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For a discussion of risk factors that may cause actual results to differ from expectations, please refer to BOK Financial Corporation’s most recent annual and quarterly reports. BOK Financial Corporation and its affiliates undertake no obligation to update, amend, or clarify forward-looking statements, whether as a result of new information, future events, or otherwise.

Annualized, pro forma, projected and estimated numbers are used for illustrative purpose only, are not forecasts and may not reflect actual results.

Non-GAAP Financial Measures: This presentation may refer to non-GAAP financial measures. Additional information on these financial measures is available in BOK Financial’s 10-Q and 10-K filings with the Securities and Exchange Commission which can be accessed at www.BOKF.com.
• Top 30 national/regional bank*

• Long-term focused Midwest/Southwest franchise with market cap over $5 billion

• Seasoned management team

• Proven ability to deliver organic growth

• Consistent execution

• Consistent strategy

**NASDAQ: BOKF**

<table>
<thead>
<tr>
<th>September 30, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
</tr>
<tr>
<td>$43 billion</td>
</tr>
<tr>
<td>Loans</td>
</tr>
<tr>
<td>$22 billion</td>
</tr>
<tr>
<td>Deposits</td>
</tr>
<tr>
<td>$26 billion</td>
</tr>
<tr>
<td>Fiduciary Assets</td>
</tr>
<tr>
<td>$49 billion</td>
</tr>
<tr>
<td>Assets Under Management &amp; Custody</td>
</tr>
<tr>
<td>$81 billion</td>
</tr>
</tbody>
</table>

* Total assets at 09/30/2019
Build a recession-ready bank that will outperform peers across the economic cycle

"There is no principle more emphasized in our organization than managing for long-term value rather than short-term results."

– George Kaiser, Chairman
Diverse Revenue Sources

- 40% fee income is a differentiator for BOKF compared to other midsized regional banks
- Well diversified: no single component of fee income accounts for more than 10% of total revenue
- Further diversity within the fee income categories:
  - **Brokerage and trading**
    Institutional trading, retail brokerage, investment banking, and financial risk management
  - **Transaction card**
    ATM network and merchant services
  - **Fiduciary and asset management**
    Mutual funds; corporate, foundation, and personal trust; 401(k) services; and professional services including mineral management
  - **Mortgage banking**
    Direct mortgage originations, mortgage servicing
Strong Balance Sheet

**Metric:**

<table>
<thead>
<tr>
<th>Metric</th>
<th>09/30/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period End Loans</td>
<td>$22.3 billion</td>
</tr>
<tr>
<td>Period End Deposits</td>
<td>$26.2 billion</td>
</tr>
<tr>
<td>Loan to Deposit Ratio</td>
<td>85%</td>
</tr>
</tbody>
</table>

**Capital Ratios:**

<table>
<thead>
<tr>
<th>Capital Ratios</th>
<th>Regulatory minimum for well-capitalized:</th>
<th>09/30/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Equity Tier 1</td>
<td>7%</td>
<td>11.06%</td>
</tr>
<tr>
<td>Tier 1 Capital Ratio</td>
<td>8.5%</td>
<td>11.06%</td>
</tr>
<tr>
<td>Total Capital Ratio</td>
<td>10.5%</td>
<td>12.56%</td>
</tr>
<tr>
<td>Leverage Ratio</td>
<td>4%</td>
<td>8.41%</td>
</tr>
</tbody>
</table>

**Capital Deployment Strategy:**

- Primary use is for organic growth and regular quarterly dividends
- Growing capital ratios back to pre-CoBiz levels
- Opportunistic share re-purchases
- Disciplined M&A of targeted firms that add to the quality, scale and scope of client offerings
Strong Core Deposit Franchise

Deposit mix and cost ($bn)

