



## IFES 2021: Supply Bottlenecks and Management Decisions

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*This is a presentation summary from the 2021 virtual Illinois Farm Economics Summit (IFES). A video of the webinar and PowerPoint Slides (PDF) are available [here](#).*

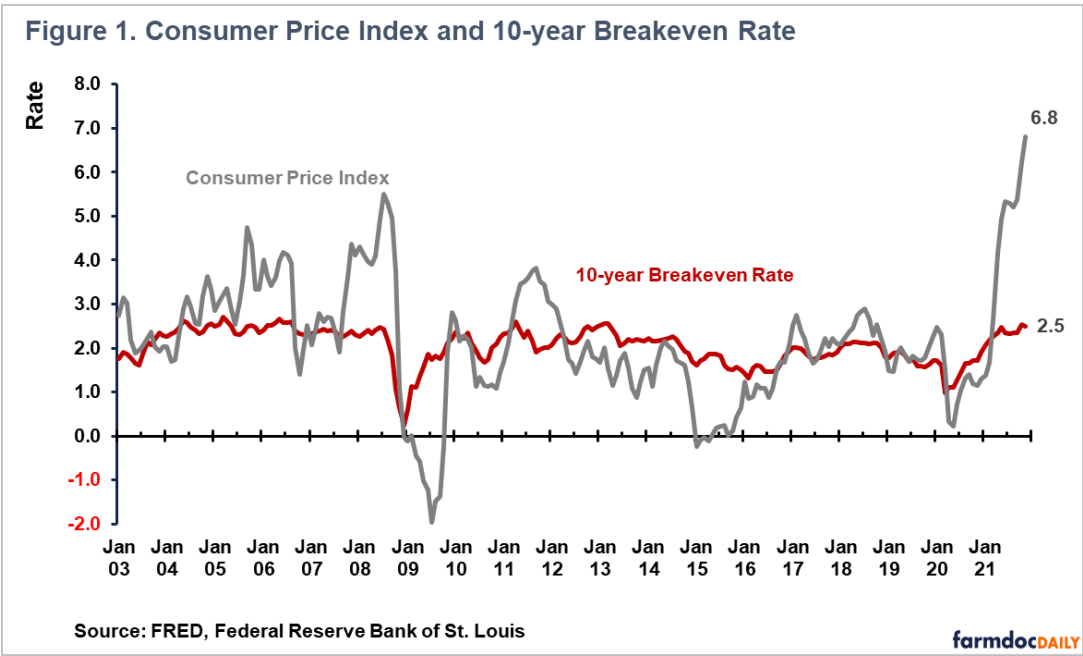
Since the height of negative economic impacts of the pandemic in 2020, broad economic indicators suggest that the U.S. economy has recovered and shown signs of healthy growth in 2021. U.S. gross domestic product (GDP) has returned to pre-pandemic trend levels, and the unemployment rate has declined back below 5% - higher than the years leading into the pandemic but at what would be a low level by historic standards.

However, economic headwinds remain. While the unemployment rate has declined, the size of the labor force has still not returned to pre-pandemic levels. The pandemic likely led to older Americans choosing to leave the workforce earlier than otherwise, and younger Americans have been more hesitant to enter or return to work. Demographics of the U.S. population suggest that labor will continue to be in relatively short supply with exiting workers exceeding those replacing them for the foreseeable future.

At well over 6% at the end of 2021, inflation has increased to levels not experienced for over four decades. While market indicators suggest inflation is expected to return to lower levels, averaging 2.5% over the next decade (see Figure 1), a key question is when and how quickly growth in the costs of goods and services will decline and, more importantly, whether wage growth can keep pace with inflation.

