Contents

1. Introduction
   1.1. Motivation for the Book 3
   1.2. Structure for the Book 4

2. Why Do Financial Intermediaries Exist? 9
   2.1. Introduction 9
   2.2. Methodology 10
      2.2.1. Event Study Methodology 10
      2.2.2. Bootstrapping 13
   2.3. Evidence 14
      2.3.1. Loan Announcements 14
      2.3.2. Bank Distress/Merger Announcements 19
      2.3.3. Long-Run Impact of Bank Distress on Firm Performance 20

3. The Industrial Organization Approach to Banking 26
   3.1. Introduction 26
   3.2. Methodology: Measuring Banking Competition and Market Power 27
      3.2.1. Traditional Industrial Organization 28
         3.2.1.1. Structure-Conduct-Performance 28
         3.2.1.2. Studies of Bank Efficiency 30
3.2.1.3. Studies of Economies of Scale and Scope 32
3.2.2. New Empirical Industrial Organization 33
3.2.2.1. Panzar and Rosse (1987) 34
3.2.2.2. The Boone (2008) Competition Indicator 36
3.2.2.3. Conjectural-Variations Method 37
3.2.2.4. Structural Demand Models 40
3.2.2.5. Other Structural Models 41
3.2.2.5.1. Sunk-Cost Models 41
3.2.2.5.2. Structural Models of Entry 42

3.3. Evidence 44
3.3.1. Market Structure and Conduct 44
3.3.1.1. Loan Markets 44
3.3.1.1.1. Local Markets 44
3.3.1.1.2. Multimarket 48
3.3.1.2. Deposit Markets 49
3.3.1.2.1. Local Market 49
3.3.1.2.2. Multimarket 53
3.3.1.3. Interplay between Markets 54
3.3.2. Market Structure and Strategy: Product Differentiation and Network Effects 54

4. The Lender—Borrower Relationship 57
4.1. Introduction 57
4.1.1. Definitions 57
4.1.2. Asymmetric Information 58
4.1.3. Theory 59
4.1.4. Switching Costs 60
4.1.5. Relevance and Outline of This Chapter 61
4.2. Methodology 62
4.2.1. Duration Analysis 62
4.2.2. Tobit and Count Models 65
4.2.3. Nested Multinomial Logit 67
4.2.4. Heteroskedastic Regression 70
4.3. Evidence 72
4.3.1. Determinants of Characteristics of Bank Relationships 72
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3.1.1. Switching Probabilities and Costs</td>
<td>72</td>
</tr>
<tr>
<td>4.3.1.1.1. Importance</td>
<td>72</td>
</tr>
<tr>
<td>4.3.1.1.2. Magnitude</td>
<td>73</td>
</tr>
<tr>
<td>4.3.1.1.3. Value for the Bank</td>
<td>74</td>
</tr>
<tr>
<td>4.3.1.2. Duration</td>
<td>77</td>
</tr>
<tr>
<td>4.3.1.3. Scope</td>
<td>80</td>
</tr>
<tr>
<td>4.3.1.4. Number (and Concentration)</td>
<td>81</td>
</tr>
<tr>
<td>4.3.1.4.1. Micro Factors</td>
<td>85</td>
</tr>
<tr>
<td>4.3.1.4.2. Macro Factors</td>
<td>86</td>
</tr>
<tr>
<td>4.3.1.4.3. Number versus Concentration</td>
<td>92</td>
</tr>
<tr>
<td>4.3.1.5. Intensity, Social Interaction, and Bank Control</td>
<td>95</td>
</tr>
<tr>
<td>4.3.1.6. Relationships in Deposit and Interbank Markets</td>
<td>95</td>
</tr>
<tr>
<td>4.3.2. Impact of Bank Relationships</td>
<td>97</td>
</tr>
<tr>
<td>4.3.2.1. Impact on the Cost of Credit</td>
<td>97</td>
</tr>
<tr>
<td>4.3.2.2. Impact on Collateral, Loan Size, Credit Availability, and Maturity</td>
<td>105</td>
</tr>
<tr>
<td>4.3.2.3. Jointness</td>
<td>105</td>
</tr>
<tr>
<td>4.3.2.4. Impact of Other Relationship Characteristics</td>
<td>107</td>
</tr>
<tr>
<td>4.3.2.5. Impact on Other Financing</td>
<td>108</td>
</tr>
<tr>
<td>4.3.2.6. Impact on Firm Performance</td>
<td>109</td>
</tr>
<tr>
<td>4.3.2.7. Impact on Firm Assistance</td>
<td>115</td>
</tr>
<tr>
<td>4.3.2.8. Market and Macro Impacts</td>
<td>115</td>
</tr>
<tr>
<td>4.3.3. Strategy: Bank Orientation and Specialization?</td>
<td>115</td>
</tr>
<tr>
<td>4.3.3.1. Theory</td>
<td>115</td>
</tr>
<tr>
<td>4.3.3.2. Local Markets: Indirect and Direct Evidence</td>
<td>118</td>
</tr>
<tr>
<td>4.3.3.2.1. United States</td>
<td>118</td>
</tr>
<tr>
<td>4.3.3.2.2. Other Countries</td>
<td>121</td>
</tr>
<tr>
<td>4.3.3.3. National and Cross-Country Studies</td>
<td>121</td>
</tr>
<tr>
<td>5. Equilibrium and Rationing in the Credit Market</td>
<td>123</td>
</tr>
<tr>
<td>5.1. Introduction</td>
<td>123</td>
</tr>
<tr>
<td>5.2. Evidence on Location: Conduct and Strategy</td>
<td>123</td>
</tr>
<tr>
<td>5.2.1. Distance versus Borders</td>
<td>123</td>
</tr>
</tbody>
</table>
5.2.2. Conduct  
5.2.2.1. Spatial Rationing  
5.2.2.2. Spatial Pricing  
5.2.2.3. Borders and Segmentation  
5.2.3. Strategy  
5.2.3.1. Distance and Branching  
5.2.3.2. Borders and Entry  
5.2.3.3. Borders and Mergers and Acquisitions

6. The Macroeconomic Consequences of Financial Imperfections  
6.1. Introduction  
6.2. Methodology  
6.2.1. Growth Regression  
6.2.2. Instrumental Variable Estimation  
6.2.3. Interaction Variables  
6.3. Evidence  
6.3.1. Banks and Growth  
6.3.2. Causality: Banks to Growth?  
6.3.3. Banks, Financial Markets, and Growth

7. Individual Bank Runs and Systemic Risk  
7.1. Introduction  
7.2. Evidence  
7.2.1. Determinants of Banking Crises: Market and Economic Conditions  
7.2.2. Implications of Banking Crises  
7.2.3. Regulation and Banking Crises  
7.2.4. Contagion

8. Managing Risks in the Banking Firm  
8.1. Introduction  
8.2. Methodology: Value at Risk and Credit Risk Measurement  
8.2.1. Assumptions  
8.2.2. Estimation Approaches  
8.2.3. Nontradable Loans, Herding, and VaR Use  
8.3. Evidence  
8.3.1. Default or Credit Risks
Contents

8.3.2. Liquidity Risks 170
8.3.3. Market Risks 171

9. The Regulation of Banks 174
  9.1. Introduction 174
  9.2. Methodology: Difference in Difference 175
  9.3. Evidence 176
    9.3.1. Regulation and Market Structure 176
    9.3.2. Regulation and Bank Conduct 177
    9.3.3. Regulation and Bank Strategy 178
    9.3.4. Regulation and Financial Stability and Development 179

10. Conclusion 181


References 187

Index 227