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2025 REPORTS

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When in Doubt, Zoom Out

By Matt Clark and Matt Woolf, Ph.D.

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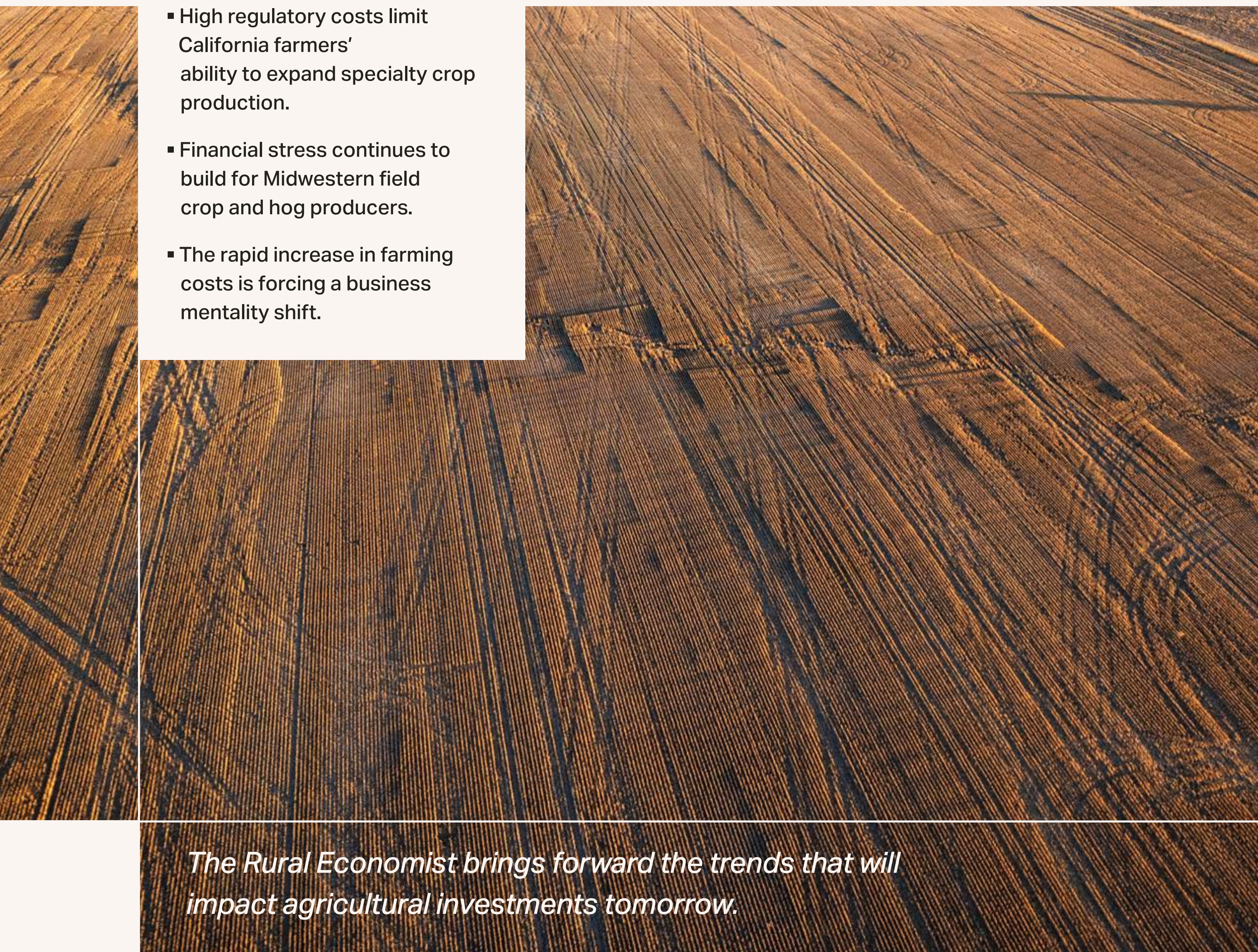
- High regulatory costs limit California farmers' ability to expand specialty crop production.
- Financial stress continues to build for Midwestern field crop and hog producers.
- The rapid increase in farming costs is forcing a business mentality shift.



