



Federal Reserve Bank of Chicago

## **Assessing a Decade of Interstate Bank Branching**

*Christian Johnson and Tara Rice*

WP 2007-03

# Assessing a Decade of Interstate Bank Branching

April 2007

Christian Johnson  
Professor of Law  
Loyola University Chicago School of Law  
801-585-5073 or 801-842-8813  
[cjohns6@luc.edu](mailto:cjohns6@luc.edu)

and

Tara Rice  
Financial Economist  
Economic Research Department  
Federal Reserve Bank of Chicago  
312-322-5274  
[trice@frbchi.org](mailto:trice@frbchi.org)

The views expressed here are those of the authors and do not necessarily reflect the views of the Federal Reserve Bank of Chicago or the Federal Reserve System. We thank Erin Davis for her excellent research assistance, Gadi Barlevy, Kristin Butcher, Jeff Campbell, Robert DeYoung, Gillian Garcia, George Kaufman, Edward J. Kane, Spencer Krane, Anna Paulson, Dick Porter, Rich Rosen, Harvey Rosenbaum, Phil Strahan, legal counsel at various state regulatory agencies and seminar participants at the 2005 Western Economic Association International Annual Meeting, the Federal Reserve Bank of Chicago Working Paper Seminar, the University of Utah College of Law Faculty Colloquium and the Thomas Jefferson School of Law Faculty Colloquium for comments and suggestions. The authors also gratefully acknowledge the contribution made by Buz Gorman, General Counsel, of the Conference of State Bank Supervisors through our many discussions on the topic.

## Assessing a Decade of Interstate Bank Branching

Christian A. Johnson and Tara Rice

“One aspect of the American banking system that quickly impresses itself on the mind of a foreign observer is its fragmented structure. . . . [The] prospective developments in the payments mechanism – electronic transfer of funds, direct deposit of payrolls, and wider use of pre-authorized credit – will reduce the need for customers to visit their banks frequently and, though not resolving the branching controversy, will make it academic.”<sup>1</sup>

### I. Introduction

While much has changed in the last 33 years, bank branching has not yet progressed from a controversial issue to a purely academic one. Through its history, US banking regulation constrained bank growth through prohibitions or restrictions on the means of direct and indirect bank expansion both within states (termed *intrastate banking and branching*) and between states (*interstate banking and branching*).<sup>2</sup> Although restrictions on intrastate expansion were eliminated through piecemeal changes in legislation over the past several decades, many restrictions remained with regard to interstate expansion.

The passage of the Riegle-Neal Interstate Banking and Branching Efficiency Act (IBBEA) of 1994<sup>3</sup> removed remaining federal restrictions on interstate expansion, but allowed the states considerable leeway in deciding the rules governing entry by out-of-state branches.<sup>4</sup> As a result, states that were opposed to entry used IBBEA to erect barriers to out-of-state branch entry.

IBBEA’s removal of Federal interstate branching barriers has resulted in staggering interstate expansion. This growth, illustrated in Figure 1, was driven both by consolidation of bank subsidiaries into branch offices and also establishment of de novo branches. In 1994, 62 out-of-state branches existed

---

<sup>1</sup> Larry Mote, “The Perennial Issue: Branch Banking.” *Business Conditions*, Federal Reserve Bank of Chicago, 3-23, (February 1974).

<sup>2</sup> Means of geographic expansion are: (1) interstate banking (acquiring or establishing a charter in a state outside the main bank’s home state), (2) interstate branching (acquiring or establishing a branch office, an office which is not separately chartered or capitalized, in a state outside the main bank’s home state), (3) intrastate banking (acquiring or establishing a charter within the main bank’s home state) and (4) intrastate branching (acquiring or establishing a branch office within the main bank’s home state).

<sup>3</sup> Pub. L. No. 103-328, 108 Stat. 2338 (1994) (codified in 12 U.S.C.).

<sup>4</sup> Passage of IBBEA ignited a small flurry of commentary about the Act. See Indick, Murray A. & Satish M. Kini, *The Interstate Banking and Branching Efficiency Act: New Options, New Problems*, 112 *Banking L.J.* 100 (1995); Mulloy, Patrick and Cynthia Lasker, *The Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994: Responding to Global Competition*, 21 *J. LEGIS* 255 (1995). Rollinger, Mark D., *Interstate Banking and Branching Under the Riegle-Neal Act of 1994*, 33 *HARV. J. ON LEGIS.* 183 (1996); Stritzel, Stacey, *Note: The Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994: Progress Toward A New Era in Financial Services Regulation*, 46 *SYRACUSE L. REV.* 161 (1995); Tart, Charlotte L., *Expansion of the Banking Industry Under the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994: Is the Banking Industry Headed in the Right Direction?*, 30 *WAKE FOREST L. REV.* 915 (1995).

in a small number of states. By 2005, the number of out-of-state branches had grown to 24,728 or 40 percent of all domestic branches.<sup>5</sup> The number of de novo branches increased rapidly as well. Over our sample period, 6,071 de novo out-of-state branches were started; that is, of the 15,296 total commercial bank branch increase between 1994 and 2005, 39 percent of those were out-of-state de novo branches.

An examination of the impact of IBBEA and the effect of the state restrictions and limitations that could be imposed on interstate branching is particularly topical today. Banks recognize the state anticompetitive regulatory burden permitted by IBBEA and have pressed agencies and Congress to streamline banking law. A section contained in the “Financial Services Regulatory Relief Act”<sup>6</sup> (which was supported by the Board of Governors of the Federal Reserve System) as passed by the House in 2006 would have eliminated remaining interstate branching barriers. As described in testimony before the U.S. Senate by Federal Reserve Governor Donald Kohn, the interstate branching provisions originally contained in the Act would remove the “last obstacle to full interstate branching for banks and level the playing field between banks and thrifts.”<sup>7</sup> Although the final bill did not contain these provisions, the issue is sure to be revisited in future bills and legislation.

Despite the recent growth in out-of-state branches, this article provides evidence that barriers to out-of-state entry through branch banking still exist for commercial banks in the United States. Based upon our empirical analysis, covering all 50 states plus the District of Columbia over 11 years, we find certain state restrictions permitted by IBBEA to be associated with limited out-of-state branch growth in some states.

The remainder of the article is organized as follows: Section II provides historical background on the bank branching history in the United States. Section III details the changes in interstate branching law since passage of IBBEA. Section IV discusses how initial (1994-1997) and evolving (1998-2004) state interstate branching laws affect out-of-state branch growth in a state’s banking market. Section V presents our index of state branching restrictions, while section VI employs that index in empirical analysis on the effect of the individual state branching restrictions. Section VII concludes.

---

<sup>5</sup> The branch banking figures are based on author’s calculations using data from the FDIC and the Federal Reserve System. This figure represents domestic branches of domestic commercial-bank banking companies.

<sup>6</sup> H.R. 3505 and S.2856. The House bill, passed March 2006, contains a section (401) titled “Easing the restrictions on interstate branching and mergers,” which removes remaining restrictions on de novo interstate branching and prohibits branching by commercially owned ILCs chartered after October 1, 2003. The Senate bill, passed May 2006, contains no such section.

<sup>7</sup> Before the Committee of Banking, Housing and Urban Affairs, United States Senate in March 2006. The testimony is available online at [www.federalreserve.gov/boarddocs/testimony/2006/20060301](http://www.federalreserve.gov/boarddocs/testimony/2006/20060301).

## II. Historical Background on Interstate Branching and IBBEA

Interstate branching has been an issue in the U.S. banking system since its inception. The issue, however, did not become controversial until the establishment of the dual banking system during the Civil War. These restrictions on branch banking are frequently attributed to the efforts of small banks and their lobbies to stop large banking companies from entering into their markets.<sup>8</sup>

Prior to the Civil War, interstate banking and branching was traditionally a state issue, with federal law and policy typically deferring to state control. States historically have had control over whether to permit banks chartered under their own chartering authority, state banks chartered by other states, and national banking associations, to engage in intrastate and interstate banking and branching. With such control, states have prevented both intrastate and interstate banking and branching up until the recent past. As restrictions against interstate banking began to change on a piecemeal basis, Congress removed the predominant interstate banking and branching restrictions with the passage of IBBEA, subject, however, to a few important limitations.

With the exception of the Bank of the United States and the Second Bank of the United States, chartered by Congress in 1791 and 1816, respectively, the chartering and regulation of banks prior to the Civil War was almost entirely a state issue. These two congressionally chartered banks were much different from modern national banking associations, and were chartered essentially to assist the Federal government with its banking needs and tax collections. Both of these banks also had a number of branch offices, operating 8 and 27 branches respectively. Both banks, however, had limited lives; they lost their Federal Charters in 1811 and 1836 respectively.<sup>9</sup>

State chartered banks engaged in limited interstate branch banking prior to the Civil War. Although both the form of branch banking and the volume of activities is quite different from today, branch banking did occur in several regions. Limited decentralized interstate branch banking occurred in Indiana, Ohio and Iowa. Although the different branches all shared the same charter, each branch was “locally organized, had its own capital subscribed by its own stockholders, and paid its own dividends.”<sup>10</sup> This model of branching was adopted by state banks in Illinois, Kentucky, Tennessee, Delaware and

---

<sup>8</sup> For this study, we define the term banking company as an independent commercial bank, or a bank holding company (BHC), or financial holding company (FHC) that controls one or more commercial banks. By definition, a bank subsidiary of a BHC or FHC is a separately chartered institution controlled through partial or complete ownership of its voting stock by a BHC or FHC whereas a branch office, a remote facility of a bank, requires no separate charter. Prior to the establishment of BHCs, however, only independent banks existed. These retain the term “bank”. A branch office is an office of a financial institution that is physically separated from its home office, but that offers the same kinds of deposit taking, loan and other services conducted at the home office. This study examines only domestic banking companies.