- Demand
- Interest-bearing transaction
- Savings
- Time

<table>
<thead>
<tr>
<th>Period</th>
<th>Demand</th>
<th>Interest-bearing transaction</th>
<th>Savings</th>
<th>Time</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec '15</td>
<td>$21</td>
<td>$23</td>
<td>$22</td>
<td>$25</td>
<td>$6</td>
</tr>
<tr>
<td>Dec '16</td>
<td>$23</td>
<td>$24</td>
<td>$22</td>
<td>$25</td>
<td>$8</td>
</tr>
<tr>
<td>Dec '17</td>
<td>$22</td>
<td>$23</td>
<td>$22</td>
<td>$25</td>
<td>$6</td>
</tr>
<tr>
<td>Dec '18</td>
<td>$25</td>
<td>$24</td>
<td>$22</td>
<td>$26</td>
<td>$9</td>
</tr>
<tr>
<td>Sept '19</td>
<td>$26</td>
<td></td>
<td></td>
<td></td>
<td>$9</td>
</tr>
</tbody>
</table>

Cost:
- Dec '15: 0.34%
- Dec '16: 0.44%
- Dec '17: 0.79%
- Dec '18: 0.87%
- Sept '19: 1.17%

Geographic deposit mix

- TX 23%
- OK 48%
- AZ 5%
- CO 15%
- KS/MO 2%
- NM 6%
- AR 1%

MSA | Branches | Deposit share |
---|----------|---------------|
Tulsa, OK | 24 | 32% |
Dallas-Fort Worth-Arlington, TX | 20 | 2% |
Oklahoma City, OK | 20 | 10% |
Albuquerque, NM | 15 | 11% |
Houston-The Woodlands-Sugar Land, TX | 11 | 1% |
Denver-Aurora-Lakewood, CO | 14 | 4% |
Kansas City, MO-KS | 7 | 2% |
Phoenix-Mesa-Scottsdale, AZ | 5 | 1% |
Fayetteville-Springdale-Rogers, AR-MO | 2 | 2% |
Other MSAs | 16 | |
**Total Branches** | **134** | |

Source: Company filings; SNL Financial
Diversified Loan Portfolio

**Loan Portfolio Segmentation**
- General C&I: 32%
- Commercial Real Estate: 21%
- Energy: 18%
- Healthcare: 14%
- Residential: 9%
- Personal: 5%
- Other: 21%

**Loan Portfolio by Collateral Location**
- TX: 31%
- OK: 16%
- CO: 14%
- AZ: 8%
- NM: 4%
- KS/MO: 6%
- Other: 21%

Disciplined concentration management
Diversified by sector and geography
Over 100 year history in energy lending and a playbook that works

- Focus on first lien, senior secured E&P lending – the “sweet spot” in energy lending
- Internal staff of 16 petroleum engineers and engineering techs to confirm property values – a material investment that is a key to strong credit performance across the cycle.
- Focus on on-shore “lower 48” property sets with no deep-water offshore exposure
- Minimal exposure to second liens, undeveloped reserves, or other higher-risk components of the capital stack
- 50-60% loan to value on proved producing reserves
- Actual forward markets are the value determinant for borrowing bases
- Extraction and transportation costs are deducted from collateral values

At 09/30/2019

- $4.1 billion outstanding and $3.2 billion unfunded commitments
- E&P line utilization 59%
Healthcare Banking Expertise

- Growing line of business within commercial banking
- As of September 30, 2019, outstandings totaled $3.0 billion across 31 states
- Healthcare portfolio characteristics:
  - Favorable LIBOR spreads
  - Above-average loan utilization rates
  - Predominately BOK Financial originated commitments - less than 12% of commitments from broadly syndicated transactions
  - Senior Housing commitments real-estate collateralized and secured
  - Favorable credit metrics

Portfolio Composition at 09/30/2019

<table>
<thead>
<tr>
<th></th>
<th>Senior Housing</th>
<th>Hospital</th>
<th>Service Medical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Housing</td>
<td>72%</td>
<td>12%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Loans Outstanding ($mil)

