COVID-19 Fears Could Amplify Bank Earnings Pressures

4Q19 | MARCH 2, 2020
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Job growth in the West remained robust, but the coronavirus (COVID-19) outbreak may lead to disruptions in the coming months. One-quarter annualized nonfarm job growth in the Federal Reserve’s Twelfth District (District) accelerated modestly to 2.0% in 4Q19, from 1.9% one quarter earlier, continuing the upward trend in growth from late-2018, and unemployment rates ticked down across the District. The education/health services sector was the main driver of Districtwide growth in 4Q19, and the retail trade and leisure/hospitality sectors saw notable boosts in hiring. Meanwhile, manufacturing job growth slowed, possibly reflecting, in part, ongoing production delays at Boeing. Job growth eased quarter-over-quarter among some District states, such as Washington, Idaho, and Alaska (see chart at right). Of note, state-level job figures remain subject to annual benchmark revisions, which may result in changes to the historical employment picture. Looking ahead, the COVID-19 virus outbreak may significantly disrupt supply chains and weigh on tourism and consumption in early 2020. Several markets in the District have above-average exposures to travelers from and trade with China as well as Asia more broadly, and declining oil prices will be a headwind for Alaska in particular.

Housing markets diverged across the District as the decline in mortgage rates paused. In 4Q19, home-price growth accelerated in the District’s coastal states, but mostly slowed in inland states, with the exception of Arizona. Appreciation rates remained significantly below 2018 rates, which when combined with lower interest rates and stronger incomes, benefited housing affordability across the District relative to 4Q18. While lower for-sale inventories constrained existing-home sales in the West, new-home sales and 1-4 family permits reached new post-crisis highs, and multi-family permits remained near record levels. A growing share of mortgage lenders expected home prices to stabilize in the coming year, but regional homebuilder sentiment improved to levels not seen since 2005.

Commercial real estate (CRE) fundamentals in the District remained stable, and investors became more optimistic about future conditions. District-wide vacancy rates in the apartment and industrial sectors edged up in 4Q19; meanwhile, vacancy rates in the office and retail sectors increased throughout 2019 but remained near post-crisis lows. CBRE Econometric Advisors (CBRE-EA) expected vacancies to generally rise across sectors and markets over the coming year as completions increase and absorptions fall; however, their forecasts also suggested net CRE operating income would strengthen further. Nationwide CRE price trends diverged across sectors in late 2019, with industrial property appreciation accelerating while office price growth slowed relative to its trend in recent years. Surveyed CRE investors became more optimistic about future market conditions in January 2020. Subsequent COVID-19 developments could pose headwinds to some property types.
Bank earnings dipped year-over-year and quarter-over-quarter. District banks’ average full-year ROAA ratio was 1.21%, down 5 bps from 2018 (adjusted for Subchapter S tax filers), constrained by narrower net interest margins. Meanwhile, the average one-quarter annualized ROAA was 1.12%, down 16 bps from both the prior and year-ago quarters. Interest rate and asset mix-driven declines in net interest margins led the trend, with seasonal increases in overhead expenses adding to the quarterly dip. In early 2020, fears surrounding the expanding COVID-19 outbreak pushed U.S. yields lower and inverted the yield curve, which will likely weigh on margins in the near term.

Annual net loan growth downshifted further but loan defaults and losses remained low (see chart, upper left). The District’s annual net loan growth rate averaged 7.72%, down a notable 53 bps from 3Q19, while the national average eased 39 bps to 4.51%. Similar to 3Q19, average growth rates slowed among most major portfolio categories, but the multifamily and non-1-4 family C&LD mortgage categories continued to register double-digit average growth rates. Moderating economic growth and slower whole-bank merger activity likely contributed to decelerating loan growth. District banks’ average nonowner-occupied CRE loan-to-capital ratio was relatively stable at 228%, still more than 100 bps above the national average. The January 2020 Federal Reserve Senior Loan Officer Opinion Survey noted little quarterly change in underwriting, with the exception of consumer lending, where standards tightened. Responses to questions about expectations for underwriting and loan performance in the coming year suggested more sanguine sentiment than in the year-earlier survey; however, the subsequent COVID-19 outbreak may dampen lender optimism.

On-balance sheet liquidity and capital positions improved slightly. District banks’ average loan-to-asset ratio edged down to 69.8%, from 70.0% in 3Q19 and 70.5% in 4Q18. Banks’ assets continued to be supported mainly by nonmaturity deposits (NMDs), although reliance on jumbo NMDs and certificates of deposit (CDs) ticked higher year-over-year. Capital ratios generally improved. Comparatively large dividend payouts at mid- and large-sized firms, which were typically outsized in support of parent company share repurchases, often limited the pace of capital accretion at those firms.

Supervisory ratings upgrades continued to outpace downgrades. During 2019, safety and soundness examination component and composite ratings improved, on net, at a small fraction of District banks (see chart, bottom left). Earnings and Asset Quality component ratings were more frequently upgraded than other areas. Overall, 92% of safety and soundness ratings and 97% of consumer compliance and Community Reinvestment Act performance ratings were satisfactory or better in the District.
Section 1
Spotlight Feature & Hot Topics

Community Bank Leverage Ratio

Hot Topics We Are Monitoring Most Closely
Optional alternative capital measurements will be reported by community banks beginning in 1Q20. Consistent with section 201 of the Economic Growth, Regulatory Relief, and Consumer Protection Act (EGRRCPA), depository institutions and holding companies with less than $10 billion in total assets that meet other qualifying criteria will be eligible to opt into the community bank leverage ratio (CBLR) framework.

