# Credit Risk Benchmarks 4Q19

**February 2020**

## Commercial Credit Quality Remains Stable Despite Loan Growth Headwinds

*2019 was a challenging year for commercial lending. Predictions of a rebound in C&I loan growth failed to materialize for reasons ranging from recession worries to trade tensions to labor shortages. Compounding the problem, the Fed cut interest rates three times, placing downward pressure on bank net interest margins. Fortunately, commercial loan credit quality is holding steady. In 4Q19, the percentage of C&I loans risk rated classified and criticized were only slightly higher than the historical low watermarks, although some sectors – such as Retail Trade – are beginning to show signs of weakness. For Commercial Real Estate loans, problem loan levels were also low and stable as of the most recent quarter.*

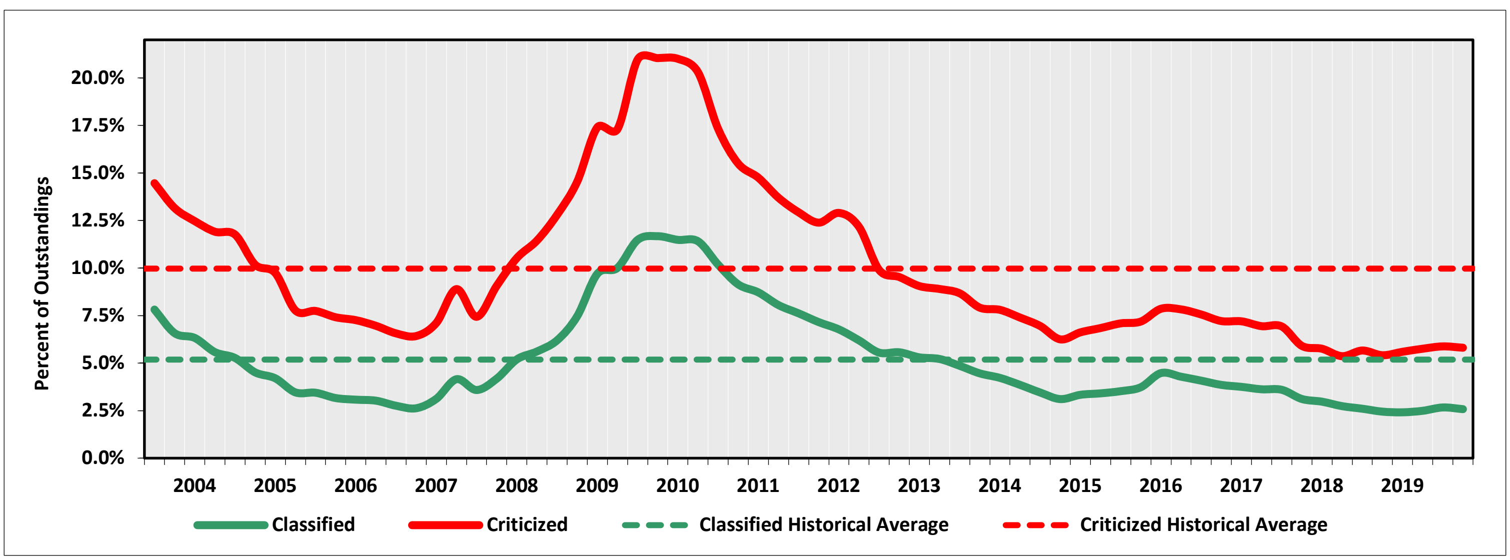
### Credit Quality Comparison 4Q19: By Market Segment