<sup>9</sup> For a discussion of the Bank of the United States and the Second Bank of the United States, see Peter S. Rose, Banking Across State Lines: Public and Private Consequences 25 (Quorum 1997); Robertson, *supra* note 4, at 28-29; Macey, Miller & Carnell, *Banking Law & Regulation* (2001) 2-8.

Vermont.<sup>11</sup>

During this same period, a more centralized system of branch banking (similar to the modern system we have today) developed primarily in the south, with branch banking occurring in Virginia, North Carolina, South Carolina and Missouri.<sup>12</sup> These branches, as opposed to those in the Midwest, relied much more on capital raised in the head offices.<sup>13</sup> This model was in substance much closer to interstate banking than to interstate branching.

The ability to engage in interstate branching and banking was never as popular or considered to be as important prior to the Civil War as it is today. Because of limited interstate travel and communication during this era, maintaining interstate branches was difficult if not impossible, with few of the efficiencies and economies of scale possible today. With the advent of the telegraph, telephone and better interstate travel, the ability to engage in interstate branching became more desirable. More recently, with advanced data processing, telecommunications, and the internet, combined with growing overhead costs, branch banking has become a necessity (and perhaps question of survival) for most large bank holding companies.

State control over banking became an issue during the Civil War as Congress provided for the chartering and regulation of national banking associations through the Office of the Comptroller of the Currency.<sup>14</sup> Investors chartered national banks and they began to proliferate. In 1864, there were 1,089 state banks and 467 national banks in 1864. By 1865, however, the numbers had flipped; there were only 394 state banks and 1294 national banks.<sup>15</sup>

Although the National Bank Act provided directives on the regulation, supervision, and examination of national banks, it did not provide direction on the issue of interstate and intrastate branching regulation.<sup>16</sup> Because of the absence of statutory guidance, the Comptroller of the Currency provided direction. The Comptroller in 1865 ruled that sections 6 and 8 of the National Banking Act prohibited branch banking.<sup>17</sup> Based upon their reading of Section, every Comptroller in office until 1922 agreed that national banks could not open a bank in more than one location.<sup>18</sup>

---

<sup>10</sup> Robertson, *supra* note 4, at 28.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.* at 28-29; Macey, Miller & Carnell, *supra* note 9.

<sup>13</sup> Robertson, *supra* note 4, at 28.

<sup>14</sup> Act of February 25, 1863 (National Currency Act), ch. 58 (183); Act of June 3, 1864 (National Bank Act), ch. 106, (1864).

<sup>15</sup> Eugene Nelson White, *The Regulation and Reform of the American Banking System*, Princeton, NJ: Princeton University Press (1983) at 12.

<sup>16</sup> Robertson, *supra* note 4, at 81 (“Examination of the legislative history . . . reveals no special concern about branches”).

<sup>17</sup> *Id.* at 82; Peter S. Rose, *supra* note 9, at 26-27.

<sup>18</sup> Larry R. Mote, *The Perennial Issue: Branch Banking, Business Conditions, Federal Reserve Bank of Chicago* (February 1974); Peter S. Rose, *Banking Across State Lines: Public and Private Consequences* 27 (Quorum 1997).

Likewise, during the next 50 years, there was little if any branching of any kind occurring at the *state* level. The National Monetary Commission noted in a study commissioned in 1911 that “[u]nder none of the state banking laws has there been built up an important system of branch banks.”<sup>19</sup> Most state legislatures and regulators, however, resisted permitting interstate branching for several reasons. First, a state regulatory agency received no compensation when an in-state bank branched out of state or when an out-of-state bank branched or expanded into their state, which left them reluctant to facilitate interstate activity. Second, state banks often put pressure on regulators to limit entry by larger banks chartered outside of the state that may pose competitive problems.<sup>20</sup> Accordingly, few states permitted interstate branching. By 1900, branch banking “accounted for only 2 percent of the resources of American commercial banks.”<sup>21</sup>

By the turn of the century, branch banking began on a very small scale. In the early 1900s, states began to permit some in-state branch banking.<sup>22</sup> In 1911, California, Delaware, Florida, Georgia, New York, Rhode Island, Virginia and Washington permitted different degrees of intrastate branch banking.<sup>23</sup> By 1915, “397 banks maintained branches; of this group, 12 were national banks and 385 were state banks. The 397 institutions operated 785 branches; 832 offices were in the head-office city, and 350 were outside the head-office city.”<sup>24</sup>

National banks continued to search for ways to get around the restrictions against branch banking, particularly as it became more profitable to do so. National banks also believed that they were in a substantial competitive disadvantage in those situations in which state banks could branch. In 1922, in an attempt to put national banks on a more equal footing with state banks, the OCC, based upon an opinion from the Attorney General of the United States, permitted national banks to establish branches within their home city (and home city only); provided, however, that a state bank was permitted to operate branches within that city.<sup>25</sup> Between 1922 and 1926, national banks established 200 limited service branch offices “within their city of location.”<sup>26</sup> State banks and their supporters opposed national-bank branching and challenged the Comptroller’s ruling. The opposition eventually came to a head in 1924, with the Supreme Court ruling against the Comptroller.<sup>27</sup>

---

<sup>19</sup> George E. Barnett, *State Banks and Trust Companies Since the Passage of the National-Bank Act* (Washington: Government Printing Office 1911), at 135.

<sup>20</sup> White, *supra* note 14, at 14; Robertson, *supra* note 4, at 100.

<sup>21</sup> Robertson, *supra* note 4, at 100.

<sup>22</sup> Rollinger, *supra* note 4, at 190.

<sup>23</sup> Barrett, *supra* note at 136. Macey, Miller & Carnell, *supra* note 9, at 19; Wilmarth, Arthur E. Jr., *Too Big to Fail, Too Few to Serve? The Potential Risks of Nationwide Banks*, 77 IOWA L. REV. 957, at 1092.

<sup>24</sup> Robertson, *supra* note 4, at 100.

<sup>25</sup> *Id.* at 102.

<sup>26</sup> *Id.* at 104.

<sup>27</sup> *First National Bank in St. Louis, v. Missouri*, 263 U.S. 640 (1924), *aff’g* 249 S.W. 619 (Mo S.Ct 1923); Peter S.

Although the Supreme Court ruled in favor of the state banking industry, Congress responded in 1927 by permitting a national bank to branch with the passage of the McFadden Act.<sup>28</sup> The statute first provided that a national bank could “retain and operate” any branches that it had as of the date of the statute.<sup>29</sup> Second, it stated that if a state bank were converted into, or consolidated with, a national bank, it could retain and operate its branches.<sup>30</sup> Third, a national bank could “establish and maintain” new branches within the city in which it was located if state banks were permitted under the laws of its state, subject to certain population limitations.<sup>31</sup> Although couched in positive statutory language, the effect of the McFadden was to limit branch banking. By inference, branching outside of the city where the national bank was situated was prohibited—thus restricting any intrastate and interstate branching.

Congress gave national banks additional branching authorization six years later. The Glass-Steagall Act of 1933 allowed nationally chartered banks to branch in the same geographical areas as state-chartered banks.<sup>32</sup> Although this was intended to place national banks on an equal footing with state-chartered banks, it instead solidified the dominant position of state regulatory authorities by assigning the determination of intrastate branching laws to each state regulatory authority.<sup>33</sup> National Banks were permitted to branch wherever state-chartered banks could branch statewide. However, national banks could also not branch if state banks had no or limited city or state wide branching rights.<sup>34</sup>

Responding to pressure from state banks after the passage of the Glass-Steagall Act, state regulation restricted intrastate branching in an attempt to prevent entry and growth of national banks in their states. The McFadden Act was read as to stop interstate branching by national banks. After only a few years, half of the states restricted or prohibited banks from setting up branch offices. In addition, not one state permitted interstate branching.<sup>35</sup> There was some attempt to permit national banks to branch nationwide through Federal legislation. The bill, however, was defeated by the lobbying actions of community banks.<sup>36</sup> In contrast to the growth of interstate banking described below, prior to passage of IBBEA, the vast majority of states did not permit interstate branching.

These regulatory constraints on interstate banking and branching spawned the multi-bank holding company (MBHC), first formed in the early 1900s. The MBHC structure opened a loophole in branch-banking regulations that allowed a layered organizational framework of subsidiary organizations to

---

Rose, *Banking Across State Lines: Public and Private Consequences* 28 (Quorum 1997).

<sup>28</sup> McFadden-Pepper Act, Feb. 25, 1927, Section 7, ch. 191, 44 Stat. 1224; Rose, *supra* note 9, at 28.

<sup>29</sup> McFadden-Pepper Act, Feb. 25, 1927, Section 7, ch. 191, 44 Stat. 1224 (Section 5155(a)).