CBLR should simplify capital calculations and reduce reporting and compliance burdens. Qualifying institutions that elect to use the CBLR framework and meet all requirements will be considered “well capitalized” for purposes of Prompt Corrective Action and the FDIC’s deposit insurance assessment process, and will not need to submit risk-based capital calculations.

The majority of community banks in the District are expected to qualify for CBLR. A review of preliminary 4Q19 data filed by District banks suggested that 76% of all banks and 86% of community banks (i.e., total assets of less than $10 billion) would qualify, compared with a national average of 81% of all banks and 84% of community banks. The share of CBLR-qualifying banks across the District and its states varied depending upon size distribution, current tier 1 leverage ratios, and the degree of OBS exposures (see chart at right). Generally, banks with high levels of trading activity, another factor that limits qualification, were already disqualified because of other criteria.

To qualify, an institution must hold less than $10 billion in assets, have OBS exposures less than or equal to 25% of total assets, trading assets plus trading liabilities less than or equal to 5% of assets, a CBLR ratio of at least 9%, and not be an “advanced approach” banking organization. OBS exposures include the following: unused portions of conditionally cancellable commitments; self-liquidating, trade-related contingent items that arise from the movement of goods; contingent items such as performance bonds, bid bonds, and warranties; sold credit protection in the form of guarantees and credit derivatives; credit-enhancing representations and warranties; OBS securitization exposures; letters of credit; forward agreements that are not derivative contracts; and securities lending and borrowing transactions. Estimates used in this analysis did not factor in separate capital simplification changes, which may increase tier 1 calculations at some firms, and estimated OBS data from identifiable items available as of 4Q19, which may be incomplete.

Includes commercial banks supervised by the OCC, FDIC and Federal Reserve, including industrial loan companies (predominantly located in Utah); estimated from bank Call Report data as of 4Q19; although some firms failed multiple criteria, for simplicity, banks were classified according to the first point of failure in qualifying, considering tier 1 leverage first, OBS exposure second, and trading exposures third.
• **Current risk-based capital (RBC) standards provide incentives for holding lower-risk assets.** Because of the construction of risk-based capital ratios, banks with larger shares of assets in low-risk categories report higher RBC ratios. Several bank investment categories benefit from preferential RBC treatment. For instance, a 0% risk weight is typically assigned to cash and assets subject to unconditional federal guarantees. A 20% risk weight applies to interest bearing balances and federal funds sold to domestic banks, municipal general obligation bonds, federally-sponsored agency obligations, and certain pass-through MBS. Meanwhile, a 50% weight is applied to municipal revenue bonds and qualifying residential MBS and loans. These assets are considered to have lower credit risk profiles; they are also some of the most liquid assets held by banks.

• **CBLR adoption could increase credit and liquidity risk profiles.** Although CBLR adopters will be limited by the 9% CLBR minimum, their mix of assets will no longer be constrained by the risk-weighing process. Given that assets with lower credit and liquidity risk tend to be lower yielding, banks may opt to shift assets into higher-risk investments in order to optimize asset returns. For instance, securities, which can often carry RBC risk weights of 50% or less and are held as a liquidity cushion, generally yield lower returns than loans (see chart, upper right).

• **CBLR qualification could shift during a recession.** Although District community bank RBC ratios remained far above Prompt Corrective Action (PCA) “well-capitalized” minimums during the financial crisis, the average tier 1 leverage ratio came close to the CBLR minimum of 9% by the end of 2009, a year in which bank profits sank because of sudden swings in provision expenses (see chart, lower right). Roughly 35% of District community banks reported leverage ratios below 9% by 4Q09, while only 5% had such low ratios in 4Q19. Ultimately, if a CBLR institution fails to satisfy one of the qualifying criteria but has a leverage ratio above 8%, it can continue to use the CBLR framework and be considered “well capitalized” for a grace period of up to two quarters. If it cannot re-establish compliance by then, or if it has a leverage ratio of 8% or less, it must comply with applicable RBC rules.
Hot Topics: Areas We Are Monitoring Most Closely

The following areas are drawing heightened monitoring within the Twelfth District:

- **Cyberthreats.** Attackers prey on the vulnerability of humans as well as systems, leaving bank networks, their employees, and their clients targets for cyberattacks. According to the [Identity Theft Resource Center](https://www.idtheftcenter.org), financial institutions publicly reported fewer data breaches in 2019 than 2018; however, the disclosed number of sensitive records exposed increased 56-fold, fueled by a single event. Breach methods included unauthorized access (42%), intrusion/phishing/ransomware/malware/skimming (29%), employee error/negligence (11%), accidental internet exposure (11%), insider theft (6%), and physical theft (2%). Strong staff and customer training, ongoing patch management, and effective vendor management remain important risk mitigants.

- **Bank Secrecy Act (BSA)/Anti-Money Laundering (AML) compliance.** Even though the volume of BSA/AML-related supervisory criticisms at District institutions has moderated, monitoring remains heightened because of the District’s role in the global economy, the array of activities being conducted by supervised institutions, and the expanding scope of cannabis legalization.

