Do Banking Regulations Disproportionately Impact Smaller Community Banks?

Thomas F. Siems*
Conference of State Bank Supervisors
tsiems@csbs.org

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Abstract

Bank regulatory compliance has long been viewed as a fixed cost disproportionately affecting smaller banks, yet few studies have quantitatively tested the magnitude of this burden using robust empirical methods. This study investigates whether smaller community banks incur a higher regulatory compliance cost burden relative to larger institutions by analyzing self-reported cost estimates from the Conference of State Bank Supervisors' (CSBS) Annual Surveys of Community Banks from 2015 to 2024. By pairing survey data with corresponding financial information from bank Call Reports and grouping banks by asset size quartiles, the analysis estimates compliance costs as a percentage of five key noninterest expense categories—personnel, data processing, legal, accounting and auditing, and consulting. Results show that, across all ten years and all expense categories except legal, smaller banks consistently report statistically higher compliance cost burdens compared to larger banks. These findings offer strong empirical validation for policy concerns that current regulatory frameworks impose excessive burdens on small banks, which has potentially accelerated industry consolidation, limited new bank formation, and reduced access to banking services in rural and underserved communities. The results support the need for proportional regulation that is tailored according to size, business model, risk profile, and complexity, as well as targeted compliance relief, and incentives for technology adoption. Future research is recommended to further investigate causality, regulation-specific burdens, and the operational consequences of disproportionate compliance costs.

*Chief Economist, Conference of State Bank Supervisors. The views stated herein are those of the author and are not necessarily those of the Conference of State Bank Supervisors or its members.

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I. Introduction

Bank size and regulatory compliance have been at the forefront of financial policy discussions for decades. The disproportionate costs of compliance, particularly for smaller banks, and the behavioral adjustments made by institutions nearing size thresholds have significant implications for market efficiency and systemic stability. Indeed, community bankers consistently report that regulatory compliance burden is one of the most significant challenges facing community banks in the United States. Moreover, smaller community banks often report feeling disproportionately impacted by compliance-related expenses.

Prior research suggests that regulatory costs, many of which are fixed, weigh more heavily on smaller banks than on larger institutions. However, few studies have rigorously tested the magnitude of this burden using actual or estimated cost data with robust empirical techniques. This empirical research study is designed to test whether smaller community banks incur higher regulatory compliance costs, as a percentage of their operating expenses, compared to larger community banks. Addressing this policy question has significant implications for designing an effective and proportionate regulatory framework that maintains both market stability and banking system competitiveness.

Motivation

The primary research question guiding this inquiry is: Do smaller community banks incur a disproportionately higher regulatory compliance cost burden relative to larger community banks? Three related sub-questions further sharpen the investigation. First, how does the compliance cost burden vary across different categories of operating expenses, such as personnel, data processing, legal, accounting/auditing, and consulting? Second, are the

differences in compliance costs between smaller and larger banks statistically significant? Third, what are the practical policy implications if smaller banks are found to bear a higher compliance cost burden that is statistically significant?

II. Literature Review

The literature consistently underscores that regulatory compliance costs are not proportionate to bank size. That is, fixed costs of complying with bank regulations and proposals, such as investments in reporting systems and specialized personnel, impose a heavier burden on smaller banks. Akhigbe and Whyte (1999) show that regulatory changes following the Federal Deposit Insurance Corporation Improvement Act (FDICIA) significantly impacted smaller banks, which faced higher relative costs than their larger counterparts. Similarly, Altamuro and Beatty (2010) provide evidence that internal control regulations disproportionately strain smaller institutions, reducing their ability to compete with larger banks. In short, smaller banks experience higher compliance costs per dollar of assets, leading to reduced profitability and limited ability to compete, expand, and innovate.

Research exploring the relationship between regulatory compliance and bank performance suggests that compliance requirements may inadvertently stifle efficiency. Beccalli (2007) demonstrates that investments in technology, which are critical for regulatory reporting, often yield lower returns for smaller banks due to their limited scale. Similarly, Bauer et al. (1998) highlight that regulatory-induced inefficiencies disproportionately affect smaller banks, which lack the operational flexibility of their larger counterparts. The main implications of this research are that compliance pressures divert resources away from core profit-making banking

activities, such as lending. Moreover, smaller banks may struggle to adopt new technologies that enhance efficiency due to relatively steep upfront costs.

Feldman, Heinecke, and Schmidt (2013) develop a simulation model to quantify the impact of increased regulatory costs on community bank profitability. They find that fixed compliance costs disproportionately harm small banks and may increase the likelihood of supervisory downgrades and failures. The model provides a transparent and customizable tool for evaluating regulatory cost burdens, reinforcing concerns about the scalability of financial regulation for community banks.

Grammatikos and Papanikolaou (2013) explore the "Too-Small-To-Survive" hypothesis by analyzing the relationship between bank size, performance, risk-taking, and failure probability during and following the 2007–2009 financial crisis. Through regression and threshold analysis, they show that regulatory authorities are less likely to support banks whose size falls below a certain asset threshold (approximately $1.1 billion), regardless of performance. This contrasts with "Too-Big-To-Fail" dynamics and suggests that smaller banks not only face higher failure risk but are also structurally disadvantaged in crisis periods. The study highlights the systemic implications of bank size and calls for greater attention to the vulnerabilities of smaller institutions in regulatory and supervisory frameworks.

Another recurring theme in the literature is the impact of regulatory compliance on market dynamics and the operational inefficiencies caused by stringent compliance requirements. Barth et al. (2013) emphasize that regulatory frameworks often enhance barriers to entry, limiting competition and encouraging consolidation. While regulatory frameworks enhance systemic stability, they often create substantial compliance burdens, particularly for smaller banks because fixed compliance costs disproportionately affect them.

Cyree (2016) investigates the regulatory compliance burden for small U.S. banks in response to major crisis-driven legislative actions, including the FDIC Improvement Act (FDICIA), the USA PATRIOT Act, and the Dodd–Frank Act. Using quarterly panel data from 1991 to 2014 on bank holding companies with less than $5 billion in assets, Cyree evaluates how regulatory shifts impact profitability, costs, and productivity. He finds limited evidence of increased burden following FDICIA, modest cost increases following the PATRIOT Act, but significant compliance burdens after Dodd–Frank, including declines in pretax return on assets and loans per employee, and increases in staff headcount and salary costs. The study highlights how compliance costs—though difficult to isolate directly—can be inferred through changes in operating metrics. Notably, small banks faced a reallocation of resources away from lending and technology investments toward compliance staffing after Dodd–Frank, supporting the view that post-crisis regulation disproportionately strains smaller institutions and may exacerbate industry consolidation and reduced access to credit.

Carter, McNulty, and Verbrugge (2004) provide evidence that smaller banks outperform larger ones in relationship-based lending but are increasingly marginalized due to regulatory pressures. That is, small banks are forced to allocate disproportionate resources to compliance, diverting attention from core activities like lending and customer service. They find that compliance activities often require significant human and technological resources, reducing overall operational efficiency. In the long run, regulatory costs drive consolidation, reducing the diversity of banking options in local markets, and the loss of small banks disproportionately impacts rural and underserved communities.

Nelson (2019) explores the unintended consequences of regulatory compliance, particularly its impact on operational efficiency, innovation, and market competitiveness within

the banking sector. Nelson situates these challenges in the context of broader regulatory frameworks implemented after the 2008 financial crisis. Nelson highlights how compliance frameworks can stifle innovation, particularly in smaller banks that lack the resources to invest in new technologies.

The literature also addresses how regulatory compliance drives market concentration by favoring larger banks that can absorb compliance costs more effectively. Berger and Bouwman (2013) illustrate how economies of scale allow larger institutions to spread fixed costs over a broader base, making compliance less burdensome. In contrast, smaller banks are often forced to merge or exit the market. Barth et al. (2013) further emphasizes how this consolidation reduces competition, particularly in rural and underserved markets where small banks play a critical role.

Acharya and Naqvi (2012) provide a theoretical foundation, arguing that excessive regulation can have procyclical effects, amplifying economic fluctuations rather than mitigating them. DeYoung and Torna (2013) highlight the need for a balance between stability and efficiency, particularly in designing frameworks that do not disproportionately disadvantage smaller institutions. These authors both emphasize that regulatory frameworks should account for the diverse capabilities of banks to manage compliance burdens and that proportional regulations can reduce inefficiencies while maintaining systemic safety.

As highlighted here, a significant focus of the literature concerns the disproportionate burden of regulatory compliance on smaller banks. Several studies emphasize that compliance costs, while ostensibly designed to enhance systemic stability, disproportionately affect smaller institutions, which lack the economies of scale enjoyed by larger banks. One implication is that these costs create barriers to growth and force smaller banks to adopt conservative strategies or

merge with larger entities. Compliance costs are fixed and do not scale linearly with bank size, making them relatively more burdensome for smaller institutions.

Another implication is that smaller banks allocate a higher proportion of resources to compliance, limiting their competitiveness and growth potential. Pressures to comply with regulatory requests often divert personnel and technological resources from profit-making banking activities. Additionally, research shows that banks near regulatory thresholds exhibit slower growth rates compared to those well below or above the threshold. Threshold-related distortions reduce market efficiency and can exacerbate systemic risks by encouraging riskier behavior to offset compliance costs.

However, a significant gap in these studies is the lack of cost data that can provide statistical evidence of the regulatory compliance cost differences among banks of different sizes. While several studies make claims that smaller banks are disproportionately burdened by regulations, none of the studies provide cost comparisons to know whether smaller institutions do, in fact, spend a disproportionate share of their operating costs on complying with regulations.

To address this gap in the literature, confidential responses to the Conference of State Bank Supervisors' (CSBS) Annual Surveys of Community Banks can be matched to a bank's accounting and performance data to empirically test the hypothesis that smaller banks have a larger ratio of operating expenses devoted to compliance costs within various expense categories (e.g., personnel, data processing, legal, accounting/auditing, and consulting). Differences in this ratio for various asset-size groupings of banks can be quantitatively tested to see whether the differences are statistically significant.

Practical and Theoretical Significance

The findings of this study have practical significance for policymakers seeking to craft a more effective regulatory framework. If smaller banks are shown to suffer from disproportionate compliance cost burdens, then proposals to "right-size" regulation—that is, tailoring rules based on institution size and complexity—gain stronger empirical justification. Theoretically, this study contributes to an understanding of how fixed regulatory compliance costs interact with economies of scale within the banking sector. It also sheds light on the structural challenges smaller banks face in competing with larger, more resource-rich institutions.

III. Hypotheses

It is anticipated that this analysis will find that smaller banks exhibit significantly higher compliance cost burdens than larger banks. This expectation stems from prior descriptive research indicating that fixed compliance costs, such as staffing compliance officers and maintaining reporting systems, do not scale down easily for smaller institutions. Consequently, compliance-related expenses represent a larger proportion of noninterest expenses for smaller banks. Confirming this relationship statistically would support policy arguments favoring size-sensitive regulatory frameworks.

This research adopts a quantitative approach, drawing on self-reported survey data from the CSBS Annual Surveys of Community Banks, conducted during a ten-year period from 2015 to 2024. The CSBS Annual Surveys provide detailed, self-reported data from roughly 10 percent of the community bank population regarding their estimated compliance costs in various operational areas. For each survey year, community banks are grouped into asset-size quartiles. Chart 1 shows the 25th, 50th, and 75th percentile asset-size cut-offs used in the analysis.

Specifically, comparisons will be made for banks in the smallest asset group (those below the thick red line) with those in the largest group (those above the thick blue line). Table 1 shows the asset quartile cut-offs that delineate smaller banks from larger banks for each survey year. Table 1 also shows how many community bankers self-reported compliance cost estimates for each year of the survey, as well as the total number of commercial banks in the United States each year to compute an annual response rate to this survey question.