Percent indicates percent of outstanding balances unless otherwise indicated

| Key Risk Indicators | Commercial & Industrial Loans | | | Commercial Real Estate |
|---|---|---|---|---|
| | Business Banking | Middle Market | Large Corporate | |
| **Percent 30–89 Days Past Due** | 0.33% | 0.59% | 0.35% | 0.45% |
| **Percent on Nonaccrual** | 1.09% | 0.77% | 0.41% | 0.28% |
| **Percent Noncurrent (90 Days + Nonaccrual)** | 1.16% | 0.92% | 0.44% | 0.29% |
| **Weighted Average Risk Rating (10 pt RMA Scale)** | 4.99 | 4.26 | 4.24 | 4.71 |
| **Weighted Average PD** | 3.20% | 2.12% | 2.21% | 3.00% |
| **Weighted Average PD: Non-Defaulted Portfolio** | 2.27% | 1.66% | 1.91% | 2.92% |
| **Percent Classified** | 3.60% | 2.54% | 1.48% | 1.02% |
| **Percent Criticized** | 6.24% | 5.70% | 5.68% | 3.68% |
| **LOC Utilization Rate** | 50.37% | 39.19% | 36.79% | 64.07% |

Within the RMA/AFS credit risk database, the business banking segment represents loans to companies with annual sales of less than $20 million, the middle market segment represents companies with annual sales of between $20 million and $200 million, and the large corporate segment represents companies with annual sales greater than $200 million. Commercial Real Estate (CRE) loans represent investor CRE, including land acquisition, development, and construction, multifamily, nonfarm nonresidential, etc.

