

# Convergence of Financial Performance

By Michael Langemeier

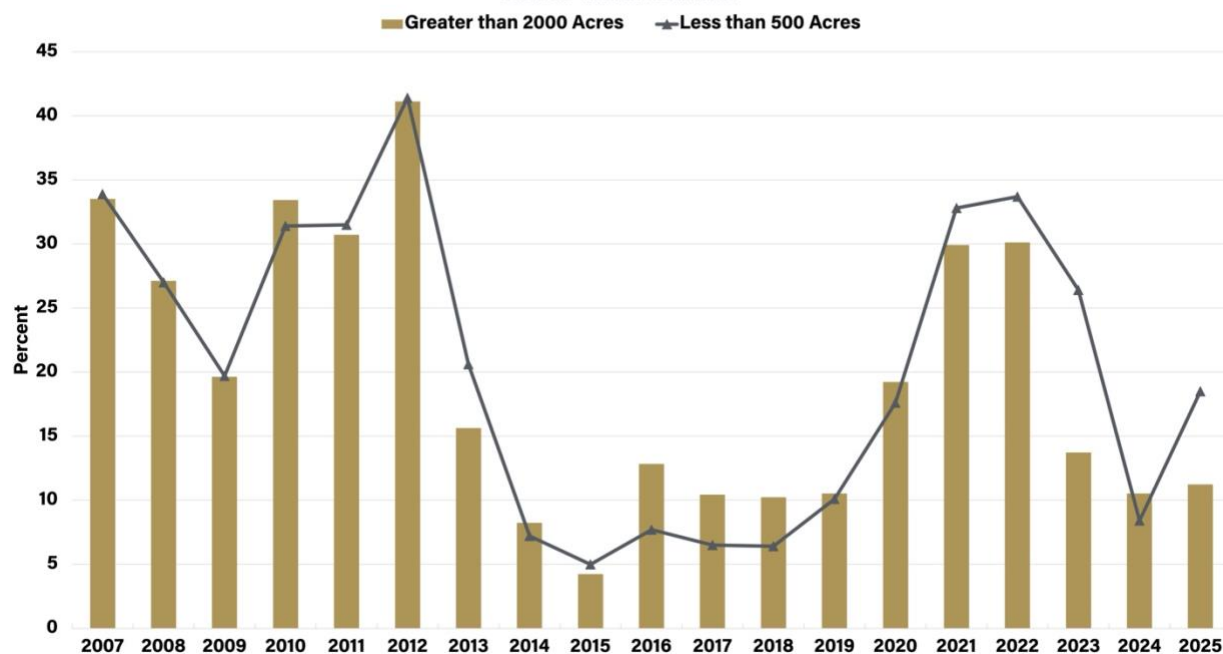
A recent article examined differences in liquidity and repayment capacity for different sized crop farms (Langemeier, 2026). This article examines trends in the operating profit margins, asset turnover ratios, and changes in net worth for crop farms using FINBIN data from 2007 to 2025. Crop farms are broken down into four farm size categories: less than 500 crop acres, 500 to 1000 crop acres, 1000 to 2000 crop acres, and greater than 2000 crop acres. Comparisons will focus on farms with less than 500 crop acres and farms with more than 2000 crop acres.

## TRENDS IN THE OPERATING PROFIT MARGIN

The operating profit margin ratio is commonly used to measure a farm's financial performance. The operating profit margin is computed by adding interest expense and subtracting owner withdrawals (i.e., unpaid operator labor) from net farm income and dividing the result by value of farm production. An operating profit margin above 20% is considered strong while a ratio below 10% is considered weak.

