South Dakota Economy and Agricultural Conditions

Division of Insurance and Research
Kansas City Regional Operations Branch

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Presentation Agenda

• High-level overview of bank conditions
• Agricultural economy and farm bank conditions
• South Dakota and Sioux Falls economies
South Dakota Banking Profile
30,000-Ft. Elevation
South Dakota ranks 29th among all states by number of FDIC-insured institutions.

Source: FDIC, 4Q2017.
South Dakota is characterized by a large share of rural community banks concentrated in ag lending.

Source: FDIC, 4Q2017, all insured institutions by state.
South Dakota banks have strong earnings and capital, but also higher agricultural and wholesale funding exposures.

<table>
<thead>
<tr>
<th></th>
<th>Pretax Return on Assets</th>
<th>Net Interest Margin</th>
<th>Tier 1 Leverage Capital</th>
<th>Loans to Total Risk-Based Capital</th>
<th>Ag Loans to Total Assets</th>
<th>Wholesale Funds to Total Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dakota</td>
<td>1.45</td>
<td>3.89</td>
<td>10.96</td>
<td>72.7</td>
<td>265.8</td>
<td>16.81</td>
</tr>
<tr>
<td>U.S.</td>
<td>1.18</td>
<td>3.69</td>
<td>10.51</td>
<td>68.8</td>
<td>27.4</td>
<td>14.27</td>
</tr>
<tr>
<td>SD Ranking</td>
<td>5</td>
<td>15</td>
<td>7</td>
<td>14</td>
<td>3</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: FDIC, 4Q2017.

Notes: Ratios are median values for South Dakota and U.S.

South Dakota ranking is based on states ordered highest to lowest (descending order).
Agriculture
These primary takeaways from my December 2016 visit remain relevant nearly 2.5 years later.

• Coming off a decade of high returns, the U.S. agricultural sector has been weak since 2014, and conditions are expected to remain that way for the next few years.

• Farm bank asset quality is starting to weaken from historically strong levels, but the transmission mechanism can be slow.

• Persistently weak agricultural conditions may result in problems for some farm banks, but a repeat of the agricultural crisis of the 1980s is unlikely.
2018 is forecast to be the fifth year of this ag down-cycle with the lowest net farm income since 2006.
Corn and soybean prices received by South Dakota farmers have been flat; wheat increased in 2017.

Prices Received by Farmers
Dollars Per Bushel

Source: USDA.
Note: Marketing years
Corn and soybean production has been strong but wheat suffered on drought conditions in 2017.

Production, Millions of Bushels

- **Soybeans (Left Axis)**
- **Wheat (Left Axis)**
- **Corn (Right Axis)**

Source: USDA.
Wheat acreage is at an all-time low as South Dakota farmers increase corn and soybean acreage.

Source: USDA.
The U.S. cattle herd is expanding at its fastest pace in decades, pressuring prices.
South Dakota farmers have received nearly $750 million in crop program payments the last three years.

Crop Program Payments
Dollars (Millions)

- Fixed Direct Payments
- Price Loss Coverage (PLC) Payments
- Agricultural Revenue Coverage (ARC) Payments
- Total PLC+ARC

Source: USDA.
Drought conditions in the Northern Plains have subsided but have intensified in the Southwest.

Source: The National Drought Mitigation Center
University of Nebraska-Lincoln
The summer weather outlook for South Dakota is for average temperatures and precipitation.

Source: The National Drought Mitigation Center
University of Nebraska-Lincoln
South Dakota led all states in farmland price appreciation between 2004 to 2014.

Average Value of Farm Real Estate 2014 As a Multiple of 2004

- Less Than 1.5
- 1.5 to 2.0
- 2.0 to 3.0
- Greater than 3.0

Source: USDA (Haver Analytics).
Note: Inflation adjusted values.
After years of strong gains, farmland values have fallen only modestly.

Source: South Dakota State University.
Farmland sales activity remains low, supporting land values.

