase in net farm income forecasts may come as a surprise for many observers in the Corn Belt, as the region continues to experience lower crop prices, yet the increase between the February and August projections is driven, in large part, by changing expectations in the livestock sector. For example, forecasts for 2017 cash receipts in animals and animal products increased 8.4 percent, while the forecast for crop cash receipts increase a mere 0.3 percent.

The improved outlook for 2017 is not unique. Between 1975 and 2016, the August forecast revision came in higher than the February forecast 60 percent of the time. The 1.8 percent improvement, however, was moderate by historical standards. Between 1975 and 2016, the August forecast exceeded the February forecast by 6.8 percent on average.

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## August Forecast History

The *farmdoc daily* article of [August 25, 2017](#) showed that the August forecast tends to under-predict the final net farm income estimate. Figure 1 plots the USDA's August net farm income forecasts from 1975 – 2016, along with the official estimates and their associated errors. The figure shows that the USDA's August forecast is as likely to under-predict or over-predict net farm income, with both occurring 50 percent of the time. However, many of the largest errors, in absolute terms, are associated with under-prediction, such as the August forecasts in 1987 and 2005.

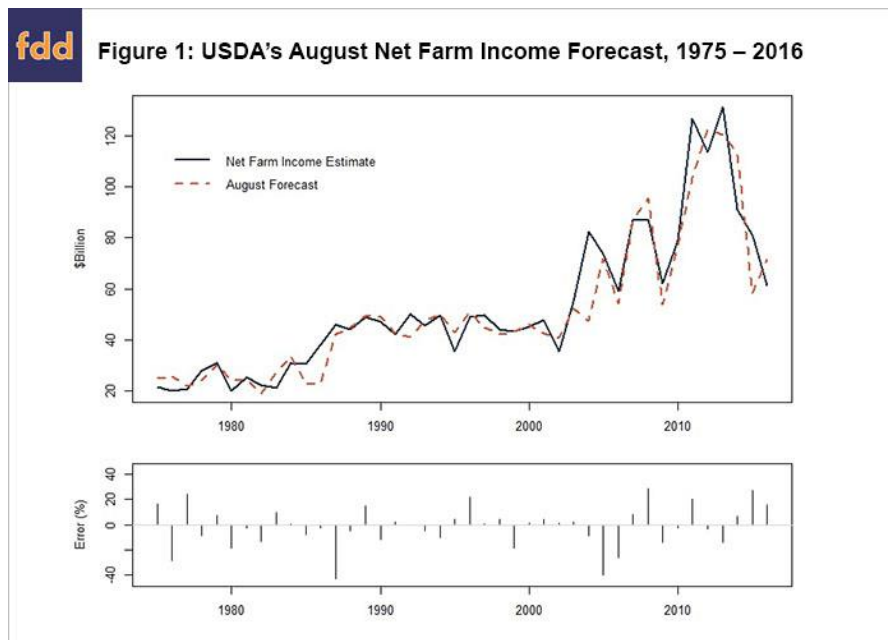
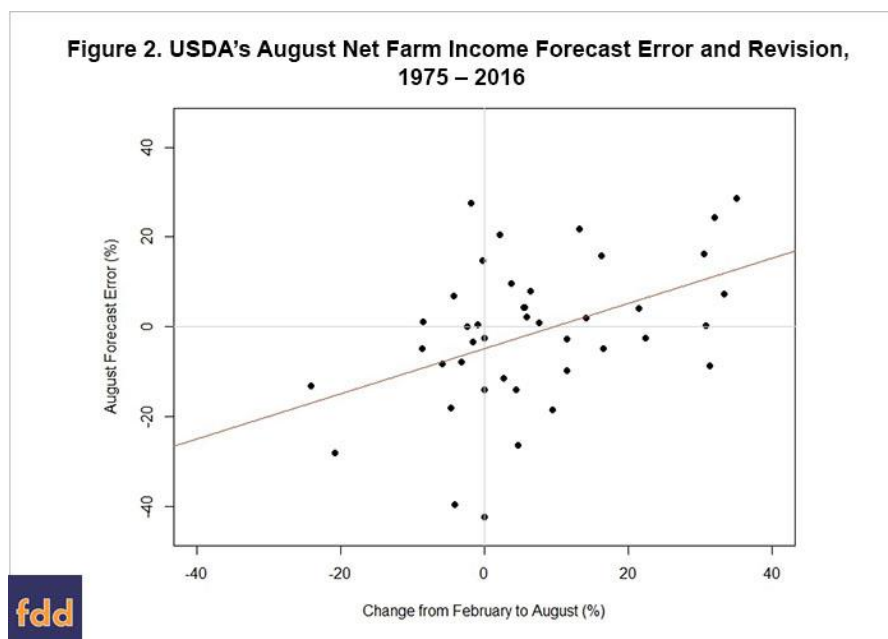


Figure 2 shows that the August forecast errors are positively correlated with the percentage change between the initial February forecast and the August revision (approximately 44%). In other words, in years when the USDA forecast improves between February and August, the August forecast tends to over-predict realized net farm income estimates. Similarly, when the USDA projections fall between February and August, the August forecast tends to under-predict net farm income. The change in expectations between February and August are informative of the accuracy of the August forecast, and the August revision tends to be a bit too extreme. Thus, the 1.8 percent improvement in 2017 net farm income forecasts between February and August suggests that realized 2017 net income is likely to be below the current projection.



This pattern can also be observed for 2016 net farm income. The USDA's official estimate of 2016 net farm income, also released on August 30, was \$61.5 billion. The USDA initially forecast net farm income at \$54.8 billion in February of 2016. In August 2016, the USDA raised their projection to \$71.5 billion, a 30.5 percent increase between February and August. The initial forecast was 10.9 percent below realized net farm income, yet the August forecast revision was 16.3 percent above the eventual official estimates.

## Conclusion

The most recent USDA net farm income forecast suggest that 2017 is expected to exceed official estimates of the previous year for the first time in three years. The history of the USDA's net farm income forecast, however, suggests that current growth projections are likely to moderate throughout the remainder of the forecast period.

## References

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