**Figure 1. Operating Profit Margin Ratio**

Source: FINBIN Database

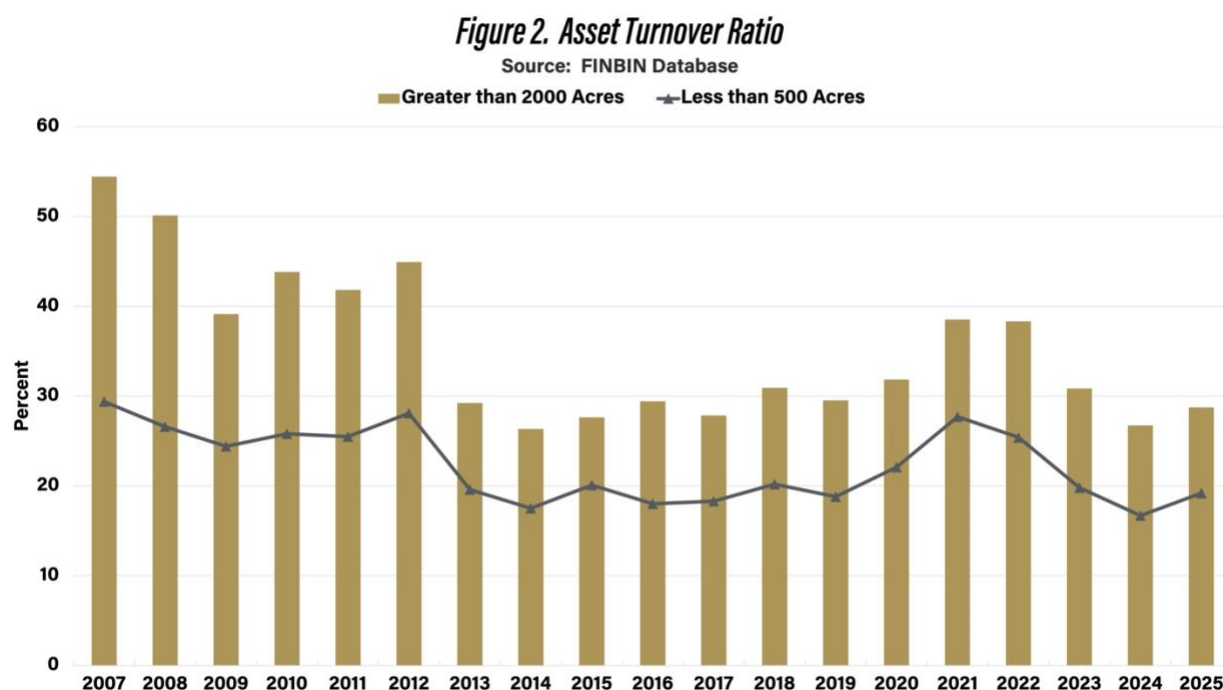


Average profit margin ratios for the 2007 to 2025 period for each farm size category were as follows: 20.3% for farms with less than 500 crop acres; 20.9% for farms with 500 to 1000 crop acres; 20.1% for farms with 1000 to 2000 crop acres; and 19.6% for farms with more than 2000 crop acres. Figure 1 illustrates the trend in the operating profit margin ratio for the smallest and largest farm size categories. The average difference in the profit margin ratio over the 2007 to

2025 period was 0.7% but was not significantly different from zero. The average profit margin ratio for the smaller farms was below 10% from 2014 to 2018 and in 2024. For the larger farms, the average profit margin ratio was below 10% in 2014 and 2015.

## **TRENDS IN THE ASSET TURNOVER RATIO**

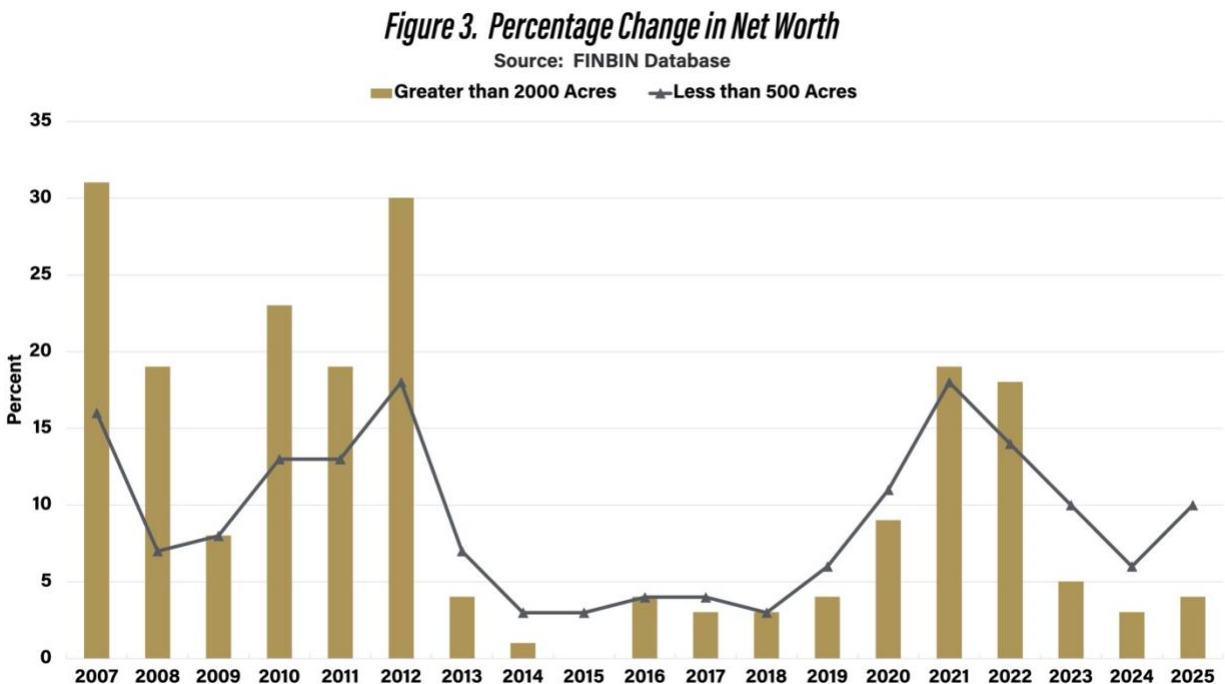
The asset turnover ratio, a financial efficiency ratio, is computed by dividing the value of farm production by average total assets. This ratio measures how well a farm uses its assets to generate revenue. Because asset needs vary by industry segment, it is important to always compare farms in the same industry segment. An asset turnover ratio above 35% is considered strong, while a ratio below 20% is considered weak.



