AGRICULTURAL FINANCE

Farmland and Inflation at a Crossroads

July 8, 2021

Executive Summary

A sharp turnaround in economic conditions along with pent up consumer demand has led to a recent uptick in headline inflation. U.S. farmland values have historically moved relatively in tandem with inflation rates, which has prompted speculation that farmland values may soon move along a similar upward trajectory. However, the relationship between farmland values and inflation is complex, and several related factors can exert material influences on how farm values ultimately trend. Ultimately, the outlook for agriculture remains positive and we expect farmland values to strengthen in the near future.

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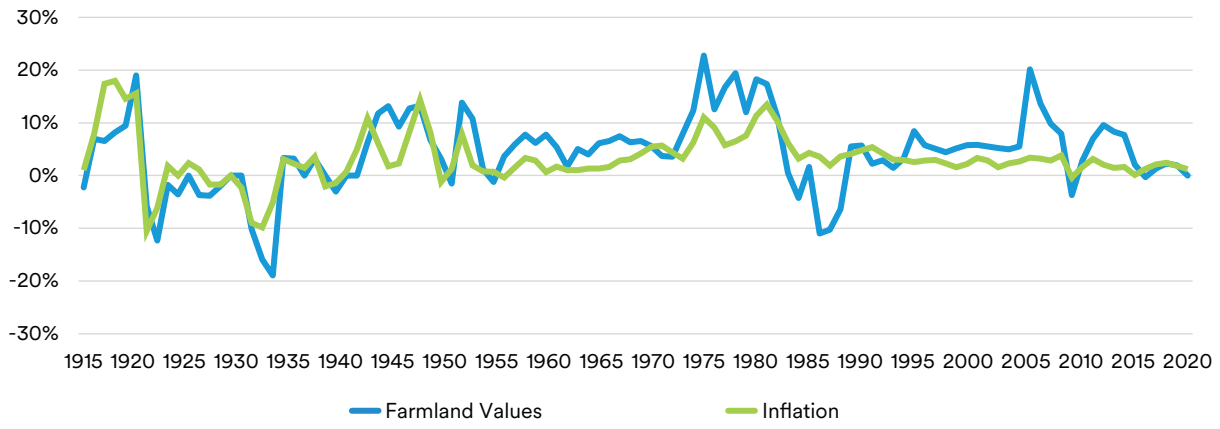
Inflation and Farmland Values

A confluence of easy monetary policy and increased government spending to address the effects of the COVID pandemic have helped fuel a rise in inflation in the first half of 2021. Indeed, consumers are paying higher prices for a wide basket of goods as the U.S. Consumer Price Index increased 5 percent year-over-year in May.[1] Agricultural commodity prices have also risen with annual crop prices reaching their highest levels in eight years in May while the price of lumber increased 326% year-over-year.[2] Commodity prices have declined in recent weeks but concerns about rising inflation remain.

The prospect of higher inflation is boosting demand for real assets like farmland. Among the major asset classes, farmland has historically exhibited one of the strongest positive relationships with inflation (Figure 1). This is partially attributable to agricultural commodities influencing consumer prices. For example, an increase in commodity prices can simultaneously lift farmland values and the retail prices for goods derived from agricultural commodities. The strength of the relationship has varied through time as farmland values are driven by numerous factors beyond commodity prices. However, we expect the link between commodity prices, farmland values and inflation will hold in the coming years.