<sup>30</sup> McFadden-Pepper Act, Feb. 25, 1927, Section 6, ch. 191, 44 Stat. 1224 (Section 5155(b)).

<sup>31</sup> McFadden-Pepper Act, Feb. 25, 1927, Section 6, ch. 191, 44 Stat. 1224 (Section 5155(c) & (d)).

<sup>32</sup> Glass-Steagall Act, Act of June 16, 1933, 48 Stat. 162, 189 (codified at 12 USC §36).

<sup>33</sup> Rollinger, *supra* note 4, at 183.

<sup>34</sup> Rose, *supra* note 9, at 28.

<sup>35</sup> *Id.*; Rollinger, *supra* note 4, at 183.



substitute for a network of physical branch offices.<sup>37</sup> Banks, therefore, used the MBHC organizational form to effect interstate operations. Over time, additional restrictions on interstate branching further encouraged use of the banking company loophole as a means of geographic expansion, leading more banks to convert to a banking company structure. The Bank Holding Company Act of 1956 sought to constrain the growth of the banking companies specifically through the Douglas Amendment,<sup>38</sup> which prohibited acquisition by a banking company of an out-of-state bank or banking company unless statutorily authorized by the state in which the target resides. The Bank Holding Company Act did not apply to one-bank bank holding companies (banking companies) and it was amended in 1970 to give the Federal Reserve authority over formation and regulation of the one-bank bank holding companies. This regulation was intended to further restrict the operations, organizational form and expansion ability of the bank holding companies.

Despite branch banking prohibitions by state law, Federal law allowed some minor opportunities for interstate branch banking. One such opportunity for geographic bank expansion, through the BHC structure, was created with the 1982 Garn-St Germain Act. A provision of this Act authorized federal banking agencies to arrange interstate acquisitions for failed banks with total assets of \$500 million or more.<sup>39</sup> This policy innovation allowed interstate acquisitions under special circumstances even when such acquisitions were not in accordance with state law. Because Federal savings and loan institutions had been permitted to branch since 1933,<sup>40</sup> banks welcomed the opportunity to acquire failed savings and loan companies and their branch networks during the savings and loan crisis.

A national bank could also create an interstate branch through moving their main office to a different state, leaving the former location as a branch of the new home office.<sup>41</sup> The only limitation was that the new office be located not more than 30 miles from the limits of the “city, town or village” where the main office was previously located.<sup>42</sup> Although such a method of branching was possible, it was limited to national banks located near state borders.

---

<sup>36</sup> Rollinger, *supra* note 4, at 192; Wilmarth, *supra* note 23, at 973-74.

<sup>37</sup> By definition, a subsidiary is a separately chartered institution controlled through partial or complete ownership of its voting stock by a Multibank Holding Company (MBHC), whereas a branch office, a remote facility of a bank, requires no separate charter.

<sup>38</sup> Bank Holding Act of 1956, Public Law 511, 84 Cong. Ch. 240, May 9, 1956, 70 Stat. 133, Section 3(d) (the Douglas Amendment).

<sup>39</sup> 12 USC 1823(f)(4)(B).

<sup>40</sup> Harding de C. Williams, *Federal Banking Law and Regulation: A Handbook for Lawyers* 102 (2006).

<sup>41</sup> *Id.* at 102-103; Barton Crockett, *BankAmerica Will Merge Washington and Idaho Units Using Thirty-Mile Rule*, *The American Banker*, Aug. 23, 1995.

<sup>42</sup> 12 USC 30; see also *Ramapo Bank v Camp*, 425 F.2d 333 (3<sup>rd</sup> Cir. 1970); OCC, *Interpretations- Corporate Decision #96-40* (Aug. 2, 1996); *National Bank Allowed To Relocate Main Office And Retain Former Main Office As A Branch*, 88 *Banking L.J.* 704 (1971).

Although interstate branching was severely restricted, over time individual state laws permitted the geographic expansion of commercial banks through interstate banking.<sup>43</sup> Such laws had been relaxed prior to IBBEA for 49 of the 50 states (plus the District of Columbia) for a variety of reasons: piecemeal changes in legislation, outside events and competition among regulators. All states except Hawaii permitted some type of interstate banking operations either on a reciprocal or nonreciprocal basis.<sup>44</sup> Regional pacts allowed out-of-state bank entry only from a specific geographic region, including the Northeast, the West, the South (often including the Mid-Atlantic states) and the Midwest.<sup>45</sup>

By 1994, while most states allowed *interstate banking* in some form, only eight states allowed any form of *interstate branching*.<sup>46</sup> Of those eight, six allowed interstate branching only on a national reciprocal basis. Any state wishing to allow its banks to branch into one of those six states must also allow the banks headquartered in the six states to branch into their own state. One state, Nevada, allowed interstate branching on a very limited, but nonreciprocal basis. It permitted interstate branching into counties with a population less than 100,000. Utah was the only state that allowed national nonreciprocal interstate branching before IBBEA, and it did so for just three years (as of July 1991) before IBBEA was passed. Even though these rules were on the books, there was almost no interstate branch banking prior to the passage of IBBEA in 1995.

Thus, very few banking organizations had an opportunity to branch across state lines due to the preexisting legislation, and were restricted to expansion through only two means: (1) chartering a subsidiary in the desired state (called a "de novo bank entry")<sup>47</sup>, or (2) acquiring an out-of-state bank to convert to a subsidiary of the parent bank.

This changed dramatically with passage of IBBEA, which allows banks to expand through its repeal of interstate banking and branching restrictions (subject, however, to the permitted state provisions discussed below). The repeal of restrictions allows banking companies to merge either subsidiary or branch banks across state lines in four ways:

- (1) Interstate bank acquisitions (acquisitions of separately chartered institutions),
- (2) Interstate agency operations (allows a bank subsidiary of a banking company to act as an

---

<sup>43</sup> For a discussion of interstate banking, see Macey, Miller & Carnell, *supra* note 9, at 26-27, 32-33; Douglas Ginsburg, *Interstate Banking*, 9 Hofstra Law Review 1133 (1981).

<sup>44</sup> H.R. Rep. 103-448, 1994 U.S.C.C.A.N. 2039, 1994 WL 96120 (Leg. Hist.), at 2044.

<sup>45</sup> See *Northeast Bancorp v. Board of Governors*, 472 U.S. 159 (1985) (upholding regional pacts); H. Rodgin Cohen, *State Interstate Banking Legislation*, 597 PLI/Corp 375 (1988); Arnold G. Danielson, *Tenth Anniversary of Interstate Banking: The Southern Experience*, 11 No. 9 Banking Pol'y Rep. 4 (May 4, 1992); *Interstate Banking's Tenth Anniversary: The Midwest Experience*, 11 No. 14 Banking Pol'y Rep. 6 (July 20, 1992).

<sup>46</sup> Dean Amel, *State Laws Affecting Geographic Expansion of Commercial Banks*, unpublished manuscript, Board of Governors of the Federal Reserve System (1993). Those states are: Alaska, Massachusetts, New York, Oregon, Rhode Island, Nevada, North Carolina and Utah.

<sup>47</sup> A de novo bank is a newly chartered bank, as opposed to a bank that has been acquired or merged from an

agent of an affiliate of the banking company without being legally considered as a branch of that affiliate),

(3) Interstate branching (consolidation of acquired banks or individual branches into branches of the acquiring bank),

(4) De novo branching (establishment of a new branch office of a banking company across state lines, into states which have passed a statute expressly allowing it.).<sup>48</sup>

Thus, the watershed event of IBBEA was not the allowance of interstate banking, but the explicit permission of *interstate branching*. This gave banking companies the freedom to consolidate bank subsidiaries into branch offices and to branch, under the provisions described below, across state lines.

States could "opt-in" early or "opt-out" of the IBBEA interstate branching provision by passing a state law any time between the passage of IBBEA (September 1994) and the trigger date (June 1, 1997). "Opting-in" required the state to pass a statute allowing interstate branching prior to June 1997. This provision expressly permitted interstate consolidation and merger transactions prior to June 1, 1997, provided that each MBHC or subsidiary involved in the transaction was located in a state which also "opted-in" early. A state that "opted-out" of interstate branching prevented both the state and national banks from branching across its borders. The provision, however, did not give banks *complete* freedom to branch out of state. As discussed, from the time of enactment until the branching "trigger date" of June 1, 1997, IBBEA allowed states to determine many details related to this provision. Most states, in fact, used this provision to impose conditions on the entry of out-of-state banks.

Although all fifty states and the District of Columbia have opted into interstate branching, there was considerable debate and activity in many states over whether their state should opt out of interstate branching. The pressure to opt out of interstate branching under IBBEA was based on the small bank versus big bank special interest issues that had thwarted interstate branching in the past.<sup>49</sup> Some argued that interstate branching might imperil smaller communities by siphoning deposits out of the towns and using them to make loans to larger clients in financial centers elsewhere.<sup>50</sup>

States that debated opting out included Texas, Colorado, Missouri, Oklahoma, Montana, New Mexico, Nebraska and Kansas,<sup>51</sup> with Texas and Montana opting out initially, though they later opted

---

existing institution.

<sup>48</sup> Edward J. Kane, De Jure Interstate Banking: Why Only Now? *Journal of Money, Credit and Banking*, 28 No. 2 (May 1996).