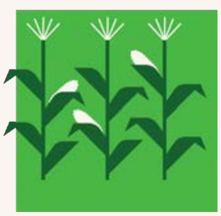
The Rural Economist brings forward the trends that will impact agricultural investments tomorrow.

April 2025 felt like a year's worth of work. Our time was consumed by tracking tariff announcements, the volatile movements of U.S. Treasuries, and their impacts on agriculture. While detailed research on these topics is crucial, it can sometimes create a narrow perspective of the state of the agricultural economy.

This Spring 2025 edition of the Rural Economist aims to embrace the philosophy of “when in doubt, zoom out.” There are three overarching themes that will persist in the background as agriculture navigates political developments.

THE IMPACT OF CALIFORNIA’S REGULATIONS ON SPECIALTY CROP PRODUCTION

The Trump administration and others are focused on reducing the U.S. trade deficit. However, a look at California, which accounts for more than 20% of U.S. agricultural exports, shows how efforts to rebalance trade are buffeted by rising regulatory and labor costs. **Read more on page 3**.



THE BUILDING STRESS ON FIELD CROP AND HOG PRODUCERS

Cattle producers are seeing a record-high ratio of prices received over input costs. Meanwhile, crop growers and hog producers are on the low end of the see-saw, with depressed market prices and rising costs. The future belongs to those who can best navigate these inverse extremes of the agricultural cycle. **Read more on page 4.**

THE CHANGING FUNDING STRUCTURE IN RURAL AMERICA

Just when farmers and ranchers may be more reliant on financing, agricultural bankers are reporting shrinking funds available for loans due to declining deposits and the rising cost of farming. **Read more on page 6**.

California's Regulations Play a Role in Agriculture's Export Gap

POINTS:

- Representing more than 20% of U.S. agricultural exports, California stands to benefit from efforts to narrow the trade gap.
- The rising cost of regulations and labor is a significant disincentive to investing in expanded production for export.

The net export gap has become a significant focus, with the most attention on the loss of U.S. manufacturing. However, the agricultural sector also became a net importer in 2022.

To narrow the agricultural export gap, California must be the central focus. It represents more than 20% of exports. However, high production costs, particularly due to regulations and labor, are likely to hinder this resurgence.

Water costs in California, especially in the Central Valley, have experienced significant volatility, with prices increasing from $266 per acre-foot in 2013 to $961 in 2022, and now down to roughly $400 due to heavier snowpack. Price volatility and environmental constraints are likely to drive future costs higher.

Labor costs also have surged, with minimum wage increases and a shrinking labor pool, making it harder for producers to attract workers despite higher wages. In California, the Adverse Effect Wage Rate for the H-2A visa program has nearly doubled over the last decade, rising to $19.97 per hour in 2025 for field crop and livestock workers.

Regulatory compliance is a significant cost increase that affects nearly every aspect of farm operations.