Figure 1 | Farmland Values vs. Consumer Price Index
(year-over-year change)



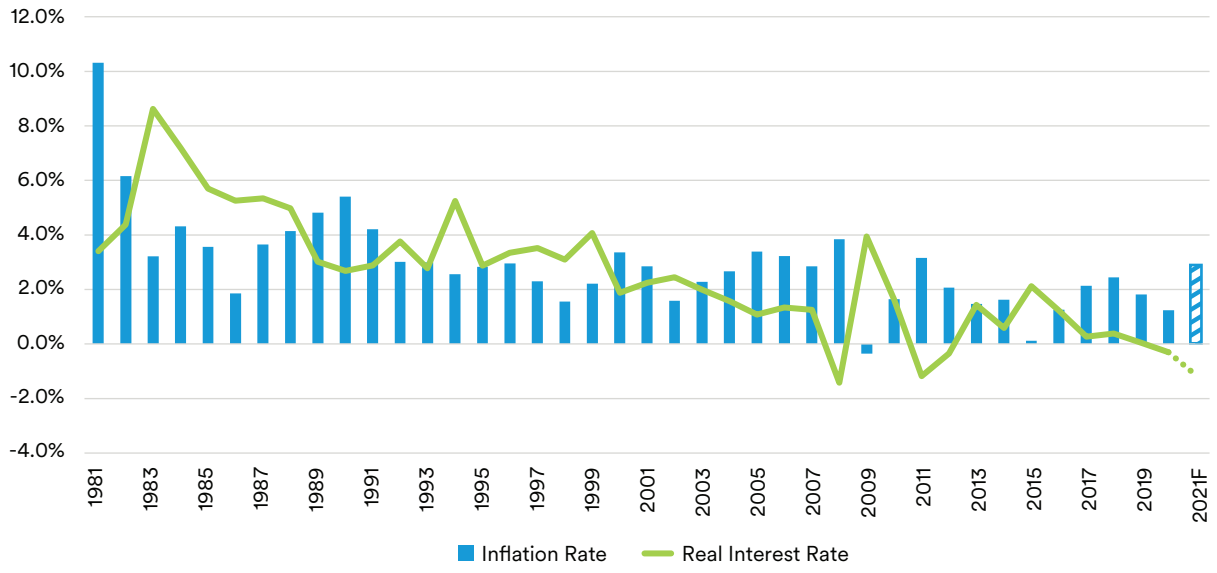
Source: USDA, Bureau of Labor Statistics, MIM

The Intersection of Inflation and Interest Rates

Interest rates have historically played a role in the complex relationship between inflation and farmland values. Interest rates dropped to historic lows over the past year, providing support for the value of assets. Progress on the vaccine roll-out and the prospect for accelerated growth in the U.S. economy could cause interest rates to increase further throughout the year. However, rising interest rates are not necessarily a direct headwind for farmland values.

Higher interest rates are presumed to weigh on the value of long-duration assets, such as farmland. This is commonly attributed to higher interest rates leading to increased borrowing costs. However, the historical relationship between interest rates and farmland values is relatively insignificant. Instead, nominal interest rates can be separated into two components that each exhibit a strong relationship with farmland: inflation and real interest rates. In our analysis, we calculate the real interest rate by subtracting the rate of inflation from the 10-yr constant maturity UST rate (Figure 2).

Figure 2 | Real Interest Rates & Inflation
(real interest rate: 10-yr U.S. Treasury minus inflation rate)



Source: Federal Reserve Board, Bureau of Labor Statistics, MIM

Farmland values have historically exhibited a strong positive relationship with inflation and an inversely strong negative relationship with real interest rates. The strong positive relationship between farmland values and inflation is supported by several factors, including that input and output commodities in agricultural production are components of inflation. That is, if rising inflation is attributable to higher commodity prices, farmer revenues may also increase and partially offset the impact of higher interest rates. Conversely, an increase in real interest rates indicates nominal interest rates are rising faster than inflation. This corresponds to higher borrowing costs without a parallel increase in revenues and puts downward pressure on farmland values.