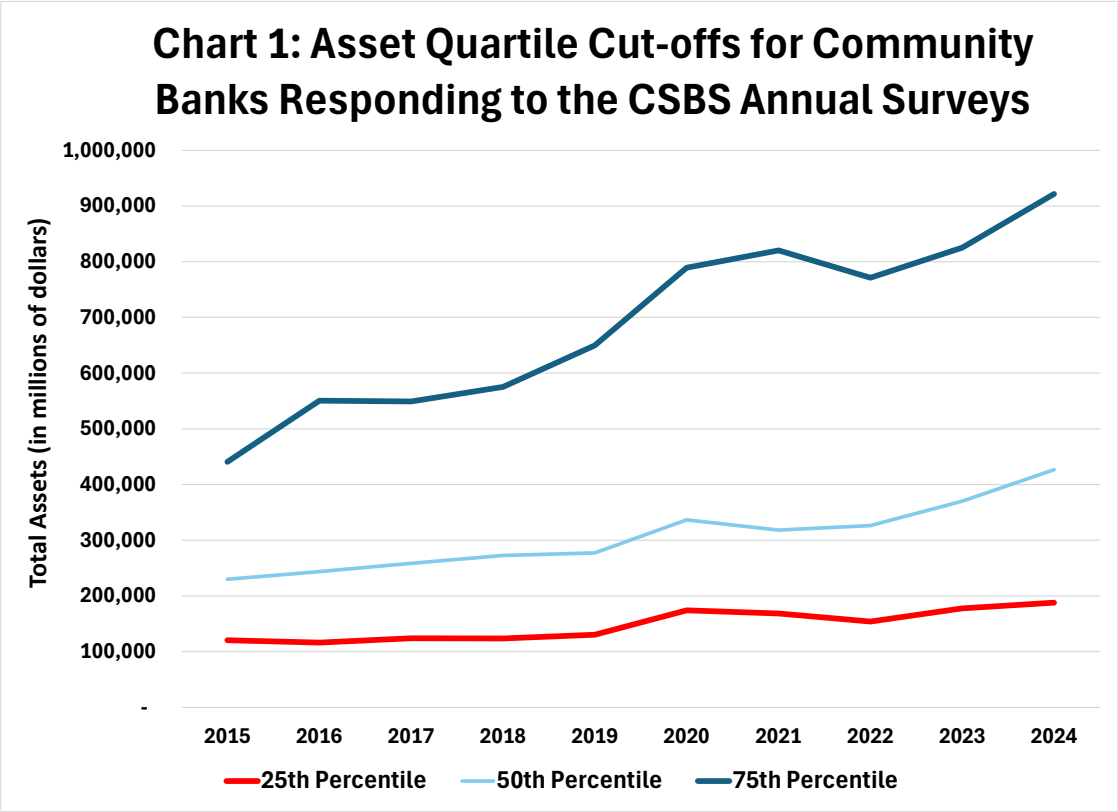


Table 1: Community Bank Asset Quartile Cut-offs and Annual Survey Response Rates										
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Smallest Banks	<$121M	<$116M	<$124M	<$124M	<$130M	<$174M	<$168M	<$154M	<$178M	<$188M
Median Bank	$230M	$244M	$258M	$273M	$277M	$337M	$318M	$326M	$370M	$427M
Largest Banks	>$441M	>$550M	>$549M	>$575M	>$650M	>$789M	>$820M	>$721M	>$825	>$922M
No. of Responses	606	556	509	512	548	395	407	511	462	370
No. of Banks	5,338	5,112	4,918	4,715	4,513	4,373	4,232	4,127	4,027	3,914
Response Rate	11.4%	10.9%	10.3%	10.9%	12.1%	9.0%	9.6%	12.4%	11.5%	9.4%

The null hypothesis (H_0) is that there is no difference in the ratio of compliance costs to total operating expenses for the smallest bank asset-size quartile and the largest bank asset-size quartile. The alternative hypothesis (H_1) is that the smallest banks report a higher ratio of compliance costs to total operating expenses compared with the largest banks.

The strategy for testing this hypothesis involves calculating the average compliance costs as a percentage of five different noninterest expense categories (personnel, data processing, legal, accounting and auditing, and consulting) for each asset-size group. An independent samples *t*-test is performed to compare the mean compliance burden between the smallest bank asset quartile and largest bank asset quartile. Since this study is interested in testing whether smaller banks experience higher compliance costs than larger institutions, a one-tailed *t*-test is used to determine if observed differences are statistically significant.

IV. Data Sources and Variables

There are two primary data sources for this study. First, the CSBS Annual Surveys of Community Banks, which span the years 2015 through 2024. The Annual Surveys collect responses to several questions regarding the opportunities and challenges bankers face. While these questions have evolved through the years as economic conditions and the financial landscape change, one detailed question regarding compliance cost burdens has remained the same. Bankers are asked to estimate the compliance cost burden as a percentage of total operating expenses in five areas: personnel, data processing, legal, accounting and auditing, and consulting.

Second, this study uses bank Call Report data that are available through the Federal Financial Institutions Examination Council (FFIEC) for each bank that completed the survey. Annualized data from the second quarter of each year were used because banks completed each Annual Survey from April to June. Each year, the survey collected data from approximately 10 percent of financial institutions across multiple states.

Key variables include total asset size and estimated compliance cost data across five operational categories: personnel, data processing, legal, accounting, and consulting. Several other variables and ratios were collected to capture a bank's operational performance, such as capital adequacy metrics, asset quality calculations, earnings measures, and liquidity ratios.

Several assumptions underpin the methodology. First, it is assumed that the compliance cost data self-reported by banks are accurate and comparable across institutions. Second, it is assumed that the asset-size quartile groupings appropriately reflect meaningful operational differences. Third, it is assumed that the assumptions underlying the *t*-test—independence of observations, approximate normality, and homogeneity of variances—are either satisfied or

adequately adjusted for through alternative statistical techniques, such as using Mann-Whitney's *U*-test correction.

V. Empirical Results

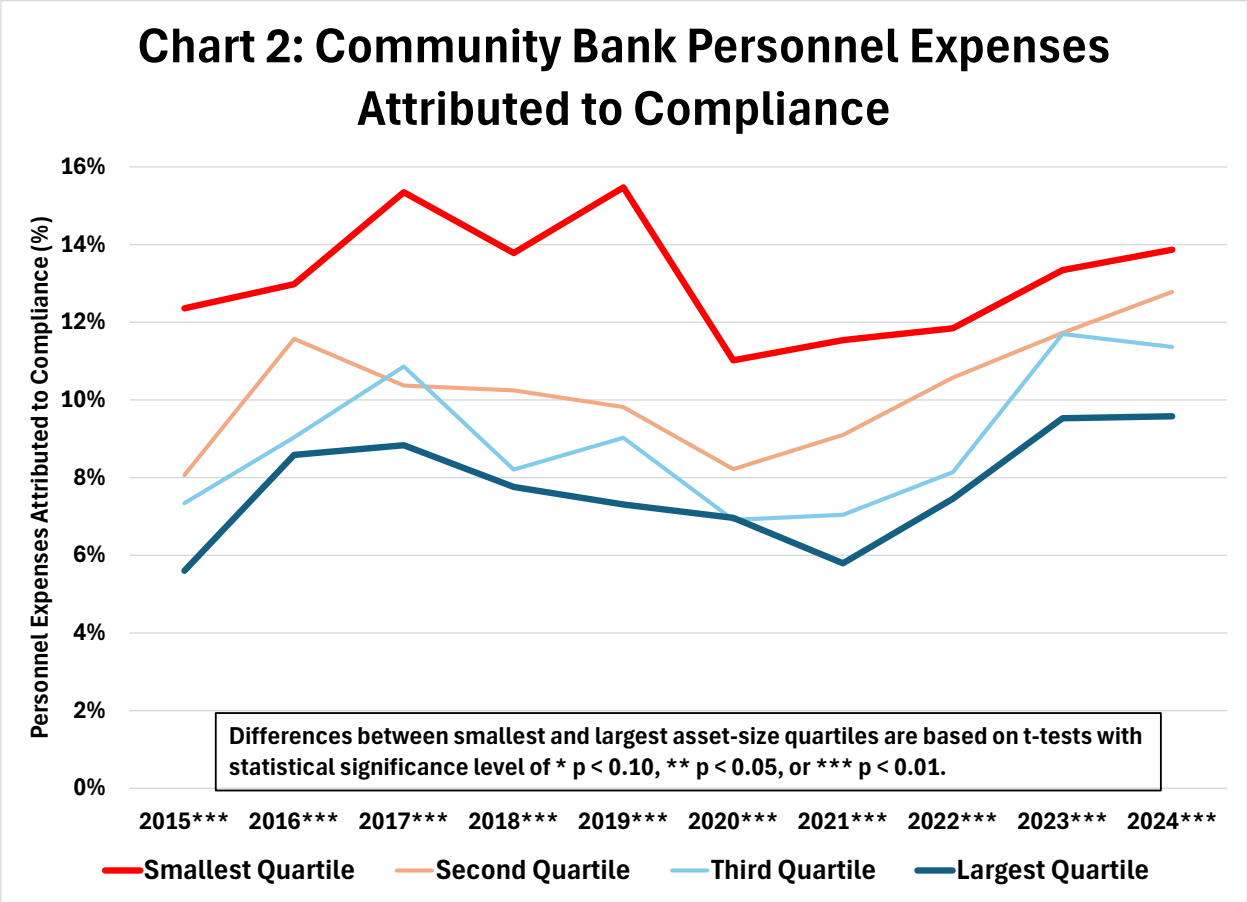
Since the CSBS Annual Surveys ask bankers to report the portion of costs stemming from regulatory compliance as a share of total expenses by resource, the results will be presented for each resource category separately. Each chart includes the *t*-test results when comparing the average values for the smallest quartile of banks with those from the largest quartile of banks who completed the survey. The Appendix includes tables corresponding to each chart that shows the annual values for the various ratios, the differences between the smallest and largest bank quartiles and an indication on the level of statistical significance (if any), and *p*-values for the differences in means *t*-test between the two groups of banks. The charts included in the discussion below also show the statistical significance level by including asterisks on the x-axis with each survey date, where * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Personnel Expenses

Chart 2 shows the average self-reported personnel expenses devoted to compliance for each asset-size quartile. This study is mainly interested in the compliance cost difference between the smallest banks (thick red line) and the largest banks (thick blue line). As shown, the average personnel compliance costs for the smallest banks range from a low of 11.0 percent to a high of 15.5 percent, and the average personnel compliance costs for the largest banks range from 5.6 percent to 9.6 percent. For every time period, the smallest banks report greater personnel compliance costs than for the larger banks, and the differences for all ten annual