CAGR: 16.5%

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Housing</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.10%</td>
</tr>
<tr>
<td>Hospital</td>
<td>-1.10%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>1.93%</td>
<td>2.05%</td>
<td>2.78%</td>
</tr>
<tr>
<td>Medical</td>
<td>0.02%</td>
<td>-0.03%</td>
<td>-0.12%</td>
<td>-0.02%</td>
<td>1.31%</td>
<td>-0.32%</td>
<td>-0.36%</td>
</tr>
</tbody>
</table>

Strong through-the-cycle credit performance
Commercial Real Estate

- $4.6 billion outstanding and $1.6 billion unfunded commitments at September 30, 2019
- BOKF allocates 175% of Tier 1 capital plus reserves to CRE
- Further controls and limitations by product type and geography. Concentration guidelines are analyzed and adjusted quarterly as needed
- Extensive, granular loan underwriting guideline standards reviewed and adjusted semi-annually
- Strong relationship between the front line production/bankers and credit concurrence officers. Bi-weekly vetting and discussion of potential opportunities in loan pipeline
- Minimal exposure to residential construction and land development (highest risk, most cyclical sector in CRE)
Wealth Management

Four primary lines of business
• Private Wealth
• BOK Financial Advisors
• Institutional Wealth Management
• Cavanal Hill Investment Management

• Clients include high net worth individuals, corporations, pensions, foundations, government entities, etc.

Wealth Management by the numbers
• Assets under management or custody: $81 billion
• Fiduciary assets: $49 billion
• Average Loans: Over $1.6 billion
• Average Deposits: Over $6.2 billion
• More than $1 trillion in traded securities annually

Awards, recognition and rankings
• 19 “Best in Class” awards for Retirement Plans group
• Seventh largest corporate trustee bank ranked by number of issues and dollar amount
• Two five-star ratings from Morningstar for Cavanal Hill
• Three #1 Lipper awards in 2016 for Cavanal Hill
• Five top-ten rankings for investment banking underwriting services
• One of the top 25 firms that fulfills the hedging needs of the mortgage banking industry

Wealth Management Revenue
- 2013: $250 billion
- 2018: $400 billion
- CAGR: 9.6%

Assets Under Management and Administration
- 2013: $60 billion
- 2018: $100 billion
- CAGR: 6.2%
Transaction Processing

Debit Processing & ATM Network
- Among the top 10 networks in the US
- Operates nationally with customers based in 26 states and the Virgin Islands; more than 65% of clients outside Oklahoma
- Clients: Banks / Credit Unions / C-Store Chains
- In 2018, processed 657 million EFT transactions

Merchant Payment Processing
- Process payments for 6,042 merchant and cash advance locations
- In 2018, processed $2.4 billion in merchant sales
Mortgage Banking

- Top 50 U.S. mortgage originator
- Two lines of business:
  - Direct mortgage origination through BOKF retail network
  - Mortgage Servicing
- Annual origination volume in 2018 ~ $2.5 billion
- Servicing over $21 billion of mortgages at Sept 30, 2019
3Q 2019 Financial Results
Noteworthy items impacting profitability:

- Fee income growth driven by strong performance in Brokerage & Trading and Mortgage
- Net interest income and margin compression fully offset by fee income strength
- Diligent expense management
- $12 million in loan loss provision due to continued loan growth
- Income tax benefit from finalization of tax credits and completion of 2018 tax filings
## Loan Portfolio