- **CRE lending concentrations.** Nonowner-occupied CRE loan concentrations have eased from pre-crisis peaks because of lower C&LD lending volumes, but they remained above the U.S. average across most District states (see table at right). Concentration levels, combined with elevated property prices and potential competitive easing of underwriting standards, heighten regulatory concern. A significant shift in financing conditions and/or job markets could pressure CRE price appreciation. For risk management guidance, see the [Interagency Statement on Prudent Risk Management for CRE Lending](https://www.federalreserve.gov/newsevents/speech/robert-weyer-20191205a.htm).

- **Quality of loan growth.** Since early 2014, banks based in the West have reported one of the fastest average annual rates of loan growth among the Federal Reserve’s twelve districts. Above-average economic growth, strong real estate price appreciation, and bank merger activity contributed to portfolio increases. However, many CRE loans are underpinned by historically high collateral values. Vulnerabilities extend to segments such as C&I. The U.S. corporate debt-to-gross domestic product ratio is near record levels, propelled in part by leveraged and near-subinvestment grade loans. Leverage, combined with loosened underwriting, may amplify commercial loan losses during the next recession. Banks that have not invested in highly-leveraged loans and bonds directly may still be vulnerable to indirect risks since highly-leveraged firms may be employers or CRE tenants within their local markets.

### Average Commercial Real Estate Loans / Total Capital* (%)

<table>
<thead>
<tr>
<th></th>
<th>2008-19**</th>
<th>Dec-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>305%</td>
<td>267.1%</td>
</tr>
<tr>
<td>WA</td>
<td>352%</td>
<td>226.4%</td>
</tr>
<tr>
<td>OR</td>
<td>330%</td>
<td>217.8%</td>
</tr>
<tr>
<td>AZ</td>
<td>326%</td>
<td>194.5%</td>
</tr>
<tr>
<td>NV</td>
<td>389%</td>
<td>177.0%</td>
</tr>
<tr>
<td>HI</td>
<td>167%</td>
<td>166.9%</td>
</tr>
<tr>
<td>AK</td>
<td>161%</td>
<td>161.1%</td>
</tr>
<tr>
<td>ID</td>
<td>231%</td>
<td>152.7%</td>
</tr>
<tr>
<td>UT</td>
<td>264%</td>
<td>122.5%</td>
</tr>
<tr>
<td>Nation</td>
<td>150%</td>
<td>126.7%</td>
</tr>
</tbody>
</table>

*Trimmed means; excludes owner-occupied CRE; **Dec. 31 of each year.

[SF Fed](https://www.federalreserve.gov)
**Hot Topics: Areas We Are Monitoring Most Closely**

- **Reaching for yield.** Since the last recession, banks have shifted their balance sheet mix, in part to accommodate loan demand but also to combat a persistently low interest rate environment. Many banks have decreased their holdings of securities and liquid instruments in favor of comparatively higher-yielding loans. They also have increased their holdings of longer-term assets. Part of the maturity shift was driven by changes in investment portfolio mix, which, on average, moved away from federal, agency, and municipal-backed bonds towards longer-dated, higher-yielding RMBS and CMBS securities. These shifts may have implications for inherent credit, liquidity, and interest rate risk positions at banks.

- **Consumer compliance issues.** In addition to redlining, overdraft practices, unfair or deceptive acts or practices, and recent changes to the Home Mortgage Disclosure Act, supervisors are monitoring risks posed by increased merger and acquisition activity. Expanding business volumes; changing operations, delivery channels, or market areas; and new products or business lines could amplify compliance risks.

- **Evolving financial technology (fintech) opportunities and risks.** Fintech includes a broad range of technologies and services involving digitization of lending and servicing, payments, wealth management, data aggregation, and other areas. Banks have increasingly partnered with or expressed interest in acquiring fintech firms, and have leveraged advanced technologies to perform processes. Also, customer expectations have increased with respect to technology-driven delivery of services. Fintech can add to the credit, operational, reputational, legal, and/or compliance risks faced by financial institutions.

- **Global economic slowing and Coronavirus.** In January 2020, the International Monetary Fund (IMF) lowered its expectations for world output, projecting global growth of 2.9% in 2019 and 3.3% in 2020, down 10 bps in each case from its October 2019 forecast. However, the expanding Novel Coronavirus (COVID-19) outbreak prompted the IMF to subsequently reduce its 2020 baseline forecasts for growth in China by 40 bps. and globally by 10 bps. Initially, the outbreak was expected to unfold similarly to Severe Acute Respiratory Syndrome (SARS) in 2002-03, with health and economic impacts felt most acutely during the first half of the year, centering in China and Asia. However, the depth and breadth of impact remains uncertain given the evolving nature of containment. In the District, hotel operators, retailers, and transportation providers in convention and tourism-exposed areas such as Hawaii, Las Vegas, San Francisco, San Jose, Los Angeles, and Seattle could feel the effects in particular. Companies reliant on Asia’s supply chains as well as distribution firms and industrial property owners around West Coast ports may also be vulnerable. Declines in trade with Asia could affect some District states disproportionately (see table at right). Already, commodity prices have sunk and a “flight to safety” has caused U.S. Treasury yields to plumb new lows and triggered equity price volatility. Investor nervousness may divert funds into bank deposit products, but interest rate declines will likely pressure bank net interest margins in the near term. Should the number of U.S. cases increase significantly, containment measures (and fear) could dampen domestic activity as travelers, shoppers, and employees avoid contagion risks. The banking agencies’ guidance on pandemic planning from 2007 (see SR letter 07-18, FFIEC Guidance on Pandemic Planning) may help banks prepare for operational challenges associated with an expanded U.S. outbreak.