<sup>49</sup> Joseph D. Hutnyan, States Start Considering Whether or When to Opt for Interstate Branching, 14 No. 5 Banking Pol'y Rep. 7 (March 6, 1995); Carter H. Golembe, History Offers Some Clues on Significance of Interstate Branching, 13 No. 15 Banking Pol'y Rep. 4 (Aug 15, 1994).

<sup>50</sup> Barbara F. Bronstien, Opt-Out Pitch: Branching Imperils Small Towns, *The American Banker*, August 25, 1995.

<sup>51</sup> Terrence O'Hara, Circling the Wagons to Fend Off Branching, *The American Banker*, Feb. 15, 1995; Barbara F.

in.<sup>52</sup> The Colorado legislature also initially opted out, but the Governor later vetoed the legislation.<sup>53</sup> Lobbyists for smaller banks such as the Independent Bankers Association of America, the California Independent Bankers and the Independent Bankers Association of Texas all lobbied extensively to persuade states to opt-out of interstate branching.<sup>54</sup> We discuss in greater detail below the provisions determined by Federal law and by the individual states.

### **III. IBBEA Interstate Banking and Branching Provisions Determined by Federal Law**

The fundamental regulatory paradigm for interstate banking and branching changed dramatically with the passage of IBBEA. The statute is effectively divided into two portions. Section 101 of IBBEA deals with interstate banking while Sections 102 and 103 deals with interstate branching as summarized below.

#### **A. IBBEA Provisions with regard to Interstate Banking**

IBBEA allowed interstate bank acquisitions after September 29, 1995, and repealed the Douglas Amendment of the 1956 Bank Holding Company Act.<sup>55</sup> It expressly permits the Board of Governors of the Federal Reserve System (the “Board”) to approve interstate bank acquisitions, regardless of whether such acquisition would have been permitted under “the law of any state.” Unlike the interstate branching provisions discussed below, the states were not permitted to opt out of the interstate banking rules.

IBBEA does impose certain Federal level restrictions on interstate banking. First, the bank holding company acquiring the bank must be “adequately capitalized” and “adequately managed.”<sup>56</sup> Second, the bank holding company after the acquisition may not exceed a nationwide deposit concentration limitation of “more than 10 percent of the total amount of deposits of insured depository institutions in the United States.”<sup>57</sup> Third, the bank holding company may not exceed a statewide deposit

---

Bronstein, Focus on Kansas, *The American Banker* (Aug. 25, 1995) ; Barbara F. Bronstien, Iowa Group’s Departing President Says “No” to Interstate Branching, *The American Banker* (July 21, 1995); Setback Puts Oklahoma Foes of Interstate on Defensive, *The American Banker*, March 22, 1995; Terrence O’Hara, a Colorado Thumbs down for Branching, *The American Banker*, Feb. 24, 1995.

<sup>52</sup> Terrence O’Hara, Texas Governor to Sign Bill Letting State Opt Out of Branching Law, *The American Banker*, April 28, 1995.

<sup>53</sup> Terrence O’Hara, Colorado Governor’s Refusal to Slam Door to Out-of-State Banks Leads to Compromise, *The American Banker*, April 25, 1995.

<sup>54</sup> Hutnyan, *supra* note 49; Christopher Rhoads, Trade Group Wars, *The American Banker* (Sept. 21, 1995); Terrence O’Hara, A Arsenal of Opt Out: \$250,000 of Ammo from the IBAA, *The American Banker*, Feb. 15, 1995.

<sup>55</sup> IBBEA, Section 101.

<sup>56</sup> IBBEA, Section 101(a), codified at 12 USC §1842(d)(1)(A).

<sup>57</sup> IBBEA, Section 101, codified at 12 USC §1842(d)(2)(A). The 10 percent limitation has already become problematic for some bank holding companies. For example, Bank of America has already reached that limit after its acquisition of FleetBoston. Effectively Bank of America will longer be unable to grow through the acquisition of additional banks. Instead, Bank of America will need to grow its deposit base internally. Order of the Board of

concentration limitation, after the acquisition, of more than 30 percent.<sup>58</sup> IBBEA, however, did not affect the right of a state to impose a deposit cap that would limit the amount of deposits below 30 percent.<sup>59</sup>

In addition to preserving state deposit cap limitations, IBBEA also preserved state age laws, subject to an important exception. An acquisition is not permitted if it does not comply with a state's age law that limits acquisitions of a "bank that has been in existence for a minimum period of time" provided that the minimum age does not exceed five years.<sup>60</sup> IBBEA also does not affect the Board's right to take into account the applicability of a state's community reinvestment laws<sup>61</sup> or a state's antitrust laws.<sup>62</sup> In addition, IBBEA does not affect a state's authority to tax the bank, the bank holding company and any affiliates of a bank.<sup>63</sup> Even given these limitations, the overall effect of IBBEA on interstate banking was to eliminate the last vestiges of state interstate banking restrictions.

### **B. *IBBEA provisions with regard to Interstate Branching***

IBBEA permits a national or state bank to engage in interstate branching, subject to certain limitations. Essentially a bank may engage in interstate branching by (i) purchasing an out-of-state bank and converting that bank into a branch, or (ii) subject to state banking law, either purchase the branch of an out-of-state bank or open a "do novo" branch in a state other than its home state. As discussed above, IBBEA did permit a state to "opt-out" of interstate branching and also to "opt-in" early. Finally, IBBEA preserved a state's deposit cap and minimum age laws with respect to interstate branching.

*Interstate Bank Mergers.* Beginning June 1, 1997, IBBEA permits a merger between insured banks with different home states, without regard to whether such transaction is prohibited under the law of any State.<sup>64</sup> As part of the merger transaction, one bank would essentially be converted into an out-of-state branch or branches of the surviving bank. IBBEA also permits, subject to state law, a bank to acquire an out-of-state branch and substantively merge it into the bank.<sup>65</sup>

Although IBBEA was intended to apply to all states, it did permit a state to "expressly" prohibit all "merger transactions involving out-of-state banks,"<sup>66</sup> effectively preventing interstate branching for

---

Governors of the Federal Reserve System, Order Approving the Merger of Bank Holdings Companies (Bank of America Corporation – FleetBoston Financial Corporation), March 8, 2004.

<sup>58</sup> IBBEA, Section 101, codified at 12 USC §1842(d)(2)(B).

<sup>59</sup> IBBEA, Section 101, codified at 12 USC §1842(d)(2)(C).

<sup>60</sup> IBBEA, Section 101(a), codified at 12 USC §1842(d)(1)(B).

<sup>61</sup> IBBEA, Section 101(a), codified at 12 USC § 1842(d)(3).

<sup>62</sup> IBBEA, Section 101(a), codified at 12 USC §1842(d)(4).

<sup>63</sup> IBBEA, Section 101(b), codified at 12 USC §1846(b).

<sup>64</sup> IBBEA, Section 102(a), codified at 12 USC §1831u(a)(1).

<sup>65</sup> IBBEA, Section 102(a), codified at 12 USC §1831u(a)(4).

<sup>66</sup> IBBEA, Section 102(a), codified at 12 USC §1831u(a)(2).

that state. This was commonly referred to as a bank's ability to "opt-out" of interstate branching. The only requirements were that a state had (i) to opt-out of interstate branching after the enactment date of IBBEA (September 29, 1994) and before June 1, 1997 and (ii) it had to apply "equally to all out-of-state banks."<sup>67</sup> Only Texas and Montana elected to opt-out of interstate branching, although both states later opted back in. IBBEA also permitted a state to "opt-in" early to interstate branching. An interstate merger transaction (that resulted in out-of-state branches) could occur prior to June 1, 1997, provided that the state had enacted a statute permitting such transaction.<sup>68</sup>

IBBEA imposes several Federal level limitations on interstate branching. First, both banks must be adequately capitalized prior to the merger transaction and the resulting bank after the merger must also be "adequately capitalized" and "adequately managed."<sup>69</sup> Second, the resulting bank after the merger may not exceed a nationwide deposit concentration limitation of "more than 10 percent of the total amount of deposits of insured depository institutions in the United States."<sup>70</sup> Third, for other than initial entries, the resulting bank may not control 30 percent or more of the deposits in either its home state or in any of its out-of-state branches host states, although a state is permitted to decrease or increase that percentage as will be discussed below.<sup>71</sup>

### ***C. IBBEA Branching Provisions Determined by Individual States***

While IBBEA opened the doors to nationwide branching, it allowed the states to have considerable influence in the manner in which it was implemented, permitting states to effectively impose anticompetitive obstacles to interstate branching. It gave states the ability to set regulations on interstate branching with regard to four important provisions: (1) the minimum age of the target institution to be acquired and then merged into the acquirer, (2) de novo interstate branching, (3) acquisition of individual branches, and (4) statewide deposit cap. IBBEA does also not limit a state's ability to apply reciprocity conditions on those wanting to branch into the state. Over the past decade, some states have been relaxing those restrictions.

#### *Minimum Age of Target Institution*

Although IBBEA expressly permits interstate branching through interstate bank mergers, IBBEA preserves state age laws with respect to such acquisitions. Under IBBEA, states are allowed to set their

---

<sup>67</sup> IBBEA, Section 102(a), codified at 12 USC §1831u(b)(2).