Average asset turnover ratios for the 2007 to 2025 period for each farm size were as follows: 22.3% for farms with less than 500 crop acres; 26.4% for farms with 500 to 1000 crop acres; 30.1% for farms with 1000 to 2000 crop acres; and 35.2% for farms with more than 2000 crop acres. Trends in the asset turnover ratio for the smallest and largest farm size categories are presented in Figure 2. The average difference in the asset turnover ratio over the 2007 to 2025 period was 13.0%, which was significantly different from zero, with the larger farms having a higher average ratio. The average asset turnover ratio for the smaller farms ranged from 17.5% to 20.2% from 2013 to 2019, and from 16.7% to 19.8% from 2023 to 2025. The average asset turnover ratio for the larger farms did not fall below 20% during the period, and was above 35% from 2007 to 2012, and in 2021 and 2022. A simple linear trend of the difference between the asset turnover ratio between the two farm size groups was used to determine whether the difference in rates was converging or diverging. Results indicated that the difference in the average asset turnover ratio between the two farm size groups converged or became smaller over time.

## **TRENDS IN THE CHANGE IN NET WORTH**

As discussed in Langemeier (2025), there are three major changes that contribute to an increase or decrease in net worth: change in retained earnings, change in contributed capital, and change in market valuation. The change in retained earnings measures the amount of net income in a particular year that is kept in the business. The change in capital contributions accounts for gifts, debts forgiven, and capital contributions and distributions. The change in market valuation subtracts the change in deferred liabilities from the change in the market value of capital assets. Deferred liabilities represent an amount that is owed if an asset is sold. To compute the change in net worth, increases or decreases in net worth were divided by average net worth.



The average changes in net worth for the 2007 to 2025 period for each farm size category were as follows: 9.2% for farms with less than 500 crop acres; 9.0% for farms with 500 to 1000 crop acres; 9.4% for farms with 1000 to 2000 crop acres; and 10.9% for farms with more than 2000 crop acres. Figure 3 illustrates the trend in the change in net worth for the smallest and largest farm size categories. The average difference in the change in net worth over the 2007 to 2025 period was 1.7% but was not significantly different from zero. The change in net worth was more volatile for the larger farm group. For this group, the change in net worth was below 5% from 2013 to 2019, and in 2024 and 2025. For the smaller farm group, the change in net worth was below 5% from 2014 to 2018.

## SUMMARY

This article examines trends in operating profit margin ratios, asset turnover ratios, and the change in net worth for crop farms using FINBIN data from 2007 to 2025. Comparing the smallest and largest farm size categories, there was not a significant difference in the profit margins or the change in net worth. However, large farms tend to have higher asset turnover ratios indicating that these farms were better at utilizing their assets to generate revenue. Return on assets is computed by multiplying the profit margin by the asset turnover ratio, so

differences in return on assets between small and large farms is primarily due to lower financial efficiency rather than profit margins. Future articles will explore differences in labor and machinery benchmarks between farms.

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## ***CITATIONS***

Center for Farm Financial Management, University of Minnesota, FINBIN web site, accessed July 8, 2026. <https://finbin.umn.edu/>

Langemeier, M. “Decomposition of Changes in Net Worth.” Center for Commercial Agriculture, Purdue University, May 22, 2025.  
<https://ag.purdue.edu/commercialag/home/resource/2025/05/decomposition-of-changes-in-net-worth/>

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