<table>
<thead>
<tr>
<th>2018 Trade / Domestic Product</th>
<th>China*</th>
<th>Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>7%</td>
<td>12%</td>
</tr>
<tr>
<td>WA</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>ID</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td>OR</td>
<td>4%</td>
<td>10%</td>
</tr>
<tr>
<td>NV</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td>UT</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>AK</td>
<td>3%</td>
<td>8%</td>
</tr>
<tr>
<td>AZ</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>HI</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>12L</td>
<td>6%</td>
<td>11%</td>
</tr>
<tr>
<td>Nation</td>
<td>4%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Trade = imports plus exports; *includes Hong Kong and Taiwan; Sources: Dept. of Commerce; Bureau of Economic Analysis.
Section 2
Economic Conditions

Job Growth
Housing Market
Commercial Real Estate

For more information on the District's economy, see:
Banks at a Glance
(https://www.frbsf.org/banking/publications/banks-at-a-glance/)

For more information on the national economy, see:
FedViews
(https://www.frbsf.org/economic-research/publications/fedviews/)
FOMC Calendar, Statements, & Minutes
(https://www.federalreserve.gov/monetarypolicy/fomcccalendars.htm)
District job growth was strong; some sectors such as professional/business services and manufacturing slowed.

### Nonfarm Job Growth

#### (1-Quarter Seasonally Adjusted Annual Rate)

<table>
<thead>
<tr>
<th>District</th>
<th>Nation</th>
<th>Sep-01</th>
<th>Sep-03</th>
<th>Sep-05</th>
<th>Sep-07</th>
<th>Sep-09</th>
<th>Sep-11</th>
<th>Sep-13</th>
<th>Sep-15</th>
<th>Sep-17</th>
<th>Sep-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.6%</td>
<td>0.0%</td>
<td>-6.5%</td>
<td>-8.7%</td>
<td>3.6%</td>
<td>2.0%</td>
<td>-6.5%</td>
<td>1.6%</td>
<td>-10.0%</td>
<td>-8.0%</td>
<td>-6.0%</td>
<td>-4.0%</td>
</tr>
</tbody>
</table>

Based on quarterly average nonfarm payroll levels, seasonally adjusted; construction sector includes mining and logging in Hawaii; information sector excludes Hawaii and Nevada. Source: Bureau of Labor Statistics via Haver Analytics.

### Twelfth District Jobs by Sector

#### 1-Qtr Growth (annualized)

- **Information**: 3.65%
- **Construction**: 3.54%
- **Edu. & Health Svcs.**: 3.24%
- **Financial Activities**: 3.06%
- **Transport. & Utilities**: 2.14%
- **Prof. & Business Svcs.**: 2.05%
- **Leisure & Hospitality**: 1.84%
- **Wholesale Trade**: 1.54%
- **Government**: 1.52%
- **Other Private**: 0.99%
- **Manufacturing**: 0.79%
- **Retail Trade**: 0.67%
- **Total Nonfarm**: 2.01%

### Consumer Confidence

Consumer confidence remained high but was volatile in 2019, while business sentiment weakened.

#### Consumer Confidence & Small Business Optimism (4Q14 = 100)

- **Consumer Confidence**: [Graph]
- **Small Business Optimism**: [Graph]
- **Manufacturing PMI**
- **Nonmanufacturing PMI**


### Home-price growth in coastal District states rebounded in 4Q19, while growth eased in most inland District states.

#### Year-over-Year % Change in Home Price Index

<table>
<thead>
<tr>
<th>Year</th>
<th>ID</th>
<th>AZ</th>
<th>UT</th>
<th>WA</th>
<th>OR</th>
<th>AK</th>
<th>NV</th>
<th>CA</th>
<th>HI</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec-18</td>
<td>11.7%</td>
<td>9.5%</td>
<td>7.4%</td>
<td>6.7%</td>
<td>6.6%</td>
<td>5.6%</td>
<td>5.2%</td>
<td>5.0%</td>
<td>4.4%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Sep-19</td>
<td>9.9%</td>
<td>6.5%</td>
<td>6.0%</td>
<td>6.1%</td>
<td>4.9%</td>
<td>4.5%</td>
<td>5.7%</td>
<td>4.7%</td>
<td>3.3%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Dec-19</td>
<td>10.8%</td>
<td>6.2%</td>
<td>6.9%</td>
<td>6.7%</td>
<td>4.3%</td>
<td>4.1%</td>
<td>4.6%</td>
<td>3.6%</td>
<td>2.8%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

Home price index includes all detached and attached single-family homes, including distressed sales. Source: CoreLogic.