Chart 3: Volume of Farmland Sales

*Bankers responded to each item by indicating whether the volume of land sales increased, decreased, or remain the same. The index numbers are computed by subtracting the percentage of bankers who responded “decreased” from the percentage who responded “increased” and adding 100.

Source: Federal Reserve Bank of Kansas City.
One-third of respondents in 2017 SDSU land values report indicated liquidity/financial stress as reasons for selling.
A sizeable share of farms have insufficient cash-flow to service debt.

Source: FINBIN database, University of Minnesota.
Note: States limited to Illinois, Minnesota, Nebraska, North Dakota, and South Dakota.
The share of South Dakota farm banks reporting ag loan delinquencies/charge-offs has risen.

Source: FDIC, 4Q2017, South Dakota.
Agricultural past-due loan ratios have increased sharply but are still low by historical measure.

Source: FDIC, 4Q2017, South Dakota, only farm banks reporting delinquent & charged-off ag loans.
Why have we not seen ACI and past-due ratios increase more than they have at farm banks?
When does collateral protection cease being abundant?

<table>
<thead>
<tr>
<th>Increase In Loan Balance</th>
<th>Decline in Farmland Value</th>
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<tbody>
<tr>
<td></td>
<td>0%</td>
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<tr>
<td>0%</td>
<td>50%</td>
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<td>5%</td>
<td>53%</td>
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<tr>
<td>10%</td>
<td>55%</td>
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<tr>
<td>15%</td>
<td>58%</td>
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<tr>
<td>20%</td>
<td>60%</td>
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<tr>
<td>25%</td>
<td>63%</td>
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<tr>
<td>30%</td>
<td>65%</td>
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<tr>
<td>35%</td>
<td>68%</td>
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<tr>
<td>40%</td>
<td>70%</td>
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<tr>
<td>45%</td>
<td>73%</td>
</tr>
<tr>
<td>50%</td>
<td>75%</td>
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</tbody>
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<td>10%</td>
<td>72%</td>
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<td>15%</td>
<td>75%</td>
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<td>20%</td>
<td>78%</td>
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<tr>
<td>25%</td>
<td>81%</td>
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<tr>
<td>30%</td>
<td>85%</td>
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<tr>
<td>35%</td>
<td>88%</td>
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<tr>
<td>40%</td>
<td>91%</td>
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<tr>
<td>45%</td>
<td>94%</td>
</tr>
<tr>
<td>50%</td>
<td>98%</td>
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</tbody>
</table>
Liquidity and funds management are becoming an increasing challenge for farm banks.

Source: FDIC, 4Q data, all banks in headquartered in South Dakota.
$1 Trillion – total value of U.S. ag exports 2009 - 2016, the strongest period for U.S. ag exports in history.

Source: USDA/Foreign Agricultural Service.
NAFTA trading partners are largest importers of U.S. agricultural products, followed by China.

FY 2016

Top Destinations

1. Canada
   - $20.3 billion
   - 15.7% of total ag exports

2. China
   - $19.2 billion
   - 14.8% of total ag exports

3. Mexico
   - $17.7 billion
   - 13.6% of total ag exports

4. European Union
   - $11.6 billion
   - 9.0% of total ag exports

5. Japan
   - $10.6 billion
   - 8.2% of total ag exports

Source: USDA/Foreign Agricultural Service.
South Dakota Agricultural Export Value, 2016.