<table>
<thead>
<tr>
<th>($mil)</th>
<th>Sep 30, 2019</th>
<th>Jun 30, 2019</th>
<th>Seq. Loan Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>$4,114.3</td>
<td>$3,921.4</td>
<td>4.9%</td>
</tr>
<tr>
<td>Services</td>
<td>3,266.2</td>
<td>3,309.5</td>
<td>(1.3)%</td>
</tr>
<tr>
<td>Healthcare</td>
<td>3,033.0</td>
<td>2,926.5</td>
<td>3.6%</td>
</tr>
<tr>
<td>Wholesale/retail</td>
<td>1,848.6</td>
<td>1,793.1</td>
<td>3.1%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>698.4</td>
<td>761.4</td>
<td>(8.3)%</td>
</tr>
<tr>
<td>Public Finance</td>
<td>744.8</td>
<td>795.7</td>
<td>(6.4)%</td>
</tr>
<tr>
<td>Other</td>
<td>719.3</td>
<td>829.5</td>
<td>(13.3)%</td>
</tr>
<tr>
<td><strong>Total C&amp;I</strong></td>
<td><strong>$14,424.6</strong></td>
<td><strong>$14,336.9</strong></td>
<td><strong>0.6%</strong></td>
</tr>
<tr>
<td>Commercial Real Estate</td>
<td>4,626.1</td>
<td>4,710.0</td>
<td>(1.8)%</td>
</tr>
<tr>
<td>Residential Mortgage</td>
<td>2,117.3</td>
<td>2,170.8</td>
<td>(2.5)%</td>
</tr>
<tr>
<td>Personal</td>
<td>1,117.4</td>
<td>1,037.9</td>
<td>7.7%</td>
</tr>
<tr>
<td><strong>Total Loans</strong></td>
<td><strong>$22,285.4</strong></td>
<td><strong>$22,255.7</strong></td>
<td><strong>0.1%</strong></td>
</tr>
</tbody>
</table>

- Strong growth in energy and healthcare the primary drivers of overall C&I growth
- Period-end loan growth numbers impacted by paydowns late in the quarter
Net Interest Revenue and Margin

<table>
<thead>
<tr>
<th>($mil)</th>
<th>Q3 2019</th>
<th>Q2 2019</th>
<th>Q1 2019</th>
<th>Q4 2018</th>
<th>Q3 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net interest revenue</td>
<td>$279.1</td>
<td>$285.4</td>
<td>$278.1</td>
<td>$285.7</td>
<td>$240.9</td>
</tr>
<tr>
<td>Provision for credit losses</td>
<td>$12.0</td>
<td>$5.0</td>
<td>$8.0</td>
<td>$9.0</td>
<td>$4.0</td>
</tr>
<tr>
<td>NIR after provision</td>
<td>$267.1</td>
<td>$280.4</td>
<td>$270.1</td>
<td>$276.7</td>
<td>$236.9</td>
</tr>
<tr>
<td>Net interest margin</td>
<td>3.01%</td>
<td>3.30%</td>
<td>3.30%</td>
<td>3.40%</td>
<td>3.21%</td>
</tr>
</tbody>
</table>

- Net interest income decreased $6.3 million from the previous quarter. Prior quarter included $2.7 million more of interest recovery and $2.4 million of higher accretion.

- Net interest margin roll-forward from second quarter to third quarter:

<table>
<thead>
<tr>
<th>Net Interest Margin Roll-forward</th>
</tr>
</thead>
<tbody>
<tr>
<td>2Q19 NIM</td>
</tr>
<tr>
<td>Interest recovery in Q2</td>
</tr>
<tr>
<td>Higher accretion in Q2</td>
</tr>
<tr>
<td>Larger securities portfolio dilution to NIM (additive to NII)</td>
</tr>
<tr>
<td><strong>NIM deterioration from lower rate environment</strong></td>
</tr>
<tr>
<td>3Q19 NIM</td>
</tr>
</tbody>
</table>

- NIM deterioration driven by loan yields down 21 basis points (excluding interest recoveries) and interest bearing deposit costs up 4 basis points.
## Fees and Commissions

<table>
<thead>
<tr>
<th>Service</th>
<th>Q3 2019</th>
<th>Quarterly, Sequential</th>
<th>Trailing 12 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brokerage and Trading</td>
<td>$43.8</td>
<td>8.2%</td>
<td>16.8%</td>
</tr>
<tr>
<td>Transaction Card</td>
<td>22.0</td>
<td>0.5%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Fiduciary and Asset Management</td>
<td>43.6</td>
<td>(3.1)%</td>
<td>(7.3)%*</td>
</tr>
<tr>
<td>Deposit Service Charges and Fees</td>
<td>28.8</td>
<td>2.7%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Mortgage Banking</td>
<td>30.2</td>
<td>7.3%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Other Revenue</td>
<td>17.6</td>
<td>41.7%</td>
<td>8.7%</td>
</tr>
<tr>
<td><strong>Total Fees and Commissions</strong></td>
<td><strong>$186.1</strong></td>
<td><strong>5.7%</strong></td>
<td><strong>3.0%</strong>**</td>
</tr>
</tbody>
</table>