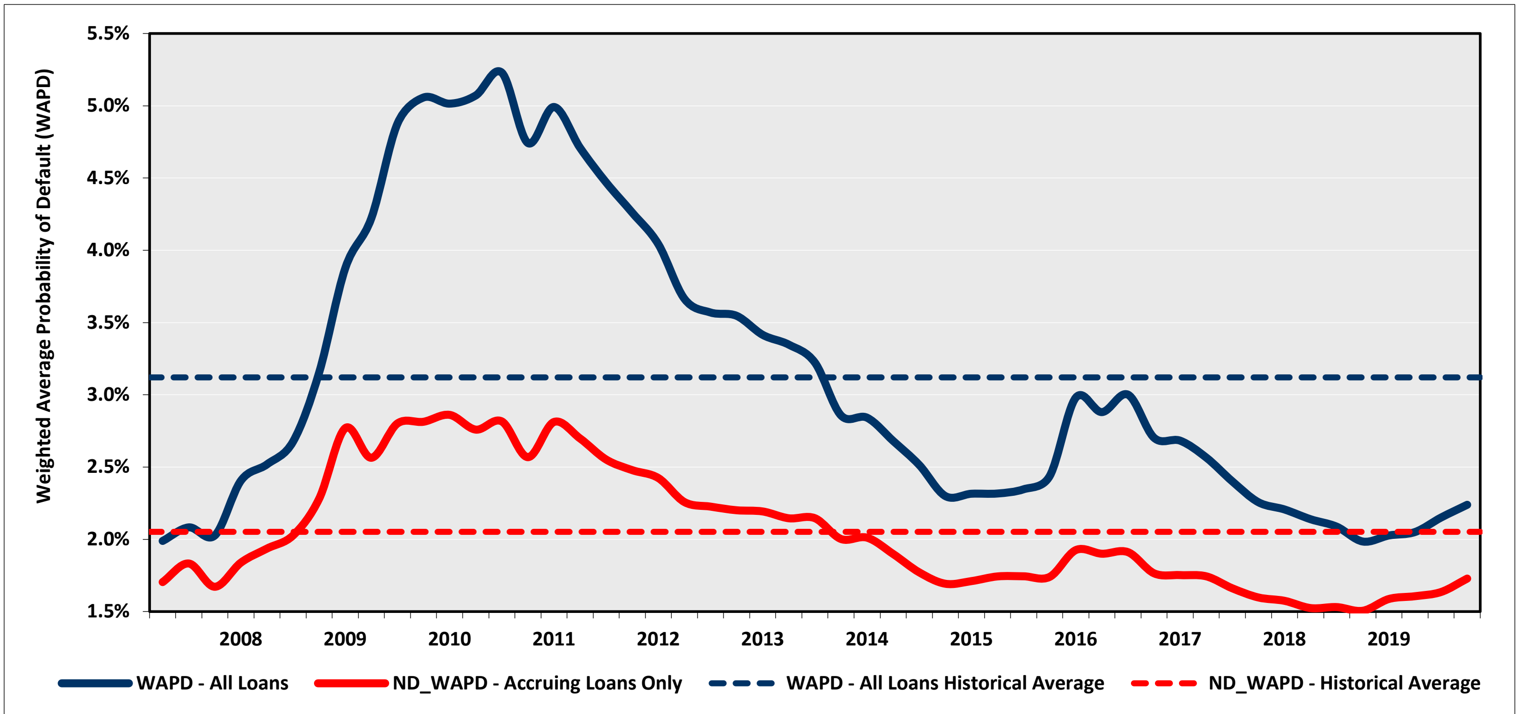
### C&I Loan Quality




After rising throughout most of 2019, the percentage of C&I loans risk rated criticized fell slightly in the fourth quarter. Classified and criticized loan ratios in 4Q19 were well beneath their respective historical averages.

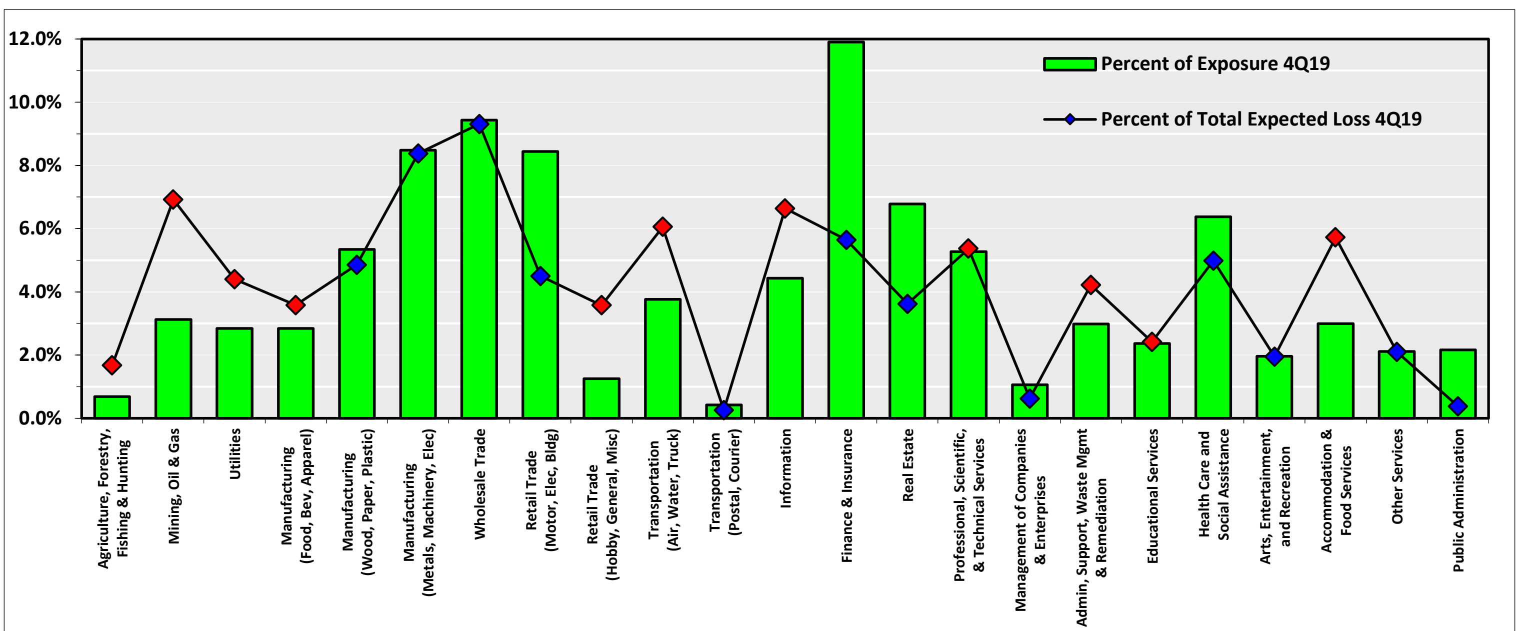
*Notes: "Classified" represents loan outstanding balances risk rated Substandard, Doubtful, or Loss. "Criticized" represents Classified loans as well as loans risk rated Special Mention.*

## Weighted Average Probability of Default Trend




The weighted average probability of default – both for all C&I loans and for the non-defaulted sample – increased sharply year over year in 4Q19. Over this period, Retail Trade, Utilities, and Technology were the sectors with the largest deteriorations in default likelihoods.