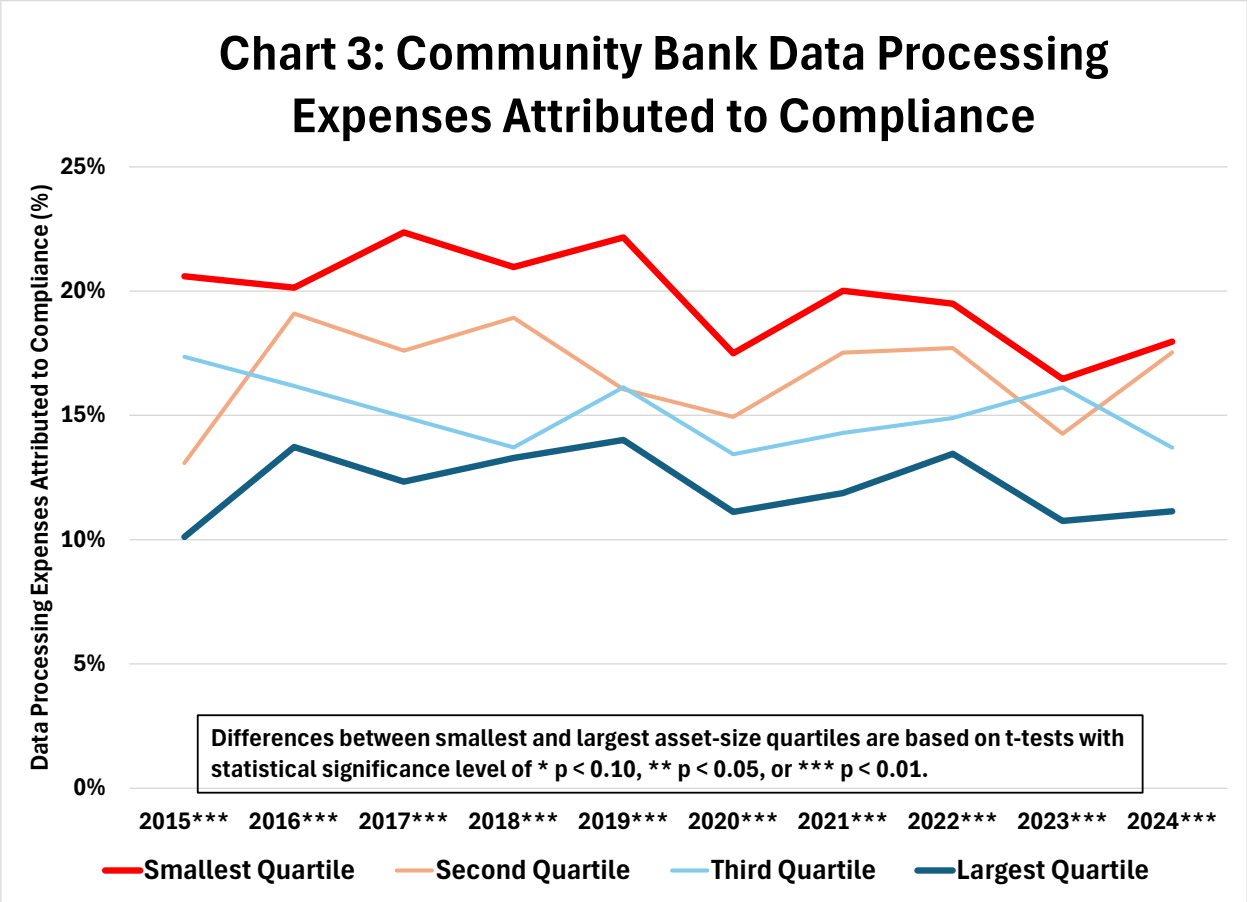
observations are highly statistically significant. The differences range from 3.8 percent in 2023 to 8.2 percent in 2019.

These results strongly suggest that the incremental personnel costs is significantly higher for smaller banks than for larger institutions. Adding just one employee to a smaller institution imposes a disproportionately higher cost to smaller institutions and if this employee is fully engaged in reading and implementing regulatory rules instead of devoted to profit-making activities, the expectation is that these higher expenses will have a detrimental impact on net income.



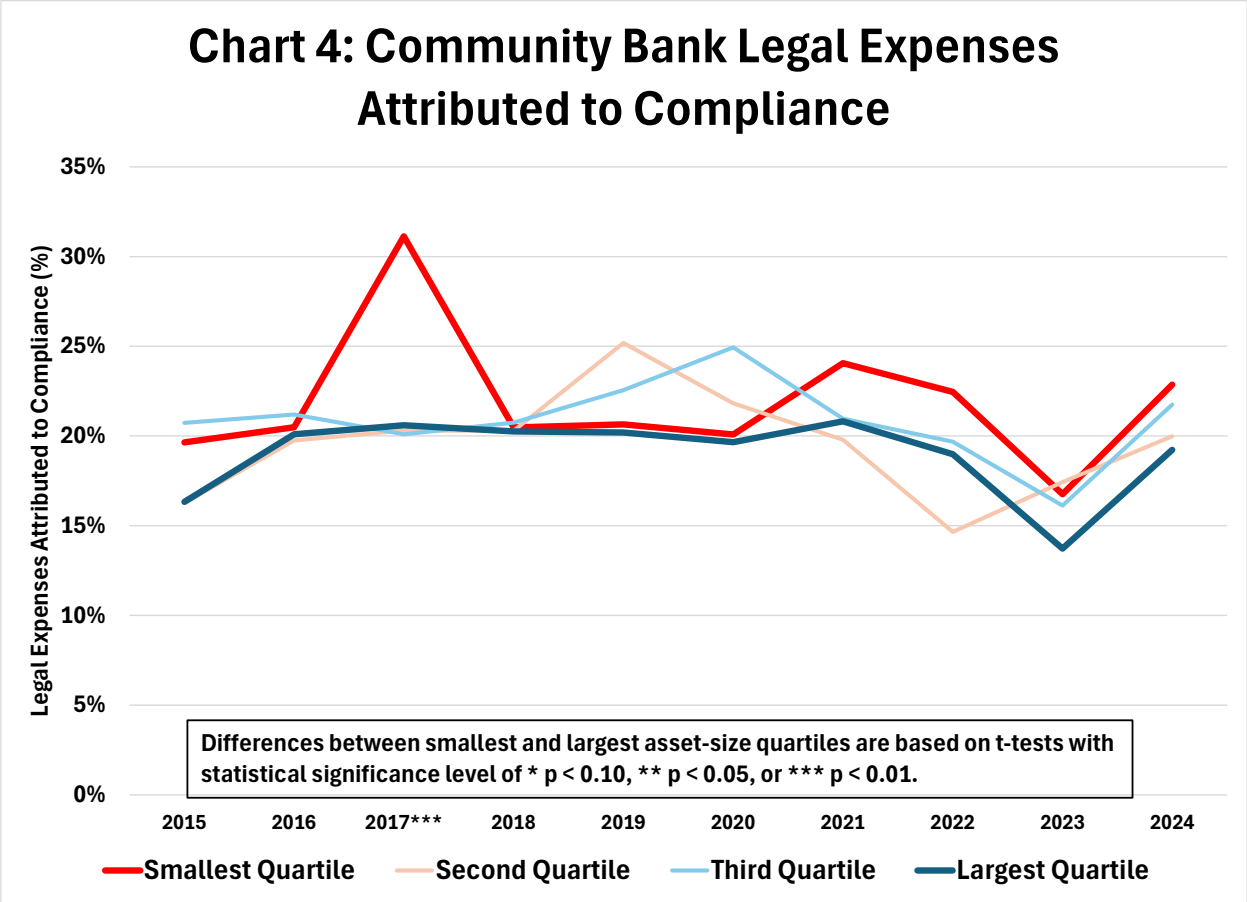
Data Processing Expenses

Chart 3 shows the average self-reported data processing expenses devoted to compliance for each asset-size quartile. As shown, the average data processing compliance costs for the smallest banks range from a low of 16.5 percent to a high of 22.4 percent, and the average compliance costs for the largest banks range from 10.1 percent to 14.0 percent. For every time period, the smallest banks report greater data processing compliance costs than for the larger banks, and the differences for all ten annual observations are highly statistically significant. The differences range from 5.7 percent in 2023 to 10.5 percent in 2015.



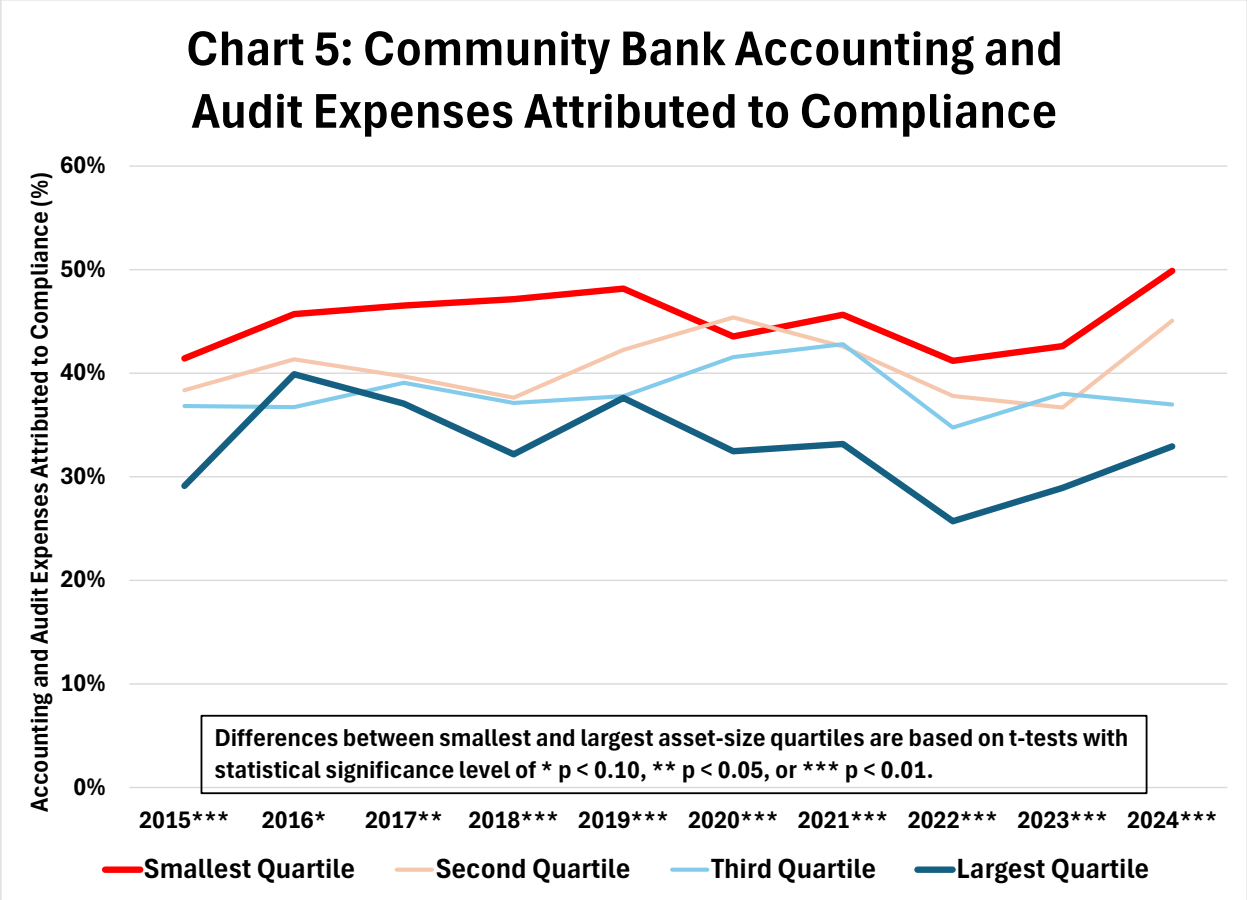
Legal Expenses

Chart 4 shows the average self-reported legal expenses devoted to compliance for each asset-size quartile. As shown, the average legal compliance costs for the smallest banks range from a low of 16.8 percent to a high of 31.1 percent, and the average compliance costs for the largest banks range from 13.7 percent to 20.8 percent. For every time period, the smallest banks report greater legal compliance costs than for the larger banks, but only the difference in 2017 is highly statistically significant. The differences range from 0.2 percent in 2018 to 10.5 percent in 2017.