* 0.6% omitting one-time, $15 million fee
** 5.4% omitting one-time, $15 million fee

- **Brokerage and Trading**: Up largely due to strong mortgage backed security trading results and commercial syndication fees
- **Fiduciary and Asset Management**: Down quarterly due to a seasonal increase in tax fees collected in Q2. Year over year decrease impacted by large, one-time fee in Q3 2018
- **Mortgage Banking**: Lower mortgage interest rates led to a significant increase in applications and commitments
- **Other Revenue**: Up largely due to an increase in repossessed asset revenue and gain on sale of loans
<table>
<thead>
<tr>
<th>($mil)</th>
<th>Q3 2019</th>
<th>Q2 2019</th>
<th>Q3 2018</th>
<th>%Incr. Seq.</th>
<th>%Incr. Annualized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel expense</td>
<td>$162.6</td>
<td>$160.3</td>
<td>$143.5</td>
<td>1.4%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Non-personnel expense</td>
<td>$116.7</td>
<td>$116.8</td>
<td>$109.1</td>
<td>(0.1)%</td>
<td>(0.3)%</td>
</tr>
<tr>
<td>Total operating expense</td>
<td>$279.3</td>
<td>$277.1</td>
<td>$252.6</td>
<td>0.8%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Efficiency Ratio</td>
<td>59.31%</td>
<td>59.51%</td>
<td>61.60%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Personnel expense up $2.2 million largely due to increases in incentive-based compensation
- Non-personnel expense net unchanged from prior quarter with higher expenses in mortgage and data processing offset by insurance and business promotion
- Efficiency ratio remains below 60%
Key Credit Quality Metrics

- Total non-accrual loans down $11.3 million
- An increase of $17 million in Energy relates to a couple of lingering workout credits – no new issues emerging from portfolio
- Potential problem loans (substandard, accruing) totaled $143 million at 09/30, down $18 million from 6/30
- OVERALL – We see no material signs of stress in any loan portfolios

- Net charge-offs ticked up slightly to 19 basis points
- Last five quarter average net charge-offs at 19 basis points continues to be well below historic range of 30 to 40 basis points
- Appropriately reserved with a combined allowance of 0.92%, consistent with Q2
Forecast and Assumptions

• Mid-single digit loan growth from C&I categories expected for the remainder of the year

• Provision level in fourth quarter influenced more by loan growth as opposed to any expected credit deterioration

• We expect one additional rate decrease before year-end, and are planning 2020 around a flat rate environment. We continue to expect NIM pressure

• Securities portfolio to remain flat

• Revenue from fee-generating businesses, particularly Brokerage & Trading and Mortgage, should continue to benefit from lower interest rates, however, seasonality could influence mortgage activity

• Holding efficiency ratio at or below 60% largely dependent on revenue mix

• Capital strategy will support organic balance sheet growth and modest opportunistic share repurchases. Capital ratios are expected to improve slightly over time

• Blended federal and state effective tax rate of 21-22% going forward
CECL

- CECL models have been developed, tested and validation is being finalized.

- Based on the results of test runs, our allowance committee expects the pre-tax transition adjustment from CECL implementation will be between $50 million and $75 million.

<table>
<thead>
<tr>
<th>COBZ Acquired loans</th>
<th>GNMA VA loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duplicate allowance on $2.0 billion</td>
<td>Other liability accrual on tail exposure in $3.5</td>
</tr>
<tr>
<td>portfolio</td>
<td>billion portfolio</td>
</tr>
</tbody>
</table>

- Final adjustment will depend on the composition of our loan portfolios, and current and forecasted economic conditions as of January 1, 2020.