<sup>68</sup> IBBEA, Section 102(a), codified at 12 USC §1831u(b)(3).

<sup>69</sup> IBBEA, Section 102(a), codified at 12 USC §1831u(b)(4).

<sup>70</sup> IBBEA, Section 102(a), codified at 12 USC §1831u(b)(2)(A). The 10 percent limitation has already become problematic for some bank holding companies. See note 58.

<sup>71</sup> IBBEA, Section 102(a), codified at 12 USC §1831u(b)(2)(B).

own minimum age requirements with respect to how long a bank has been in existence prior to its acquisition in an interstate bank merger.<sup>72</sup> The state law, however, cannot impose an age requirement of more than five years.<sup>73</sup>

This rule applies to all banks, whether they are chartered by a state regulatory agency or the OCC. If a newly established subsidiary office is located in a state which mandates a minimum age requirement, then the banking company must wait to consolidate the subsidiary to a branch until the subsidiary has met the necessary age requirement.

Many states set their age requirement at five years, but several states implemented a lower state age requirement (three years or less) or required no minimum age limit at all. The age requirement of the subsidiary office restricts entry of out-of-state banks that wish to establish branch offices, or slows consolidation for banking companies with newly established subsidiaries located in states with such requirements.

An age requirement serves two important functions for a state banking industry. First, it protects older and established banks in the state. To branch into a state with an age requirement, the only mode of entry is to buy an older institution and merge it into the bank. Second, it imposes significant costs on out-of-state entry. Rather than simply opening a de novo branch office, a bank is required to purchase an entire operating bank to enter a state. Separate bank charters are presumably more costly than a branch office because they require separate charters, management, capital, and Board of Directors.

#### *De novo Interstate Branching*

While interstate branching done through an interstate bank merger (i.e. the purchase and conversion of an existing bank to a branch office) is now permitted in every state, de novo interstate branching is only permitted under IBBEA if a state explicitly “opts-in” to this provision; that is, a bank is allowed to open an interstate branch if state law expressly permits it to do so.<sup>74</sup>

This provision applies only to initial entry, though this is not stated in many of the statutes. This implies that, if a bank is able to enter a state through a loophole and establish one initial out-of-state branch, it may then open other branches in that state. We discuss this important distinction and its implications below.

De novo branching allows a bank to branch interstate without the costs of purchasing an operating bank, discussed above. A de novo branching rule benefits all banking companies wishing to

---

<sup>72</sup> IBBEA, Section 102(a), codified at 12 USC §1831u(a)(5)(A).

<sup>73</sup> IBBEA, Section 102(a), codified at 12 USC §1231u(a)(5)(B).

<sup>74</sup> IBBEA, Section 103, codified at 12 USC §36(g) (national banks and state member banks pursuant to 12 USC §321) and 12 USC §1828(d).

enter a state; but small banking companies may benefit more than large banking companies, since they may be less able acquire an existing bank than to open a branch office.

#### *Acquisition of Single Branches or Other Portions of an Institution*

IBBEA states that an interstate merger transaction may involve the acquisition of a branch (or number of branches) of a bank without the acquisition of the entire bank itself only if the state in which the branch is located permits such a purchase.<sup>75</sup> Again, states must explicitly “opt-in” to this provision. In enacting such a provision, many states also subject a branch acquisition to an age requirement.

Such a provision makes it less costly and more efficient for a bank to engage in interstate branching. Rather than being required to enter into an interstate merger of an entire bank in order to interstate branch, a bank may now choose those interstate branches that it wishes to acquire. For example, an Indiana bank wanting to interstate branch into Illinois may only want to acquire the Chicago branches of an Illinois bank as opposed to acquiring the Peoria branches as well.

#### *Statewide Deposit Cap*

Under IBBEA, an interstate merger (other than with respect to initial entry) will not be approved if the resulting bank (including any affiliated insured depository institutions) controlled 30 percent or more of the insured deposits in the state.<sup>76</sup> This limitation, however, is not to be construed to affect a state’s authority to limit the percentage of deposits that may be controlled by a bank or holding company.<sup>77</sup> IBBEA preserves the right of a state to impose a deposit cap on an interstate bank merger transaction below 30 percent and also to impose limitations with respect to initial entry. The provision should also be read to preserve a state’s right to permit deposit concentration levels to exceed 30 percent.

The obvious impact of a deposit concentration limitation would be to prevent a bank from entering into a larger interstate merger in such state. For example, if a state had set a deposit cap of 15 percent, a bank could not enter into an interstate merger transaction with any institution that held more than 15 percent of the deposits in that particular state. A state could also try to encourage interstate mergers by permitting concentration levels to exceed 30 percent in order to attract an out-of-state acquirer.

---

<sup>75</sup> IBBEA, Section 102(a), codified at 12 USC §1831u(a)(2).

<sup>76</sup> IBBEA, Section 102(a), codified at 12 USC §1831.

<sup>77</sup> IBBEA, Section 102, codified at 12 USC §1831u(b)(2)(C).



### *Reciprocity*

Rather than specifically permitting or prohibiting de novo branching, acquisition of a branch or portion of a bank, a set age requirement or deposit cap, many states chose to offer these four provisions with reciprocity. In other words, the state would allow the particular action by an out-of-state bank so long as the laws of the state for that out-of-state bank were reciprocal, permitting the same level of interstate branching. For example, a state could permit de novo entry into its state, provided that the state in which the out-of-state bank is either chartered (or headquartered in the case of a national bank) also permitted de novo entry into their state.

## **IV. States' Response to Interstate Branching Provisions**

To collect information on each state's initial IBBEA provisions and changes to those provisions between 1994 and 2005, we surveyed individual state statutes over the 11 year period.<sup>78</sup> We collected all state statutes that address interstate branching and interpreted the provisions, and changes to those provisions.<sup>79</sup> We discuss the states' regulatory actions for each provision in turn below.

Table 1 details the changes to state interstate branching law. Since the 1997 "trigger date," 13 states have eased their initial restrictions on interstate branching. Those states are: Georgia, Hawaii, Illinois, Kentucky, Montana, New Hampshire, North Dakota, Oklahoma, Tennessee, Texas, Utah, Washington and Vermont. Table 2 lists for 1997 and 2005 the number of states that allowed or prohibited each of the four state-determined provisions. This table shows, generally, that over time, states eased their interstate branching restrictions. Appendix A lists each of the states interstate branching laws from 1994-2005.

### *Minimum Age of Target Institution*

As of the 1997 trigger date, 30 states had a five-year minimum age requirement.<sup>80</sup> Five had a three-year age requirement, 14 had no age requirement, three of which with an added reciprocity condition, and two states (Montana and Texas) opt-ed out. By year end 2005, 24 states had a five-year minimum age requirement, seven had a three-year minimum age requirement, 20 had no age requirement,

---

<sup>78</sup> The Conference of State Bank Supervisors (CSBS) publishes a respected "Profile of State-Chartered Banking" every two years. See Conference of State Bank Supervisors, A Profile of State-Chartered Banking. Washington, DC: The Conference of State Bank Supervisors 2002. Although the information included on interstate branching is useful, it is collected through voluntary surveys to the individual states. The state responses are not uniform, and thus could not be used in our empirical analysis which covers, annually, the 50 states plus the District of Columbia over the 11 year period studied.

<sup>79</sup> We also contacted the individual state regulatory agencies when we found discrepancies, ambiguities or omissions in the state statutes.

<sup>80</sup> Oregon's law (passed prior to the trigger date) was effective 07/01/1997. One state (Arizona) had a 5 year

six of which with reciprocity requirements. Most of the states that changed their statutes over the time period generally moved from a five year requirement to no age requirement. One state, Indiana, added a minimum age requirement. In 1997, it had no age requirement, but added a five year age requirement in 1998.

#### *Statewide Deposit Cap on Branch Acquisition*

In 1997, 33 states plus the District of Columbia imposed a 30 percent statewide deposit cap, the standard set by IBBEA. Some states enacted legislation that explicitly enacted a state-wide deposit cap of 30 percent, while some states were silent on the deposit cap, in which case, the IBBEA state-wide cap applies. 11 states imposed a statewide deposit cap less than 30 percent; more restrictive than IBBEA dictates. Two states chose statewide deposit caps greater than 30 percent, and two states expressly imposed no deposit cap. Only three states made changes to their statewide deposit caps over time; all increased the cap.

#### *De novo Interstate Branching*

As of 1997, 12 states and the District of Columbia allowed de novo branching. Of those, eight states allowed it with reciprocity, 36 states prohibited de novo branching, and two (Montana and Texas) opted-out. By year end 2005, 22 states plus the District of Columbia allowed de novo branching, 16 of the 22 states allowed it with reciprocity, and 28 states prohibited de novo branching. States that made changes moved from prohibiting de novo branching to either allowing it unrestricted or with reciprocity. All states that made changes over the time period eased restrictions.

#### *Acquisition of Single Branches or Other Portions of an Institution*

In 1997, 31 states prohibited acquisition of a branch or a portion of a bank. 18 states allowed it; 10 states plus the District of Columbia allowed unrestricted and seven states allowed it with reciprocity. Again, the two states of Montana and Texas opted-out. By year end 2005, 24 states, 7 fewer than in 1997, prohibited acquisition of branches or a portion of a bank. 27 allowed it, 13 unrestricted and 14 with reciprocity. All states that changed restrictions over time eased those restrictions.