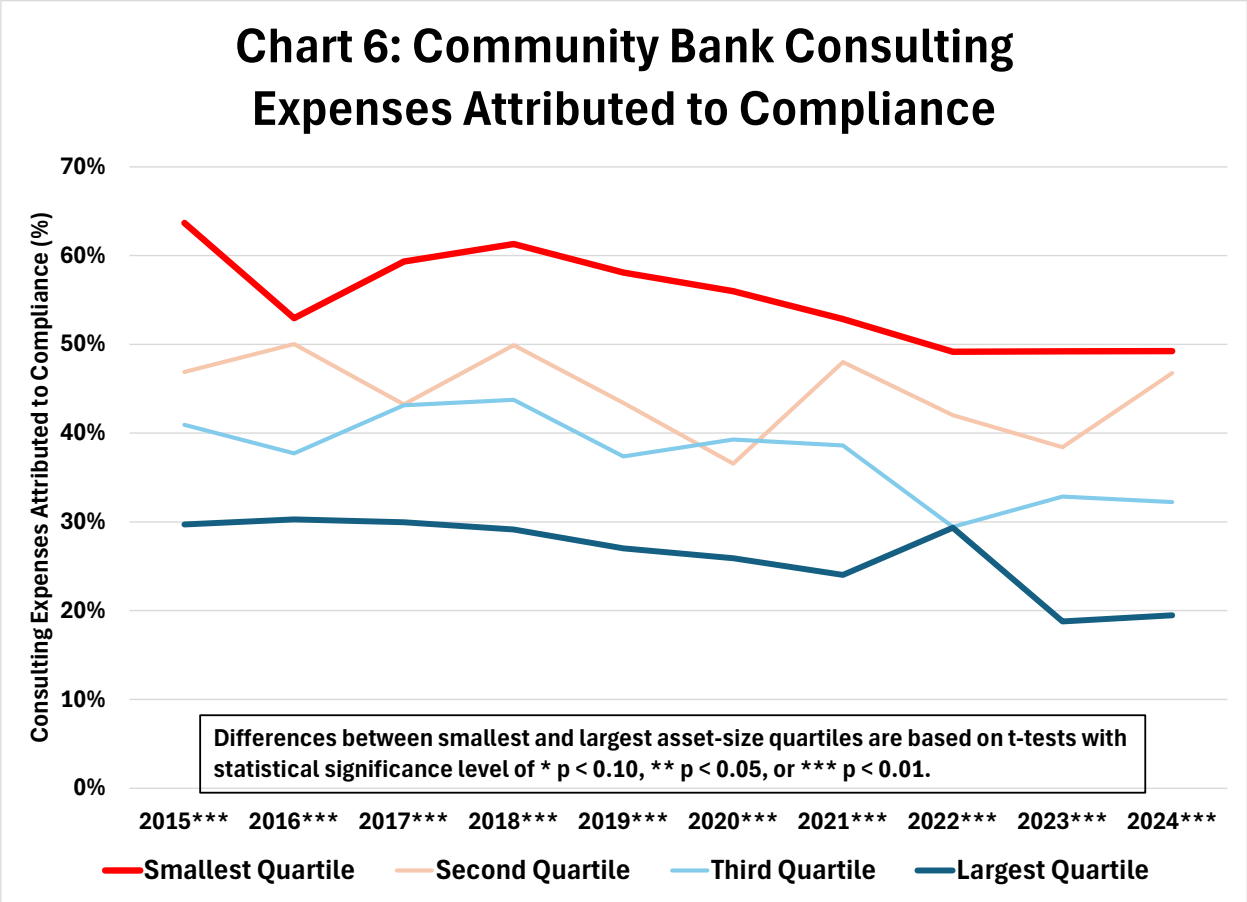
Accounting and Auditing Expenses

Chart 5 shows the average self-reported accounting and auditing expenses devoted to compliance for each asset-size quartile. As shown, the average accounting and auditing compliance costs for the smallest banks range from a low of 41.2 percent to a high of 49.9 percent, and the average compliance costs for the largest banks range from 25.7 percent to 39.9 percent. For every time period, the smallest banks report greater accounting and auditing compliance costs than for the larger banks, and the differences for eight of the ten annual observations are highly statistically significant. In 2016, the difference is statistically significant at the 0.10 level and in 2017 the difference is statistically significant at the 0.05 level. Overall, the differences range from 5.7 percent in 2016 to 17.0 percent in 2024.



Consulting Expenses

Chart 6 shows the average self-reported consulting expenses devoted to compliance for each asset-size quartile. As shown, the average consulting compliance costs for the smallest banks range from a low of 49.2 percent to a high of 63.7 percent, and the average compliance costs for the largest banks range from 18.8 percent to 30.3 percent. For every time period, the smallest banks report greater consulting compliance costs than for the larger banks, and the differences for all ten annual observations are highly statistically significant. The differences range from 19.8 percent in 2022 to 34.0 percent in 2015.



Summary of Compliance Cost Results

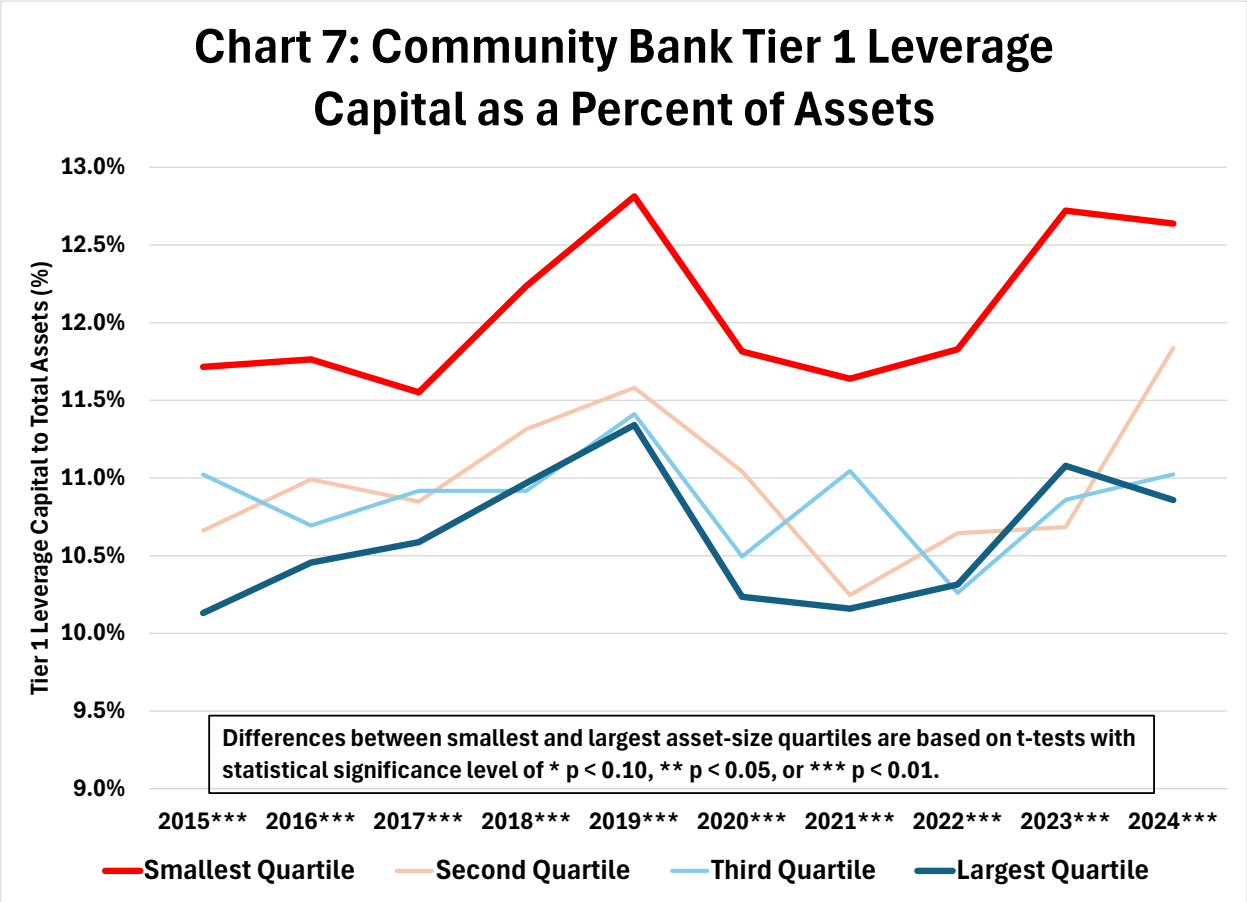
Overall, this analysis finds that smaller banks report statistically significant differences in compliance costs over those of larger banks for personnel, data processing, accounting and auditing, and consulting expenses. More specifically, self-reported regulatory compliance costs were quantified over a ten-year period and tend to show statistically valid data-driven evidence that the smallest community banks are disproportionately burdened by regulatory compliance pressures.

Personnel expenses devoted to compliance were between 3.8 percent and 8.2 percent higher at smaller community banks; data processing costs devoted to compliance were between 5.7 percent and 10.5 percent higher at smaller banks; accounting and auditing expenses devoted to compliance were between 5.8 percent and 17.0 percent higher at smaller banks; consulting expenses devoted to compliance were between 19.8 percent and 34.0 percent higher at smaller banks. These empirical results confirm the findings from several earlier research studies that suspected disproportionately higher regulatory compliance costs for the smallest community banks.

Another interesting question is whether these banks also have different bank performance characteristics with respect to capital, asset quality and lending concentrations, earnings, and liquidity. Each of these will be addressed separately in the following sections, however, it must be noted that any differences in performance may not necessarily be directly related to the empirical finding that smaller banks have higher regulatory compliance costs. That is, the performance characteristics of smaller community banks may be due to other factors. Whether or not higher regulatory compliance costs trigger changes in these characteristics requires further research and analysis.

Capital

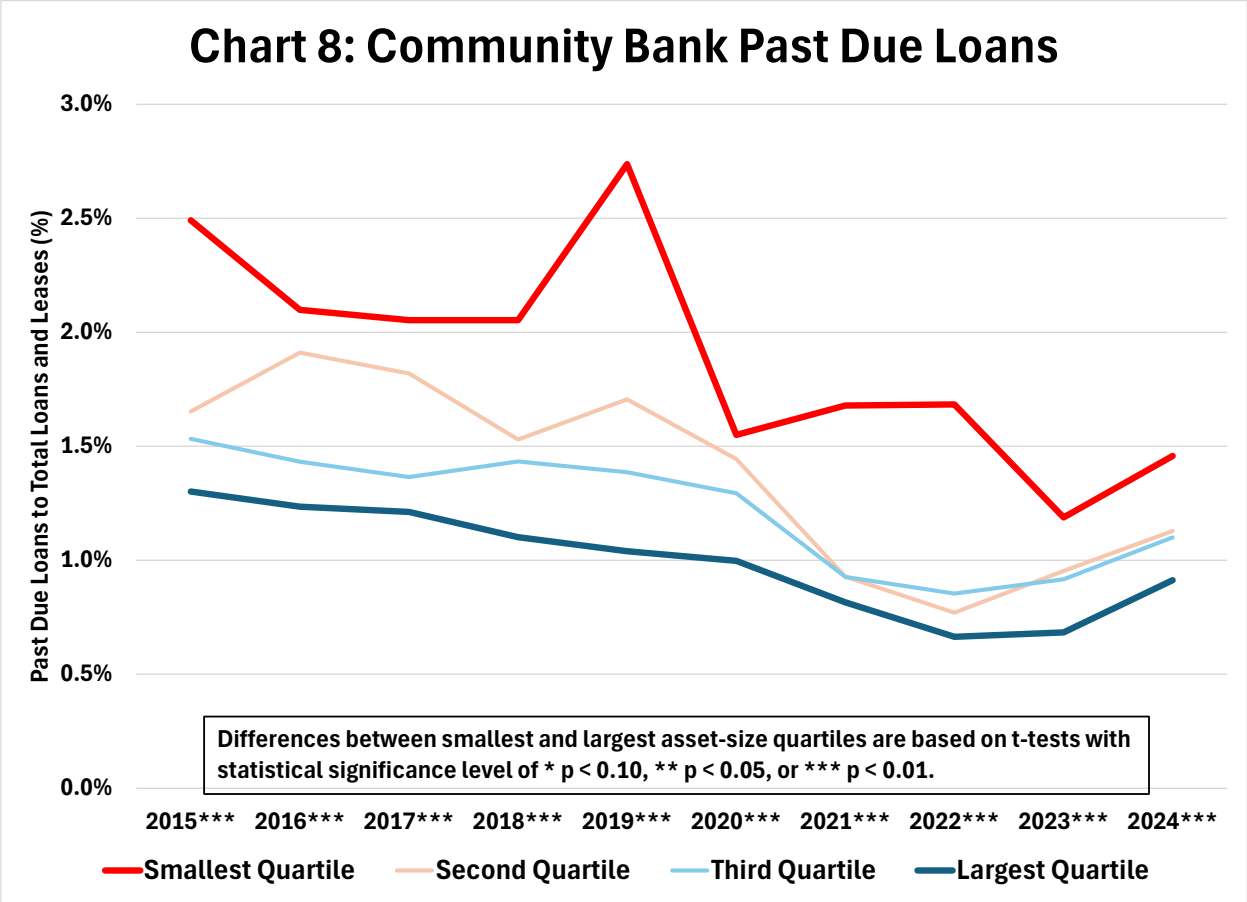
Chart 7 shows the average Tier 1 leverage capital ratios for each asset-size quartile. As shown, the average capital levels for the smallest banks range from a low of 11.6 percent to a high of 12.8 percent, and the average capital levels for the largest banks range from 10.1 percent to 11.3 percent. For every time period, the smallest banks report higher capital levels than for the larger banks, and the differences for all ten annual observations are highly statistically significant. The differences range from 1.0 percent in 2017 to 1.8 percent in 2024.



