

Ohio Land Values and Cash Rents Analysis

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Highlights

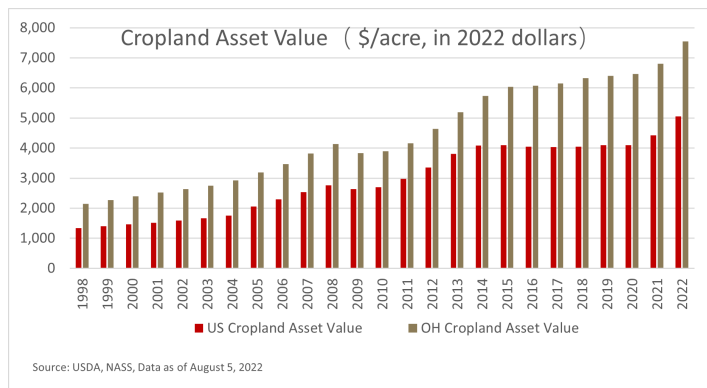
- Ohio and the US experienced increases in real land values and cash rents in 2022 that surpassed levels last seen in 1998. Despite increasing land values and cash rents, the rate of return on both Ohio and US cropland has decreased.
- Interest rates have generally trended downwards, reaching a low point in 2020 before rebounding in 2022. Using the 10-year Constant Maturity Treasury (CMT) rate, the capitalized land values in Ohio were lower than market land values in 2022.

INTRODUCTION

According to the 2017 Census of Agriculture conducted by the USDA, approximately 39% of the 911 million acres of cropland in the contiguous 48 states was rented. Both nationwide and in Ohio, cropland values increased in 2022 compared to the previous year, which likely contributed to a marginal increase in the cash rents paid by farmers.

region, it still represents the largest increase in Ohio cropland values since 2012-2013. Ohio’s cropland value reached its highest level at \$7550, which is \$2500 above the national average and ranks Ohio as No. 11 among all states in terms of highest cropland values.

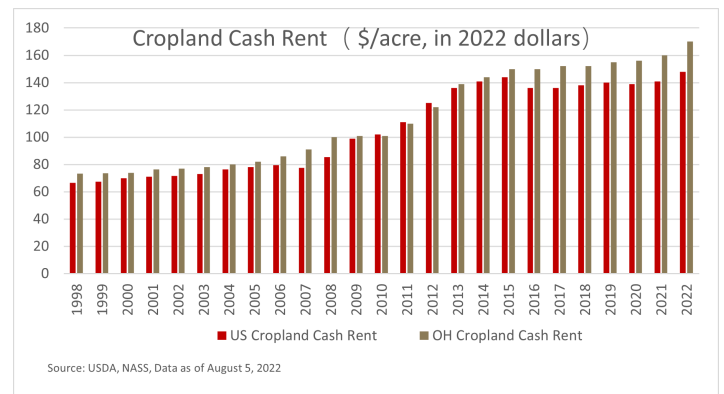
LAND VALUES



The average value of cropland in the US, including both irrigated and non-irrigated land, has reached its highest level since 1998. Between 1998 and 2022, the value of cropland in the US has tripled, reaching \$5,050 per acre, a 14.3% increase from 2021. Also, the largest increase in cropland values since 1998 occurred in 2022. Despite the financial crisis in 2008 and the agricultural downturn in 2015-2016, the value of cropland has remained relatively stable, with only a slight decrease in 2009.

CASH RENTS

The USDA’s National Agricultural Statistics Service (NASS) released updated statistics on real cash rents for cropland in 2022, with the national average being \$148 per acre in 2022 dollars. The average cost to rent cropland in the US in 2022 was \$7 per acre higher than in 2021. Ohio cropland cash rent increased from \$160 to \$170, reaching its highest level since 1998, after adjusting for inflation.



LAND’S EARNING TRENDS

Historically, cropland has been a profitable investment, offering higher returns compared to other assets. One way to evaluate the value of land investment is to divide the net operating income from the land by its current market value (Schulz, L., 2022). This can be simplified by replacing net operating income with cash rent. Cash rent can be consid-