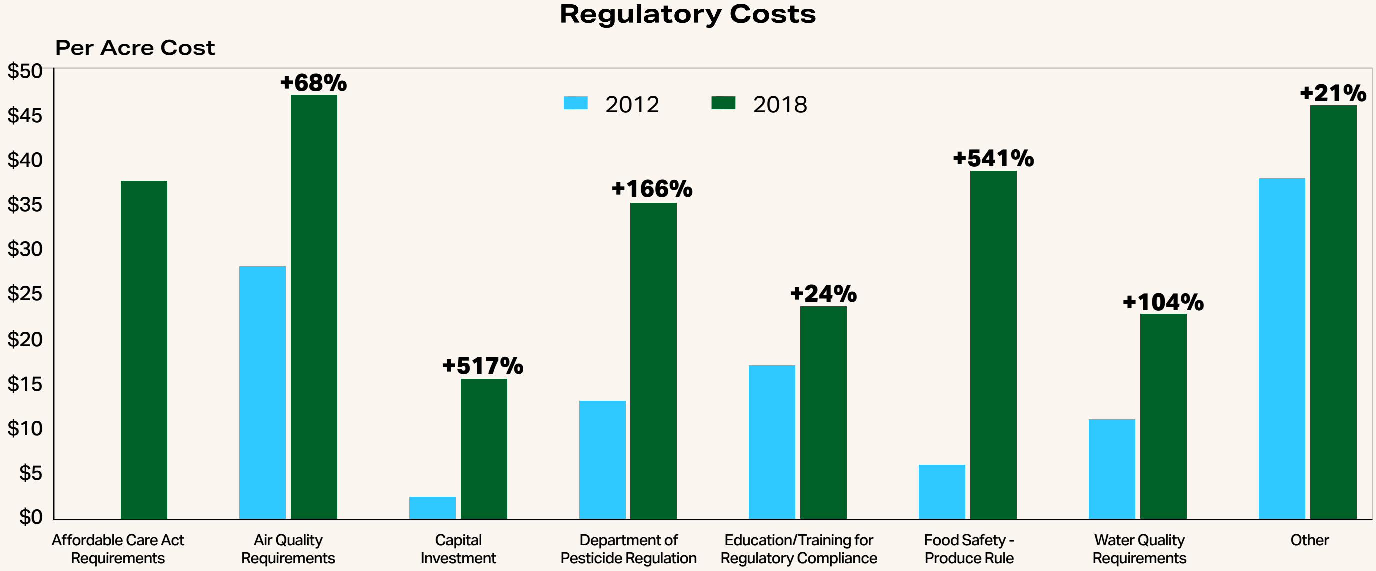
Regulatory compliance is a significant cost increase that affects nearly every aspect of farm operations. A study by McCullough and Hamilton (2021) sheds light on this issue by surveying 22 farms of various sizes in the Central Valley in 2012 and 2018 to assess changes in regulatory costs. Despite the small sample size, the study reveals a substantial increase in regulatory costs over the six-year period, with larger farms experiencing the most significant rise due to specific requirements for operations employing a certain number of workers. The following categories make up the highest percentage increases:

- Food safety
- Capital investments related to regulatory compliance (such as reporting software)
- Pesticide application costs

On a per-acre basis, regulatory costs have increased by $38 for the Affordable Care Act (costs were zero in 2012), $33 for food safety, $22 for the Department of Pesticide Regulation, $19 for air quality requirements, $13 for regulation-induced capital investments, $12 for water quality requirements, $7 for labor-related requirements, and $6 for regulatory-related education and training.

Importantly, the observed increase in regulatory costs by McCullough and Hamilton are nearly a decade old, suggesting that regulatory costs are likely much higher today for California farmers and ranchers – further straining their farm financial conditions. At the time of the 2018 survey, only a few farms had Sustainable Groundwater Management Act assessments, and new regulations like California's recent emissions reporting laws (the Climate Corporate Data Accountability Act (SB 253) and the Climate-Related Financial Risk Act (SB 261)) suggest there will be further increases in regulatory costs. As costs rise, specialty crop growers are concerned about their operations' viability.

Regulatory Costs Have Increased in Every Category



Notes: 1) Due to differences in commodities grown, operation sizes, and overall sample size (22 farms), averages should only be taken as rough indications of changes in costs,
2) For one medium sized grower, 2014 and 2019 data were used instead of 2012 and 2018 data.
Sources: Author's calculation using survey data from McCullough and Hamilton (2021), Terrain

Bottom line: The national political environment is clearly in favor of expanding domestic agricultural production, particularly in specialty crops, and in some cases, like fresh market tomatoes, limiting agricultural imports. This may benefit California agriculture; however, water, labor and regulatory compliance costs are expected to continue to increase for California farmers. Therefore, the ability for California farmers to be cost competitive enough to significantly expand their operations, limit imports and expand exports is very unlikely without a considerable reduction in their regulatory burdens. Investment opportunities in these sectors should weigh the regulatory cost heavily.