#### *Reciprocity*

By the end of 2005, 16 states allowed de novo branching with reciprocity. This means that an out-of-state bank could enter into one of those 16 states through de novo branching as long as their home

---

minimum age requirement with reciprocity.

state also allowed it. Over time, the number of states permitting de novo branching or acquisition of a branch or portion of a bank with reciprocity increased.

## **V. Description of State Branching-Restriction Index**

Using our information on state branching statutes, we create quantitative measures to assess the relative restrictiveness of the state interstate branching law post-IBBEA. We do this in two ways. First, we assign a value of one for each factor to the states which set more restrictive provisions than those set by IBBEA for each of the provisions discussed above (minimum age for acquisition, de novo interstate branching, interstate branching by acquisition of a single branch or other portions of an institution, and statewide deposit cap).

Since states had to explicitly enact legislation if they chose to deviate from the interstate branching provisions outlined in IBBEA (in Section III.b.), we implicitly assume that IBBEA is the benchmark. We, therefore, define the state restriction variables as follows: *Deposit Cap* equals 1 if a state enacted deposit cap of 30 percent or less; otherwise *Deposit Cap* equals zero. *Minimum Age* equals 1 if a state enacted a 3 or 5 year minimum age for acquisition requirement, otherwise, it equals zero. *De Novo Branching* equals 1 if a state prohibits it, otherwise it equals zero. *Single Branch Acquisition* equals 1 if a state prohibits it, otherwise it equals zero.

*Reciprocity* equals 1 if the state instituted a reciprocity condition, otherwise it equals zero. It is not evident how the reciprocity condition affects out-of-state branch growth. Generally, states that imposed a reciprocity condition were more open (less restrictive) with regard to interstate branch regulation. These states had lower barriers to entry than some others, yet banks in states that wished to open branching in states with reciprocity had to be equally open.

We also create an index to proxy for a restrictive interstate branching regulatory environment. We aggregate the four factors, to give a value for the index between zero and four, with zero being the least restrictive and four being the most restrictive. Our index is equally weighted between the four factors. Since we have collected the information on state statutes and changes to those statutes since 1994, we have a dynamic index that changes over time.

## **VI. Data and Analysis**

### *Data*

Our data set consists of all banking companies that existed from 1994 (the year in which IBBEA was enacted) through 2005. For each banking company, we also include its subsidiary bank and branch data. The parent bank holding company consolidated financial data are collected from the Federal

Reserve Board's FR Y-9C reports. The bank-specific financial data are taken from the Federal Financial Institutions Examination Council's Consolidated Reports of Condition and Income (call reports). The branch data come from the Federal Deposit Insurance Corporation's Summary of Deposits data.

The three data sets are merged by the top-tier entity (be it a bank or bank holding company), with one observation for each bank and branch office owned by that top-tier entity. We then aggregate the banking company information for each state and construct a panel set where each state plus the District of Columbia has one observation per year for the entire sample period. The resulting panel has 612 observations. Finally, to this set, we add the state interstate branching variables representing each of the four state provisions, the reciprocity condition and our state restriction index.

### *Empirical Analysis*

Table 3 contains the summary statistics of our variables for the years 1994, 1997, 2000, and 2005. The table shows that the restriction index has declined over time. This decline is consistent with Table 2 which shows that over time the state laws became, on average, less restrictive. The increasing number of out-of-state branch offices and the proportion of out-of-state branches to total branches is consistent with our hypothesis that as state regulations became less restrictive, more out-of-state branches would emerge.

The table suggests that the restrictive post-IBBEA state interstate branching laws may be negatively associated with growth of out-of-state branches. We test this hypothesis within a simple framework. Namely, we wish to examine whether these provisions, when more restrictive than the provisions set by either IBBEA or neighboring states individually have affected the growth of out-of-state branches between 1994 and 2005. We, therefore, model out-of-state branches at the state level as a function of these four state restrictions, which limits competition from out-of-state banks, and a number of controls.

The general form of the model is:

$$Out\text{-of}\text{-state}\text{ branches}_{it} = a_i + \beta_{1it} * state\text{ restrictions} + \beta_{2it} * reciprocity + e_{it} \quad (1)$$

where the dependent variable, *out-of-state branches*, is the number of out-of-state branches to total branches, *state restrictions* is, alternatively, each of the state branching variables or our interstate branching index, *reciprocity* is an indicator variable for whether the states imposed a reciprocity condition, *i* indexes the 50 states plus the District of Columbia and *t* indexes the years 1994-2005.<sup>81</sup> We include reciprocity because this condition directly affects whether the provision itself applies uniformly to all out-of-state banks wishing to establish branch offices in a particular state.

---

<sup>81</sup> This regression model is used to evaluate the linear relationship between the out-of-state branch growth (the dependent variable) and the individual state restriction variables (the explanatory variables), the regression coefficients are represented by *a* (the intercept) and *B<sub>1</sub>* and *B<sub>2</sub>*.

Table 4 contains our regression results. Our model is estimated using ordinary least squares (OLS) techniques with state and time fixed effects. The superscripts \*, \*\*, and \*\*\* denote statistical significance at the 10 percent, 5 percent and 1 percent levels, respectively. The regression R-squared statistics are included in the last row. The R-squared statistics for the 5 alternative regression specifications, listed in Table 4, range between 0.29 and 0.32.

Each of the columns 1-4 includes one of the four provisions, time and state fixed effects, a constant term and the *reciprocity* indicator variable. Column 5 contains regression results using the restriction index, the sum of the four provisions, time and state fixed effects, a constant term and the *reciprocity* indicator variable.

Our initial empirical results support our hypothesis. If higher interstate branching restrictions were associated with fewer out-of-state branches then we would expect the coefficients (the  $\beta_1$  estimates of the dependent variables) to be negative and statistically significant. Our results indicate that two of the four provisions are statistically significant (acquisition of single branches at the 5 percent level and the statewide deposit cap at the 1 percent level). From this result we infer that these two provisions, specifically, adversely affect out-of-state branch growth in states by prohibiting acquisition of single branches and by having a lower statewide deposit cap. The estimated coefficients for de novo branching and the minimum age requirement are not statistically significant, which suggests that these two restrictions are not binding constraints; that is, banking companies were either able to circumvent the minimum age requirement and prohibition on de novo branching or that the other restrictions were more binding than these two restrictions.

The coefficient on the restriction index is negative and statistically significant at the 1 percent level, suggesting that as a whole, the four provisions together, when more restrictive than the provisions set by either IBBEA or neighboring states resulted in fewer out-of-state branches in those states. The coefficient on reciprocity is not significant, suggesting that this condition did not affect out-of-state branch growth.

## **VII. Summary and Conclusion**

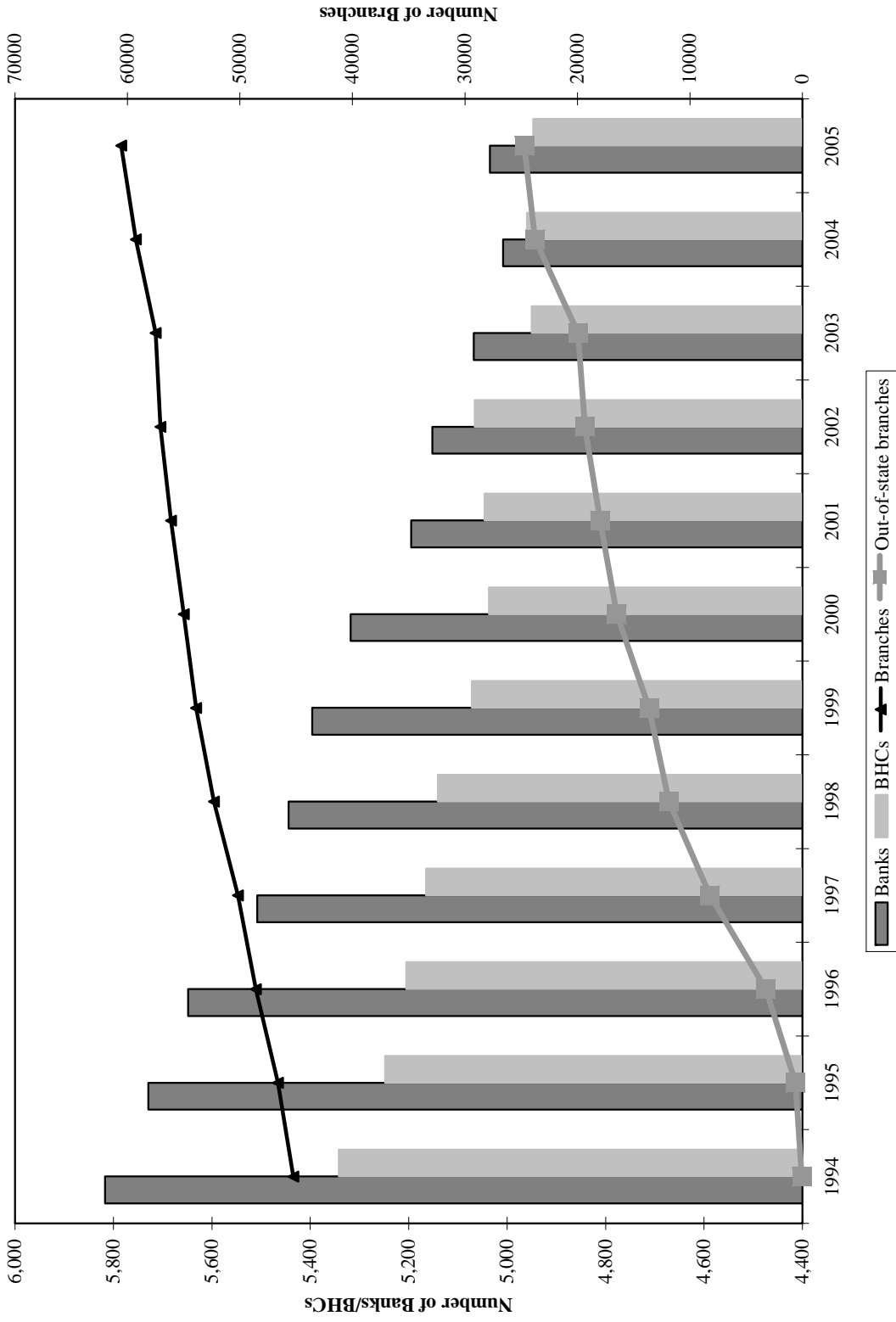
When implemented, it appeared that IBBEA allowed unrestricted interstate branching across all states. But, in fact, it allowed states to create barriers to out-of-state branch entry. This study identifies these restrictions and provides initial evidence that the provisions affected out-of-state branch growth.