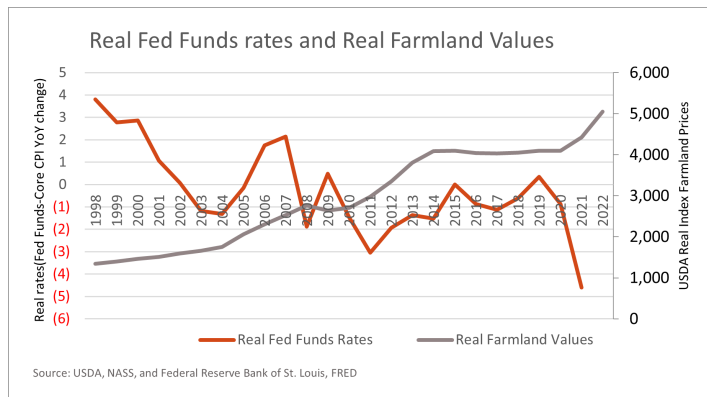
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ered as the dollar return a non-farming landowner expects to receive when leasing out their land to a tenant. This calculation helps to determine the return on investment for cropland. This calculation for the rate of return equals cash rents divided by the cropland value.

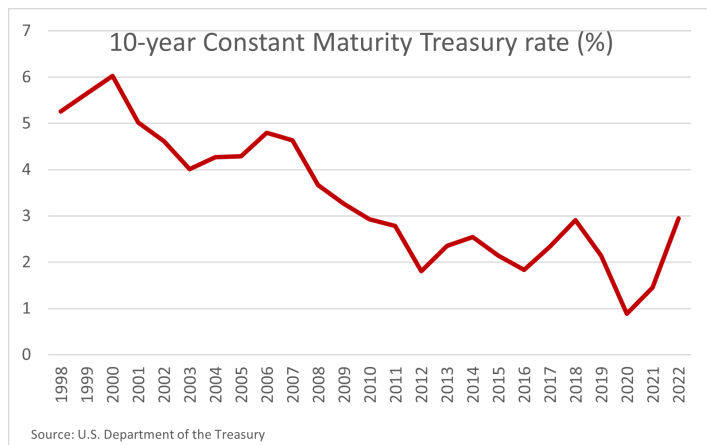
Based on this calculation, Ohio's rates of return on cropland have fluctuated between 2.25% and 3.4% since 1998, reaching their lowest point in 2022. Furthermore, Ohio's cropland has had a lower rate of return compared to the national average. Both Ohio and the US have seen decreasing rates of return on cropland.

RECENT INTEREST RATES CHANGES

Several factors can impact the value of cropland, including interest rates and inflation, among others. Over the past decade, real interest rates in the US have mostly been negative. As a result, cropland values experienced a slow increase starting in 1998. However, it was not until 2002, when the Federal Reserve lowered real interest rates close to zero, that cropland values experienced a significant increase.



Interest rates are closely related to the 10-year constant maturity Treasury (CMT) rates, which is an index published by the Federal Reserve board. The 10-year CMT rates have followed a general downward trend in recent history, reaching lows of 0.9% in 2020 and 1.4% in 2021, but rebounding to 2.9% in 2022.



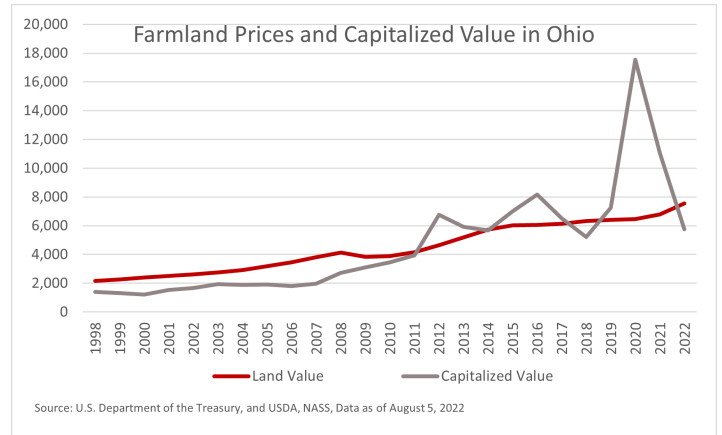
CAPITALIZED VALUES

Capitalized values provide an estimation of the intrinsic worth of cropland (Schnitkey, Paulson, and Zulauf, 2023). A

common method to determine the capitalized value is to divide the cash rent by the 10-year Constant Maturity Treasury (CMT).

Cropland values and capitalized values are influenced by declining interest rates. When interest rates drop, the capitalized value of cropland often exceeds the actual market value of the land. This was the case from 2011 to 2017 and again in 2020 and 2021 due to the low 10-year CMT rate.

Capitalized values in Ohio were lower than cropland values in 2018 and 2022, due to the increase in the 10-year CMT rate. However, the capitalization calculation does not indicate that the cropland market is overvalued or at risk of a substantial decline in the near future.



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