A decline in real interest rates over the last 40 years has provided support for farmland and other asset values. Real interest rates reflect numerous macroeconomic factors such as globalization and demographics. In addition, the long-term decline has also resulted from a long-term increase in the global savings rate. Real interest rates have declined as global savings rates have trended upwards and capital has become increasingly more available to lend out. Real interest rates declined into negative territory last year for the third time since 2000 and they are currently projected to be negative again in 2021.[3]

The growth in farmland values is likely to continue in the coming years but will vary based on inflation and interest rates. After a sharp increase in the early 2010s, the average value of U.S. farmland remained relatively stable between 2014 and 2019. However, farmland values began to surge in the fourth quarter of 2020, aided by rising commodity prices and low interest rates. The average value of Midwest cropland increased 7% yoy in the first quarter of 2021 and the momentum may continue . Farmland values are ultimately determined by numerous factors, but the Federal Reserve's projection for inflation and interest rates currently represent a tailwind.

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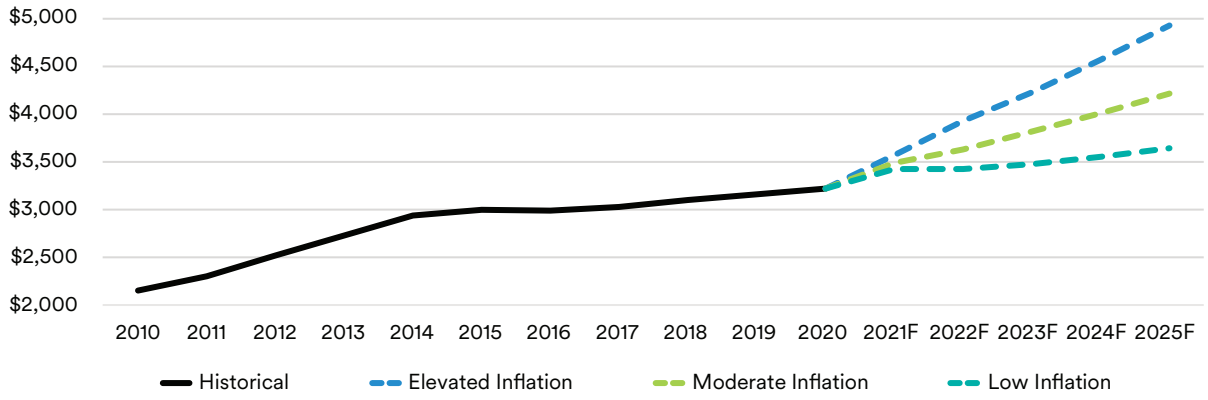
Should inflation and interest rates deviate from current projections, the average value of U.S. farmland in 2025 could increase modestly to $3,650 or as high as $4,950 if inflation remained elevated (Figure 3). The Federal Reserve expects the rise in inflation this year will be transitory and will decline to its target of 2% by 2023. If its forecast is realized, interest rates would likely need to approach levels last seen in the 1990s before farmland values fell below the 2020 average.

Figure 3 | U.S. Cropland
($/acre)



Source: USDA, Moody's Analytics, MIM

Conclusion

Although largely expected, a recent jump in the consumer price index has reinforced beliefs that inflation may remain elevated. Whether higher inflation persists, though, likely depends on the mechanics of how it develops. Consumer demand has surged but might lose momentum without a broader recovery in the labor market. Conversely, rising production costs could cause companies to raise retail prices for goods and services. As an income generating real asset, we expect farmland remains well positioned should persistent inflation develop under either scenario.

Just as commodity prices have increased this past year, so has the price of seed, chemical, and fertilizer. Forward contracting the price of both inputs and outputs can help producers preserve margins, perhaps at greater total profits given the surge in commodity prices. Similarly, historically low interest rates represent a tailwind for farmland owners. Farmland financed using long-term fixed rate loans would benefit from a period of elevated inflation as the value of future dollars declines.

Endnotes

[1] Annualized inflation rate using monthly data, U.S. Bureau of Labor Statistics, data accessed June 2021.
[2] Southern Yellow Pine 2x4 price series, Forest Economic Advisors, accessed June 2021.
[3] Inflation and interest rate scenarios, Moody's Analytics Data Buffet, accessed June 21, 2021.
[4] Regional Improvements in Farm Credit Conditions, Federal Reserve Bank of Kansas City, May 27, 2021.

Authors

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