Ag Cycles in Opposite Ends of the Spectrum

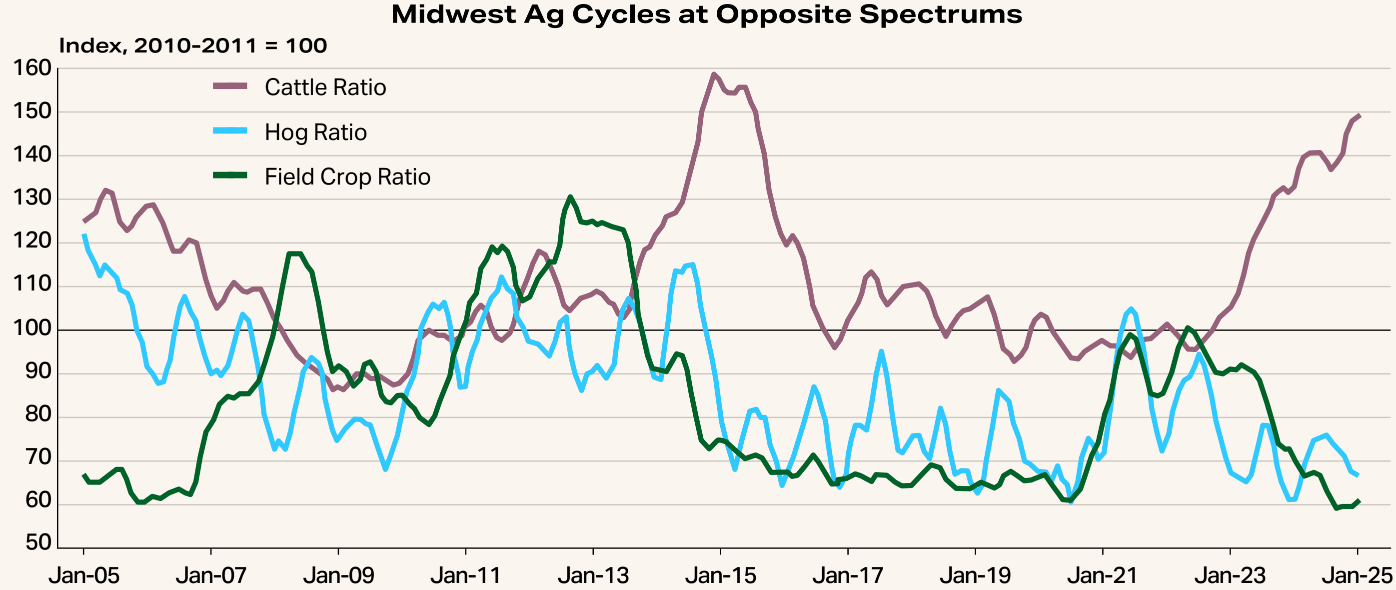
KEY POINTS:

- Cattle producers, on the upswing in profitability, have taken a conservative approach, so far, to herd expansion and other investment in their operations.
- Crop and hog producers, meanwhile, have faced a downswing, putting pressure on equipment sales, land values and, ultimately, Congress to shore up farm supports.

Most agricultural products are a "fungible commodity," meaning prices are driven by supply and demand for highly standardized products with a shelflife. These markets are also characterized by cycles that push the industry toward the lowest production costs. Often the highs and lows of the cycles can obscure our perception of the amount of risk, and potential return, in the market as sentiment and future outlooks can become overly bullish or bearish.

For example, the Midwest is currently experiencing both extremes of the agricultural cycle in field crops and cattle. The cattle price received-to-input cost paid ratio is at a record high, while field crops and hogs prices received-to-input prices paid ratios are at record lows. Farmers and ranchers

Risk Perception in Midwest Becomes Cloudy



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Note: Data shown on a 3-month moving average.
Sources: USDA, Terrain

in both industries view the current situation as highly risky.

On the upswing in the cattle industry, the extreme in financial performance has yet to lead to over-investment, or strong herd expansion, due to the high cost of entry or expansion, a lack of available rangeland, improved efficiency in the beef herd, and average age of the rancher as outlined in the Spring 2024 issue of the Rural Economist. Many ranchers have also needed to solidify their financial position from several previous years of negative-to-thin profit margins, and nearly all ranchers have been leery from the market volatility observed from 2014 to 2016. In other words, many in the cattle industry have been downsizing, stabilizing or in some ways preparing for the other shoe to fall for more than a year. The risk of "irrational exuberance" is likely limited to some individuals and not the industry at large.