Higher bank capital levels at smaller banks provide these institutions with a larger buffer to absorb potential losses, making them more stable and resilient. However, higher capital levels can limit a bank's ability to lend and can reduce profitability as these funds are not being fully deployed.

Asset Quality and Lending Concentrations

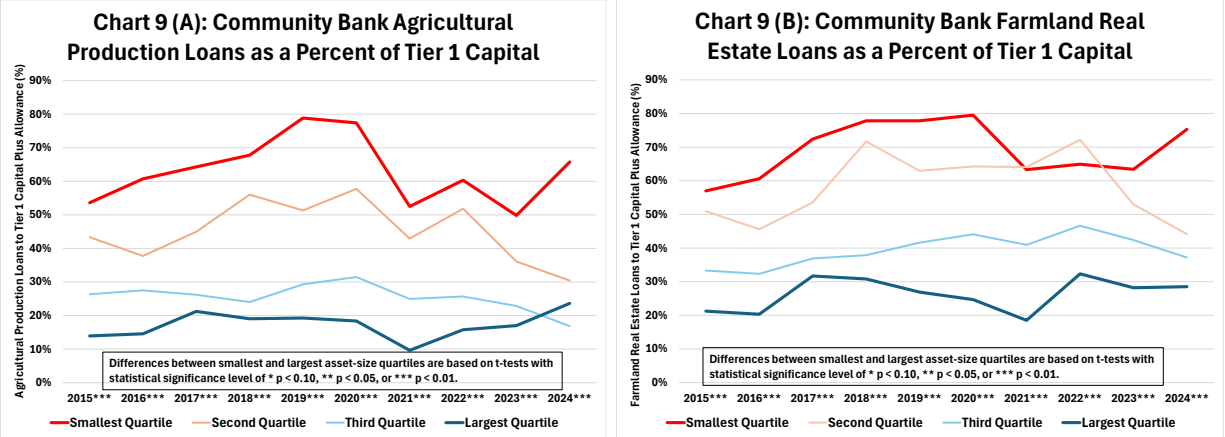
Chart 8 shows the average past due loans to total loans and leases for each asset-size quartile. As shown, the average ratio of past due loans to total loans and leases for the smallest banks range from a low of 1.2 percent to a high of 2.7 percent, and the average ratio of past due loans to total loans and leases for the largest banks range from 0.7 percent to 1.3 percent. For every time period, the smallest banks report a higher ratio of past due loans to total loans and leases than for the larger banks, and the differences for all ten annual observations are highly statistically significant. The differences range from 0.5 percent in 2023 to 1.7 percent in 2019.



While smaller banks consistently show higher loan delinquency rates than larger banks, as shown above they also have more capital available to absorb any potential losses. The higher rate of past due loans may indicate that smaller institutions are exposed to greater credit risks,

loan concentration vulnerabilities, or resource limitations, but it also may reflect the nature of the relationship-lending model used by most smaller banks. Moreover, while the institutional risk might appear to be higher, these smaller institutions do not constitute the systemic risk that many regulatory requirements might be intended to mitigate. It is a variable worth watching and understanding but must be considered in context of the bank's overall strategy.

It is notable that the smallest banks have significantly higher concentrations in agricultural and farm real estate lending, whereas the largest institutions have higher concentrations in commercial real estate (CRE), construction and development (C&D), and commercial and industrial (C&I) lending. Chart 9 includes two panels that highlight the statistically significant differences in agricultural production lending (panel A) and farm real estate lending (panel B).

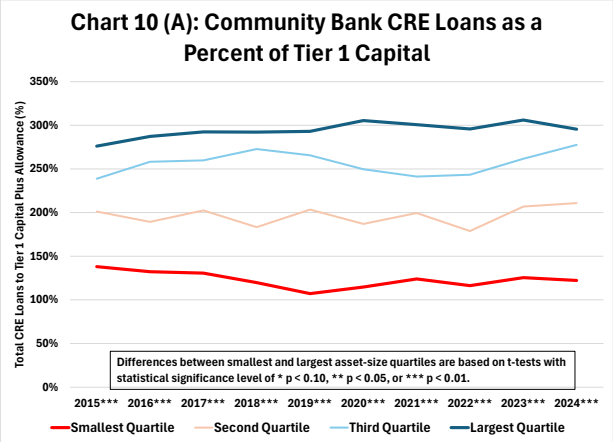


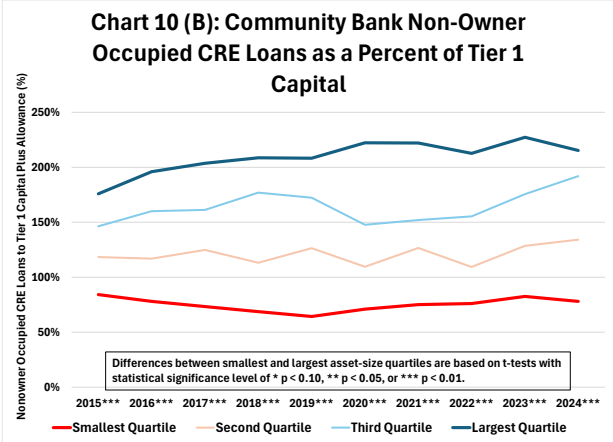
As shown in panel A, the average ratio of agricultural production lending to capital for the smallest banks range from a low of 49.8 percent to a high of 78.9 percent, and the average ratio of agricultural production lending to capital for the largest banks range from 9.6 percent to 23.6 percent. For every time period, the smallest banks report a higher ratio of agricultural production lending to capital than for the larger banks, and the differences for all ten annual

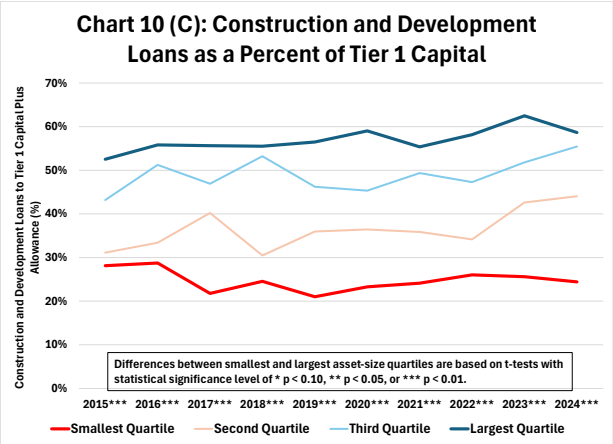
observations are highly statistically significant. The differences range from 32.8 percent in 2023 to 59.6 percent in 2019.

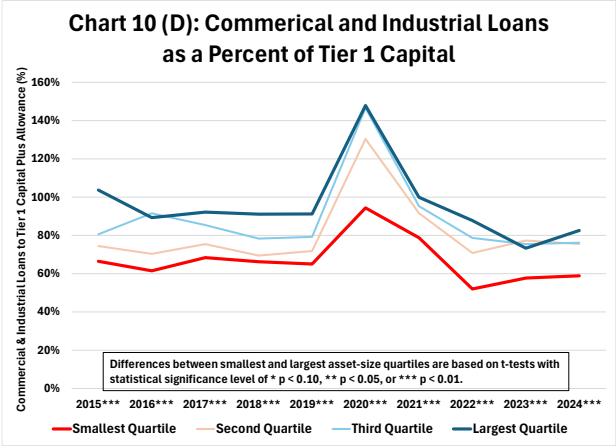
As shown in panel B, the average ratio of farm real estate lending to capital for the smallest banks range from a low of 57.0 percent to a high of 79.5 percent, and the average ratio of farm real estate lending to capital for the largest banks range from 18.5 percent to 32.3 percent. For every time period, the smallest banks report a higher ratio of farm real estate lending to capital than for the larger banks, and the differences for all ten annual observations are highly statistically significant. The differences range from 32.6 percent in 2022 to 54.9 percent in 2020.

Chart 10 shows four panels that highlight the statistically significant differences in CRE lending (panel A), nonowner occupied CRE lending (panel B), C&D lending (panel C), and C&I lending (panel D). As shown in panel A, the average ratio of CRE lending to capital for the smallest banks range from a low of 107 percent to a high of 138 percent, and the average ratio of CRE lending to capital for the largest banks range from 276 percent to 306 percent. For every time period, the smallest banks report a lower ratio of CRE lending to capital than for the larger banks, and the differences for all ten annual observations are highly statistically significant. The differences range from 138 percent in 2015 to 191 percent in 2020.









As shown in panel B, the average ratio of nonowner occupied CRE lending to capital for the smallest banks range from a low of 64 percent to a high of 84 percent, and the average ratio of nonowner occupied CRE lending to capital for the largest banks range from 176 percent to 227 percent. For every time period, the smallest banks report a lower ratio of nonowner occupied CRE lending to capital than for the larger banks, and the differences for all ten annual observations are highly statistically significant. The differences range from 92 percent in 2015 to 151 percent in 2020.

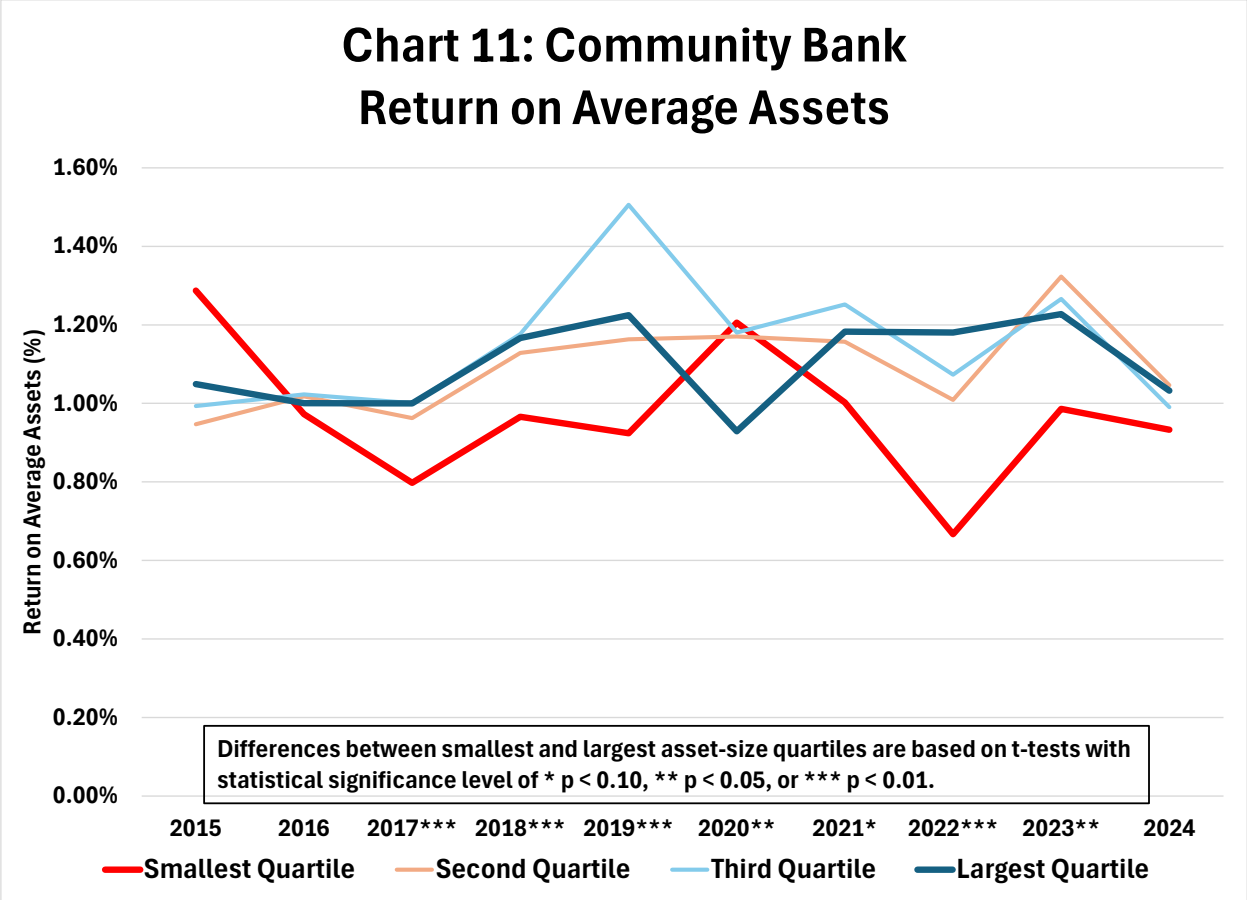
As shown in panel C, the average ratio of C&D lending to capital for the smallest banks range from a low of 21.0 percent to a high of 28.8 percent, and the average ratio of C&D lending to capital for the largest banks range from 52.5 percent to 62.5 percent. For every time period, the smallest banks report a lower ratio of C&D lending to capital than for the larger banks, and the differences for all ten annual observations are highly statistically significant. The differences range from 24.4 percent in 2015 to 36.9 percent in 2023.