### Slower home-price growth and lower mortgage rates than a year ago benefited housing affordability.

#### Un-weighted Average Metro Housing Opportunity Index, December Each Year

(% of Home Sales Deemed Affordable to Median Family Income; Lower Ratio = Less Affordable)

- **Major Metros**: [Graph]
- **Seattle**: [Graph]
- **So. CA**: [Graph]
- **SF Bay Area**: [Graph]
- **Other CA Metros**: [Graph]

Assumes median income, 10% down payment, ratio of income-to-housing costs (principal, interest, taxes, and hazard insurance) of 28%, and a fixed-rate, 30-year mortgage; So. CA = Los Angeles, Orange, Riverside-San Bernardino, San Diego, and Ventura metros; SF Bay Area = San Francisco, Oakland, San Jose, Napa, Vallejo, and Santa Cruz metros. Sources: National Association of Homebuilders/Wells Fargo via Haver Analytics, FRB-SF calculations.
Existing home sales dipped in 4Q19, in part because of lower listings; new home sales reached new post-crisis high.

More mortgage lenders expected price stability in the coming year, but large lenders were the most optimistic.

Homebuilder sentiment in the West neared pre-crisis highs, while national sentiment neared late-1990s highs.
Post-crisis, apartment prices surged most in hard hit inland markets; tech/California metros led office/industrial gains.

Cumulative Change in CRE Price per Square Foot or Unit in Western U.S. Metros (4Q19 vs. Recession-Era Trough)

<table>
<thead>
<tr>
<th>Apartment</th>
<th>4Q19 vs. Trough</th>
<th>Office</th>
<th>4Q19 vs. Trough</th>
<th>Industrial</th>
<th>4Q19 vs. Trough</th>
<th>Retail</th>
<th>4Q19 vs. Trough</th>
</tr>
</thead>
<tbody>
<tr>
<td>Las Vegas</td>
<td>377%</td>
<td>San Francisco</td>
<td>304%</td>
<td>San Francisco</td>
<td>303%</td>
<td>San Francisco</td>
<td>215%</td>
</tr>
<tr>
<td>Phoenix</td>
<td>372%</td>
<td>San Jose</td>
<td>246%</td>
<td>San Jose</td>
<td>285%</td>
<td>Las Vegas</td>
<td>212%</td>
</tr>
<tr>
<td>Sacramento</td>
<td>301%</td>
<td>East Bay</td>
<td>228%</td>
<td>East Bay</td>
<td>233%</td>
<td>Phoenix</td>
<td>198%</td>
</tr>
<tr>
<td>San Francisco</td>
<td>277%</td>
<td>Seattle</td>
<td>221%</td>
<td>Los Angeles</td>
<td>229%</td>
<td>Orange Co.</td>
<td>185%</td>
</tr>
<tr>
<td>Portland</td>
<td>268%</td>
<td>Las Vegas</td>
<td>219%</td>
<td>Inland Empire</td>
<td>227%</td>
<td>Salt Lake City</td>
<td>170%</td>
</tr>
<tr>
<td>San Jose</td>
<td>263%</td>
<td>Inland Empire</td>
<td>212%</td>
<td>Other West</td>
<td>213%</td>
<td>Sacramento</td>
<td>165%</td>
</tr>
<tr>
<td>Seattle</td>
<td>263%</td>
<td>Los Angeles</td>
<td>208%</td>
<td>Nation</td>
<td>213%</td>
<td>Inland Empire</td>
<td>160%</td>
</tr>
<tr>
<td>East Bay</td>
<td>252%</td>
<td>Phoenix</td>
<td>205%</td>
<td>Las Vegas</td>
<td>202%</td>
<td>San Diego</td>
<td>157%</td>
</tr>
<tr>
<td>Salt Lake City</td>
<td>251%</td>
<td>Orange Co.</td>
<td>186%</td>
<td>Portland</td>
<td>197%</td>
<td>Orange Co.</td>
<td>156%</td>
</tr>
<tr>
<td>Inland Empire</td>
<td>246%</td>
<td>Portland</td>
<td>174%</td>
<td>Las Vegas</td>
<td>197%</td>
<td>Sacramento</td>
<td>150%</td>
</tr>
<tr>
<td>Nation</td>
<td>238%</td>
<td>Nation</td>
<td>169%</td>
<td>Other West</td>
<td>184%</td>
<td>Salt Lake City</td>
<td>147%</td>
</tr>
<tr>
<td>San Diego</td>
<td>218%</td>
<td>Other West</td>
<td>166%</td>
<td>Nation</td>
<td>183%</td>
<td>Salt Lake City</td>
<td>142%</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>212%</td>
<td>Sacramento</td>
<td>163%</td>
<td>San Diego</td>
<td>177%</td>
<td>Nation</td>
<td>141%</td>
</tr>
<tr>
<td>Orange Co.</td>
<td>207%</td>
<td>San Diego</td>
<td>156%</td>
<td>Salt Lake City</td>
<td>173%</td>
<td>Other West</td>
<td>136%</td>
</tr>
<tr>
<td>Other West</td>
<td>184%</td>
<td>Salt Lake City</td>
<td>155%</td>
<td>Sacramento</td>
<td>171%</td>
<td>East Bay</td>
<td>135%</td>
</tr>
</tbody>
</table>

Based on hedonic price series that control for quality differences in the datasets across observations, such as subgeography, size, and age of properties; covers sale transactions of properties or portfolios with a price floor of $2.5 million; “recession-era trough” defined as the lowest value for each series between 1Q06 and 4Q16; “Other West” includes smaller metros in AK, CA, HI, ID, MT, NV, OR, UT, WA, and WY, but excludes AZ. Source: Real Capital Analytics, Inc.
In 4Q19, national CRE price growth was mixed: industrial growth accelerated, office growth slowed relative to trend.