On the downswing, the hog industry has been feeling the pinch from poor consumer demand, oversupply in 2023, shackle space issues, labor costs, etc. In short, the industry has felt it from all sides. My conversations with hog producers suggest that optimism in 2023 likely hit a bottom. There may be continued consolidation opportunities in 2025, though the desire to expand seems limited.

Field crops are also on the downswing, as the price received-to-price paid ratio has recently hit lows. For some, strong yields in 2024 helped mitigate the impact of poor price ratios, with corn yields setting a record high and soybean yields being the fourth highest. However, financial conditions in regions with poorer yields—wheat-sorghum-heavy areas and in the cotton belt—have deteriorated quickly. Most 2025 cash flow projections for all regions indicate losses or near-breakeven conditions for producers. Some producers may be entering a third consecutive year of below-breakeven budgets.

As a result, balance sheets for field crop and hog producers have already tightened or they are beginning to do so. This is highlighted by the rapid decline in used machinery values, sharp declines in new equipment purchases, generally flat land values, increased borrowing needs, and new ad hoc financial support provided by Congress. While delinquency and farm bankruptcy rates remain historically low, the current economic headwinds across some sectors of agriculture could lead to an acceleration in these financial indicators.

Bottom line: Field crops and cattle are on opposite ends of the spectrums for ag cycles and balance sheet concerns. As such, producers and investors should all take stock of their financial condition and playbook. Typically, when the industry reaches the high and low of the cycle, risk perception becomes the cloudiest. The good news is that those who play the right hand at the top (cattle) and the bottom (field crops and hogs) stand to gain significant leverage when the markets turn—and one thing we know about agriculture is the markets will inevitably turn.

The Changing Funding Structure of Rural America

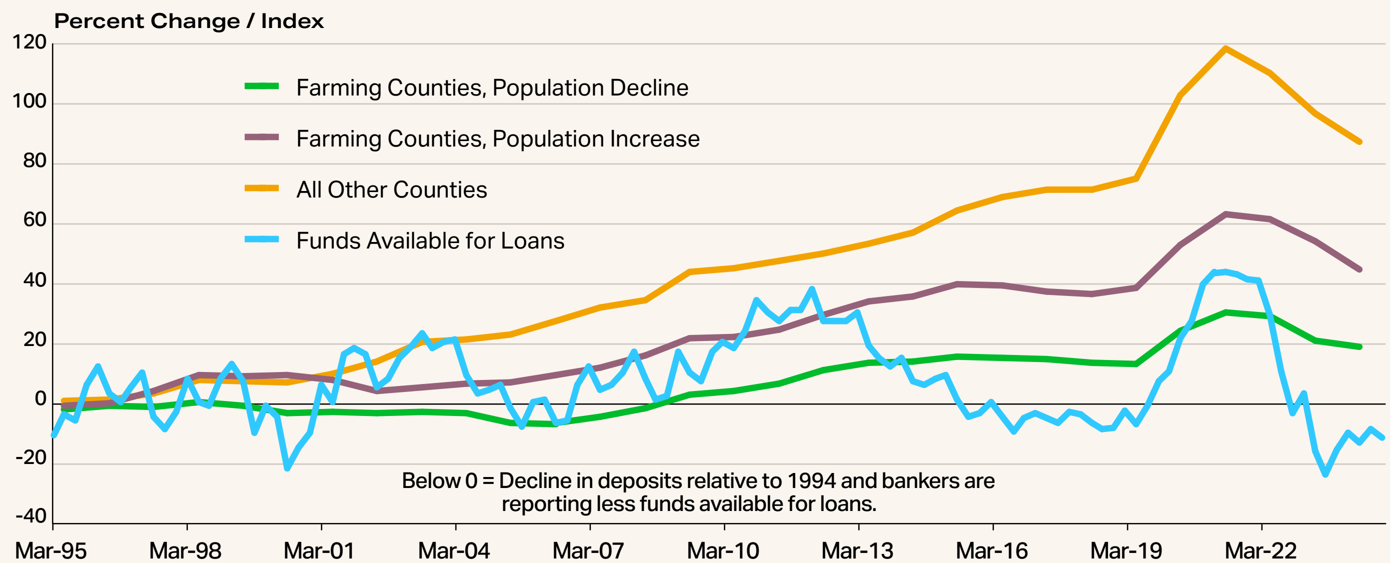
KEY POINTS:

- Bank deposits have grown at lower levels in areas with declining populations.
- In partnership with traditional agricultural lenders, alternative capital pools and consolidated lending institutions could offer more ways to meet farmers' and ranchers' financing needs.