As shown in panel D, the average ratio of C&I lending to capital for the smallest banks range from a low of 52.0 percent to a high of 94.3 percent, and the average ratio of C&I lending to capital for the largest banks range from 73.3 percent to 147.8 percent. For every time period, the smallest banks report a lower ratio of C&I lending to capital than for the larger banks, and

the differences for all ten annual observations are highly statistically significant. The differences range from 15.6 percent in 2023 to 53.5 percent in 2020.

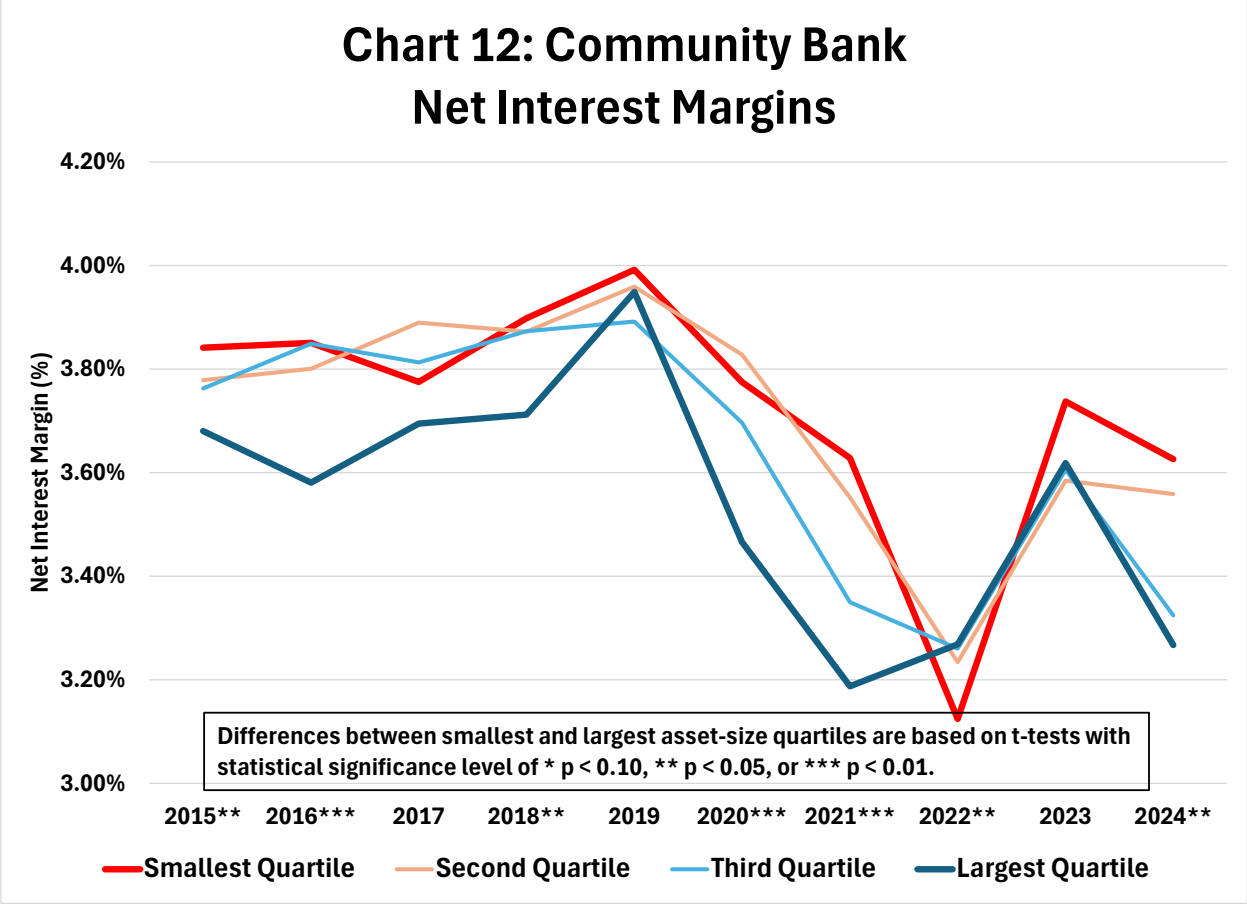
Earnings

Chart 11 shows the average return on average assets for each asset-size quartile. As shown, the average return on average assets for the smallest banks range from a low of 0.67 percent to a high of 1.29 percent, and the average return on average assets for the largest banks range from 0.93 percent to 1.23 percent. For most time periods (eight of ten), the smallest banks report lower return on average assets than for the larger banks, and the differences for four of the ten annual observations are highly statistically significant.



The differences range from 28 basis points higher in 2020 when smaller institutions received an earnings bump from the Paycheck Protection Program to 51 basis points lower in 2022 when the Federal Reserve started a rapid monetary policy tightening cycle.

Interestingly, the net interest margins (NIMs) for the smallest banks are generally wider than for larger institutions. Chart 12 shows the average NIM for each asset-size quartile. As shown, the average NIM for the smallest banks range from a low of 3.12 percent to a high of 3.99 percent, and this is similar to the range found for the largest banks which range from 3.19 percent to 3.95 percent. For nine of the ten time periods, the smallest banks have higher NIMs than the larger banks, but only three annual observations are highly statistically significant. The differences range from 14 basis points lower in 2022 (when the Fed rapidly raised the Fed Funds rate) to 44 basis points higher in 2021.



Liquidity

Chart 13 shows the ratio of brokered deposits to total deposits for each asset-size quartile. As shown, the ratio of brokered deposits to total deposits for the smallest banks range from a low of 0.82 percent to a high of 2.96 percent, and the ratio of brokered deposits to total deposits for the largest banks range from 2.05 percent to 7.20 percent. For all time periods, the smallest banks record a lower ratio of brokered deposits to total deposits than the larger banks, and the differences for eight of the ten annual observations are highly statistically significant. The differences range from 0.55 percent in 2020 to 4.24 percent in 2024.

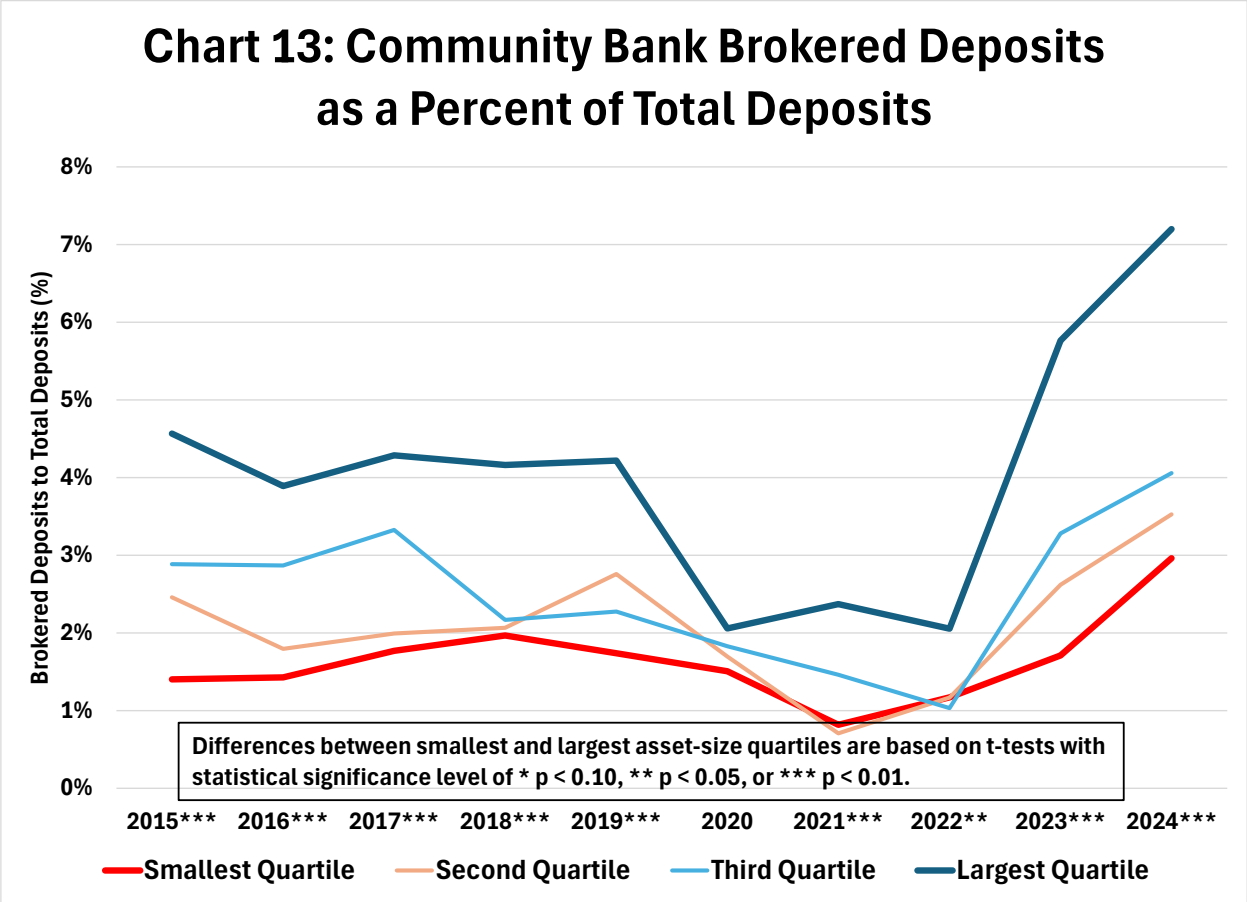
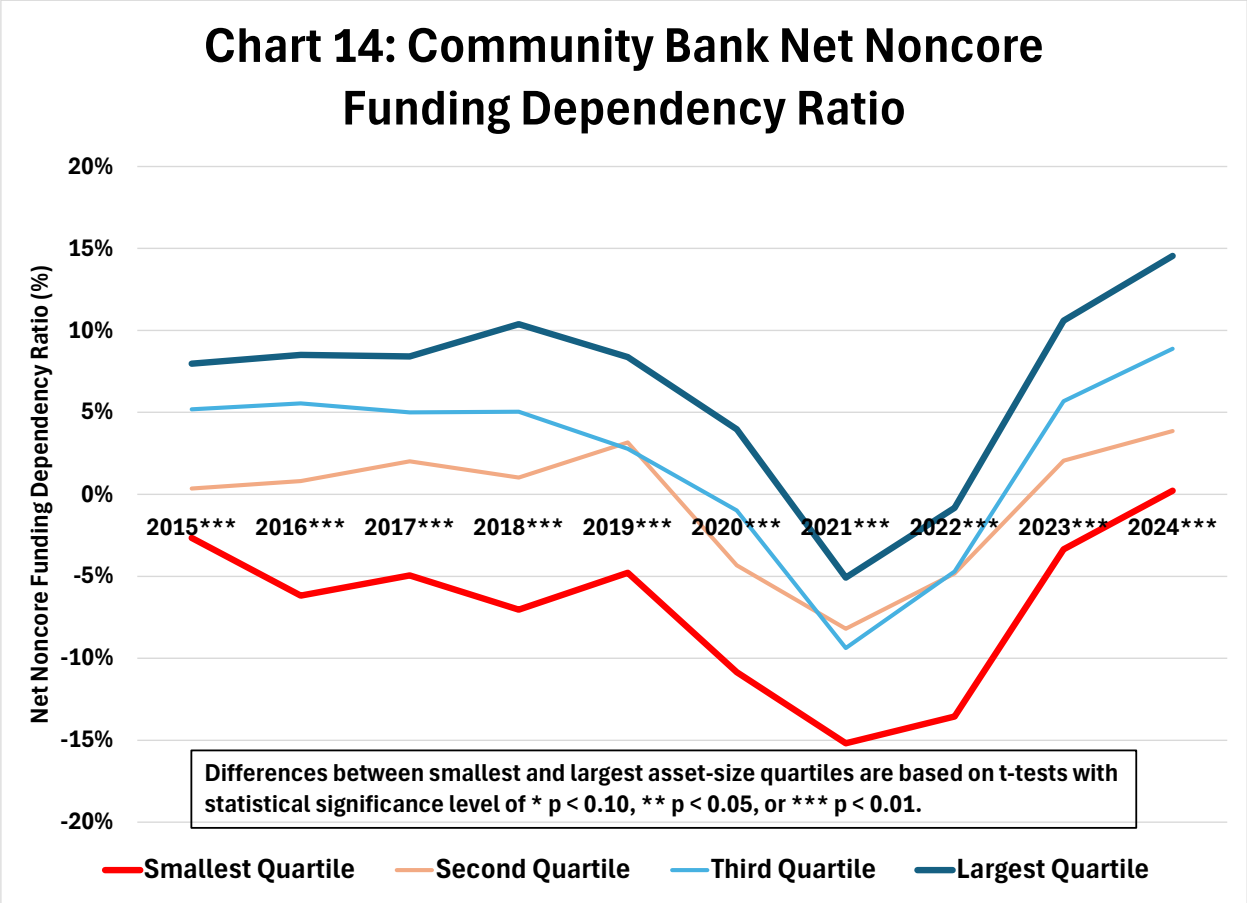