**Commercial & Residential Property Price Indices – Nation (Dec-06 = 100)**

- **Suburban**: 96.5, 107.1, 103.4, 112.0
- **CBD**: 137.8, 143.4, 103.4, 112.0

**Average Annual Growth in Price Indices**

<table>
<thead>
<tr>
<th>Year</th>
<th>Commercial &amp; Residential Property Price Indices</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Yr.</td>
<td>9.6%</td>
</tr>
<tr>
<td>5-Yr.</td>
<td>10.6%</td>
</tr>
<tr>
<td>10-Yr.</td>
<td>10.1%</td>
</tr>
</tbody>
</table>

CBD = central business district (downtown); based upon repeat-sales transactions; 5- and 10-year rates reflect compound annual growth. Sources: Real Capital Analytics, Inc. (CRE price indices) and CoreLogic (single-family home price index).

CBRE-EA forecasted District CRE absorption would fall across sectors as completions trended higher.

**Twelfth District Aggregate Annual Absorption and Completion Rates**

- **Office**: Annual Absorptions, Annual Completions as % of Beginning Stock
- **Industrial**: Annual Absorptions, Annual Completions as % of Beginning Stock
- **Retail**: Annual Absorptions, Annual Completions as % of Beginning Stock
- **Apartment**: Annual Absorptions, Annual Completions as % of Beginning Stock

Although CRE investor optimism brightened in January 2020, the expanding COVID-19 virus may shift sentiment.

**CRE Investor Expectations for One Year Ahead**

Survey data was collected in the first month of each quarter. Source: Real Estate Roundtable Sentiment Index reports.
Section 3
Commercial Bank Performance

Earnings
Loan Growth and Concentrations
Credit Quality
Liquidity and Interest Rate Risk
Capital

Note: Bank size groups are defined as very small (< $1B), small ($1B - $10B), mid-sized ($10B - $50B), and large (> $50B) banks. The large bank group covers nationwide banks (a larger statistical population), while the other three groups cover Twelfth District banks.
Year-to-date ROAA ratios dipped year-over-year, crimped by weaker net interest margins.

Both declining short-term rates and lower loan-to-asset ratios weighed on quarterly margin performance.

Year-to-date overhead expense ratios trailed 2018 but topped the national average due to personnel costs.

Although it still outpaced the national average, District banks’ annual loan growth rate slipped further.
Average annual loan growth at banks slowed across most District states compared with 3Q19.

Average Year-over-Year Net Loan Growth (%)

Average = trimmed mean; growth for loans net of allowances for loan losses, not merger-adjusted; NV excludes zero loan and credit card banks; includes loans and leases held for sale and for investment, net of allowances for loan and lease losses.

More subdued bank merger activity in 2019 may have contributed to slower growth rates in the District.

Whole Bank Acquisitions of or by District Banks (Includes Assisted Transactions)

Includes whole national, state member, and state nonmember banks that were acquired, including corporate reorganizations and assisted transactions of failed banks; between 2009 and 2011, 72 failed District banks were acquired and 58 failed banks were acquired by District banks; shown by effective year. Source: FDIC Reports of Structure Changes.

Appetite for whole-bank mergers waned, partly on pricing concerns, but willingness to buy fintech/tech firms increased.

What Likely Acquirers May Buy in the Coming Year*

2020 Top Deal Barriers

Respondents selected up to 3

Pricing expectations of targets 72%
Lack of suitable targets in desired markets 56%
Concerns about target asset quality 36%
Integration concerns 29%
Demands on capital 26%
Lack of M&A experience 20%

On average, slowing occurred across most loan segments; multifamily mortgage growth was strongest and steady.

Average Year-over-Year Loan Growth, Selected Loan Categories

Average = trimmed mean; growth rates are not merger-adjusted; C&LD = construction and land development; nonfarm-nonresidential includes mortgages with owner-occupied collateral.
Although high, CRE loan concentration ratios edged lower and remained below C&LD-fueled pre-crisis levels.

Fewer CRE lenders tightened standards; however, a growing share of consumer lenders tightened underwriting.

A smaller share of lenders foresaw tightening standards in the year ahead vs. 2019 survey, except for consumer loans.

Fewer lenders expected weakening credit in year ahead vs. 2019 survey; C&I, auto, and CRE still concerns among some.
**Overall, delinquency ratios remained near cycle lows; however average C&I past-dues moved noticeably higher.**

### Average Past Due 30+ Days or Nonaccrual / Gross Loans & Leases

- **District**
  - Dec-11: 4.22%
  - Dec-15: 2.76%
  - Dec-19: 3.10%
- **Nation**
  - Dec-11: 10.0%
  - Dec-15: 12.5%
  - Dec-19: 24.2%

### Average Share of Gross Loans & Leases

- **District**
  - C&I: 43.5%
  - 1-4 Family Mortgages: 0.7%
  - Nonfarm-Nonresid.: 5.9%
  - Agricult. Production: 0.39%
  - C&LD: 3.24%
- **Nation**
  - C&I: 24.2%
  - 1-4 Family Mortgages: 5.3%
  - Consumer Nonfarm-Nonresid.: 5.4%
  - Agricult. Production: 0.50%
  - C&LD: 1.45%