We conclude that two of the four provisions granted the states by IBBEA (the state-wide deposit cap and prohibition on the acquisition of single branches) restricted out-of-state branch growth when those provisions were more restrictive than the provisions set by either IBBEA or neighboring states. We

find, however, that the minimum age requirement and de novo interstate branching did not materially affect out-of-state branch growth. It is likely that banks were simply able to circumvent these restrictions or that the other two provisions were more restrictive, or constraining, to out-of-state branch growth.

Our results suggest that the elimination of remaining interstate branching restrictions would likely result in increased out-of-state branch growth by lowering the barriers (or costs) for out-of-state banks to enter new banking markets.

**Figure 1**  
**Number of Banks, Bank Holding Companies and Branches in the U.S.: 1994 - 2005**



**Table 1**  
**States that Revised Interstate Branching Provisions between 1997 and 2005**

<b>State</b>	<b>Post enactment changes</b>	<b>Effective Date</b>
<b>Arizona</b>	No effective changes in statute. Though it was enacted 9/1/1996, not until 8/31/01 could an out of state bank acquire a single branch (with a minimum 5 year age requirement). Added reciprocity condition for minimum age requirement and branch acquisition.	8/31/2001
<b>Georgia</b>	Reduced minimum age requirement from 5 to 3 years.	5/10/2002
<b>Hawaii</b>	Allowed de novo branching, branch acquisition and eliminated minimum age requirement.	1/1/2001
<b>Illinois</b>	Allowed de novo branching, branch acquisition and eliminated minimum age requirement. Added reciprocity condition for minimum age requirement, de novo branching and branch acquisition.	8/20/2004
<b>Indiana</b>	Added minimum age requirement.	7/1/1998
<b>Kentucky</b>	Added reciprocity condition for minimum age requirement.	3/22/2004
<b>Kentucky</b>	Eliminated minimum age requirement.	3/17/2000
<b>Montana</b>	Opted in. Allowed branch acquisition with 5 year minimum age requirement, increased state deposit cap by 1% annually to a maximum of 22%.	10/1/2001
<b>New Hampshire</b>	Eliminated minimum age requirement.	1/1/2002
<b>New Hampshire</b>	Allowed de novo branching, branch acquisition, and changed state deposit cap from 20% to 30%.	8/1/2000
<b>North Carolina</b>	Three statutes enacted between 1995 and 1999, but the last two contained no effective change. The original act (1995) permitted de novo branching and branch acquisition with reciprocity until 1997. In 1997, North Carolina extended the reciprocity condition until 1999. In 1999, North Carolina made the reciprocity condition permanent by eliminating the clause that reciprocity expire on 6/1/99.	7/1/1995



**Table 1 (continued)**  
**States that Revised Interstate Branching Provisions between 1997 and 2005**

<b>North Dakota</b>	Allowed de novo branching and branch acquisition. Added reciprocity condition for de novo branching and branch acquisition.	8/1/2003
<b>Oklahoma</b>	Allowed de novo branching, branch acquisition, eliminated minimum age requirement, and increased state deposit cap from 15% to 20% in 2000.	5/17/2000
<b>Tennessee</b>	Reduced minimum age requirement from 5 to 3 years in 2003.	3/17/2003
<b>Tennessee</b>	Allowed de novo branching. Added reciprocity condition for de novo branching.	7/1/2001
<b>Tennessee</b>	Allowed branch acquisition. Added reciprocity condition for branch acquisition.	5/1/1998
<b>Texas</b>	Allowed de novo branching and branch acquisition. Added reciprocity condition for de novo branching and branch acquisition. No minimum age requirement for states with reciprocity, 5 year minimum age requirement for states with no reciprocity.	9/1/1999
<b>Utah</b>	Allowed de novo branching. Added reciprocity condition.	4/30/2001
<b>Vermont</b>	Eliminated minimum age requirement, allowed de novo branching. Added reciprocity condition for de novo branching.	01/01/2001
<b>Washington</b>	Allowed de novo branching and branch acquisition. Added reciprocity condition for de novo branching and branch acquisition.	05/09/2005

**Table 2**  
**Number of States that Allowed or Prohibited each of the State-determined Provisions: 1997 and 2005**

	Allowed	Prohibited	Allowed with Reciprocity	N/A*
<b>Acquisition of Branches</b>				
1997	12	31	6	2
2005	14	24	13	0
<b>De novo Branches</b>				
1997	5	36	8	2
2005	7	28	16	0

	5 years	3 years	No Minimum Age Requirement	Reciprocity	N/A*
<b>Minimum Age Requirement</b>					
1997	30	5	11	3	2
2005	24	7	14	6	0
	<b>30%</b>	<b>&lt;30%</b>	<b>&gt;30%</b>	<b>None</b>	<b>N/A*</b>
<b>Statewide Deposit Cap</b>					
1997	34	13	2	2	2
2005	35	14	2	2	0

\* Montana and Texas originally opted-out of IBBEA

**Table 3**  
**Summary Statistics**

The state restriction variables are defined as follows: *Deposit Cap* equals 1 if a state enacted deposit cap of 30 percent or less; otherwise *Deposit Cap* equals 0. *Minimum Age* equals 1 if a state enacted 3 or 5 year minimum age for acquisition requirement, otherwise, it equals 0. *De Novo Branching* equals 1 if a state prohibits it, otherwise it equals 0. *Single Branch Acquisition* equals 1 if a state prohibits it, else 0, and finally, *Reciprocity* equals 1 if the state instituted a reciprocity condition, else 0.

	<b>1994</b>	<b>1997</b>	<b>2000</b>	<b>2005</b>
Mean (Std. Dev)				
Number of out-of-state branches per state	1.22 (5.85)	161.20 (249.96)	323.47 (421.74)	484.86 (561.16)
Proportion of out-of-state branches to total branches	0.0074 (0.0373)	0.1849 (0.2208)	0.2603 (0.2277)	0.3728 (0.2101)
Restriction Index	N/A	2.491 (1.461)	2.314 (1.378)	1.941 (1.489)
Minimum age dummy	N/A	0.745 (0.440)	0.706 (0.460)	0.627 (0.488)
De Novo Branching dummy	N/A	0.745 (0.440)	0.706 (0.460)	0.549 (0.503)
Acquisition of Single Branches dummy	N/A	0.647 (0.482)	0.588 (0.497)	0.471 (0.504)
Deposit Cap dummy	N/A	0.353 (0.483)	0.314 (0.469)	0.294 (0.460)

**Table 4**  
**Regression Results**

Regression results for balance panel (N=612) of 50 states plus District of Columbia, aggregated from bank/branch level data, 1994-2005. The dependent variable equals the number of out-of-state branches to total branches. All variables are based on annual observations from year t. Equations are estimated with fixed time and state effects. The superscripts \*, \*\*, and \*\*\* denote statistical significance at the 10 percent, 5 percent and 1 percent levels, respectively. T-statistics are included in parentheses.