Chart 14 shows the net noncore funding dependency ratio for each asset size quartile. As shown, the net noncore funding dependency ratio for the smallest banks range from 0.22 to a negative 15.19, and the net noncore funding dependency ratio for the largest banks range from

14.54 to a negative 5.07. For all time periods, the smallest banks record a lower net noncore funding dependency ratio than the larger banks, and the differences for all ten annual observations are highly statistically significant. The differences range from 10.11 percent in 2021 to 17.41 percent in 2018.



Summary of Bank Performance Characteristics

For the community banks that participated in the CSBS Annual Surveys, this analysis suggests that smaller banks hold higher capital levels; lend more in farmland real estate and agricultural production and less in CRE, construction & development, and C&I; have stronger liquidity, evidenced by lower noncore funding dependency ratios and fewer brokered deposits; manage higher levels of past due loans; and generally (but not always significantly) have wider

net interest margins and lower profitability. Again, these performance characteristics may not be driven by the finding that smaller banks have higher regulatory compliance costs. More research is needed to investigate causality. The performance differences between small and large banks is descriptive evidence of the various asset-size groups.

VI. Policy Implications and Recommendations

Based on the compliance cost estimates that community banks self-reported in the 2015-2024 CSBS Annual Surveys, this empirical analysis strongly suggests that smaller banks face a statistically significant compliance burden. With smaller community banks shouldering a disproportionately large share of regulatory compliance costs, policymakers have a compelling basis for adjusting regulatory frameworks such as tailored regulatory requirements, streamlined reporting mandates, and targeted exemptions for smaller banks that could mitigate operational burdens without undermining systemic stability. This finding aligns with concerns voiced by Federal Reserve Governor Bowman (2025):

> The bank regulatory framework inherently includes significant costs—both the cost of operating the banking agencies and the cost to the banking industry of complying with regulations, the examination process, and supplying information to regulators both through formal information collections and through one-off requests. In the aggregate, these costs can ultimately affect the price and availability of credit, geographic access to banking services, and the broader economy.

Indeed, fixed regulatory costs have become increasingly unsustainable for smaller banks, threatening their long-term viability and competitiveness. The implication is not merely theoretical, these burdens are real and statistically significant, resulting in a disproportionate burden for smaller banks. In the long run, it likely contributes to industry consolidation, market distortions, fewer new entrants, and reduced access to financial services in underserved areas.

Perhaps the most critical policy implication of this empirical evidence is the need for a scaled and proportionate regulatory framework. Compliance burdens such as legal reviews, audit procedures, technology investments, and staff training impose fixed costs that do not diminish with size. As a result, smaller banks experience higher compliance costs per dollar of assets than their larger counterparts. This uneven cost distribution erodes profitability, inhibits innovation, and ultimately accelerates the exit or merger of smaller banks. These effects are especially pronounced in rural and community-based financial institutions that play a vital role in relationship lending, small business support, and personalized financial services.

A second implication centers on threshold effects that create strategic distortions in banking behavior. As Nippani and Ling (2021) and Aiyar et al. (2014) have noted, banks that approach regulatory asset thresholds frequently take defensive measures to avoid triggering additional compliance obligations. This includes intentionally limiting growth, avoiding certain business lines, or even restructuring. These "compliance traps" reduce the dynamism of the banking sector and interfere with efficient resource allocation. They may also create perverse incentives that increase risk-taking in other areas to offset revenue losses from constrained operations.

Third, the diversion of human and technological resources toward regulatory compliance undermines the core business model of community banks. Carter, McNulty, and Verbrugge (2004) found that smaller institutions outperform larger ones in relationship-based lending—a form of financing critical to local economies. However, when compliance demands consume disproportionate staff time and investments in better technology, banks are forced to sacrifice client service and personalized credit assessments in favor of "box-checking" and document

tracking. This ultimately harms borrowers who depend on community banks for access to flexible, individualized financial solutions.

Fourth, and relatedly, compliance burdens inhibit innovation. While Beccalli (2007) and Nelson (2019) suggest that technology can be leveraged to streamline compliance, small banks often lack the capital to invest in these solutions. The upfront costs of regulatory technology (RegTech)—automated compliance tools, data analytics platforms, and AI-driven monitoring—are often prohibitive for smaller institutions. This leaves smaller banks stuck in a cycle of manual compliance processes and growing vulnerability to regulatory changes. The result is a widening technological and operational gap between community banks and larger, better-capitalized competitors.

To address these issues, several policy recommendations emerge from both Governor Bowman's speech and the empirical findings. First, regulators should adopt a tiered or proportional approach to compliance. This would involve scaling reporting requirements, audit frequencies, and documentation thresholds based on bank size, complexity, and risk profile. Institutions that are small, well-capitalized, and engaged in traditional banking activities should not be subject to the same level of regulatory scrutiny as large, interconnected financial firms. Moreover, any established regulatory thresholds based on asset size should be indexed over time to inflation as the entire industry grows. This approach would reduce unnecessary burdens while maintaining systemic stability.

Second, the introduction of regulatory safe harbors for low-risk institutions could alleviate pressure on community banks. For example, banks with strong capital ratios, low non-performing assets, and minimal exposure to non-traditional activities could qualify for reduced documentation or longer examination cycles. These safe harbors would not exempt banks from

oversight but would tailor requirements to reflect operational realities and reduce redundant compliance efforts.

Third, policymakers should explore ways to incentivize technology adoption in compliance functions. One potential approach is to provide tax credits or federal grants for small banks that invest in certified RegTech platforms. These tools could help automate document preparation, customer due diligence, and regulatory reporting, allowing banks to reallocate resources to lending and community development. Additionally, a centralized, cloud-based compliance infrastructure managed by a trusted regulatory body or cooperative association could help lower barriers to entry for smaller institutions.

VII. Future Research

The findings from this study raise additional questions for future research. First, what specific regulations are more burdensome to smaller community banks? One idea to help address this issue is a new question included in the 2025 CSBS Annual Survey of Community Banks that asks bankers to estimate the percentages of compliance expenses attributable to specific groups of regulations and reporting requirements. These results will be available in October 2025. Community bankers will provide the proportion of total compliance costs attributable to applications and reporting, the Community Reinvestment Act (CRA), consumer protection, money laundering, safety and soundness, and all other regulations and rules. Disaggregating compliance costs by regulation type, such as anti-money laundering rules versus mortgage disclosure requirements, could offer deeper insight into specific areas that are most burdensome for smaller banks. Knowing which regulations produce the highest cost burdens will help

regulatory authorities and policymakers target reform efforts to those areas that will provide the greatest benefits.

Second, a longitudinal analysis of compliance costs before and after key regulatory changes could help determine how these costs evolve in response to shifts in oversight, such as adjustments in capital requirements or the introduction of new consumer protection rules. This might allow researchers to measure both the short- and long-term effects on banks of different sizes.

Third, to move beyond correlation and establish causality, future research could employ instrumental variables or exploit natural experiments. For example, staggered regulatory rollouts or variations in state-level enforcement provide quasi-experimental conditions to better isolate the causal impact of compliance requirements on bank behavior, profitability, and market presence. In addition, this research could explore the potential of regulatory technology (RegTech) to reduce these burdens. Specifically, scholars might be able to assess how investments in compliance software, data automation, and artificial intelligence influence the efficiency of compliance operations in smaller banks, while also identifying the barriers—such as upfront capital costs or cybersecurity risks—that hinder adoption.

Another critical research question involves the effect of compliance burdens on lending behavior and credit availability. Knowing which institutions are subject to higher compliance cost burdens allows for an empirical investigation to test whether increased regulatory overhead leads to reduced lending to small businesses or marginalized communities, higher loan rejection rates, or changes in loan pricing. Relatedly, the growing trend of bank consolidation may be linked to regulatory costs, and research in this area could quantify how much compliance

burdens contribute to merger decisions among community banks. This would provide insight into whether consolidation is driven by efficiency-seeking behavior or regulatory avoidance.

Complementing these quantitative approaches, qualitative and mixed-methods research could examine how community bank leadership perceives and manages compliance. Surveys or in-depth interviews of community bankers could reveal how institutional culture, strategic integration of compliance functions, and local values influence the way compliance burdens are experienced and addressed. Furthermore, a cross-country comparative study could offer valuable lessons by examining proportional or tiered regulatory frameworks in other nations. Jurisdictions like the United Kingdom or Australia may provide evidence on how scalable oversight can maintain financial stability while reducing strain on smaller institutions.

Another area ripe for exploration is how banks behave when nearing regulatory asset thresholds, such as the $500 million or $1 billion levels that trigger new reporting requirements or supervisory standards. Modeling this behavior could reveal whether banks alter growth strategies, investment patterns, or staff hiring to avoid crossing these thresholds. This phenomenon could be shown to be one that introduces inefficiencies into the financial system. Closely related to this is the need to examine the opportunity costs of compliance. Researchers could use time allocation surveys or financial modeling to assess how much innovation, customer engagement, or strategic planning is sacrificed to meet regulatory demands.

Finally, policy simulation models could help forecast the outcomes of implementing scaled regulations. These models could analyze how tiered frameworks (i.e., tailoring) would affect systemic risk, bank failure rates, and market diversity. Such forward-looking research studies are essential to ensuring that regulatory reform maintains the integrity of the financial system while restoring competitiveness and viability to community banks. In sum, a diverse and

multi-method research agenda is needed to more-fully understand and address the real and measurable compliance challenges faced by smaller financial institutions.