---

### Overall, loan losses centered in C&I and consumer categories; C&I net chargeoff rates ticked up across size groups.

### Average YTD Net Chargeoffs / Average Loans & Leases

- **All Loans & Leases**
  - Dec-09: 0.13%
  - Dec-11: 0.32%
  - Dec-13: 0.15%
  - Dec-15: 0.15%
- **C&I Loans**
  - Dec-09: 0.07%
  - Dec-11: 0.28%
  - Dec-13: 0.14%
  - Dec-15: 0.14%
- **Consumer Loans**
  - Dec-09: 0.30%
  - Dec-11: 0.38%
  - Dec-13: 0.13%
  - Dec-15: 0.13%

---

### ALLL growth continued to trail increases in loans; coverage of noncurrent was high but volatile with credit cycle.

### Average ALLL Coverage of Loans not HFS (%) and Noncurrent Loans (X)

- **District**
  - Dec-07: 1.30%
  - Dec-19: 5.32X
- **Nation**
  - Dec-07: 1.25%
  - Dec-19: 6.09X

---

### 4Q19 asset liquidity improved slightly year-over-year, mirroring a nationwide trend.

### Avg. Net Loans and Leases/Assets

- **Dec-05**
  - District: 71.0%
  - Nation: 75.8%
- **Dec-19**
  - District: 70.5%
  - Nation: 69.6%

### Avg. Securities & Liquid Invest./Assets

- **District**
  - Dec-05: 23.7%
  - Dec-19: 30.1%
- **Nation**
  - Dec-05: 21.7%
  - Dec-19: 24.3%

---

*All data are averages (trimmed means); net loans and leases = loans and leases held for sale and for investment, net of allowances for loan and lease losses; liquid investments = cash, due from balances, interest bearing balances, and federal funds sold & securities purchased under agreements to resell.*
However, the mix of securities shifted away from government bonds, increasing liquidity, credit, and interest rate risks.

The 4Q19 increase in long-term rates weighed slightly on net unrealized bond portfolio gains at District banks.

Net Loans and Leases growth waned during 2018’s rising interest rate environment, but accelerated as rates dropped in 2019.
Reliance on jumbo NMDs and CDs ticked higher.

Average Liability Category / Assets

<table>
<thead>
<tr>
<th></th>
<th>District</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jumbo NMDs</td>
<td>36.5%</td>
<td>31.2%</td>
</tr>
<tr>
<td>CDs (Including Brokered)</td>
<td>21.1%</td>
<td>16.1%</td>
</tr>
<tr>
<td>CDs &gt; $250K</td>
<td>36.5%</td>
<td>31.2%</td>
</tr>
<tr>
<td>Borrowings</td>
<td>4.9%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Brokered Deposits* / Total Brokered Deposits</td>
<td>2.2%</td>
<td>3.2%</td>
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</table>

SF Fed

Average “Brokered” Reciprocal Deposits’ / Total Brokered Deposits

<table>
<thead>
<tr>
<th></th>
<th>Dec-17</th>
<th>Dec-19</th>
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<tbody>
<tr>
<td>District</td>
<td>46.22%</td>
<td>0.02%</td>
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<tr>
<td>Nation</td>
<td>29.35%</td>
<td>0.51%</td>
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</table>

Average = trimmed mean; jumbo = greater than $250K; NMD = nonmaturity deposit; CD = certificate of deposit; borrowings = federal funds purchased, repurchase agreements, and other borrowed money; *beginning with the June 2018 Call Reports, qualifying (generally well-rated and well-capitalized) banks could discontinue reporting reciprocal deposits as brokered so long as they aggregated less than $5 billion or 20% of total liabilities, as permitted under the Economic Growth, Regulatory Relief, and Consumer Protection Act (EGRRCPA) of 2018.

An increasing share of surveyed community bankers noted that deposit growth was one of their top challenges.

Greatest Business Challenges among Community Bank CEOs

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<tr>
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<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
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</thead>
<tbody>
<tr>
<td>Deposit Growth</td>
<td>52.5%</td>
<td>39.4%</td>
<td>33.3%</td>
<td>32.3%</td>
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<tr>
<td>Keeping Up with Technology</td>
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<td>Credit Union Competition</td>
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<td>Nonbank Competition</td>
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<tr>
<td>Capital</td>
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</tr>
</tbody>
</table>

Respondents were allowed to select up to three responses. Source: Independent Banker, Community Bank CEO Outlook Survey.

Bankers indicated greater willingness to expand deposit/borrowing channels than raise deposit rates to grow funding.

Strategies Banks are Adopting to Increase Funding

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhance Online/Mobile Features</td>
<td>60.0%</td>
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<tr>
<td>Diversify Funding Sources</td>
<td>44.0%</td>
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<tr>
<td>Create/Reconfigure Deposit Products</td>
<td>44.0%</td>
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<td>-</td>
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<tr>
<td>Increase Marketing</td>
<td>42.0%</td>
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<tr>
<td>Increase Overnight Fed Funds/FHLB</td>
<td>28.0%</td>
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<tr>
<td>Increase Short-Term Wholesale Funding</td>
<td>13.0%</td>
<td>-</td>
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<tr>
<td>Increase Deposit Rates</td>
<td>12.0%</td>
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<tr>
<td>Increase Long-Term Wholesale Funding</td>
<td>11.0%</td>
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<tr>
<td>Create Internet Bank</td>
<td>7.0%</td>
<td>-</td>
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<td>-</td>
</tr>
</tbody>
</table>

SF Fed

Declining short-term interest rates and a steepening yield curve in 4Q19 may have prompted banks to lengthen assets.