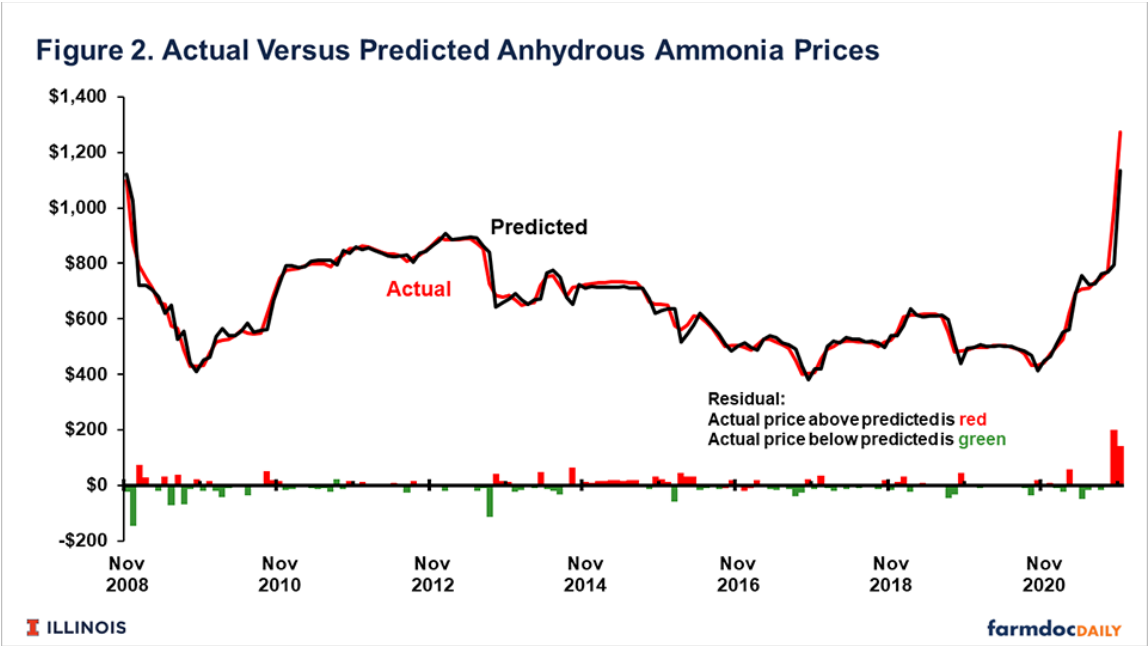
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Much like the general economy, farmers in the Midwest are experiencing higher farm incomes over the past 2 years but also facing higher costs of production. For 2021, farmers enrolled in the Illinois Farm Business Farm Management Association (FBFM) are projected to experience record farm income levels thanks to higher commodity prices and the lingering effects of pandemic-related government payments. Despite quickly rising input costs, return projections for 2022 are positive with commodity prices at current levels. However, even moderate price declines could result in negative returns for next year.

While input costs are up across all major categories, nitrogen fertilizers have received the most attention as costs have reached record levels at the end of 2021. While a simple pricing model for anhydrous ammonia suggests a significant risk premium is currently built into prices (see Figure 2), it is unclear whether that premium will decline by the 2022 planting season. Producers are encouraged to consider a range of strategies for their 2022 crop fertility plans.



In general, producers are advised to reduce nitrogen fertilizer rates to recognize the increased cost. For example, the Maximum Return to Nitrogen (MRTN) application rate at current prices would be around 20 lbs. of nitrogen per acre less than at lower historical prices. Producers are also advised to consider split

application strategies so that overall application rates can be more flexibly adjusted to changes in prices between now and planting season.

## References

Schnitkey, G. and N. Paulson. 2021. Supply Bottlenecks and Management Decisions. 2021 Illinois Farm Economics Summit. December 3rd, 2021.

[https://farmdoc.illinois.edu/assets/presentation/IFES\\_2021/2021-12-03-Supply-Issues-Handout.pdf](https://farmdoc.illinois.edu/assets/presentation/IFES_2021/2021-12-03-Supply-Issues-Handout.pdf)

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