## Expected Loss by Industries




The industry make up of the RMA/AFS credit risk database is represented by the green bars. The horizontal line graph represents the expected loss estimates. For the industries where the line graph is greater than the green bars, the expected loss for that sector is greater than the relative contribution of the sector in terms of exposure. The industries depicted by the red markers are currently bearing a disproportionate amount of expected losses.

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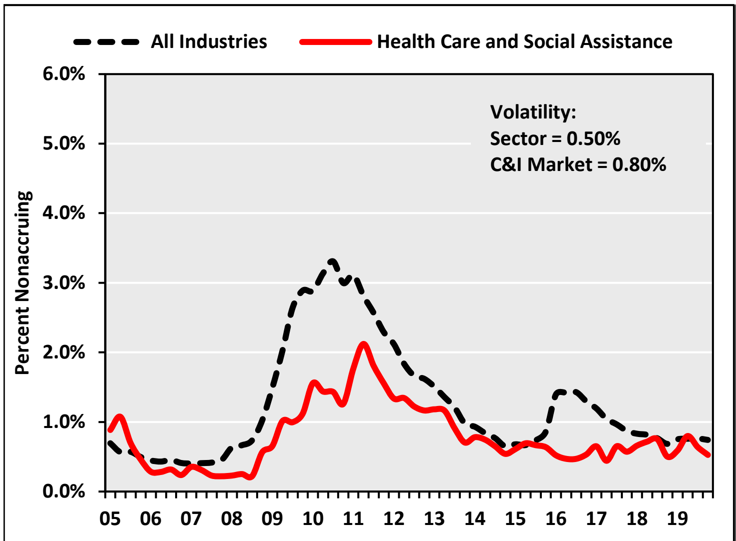
## Industry Volatility

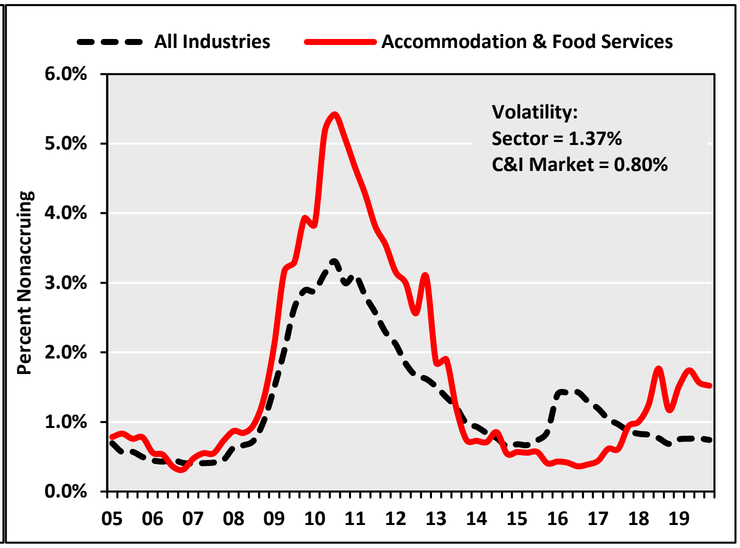
| Industry (Two-Digit NAICS) | Volatility | x More/Less Volatile than All Industries* | Volatility Rank |
|---|---|---|---|
| *All Industries* | *0.80%* | *NA* | *NA* |
| Mining, Oil & Gas | 4.75% | 5.92 | 1 |
| Real Estate | 1.50% | 1.87 | 2 |
| Construction | 1.41% | 1.76 | 3 |
| Accommodation & Food Services | 1.37% | 1.70 | 4 |
| Agriculture, Forestry, Fishing & Hunting | 1.35% | 1.68 | 5 |
| Finance & Insurance | 1.34% | 1.68 | 6 |
| Information | 1.34% | 1.68 | 7 |
| Utilities | 1.17% | 1.45 | 8 |
| Other Services | 1.06% | 1.32 | 9 |
| Management | 1.01% | 1.26 | 10 |
| Manufacturing (Metals, Machinery, Elec) | 1.01% | 1.26 | 11 |
| Arts, Entertainment, and Recreation | 1.00% | 1.25 | 12 |
| Retail Trade (Hobby, General, Misc) | 0.96% | 1.20 | 13 |
| Retail Trade (Motor, Elec, Bldg) | 0.95% | 1.19 | 14 |
| Manufacturing (Wood, Paper, Plastic) | 0.93% | 1.16 | 15 |
| Admin & Waste Mgmt | 0.88% | 1.10 | 16 |
| Professional, Scientific, & Technical Services | 0.85% | 1.06 | 17 |
| Transportation (Air, Water, Truck) | 0.76% | 0.95 | 18 |
| Manufacturing (Food, Bev, Apparel) | 0.64% | 0.80 | 19 |
| Wholesale Trade | 0.60% | 0.75 | 20 |
| Transportation (Postal, Courier) | 0.58% | 0.73 | 21 |
| Health Care and Social Assistance | 0.50% | 0.62 | 22 |
| Educational Services | 0.40% | 0.50 | 23 |
| Public Administration | 0.10% | 0.12 | 24 |