VIII. Conclusion

This research provides robust empirical evidence that smaller community banks face a significantly higher regulatory compliance cost burden than their larger counterparts. Across five noninterest expense categories and ten years of data, the smallest asset-size quartile of banks consistently reported greater proportions of their operational spending devoted to regulatory compliance. These differences are not only statistically significant but economically meaningful, with especially stark disparities observed in personnel, data processing, accounting/auditing, and consulting expenses. The results validate a central claim in the literature: fixed regulatory costs do not scale with bank size, making smaller banks more severely impacted.

These findings carry major implications for financial regulation and public policy. A one-size-fits-all compliance framework is not only inefficient, but it also undermines the viability of small, relationship-focused banks that play a critical role in local economies. The evidence supports a shift toward scaled or tiered regulations, including safe harbors and reduced burdens for low-risk, traditional institutions. In addition, small banks should be supported in adopting RegTech solutions to improve compliance efficiency without sacrificing customer service or innovation. Without such reforms, regulatory costs could continue to fuel consolidation, diminish competition, and restrict credit access in rural and underserved regions.

Moreover, the study opens numerous pathways for future research, including disaggregating compliance costs by regulation type, examining the behavioral responses of banks near regulatory thresholds, and modeling the opportunity costs of compliance-related resource

diversion. By pairing empirical rigor with policy relevance, this research contributes to a more nuanced understanding of how bank size, regulation, and operational efficiency intersect, as well as how smarter, more proportional regulation can sustain a diverse and resilient banking system.

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Appendix: Differences in Means *t*-test Results

Community Bank Self-Reported Personnel Expenses (Data for Chart 2)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	12.4	5.6	6.8***	<0.0001
2016	13.0	8.6	4.4***	0.0006
2017	15.3	8.8	6.5***	<0.0001
2018	13.8	7.8	6.0***	<0.0001
2019	15.5	7.3	8.2***	<0.0001
2020	11.0	7.0	4.1***	0.0058
2021	11.5	5.8	5.7***	<0.0001
2022	11.8	7.5	4.4***	0.0005
2023	13.3	9.5	3.8***	0.0038
2024	13.9	9.6	4.3***	0.0052

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Self-Reported Data Processing Expenses (Data for Chart 3)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	20.6	10.1	10.5***	<0.0001
2016	20.1	13.7	6.4***	0.0007
2017	22.4	12.3	10.0***	<0.0001
2018	21.0	13.3	7.7***	<0.0001
2019	22.2	14.0	8.1***	<0.0001
2020	17.5	11.1	6.4***	0.0021
2021	20.0	11.9	8.1***	0.0002
2022	19.5	13.5	6.0***	0.0030
2023	16.5	10.8	5.7***	0.0011
2024	18.0	11.1	6.8***	0.0013

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Self-Reported Legal Expenses (Data for Chart 4)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	19.6	16.3	3.3	0.3237
2016	20.5	20.1	0.4	0.4503
2017	31.1	20.6	10.5***	0.0035
2018	20.5	20.3	0.2	0.4774
2019	20.6	20.2	0.5	0.4510
2020	20.1	19.7	0.4	0.4621
2021	24.1	20.8	3.2	0.2270
2022	22.5	19.0	3.5	0.2056
2023	16.8	13.7	3.0	0.2022
2024	22.9	19.2	3.6	0.2187

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Self-Reported Accounting and Audit Expenses (Data for Chart 5)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	41.4	29.1	12.3***	<0.0001
2016	45.7	39.9	5.8*	0.0636
2017	46.5	37.1	9.5**	0.0133
2018	47.1	32.2	15.0***	<0.0001
2019	48.2	37.6	10.5***	0.0082
2020	43.5	32.5	11.1***	0.0103
2021	45.6	33.2	12.5***	0.0072
2022	41.2	25.7	15.5***	0.0007
2023	42.6	28.9	13.7***	0.0004
2024	49.9	32.9	17.0***	0.0008

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Self-Reported Consulting Expenses (Data for Chart 6)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	63.7	29.7	34.0***	<0.0001
2016	52.9	30.3	22.7***	<0.0001
2017	59.3	30.0	29.4***	<0.0001
2018	61.3	29.2	32.1***	<0.0001
2019	58.1	27.0	31.1***	<0.0001
2020	56.0	25.9	30.1***	<0.0001
2021	52.9	24.0	28.8***	<0.0001
2022	49.2	29.3	19.8***	0.0008
2023	49.2	18.8	30.4***	<0.0001
2024	49.3	19.5	29.8***	<0.0001

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Tier 1 Leverage Capital Ratio (Data for Chart 7)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	11.7	10.1	1.6***	0.0016
2016	11.8	10.5	1.3***	<0.0001
2017	11.6	10.6	1.0***	0.0081
2018	12.2	11.0	1.3***	0.0016
2019	12.8	11.3	1.5***	0.0008
2020	11.8	10.2	1.6***	<0.0001
2021	11.6	10.2	1.5***	<0.0001
2022	11.8	10.3	1.5***	0.0004
2023	12.7	11.1	1.6***	0.0022
2024	12.6	10.9	1.8***	0.0001

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Past Due Loans to Total Loans and Leases (Data for Chart 8)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	2.49	1.30	1.19***	<0.0001
2016	2.10	1.24	0.86***	<0.0001
2017	2.05	1.21	0.84***	<0.0001
2018	2.05	1.10	0.95***	<0.0001
2019	2.74	1.04	1.70***	<0.0001
2020	1.55	1.00	0.55***	0.0056
2021	1.68	0.82	0.86***	0.0003
2022	1.68	0.66	1.02***	<0.0001
2023	1.19	0.68	0.50***	0.0012
2024	1.46	0.91	0.55***	0.0044

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Agricultural Production Loans to Tier 1 Capital (Data for Chart 9A)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	53.6	13.9	39.7***	<0.0001
2016	60.7	14.6	46.2***	<0.0001
2017	64.3	21.2	43.1***	<0.0001
2018	67.8	19.0	48.7***	<0.0001
2019	78.9	19.3	59.6***	<0.0001
2020	77.4	18.4	59.0***	<0.0001
2021	52.5	9.6	42.9***	<0.0001
2022	60.3	15.8	44.5***	<0.0001
2023	49.8	17.0	32.8***	<0.0001
2024	65.8	23.6	42.1***	<0.0001

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Farmland Real Estate Loans to Tier 1 Capital (Data for Chart 9B)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	57.0	21.2	35.7***	<0.0001
2016	60.6	20.3	40.3***	<0.0001
2017	72.4	31.7	40.7***	<0.0001
2018	77.8	30.8	47.0***	<0.0001
2019	77.8	26.9	50.9***	<0.0001
2020	79.5	24.7	54.9***	<0.0001
2021	63.3	18.5	44.8***	<0.0001
2022	64.9	32.3	32.6***	<0.0001
2023	63.4	28.2	35.2***	<0.0001
2024	75.3	28.5	46.8***	<0.0001

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Commercial Real Estate Loans to Tier 1 Capital (Data for Chart 10A)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	138	276	-138***	<0.0001
2016	132	287	-155***	<0.0001
2017	131	292	-162***	<0.0001
2018	120	292	-172***	<0.0001
2019	107	293	-186***	<0.0001
2020	115	305	-191***	<0.0001
2021	124	301	-177***	<0.0001
2022	116	296	-180***	<0.0001
2023	126	306	-181***	<0.0001
2024	122	296	-173***	<0.0001

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Nonowner Occupied CRE Loans to Tier 1 Capital (Data for Chart 10B)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	84	176	-92***	<0.0001
2016	78	196	-118***	<0.0001
2017	73	204	-130***	<0.0001
2018	69	209	-140***	<0.0001
2019	64	208	-144***	<0.0001
2020	71	222	-151***	<0.0001
2021	75	222	-147***	<0.0001
2022	76	213	-137***	<0.0001
2023	83	227	-145***	<0.0001
2024	78	215	-137***	<0.0001

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Construction & Development Loans to Tier 1 Capital (Data for Chart 10C)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	28.1	52.5	24.4***	<0.0001
2016	28.8	55.8	-27.1***	<0.0001
2017	21.8	55.6	-33.9***	<0.0001
2018	24.5	55.5	-31.0***	<0.0001
2019	21.0	56.5	-35.5***	<0.0001
2020	23.3	59.0	-35.7***	<0.0001
2021	24.1	55.4	-31.2***	<0.0001
2022	26.0	58.2	-32.1***	<0.0001
2023	25.6	62.5	-36.9***	<0.0001
2024	24.4	58.7	-34.2***	<0.0001

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Commercial & Industrial Loans to Tier 1 Capital (Data for Chart 10D)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	66.5	103.7	-37.2***	<0.0001
2016	61.5	89.2	-27.8***	<0.0001
2017	68.4	92.1	-23.7***	0.0011
2018	66.2	91.1	-24.9***	0.0006
2019	65.1	91.2	-26.1***	<0.0001
2020	94.3	147.8	-53.5***	<0.0001
2021	78.7	99.9	-21.1***	0.0092
2022	52.0	87.7	-35.8***	<0.0001
2023	57.7	73.3	-15.6***	0.0075
2024	58.9	82.5	-23.6***	0.0010

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Return on Average Assets (Data for Chart 11)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	1.29	1.05	0.24	0.2220
2016	0.97	1.00	-0.03	0.3594
2017	0.80	1.00	-0.20***	0.0014
2018	0.97	1.17	-0.20***	0.0083
2019	0.92	1.22	-0.30***	0.0009
2020	1.21	0.93	0.28**	0.0251
2021	1.00	1.18	-0.18*	0.0881
2022	0.67	1.18	-0.51***	<0.0001
2023	0.99	1.23	-0.24**	0.0235
2024	0.93	1.03	-0.10	0.2067

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Net Interest Margins (Data for Chart 12)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	3.84	3.68	0.16**	0.0471
2016	3.85	3.58	0.27***	0.0012
2017	3.78	3.69	0.08	0.2154
2018	3.90	3.71	0.19**	0.0432
2019	3.99	3.95	0.04	0.3906
2020	3.77	3.47	0.31***	0.0004
2021	3.63	3.19	0.44***	<0.0001
2022	3.12	3.27	-0.14**	0.0452
2023	3.74	3.62	0.12	0.2041
2024	3.63	3.27	0.36**	0.0200

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Brokered Deposits (Data for Chart 13)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	1.40	4.57	-3.16***	0.0001
2016	1.43	3.89	-2.46***	<0.0001
2017	1.77	4.29	-2.52***	0.0012
2018	1.97	4.16	-2.19***	0.0012
2019	1.74	4.22	-2.48***	0.0011
2020	1.50	2.06	-0.55	0.1564
2021	0.82	2.37	-1.56***	0.0038
2022	1.17	2.05	-0.88**	0.0320
2023	1.71	5.76	-4.05***	0.0003
2024	2.96	7.20	-4.24***	0.0095

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.

Community Bank Net Noncore Funding Ratio (Data for Chart 14)				
Survey Year	**Small Banks (%)**	**Large Banks (%)**	**Difference (%)**	***p*-value**
2015	-2.66	7.97	-10.63***	<0.0001
2016	-6.18	8.51	-14.68***	<0.0001
2017	-4.95	8.41	-13.36***	<0.0001
2018	-7.03	10.38	-17.41***	<0.0001
2019	-4.78	8.37	-13.15***	<0.0001
2020	-10.85	3.96	-14.81***	<0.0001
2021	-15.19	-5.07	-10.11***	0.0001
2022	-13.55	-0.82	-12.73***	<0.0001
2023	-3.35	10.59	-13.94***	<0.0001
2024	0.22	14.54	-14.31***	<0.0001

The level of statistical significance for the difference in means *t*-test is indicated as follows: * = $p < 0.10$, ** = $p < 0.05$, and *** = $p < 0.01$.