<table>
<thead>
<tr>
<th>Commodities</th>
<th>Value of Exports $ Thous.</th>
<th>Total Value of All Agricultural Production Share (%)</th>
<th>Total Value of Commodity Production Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soybeans</td>
<td>1,307.0</td>
<td>12.74</td>
<td>56.56</td>
</tr>
<tr>
<td>Corn</td>
<td>502.6</td>
<td>4.90</td>
<td>19.69</td>
</tr>
<tr>
<td>Feeds and other feed grains</td>
<td>405.4</td>
<td>3.95</td>
<td></td>
</tr>
<tr>
<td>Wheat</td>
<td>272.4</td>
<td>2.66</td>
<td>59.68</td>
</tr>
<tr>
<td>Beef and veal</td>
<td>242.2</td>
<td>2.36</td>
<td>12.71</td>
</tr>
<tr>
<td>Soybean meal</td>
<td>233.9</td>
<td>2.28</td>
<td></td>
</tr>
<tr>
<td>Other oilseeds and products</td>
<td>222.7</td>
<td>2.17</td>
<td></td>
</tr>
<tr>
<td>Vegetable oils</td>
<td>178.7</td>
<td>1.74</td>
<td></td>
</tr>
<tr>
<td>Grain products, processed</td>
<td>169.7</td>
<td>1.65</td>
<td></td>
</tr>
<tr>
<td>Pork</td>
<td>140.3</td>
<td>1.37</td>
<td>35.09</td>
</tr>
<tr>
<td>Hides and skins</td>
<td>66.8</td>
<td>0.65</td>
<td></td>
</tr>
<tr>
<td>Dairy products</td>
<td>60.8</td>
<td>0.59</td>
<td>13.57</td>
</tr>
<tr>
<td>All Other Commodities</td>
<td>125.1</td>
<td>1.22</td>
<td></td>
</tr>
<tr>
<td>Total agricultural exports</td>
<td>3,927.6</td>
<td>38.29</td>
<td></td>
</tr>
</tbody>
</table>

Source: USDA.
Nearly three-fourths of South Dakota agricultural exports are sent to Mexico and Canada.
Chinese tariffs on U.S. soybeans could reshuffle global soybean trade.

<table>
<thead>
<tr>
<th>Producer Nation</th>
<th>Nation’s Share of Global Soybean Production, by Volume</th>
<th>Nation’s Share of Global Soybean Exports, by Volume</th>
<th>Nation’s Share of China’s Imports of Soybeans, by Value</th>
<th>Share of Nation’s Soybean Exports That Is Sent to China, by Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>16</td>
<td>5</td>
<td>10</td>
<td>86</td>
</tr>
<tr>
<td>Brazil</td>
<td>33</td>
<td>43</td>
<td>46</td>
<td>76</td>
</tr>
<tr>
<td>United States</td>
<td>33</td>
<td>40</td>
<td>41</td>
<td>64</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>82</strong></td>
<td><strong>88</strong></td>
<td><strong>97</strong></td>
<td><strong>70</strong></td>
</tr>
</tbody>
</table>

Sources: USDA (Haver Analytics), The Observatory of Economic Complexity.
The 2018 farm bill – a big unknown.

- Major sticking point – SNAP.
- Minor adjustments to ARC and PLC.
- Conservation programs condensed.
- Milk and cotton were addressed in the February spending bill.
South Dakota Economy
South Dakota employment growth has rebounded the past year, converging with the U.S. growth rate.

Source: Bureau of Labor Statistics (Haver Analytics).
Note: Seasonally-adjusted monthly data.
South Dakota’s unemployment rate of 3.4 percent is the 14th lowest among the 50 states.

Source: Bureau of Labor Statistics (Haver Analytics).
Note: Three-month moving average ending March, 2017; U.S. 50 states and District of Columbia.
An aging population will challenge future job growth in South Dakota.

Source: U.S. Census Bureau/American Community Survey (Haver Analytics).
Sioux Falls Economy
Sioux Falls has sustained a long, strong trend in population growth.

Source: U.S. Census Bureau (Haver Analytics).
Sioux Falls is among one of the fastest growing same-sized metropolitan areas.

Source: U.S. Census Bureau (Haver Analytics).
Sioux Falls has seen strong home price appreciation.

Source: Moody's Data Buffet, Core Logic, Case-Shiller Home Price Index.
After declining in 2012 and 2013, housing affordability in Sioux Falls has been steady.

Source: National Association of Realtors (Haver Analytics).
Note: Annual data. The Index equals 100 when the median family income is sufficient to purchase a median priced house. A reading over 100 indicates the percentage by which median family income is in excess of income necessary to purchase a median priced house.
Any Final Questions or Comments?

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