Traditionally, access to funding has been tied to physical access to brick-and-mortar financial institutions. Research by Van Leuven, Lamber, Conroy, and Thomas (2024) found that farming-dependent counties had a strong financial institution service presence, but brick-and-mortal availability has declined in sparsely populated counties.

However, funding availability may be a better measure of financial "access" for many rural farmers. In 2024, bank deposits in Midwest counties that are farming dependent and experiencing population decline were only 19% above 1994 levels when adjusted for inflation to $28 billion. Deposits in farming dependent counties with population growth were up

Deposit Activity Limits Fund Availability



Note: All data is inflation adjusted. Deposit data is from South Dakota, Nebraska, Iowa, Kansas, Colorado, Oklahoma, New Mexico and Wyoming. Data excludes Lincoln and Minnehaha counties, SD.
Sources: FDIC, USDA, Federal Reserve Bank of Kansas City, Terrain

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44% from 1994 to $16 billion, and deposits in all other counties were up more than 87% from 1994 to $659 billion.

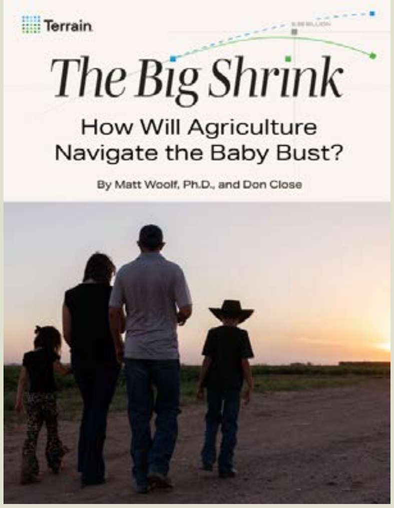
Comparatively, farmland values have increased by 164%, tractors by 64%, and corn production costs by 33%, accounting for inflation. Consequently, agricultural bankers report significantly fewer funds available for loans, due to the disparity between deposits and input costs.

The gap in deposit growth and farm input cost increases likely has been a contributing factor to financial institution consolidation. For example, the total number of FDIC institutions in farm-dependent counties has declined 6% since 1994, compared to a 10% increase in all other counties in the sample set. Likewise, data from the Federal Reserve Bank of Kansas City indicated that the total number of agricultural banks, that is banks with at least 25% of their loans in agriculture, in the U.S. has declined about 66% from 1994 to 2024.

If the gap in financial institution deposit growth and increasing financial needs continues, farmers may need to increase their use and interest in alternative capital pools as they search for additional borrowing capacity.

The gap in deposit growth and farm input cost increases likely has been a contributing factor to financial institution consolidation.

Bottom line: Given the rapid increase in farm input costs and farm scale, financial needs in agriculture have rapidly increased. Needs have outpaced deposit growth in many rural, farming-centric areas. As the financing industry adapts to this environment, there will be more opportunities for partnerships among traditional lenders – such as Farm Credit institutions, Farmer Mac and commercial banks – as well as other finance sources.



In case you missed it:

The Big Shrink

Terrain has launched a report series exploring how U.S. agriculture can prepare for a declining global population in coming decades.

Go to https://thebigshrink.terrainag.com

ABOUT THE AUTHORS

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ABOUT TERRAIN

Terrain's expert analysts distill vast amounts of data to deliver exclusive insight and confident forecasting for a more resilient agricultural economy. Terrain is an exclusive offering of AgCountry Farm Credit Services, American AgCredit, Farm Credit Services of America and Frontier Farm Credit.