1st Quartile (Most Volatile) | 2nd Quartile | 3rd Quartile | 4th Quartile (Least Volatile)

*For example, Mining, Oil & Gas is 5.92 times more volatile than the All Industries average. Volatility calculated as the standard deviation of quarterly nonaccrual rates from 2003 to 2019.

## Industry Volatility – Health Care & Social Assistance vs. Accommodation & Food Services




At the sector level, certain industries are more volatile than others, even when accounting for differences in customer sizes and profiles. Volatility here is measured as the average deviation from the historical average. For the vast majority of historical vintages, Health Care outperformed the C&I average for nonaccruals. Conversely, compared with the market average, the Accommodation & Food Services sector experienced larger and more frequent swings in nonaccruing loans. A comparison of the industry trends reveals that Accommodation & Food Services is nearly three times more volatile than Health Care in terms of nonaccruing performance. By using the RMA/AFS credit risk database to analyze industry volatility, banks can determine the sector mix that delivers the lowest nonaccruing performance with the least amount of variance over time.

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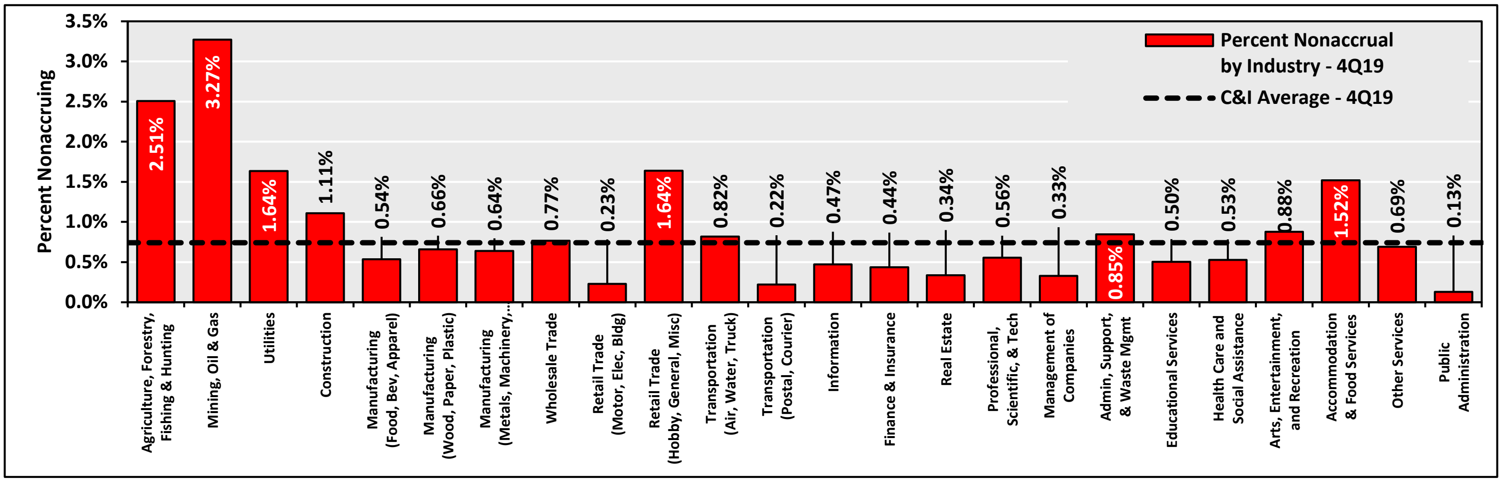
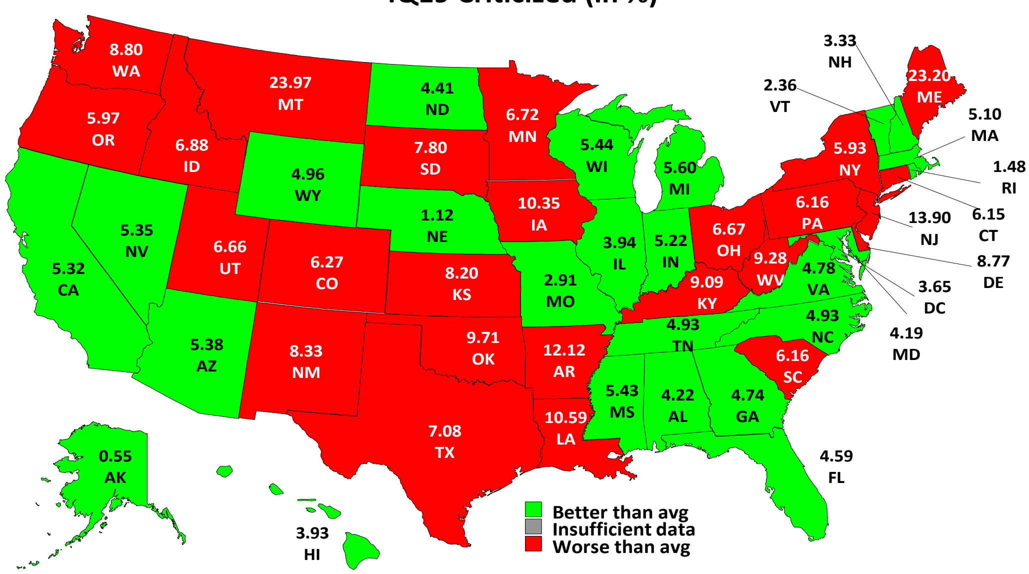
## Problem C&I Loans by Industry: Nonaccruing Loans




Here, we examine nonaccruing loan ratios by industry (red bars) relative to the C&I market average (dotted-black line). Nonaccrual rates for Agriculture and Mining, Oil & Gas remained well above the C&I average in 4Q19. In the same quarter, nonaccrual rates for all three Manufacturing NAICS industry sectors were lower (better) than the C&I average.

## Problem C&I Loans by State: Criticized Loans

**4Q19 Criticized (in %)**




All geography-based data in the RMA/AFS credit risk database is based on the ZIP Code of the borrower (for C&I loans) or the property (for Commercial Real Estate). This map illustrates the percentage of C&I loans risk rated criticized. Year over year, criticized loans increased substantially in Texas and Montana, with the Energy sector driving the former and the Agriculture industry accounting for the latter's increase.

## About the Credit Risk Benchmarks

The information in this newsletter is derived from the RMA/AFS Risk Analysis Service, a comprehensive credit risk benchmarking program for U.S. commercial banks. The Risk Analysis Service is an industry led, credit risk data consortium providing peer benchmarks for risk ratings (PD, LGD, and EL), delinquencies, nonaccruals, charge-offs, and line utilization rates.

For more information and how to become part of the Risk Analysis Service, contact Doug Skinner at 484-875-1562 or dskinner@afsvision.com.

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