Average % of Loans & Securities Repricing > 3 Years

<table>
<thead>
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<th></th>
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</thead>
<tbody>
<tr>
<td>District</td>
<td>46.3%</td>
<td>45.0%</td>
<td>42.0%</td>
<td>35.0%</td>
<td>30.0%</td>
<td>25.0%</td>
<td>20.0%</td>
<td>15.0%</td>
<td>10.0%</td>
<td>5.0%</td>
<td>0.0%</td>
<td>5.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Nation</td>
<td>43.4%</td>
<td>42.0%</td>
<td>39.4%</td>
<td>32.3%</td>
<td>28.0%</td>
<td>25.0%</td>
<td>22.0%</td>
<td>19.2%</td>
<td>16.1%</td>
<td>12.0%</td>
<td>9.0%</td>
<td>6.0%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

Average = trimmed mean.

FHLB = Federal Home Loan Bank; based upon nationwide survey of 543 bank CEOs, presidents, and CFOs between January 7 and January 21, 2020; respondents could select multiple options. Source: Promontory Interfinancial Network, Bank Executive Business Outlook Survey, 4Q19.
Regulatory capital ratios edged higher year-over-year, but District risk-based ratios continued to lag the nation.

Average Regulatory Capital Ratios

In recent years, increases in regulatory capital ratios were often more pronounced at smaller banks.

Average Regulatory Capital Ratios by Bank Size

Mid- and large-sized banks paid out more than half of 2019 profits as dividends to shareholders/holding companies.

Average YTD Cash Dividends / Net Income by Bank Size

Dividend payouts constrained the pace of capital accretion via retained earnings at mid- and large-sized banks.

Average YTD Dividends and Retained Earnings / Average Equity by Bank Size

Average = trimmed mean; new risk-based capital rules that became effective March 2015 for most banks (March 2014 for some larger/more complex banks) included the phase out of some capital instruments and higher risk weights on some asset and off-balance sheet commitment categories; beginning with the June 2018 Call Report, banks could opt to implement changes to the definition of high volatility commercial real estate (per the Economic Growth, Regulatory Relief, and Consumer Protection Act of 2018), which may have reduced risk weightings for a generally small subset of assets previously weighted at 150%.
Appendix 1: Summary of Institutions

<table>
<thead>
<tr>
<th>Area</th>
<th>Commercial Banks (De Novos)</th>
<th>Industrial Banks (De Novos)</th>
<th>Savings Institutions (De Novos)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AK</td>
<td>4 (0)</td>
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<tr>
<td>AZ</td>
<td>15 (0)</td>
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<tr>
<td>CA</td>
<td>140 (2)</td>
<td>134 (2)</td>
<td>3 (0)</td>
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<td>GU</td>
<td>2 (0)</td>
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<td>HI</td>
<td>5 (0)</td>
<td>5 (0)</td>
<td>1 (0)</td>
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<td>ID</td>
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<td>WA</td>
<td>33 (0)</td>
<td>32 (0)</td>
<td>-</td>
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<tr>
<td>12L</td>
<td>263 (2)</td>
<td>250 (3)</td>
<td>22 (0)</td>
</tr>
<tr>
<td>U.S.</td>
<td>4,688 (12)</td>
<td>4,492 (26)</td>
<td>24 (0)</td>
</tr>
</tbody>
</table>

Appendix 2: Technical Information & Abbreviations

General: This report focuses on the financial trends and performance of commercial banks headquartered within the Twelfth Federal Reserve District ("12L"). 12L includes nine western states: AK, AZ, CA, HI, ID, NV, OR, UT, and WA, as well as Guam.

Banking Statistics: Unless otherwise noted, all data are for commercial banks based upon headquarters location. Averages are calculated on a “trimmed” basis by removing the highest 10% and lowest 10% of ratio values prior to averaging to prevent distortion from outliers. Earnings figures are presented on an annualized year-to-date or quarterly basis, as noted. Growth rates are not adjusted for mergers. The latest quarter of data is considered preliminary. Other than the table to the left, most graphics exclude “De Novo” banks (i.e., less than five years old) and industrial banks and savings institutions, which have different operating characteristics.

Groups by Asset Size: “Very Small,” “Small,” and “Mid-Sized” bank groups are based on total asset ranges of <$1 billion, $1-$10 billion, and $10-$50 billion, respectively. The “Large” bank group uses banks with assets >$50 billion nationwide because these banks typically operate beyond the District’s geographic footprint and a larger statistical population is preferred for trimmed means.

Commonly Used Abbreviations:

- AFS: Available for sale
- ALLL: Allowance for loan and lease losses
- BSA/AML: Bank Secrecy Act / Anti-Money Laundering
- C&I: Commercial & industrial
- C&LD: Construction & land development
- CD: Certificate of deposit
- CMBS: Commercial mortgage-backed securities
- CRE: Commercial real estate
- HFS: Held for sale
- MMDA: Money market deposit account
- NFNR: Nonfarm-nonresidential
- NMD: Nonmaturity deposit
- RMBS: Residential mortgage-backed security
- ROAA: Return on average assets
- TE: Tax equivalent
- YTD: Year-to-date

Based on preliminary 4Q19 data.