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Acquisition of single branches</b>	-0.0460** (-2.26)				
<b>Allows de novo branches</b>		-0.0242 (-1.19)			
<b>Minimum age requirement</b>			-0.0046 (-0.23)		
<b>Statewide Deposit Cap</b>				-0.0776*** (-3.87)	
<b>Restriction Index</b>					-0.0164** (-2.47)
<b>Reciprocity</b>	0.0210 (0.73)	0.0329 (1.15)	0.0436 (1.59)	0.0385 (1.45)	0.0219 (0.78)
<b>constant</b>	0.0525** (2.07)	0.0317 (1.23)	0.0121 (0.47)	0.0835*** (3.33)	0.0722** (2.36)
<b>R-squared</b>	0.295	0.290	0.287	0.318	0.297

**Appendix A  
Interstate Branching Laws  
1994-2005**

<b>State</b>	<b>Changes to State Interstate Branching Laws</b>	<b>Session Law</b>	<b>Effective Date</b>	<b>1842(d)(1)(B) 1831u(a)(5)(A) Minimum Age of Institution (Bank or Branch) for Acquisitions</b>	<b>36(g)(1) &amp; 1828(b)(4) opt-in Allows de novo Interstate Branching</b>	<b>1831(u)(a)(4) Interstate Branching by Acquisition of Single Branches or Other Portions of an Institution</b>	<b>1842(d)(2)(c) 1831u(b)(2)(B)(ii) Statewide Deposit Cap on Branch Acquisitions</b>	<b>Reciprocity Required for minimum age, de novo &amp; branch acquisition</b>
<b>Alabama</b>		1995 Ala. Laws 115	5/31/1997	5 years; Ala. Code §5-13B-23(c) 3 years; Alaska Stat.	No; Ala. Code §5-13B-23(d)	No; Ala. Code §5-13B-23(e)	30%; Ala. Code §5-13B-23(b)	No
<b>Alaska</b>		1993 Alaska Sess. Laws 87	1/1/1994	5 years; reciprocity required; Ariz. Rev. Stat. §6-324	No; Alaska Stat. §06.05.550(b)	Yes; Alaska Stat. §06.05.550(a)	50%; Alaska Stat. §06.05.548	No
<b>Arizona</b>	No effective changes in statute. Though it was enacted 9/1/1996, not until 8/31/01 could an out of state bank acquire a single branch (with a minimum 5 year age requirement). Added reciprocity condition for minimum age requirement and branch acquisition.	1996 Ariz. Sess. Laws 81	8/31/2001	5 years; reciprocity required; Ariz. Rev. Stat. §6-324	No; Ariz. Rev. Stat. §6-324	Yes; reciprocity required; Ariz. Rev. Stat. §6-322(E)	30%; Ariz. Rev. Stat. §6-328	Yes; Ariz. Rev. Stat. §6-327(B)
<b>Arizona</b>		1996 Ariz. Sess. Laws 81	9/1/1996	5 years; reciprocity required; Ariz. Rev. Stat. §6-324	No; Ariz. Rev. Stat. §6-324	No; Ariz. Rev. Stat. §6-322(E)	30%; Ariz. Rev. Stat. §6-328	Yes; Ariz. Rev. Stat. §6-327(B)
<b>Arkansas</b>		1997 Ark. Acts 408	6/1/1997	5 years; Ark. Code §23-48-903 - §23-45-102(18)	No; Ark. Code §23-48-904	No; Ark. Code §23-48-904	25%; Ark. Code §23-48-406	No

State	Changes to State Interstate Branching Laws	Session Law	Effective Date	1842(d)(1)(B) 1831u(a)(5)(A) Minimum Age of Institution (Bank or Branch) for Acquisitions	36(g)(1) & 1828(b)(4) opt-in Allows de novo Interstate Branching	1831(u)(a)(4) Interstate Branching by Acquisition of Single Branches or Other Portions of an Institution	1842(d)(2)(c) 1831u(b)(2)(B)(ii) Statewide Deposit Cap on Branch Acquisitions	Reciprocity Required for de novo & branch acquisition
<b>California</b>		1995 Cal. Stat. 480	9/28/1995	5 years; Cal. Fin. Code §3825	No; Cal. Fin. Code §3824(b)(3)	No; Cal. Fin. Code §3824(b)(2)	30% (per Rieggle Neal)	No
<b>Colorado</b>		1995 Colo. Sess. Laws 1355	6/1/1997	5 years; Colo. Rev. Stat. §11-104-104-202(2)	No; Colo. Rev. Stat. §11-104-202(6)	No; Colo. Rev. Stat. §11-104-202(6); 11-104-201	25%; Colo. Rev. Stat. §11-104-202(4)	No
<b>Connecticut</b>		1995 Conn. Acts 155	6/27/1995	5 years; Conn. Gen. Stat. §36a-412(a)(1)	Yes; reciprocity required; Conn. Gen. Stat. §36a-412(a)(2)	Yes; reciprocity required; Conn. Gen. Stat. §36a-412(a)(1)	30%; Conn. Gen. Stat. §36a-412(a)(1)	Yes; Conn. Gen. Stat. §6a-412(a)(2)
<b>Delaware</b>		1995 Del. Laws 112	9/29/1995	5 years; Del. Code tit. 5 §795(7); §795E; §795F	No; Del. Code tit. 5 §795B(c)	No; Del. Code tit. 5 §795B(c)	30%; Del. Code tit. 5 §795H*****	No
<b>DC</b>		1996 D.C. Stat. 11-142	6/13/1996	No; D.C. Code §26-737	Yes; D.C. Code §26-734	Yes; D.C. Code §26-734	30% (per Rieggle Neal)	No
<b>Florida</b>		1996 Fla. Laws 168	6/1/1997	3 years; Fla. Stat. §658.2953(7)(c)	No; Fla. Stat. §658.2953(5)	No	30%; Fla. Stat. §658.2953(7)(b)	No
<b>Georgia</b>	Reduced minimum age requirement from 5 to 3 years.	2002 Ga. Laws 670 §4	5/10/2002	3 years; Ga. Code §7-1-628.3(b)	No; Ga. Code §7-1-628.8	No; Ga. Code §7-1-628.9	30%; Ga. Code §7-1-628.3(a)(2)	No
<b>Georgia</b>		1996 Ga. Laws 279 §2	6/1/1997	5 years; Ga. Code §7-1-608, §7-1-622, §7-1-628.3(b)	No; Ga. Code §7-1-628.8	No; Ga. Code §7-1-628.9	30%; Ga. Code §7-1-628.3(a)(2)	No

State	Changes to State Interstate Branching Laws	Session Law	Effective Date	1842(d)(1)(B) 1831u(a)(5)(A) Minimum Age of Institution (Bank or Branch) for Acquisitions	36(g)(1) & 1828(b)(4) opt-in Allows de novo Interstate Branching	1831(u)(a)(4) Interstate Branching by Acquisition of Single Branches or Other Portions of an Institution	1842(d)(2)(c) 1831u(b)(2)(B)(ii) Statewide Deposit Cap on Branch Acquisitions	Reciprocity Required for de novo & branch acquisition
<b>Hawaii</b>	Allowed de novo branching, branch acquisition and eliminated minimum age requirement.	1999 Haw. Sess. Laws 283 §2	1/1/2001	No; Haw. Rev. Stat. §412-12-104	Yes; Haw. Rev. Stat. §412-12-105(a)	Yes; Haw. Rev. Stat. §412-12-105(b)	30%; Haw. Rev. Stat. §412-12-106****	No
<b>Hawaii</b>		1996 Haw. Sess. Laws 155	6/1/1997	5 years; Haw. Rev. Stat. §412-12-104	No; Haw. Rev. Stat. §412-105	No; Haw. Rev. Stat. §412-12-105	30% (per Riegle Neal); Haw. Rev. Stat. §412-12-106	No
<b>Idaho</b>	Allowed de novo branching, branch acquisition and eliminated minimum age requirement. Added reciprocity condition for minimum age requirement, de novo branching and branch acquisition.	1995 Idaho Sess. Laws 99	9/29/1995*	5 years; Idaho Code §26-1605	No	No; Idaho Code §26-1604(2)	Statute explicitly states no deposit cap; Idaho Code §26-1606**	Yes***
<b>Illinois</b>		2004 Ill. Laws 93-965	8/20/2004	No age requirement if reciprocity; 5 years if no reciprocity; 205 Ill. Comp. Stat. 5/21-2	Yes; reciprocity required; 205 Ill. Comp. Stat. 5/21-4	Yes; reciprocity required; 205 Ill. Comp. Stat. 5/21-4	30%; 205 Ill. Comp. Stat. 5/21-3	Yes
<b>Illinois</b>		1997 Ill. Laws 90-226	6/1/1997	5 years; 205 Ill. Comp. Stat. 5/21-2	No; 205 Ill. Comp. Stat. 5/21-4	No	30%; 205 Ill. Comp. Stat. 5/21-3	No

State	Changes to State Interstate Branching Laws	Session Law	Effective Date	1842(d)(1)(B) 1831u(a)(5)(A) Minimum Age of Institution (Bank or Branch) for Acquisitions	36(g)(1) & 1828(b)(4) opt-in Allows de novo Interstate Branching	1831(u)(a)(4) Interstate Branching by Acquisition of Single Branches or Other Portions of an Institution	1842(d)(2)(c) 1831u(b)(2)(B)(ii) Statewide Deposit Cap on Branch Acquisitions	Reciprocity Required for minimum age, de novo & branch acquisition
<b>Indiana</b>	Added minimum age requirement.	1998 Ind. Acts 11	7/1/1998	5 years; Ind. Code §28-2-17-20.1(b)	Yes; reciprocity required; Ind. Code §28-2-18-20	Yes; reciprocity required; Ind. Code §28-2-18-21	30% (per Riegle Neal)	Yes; Ind. Code §28-2-18-29
<b>Indiana</b>		1996 Ind. Acts 171	6/1/1997	No	Yes; reciprocity required; Ind. Code §28-2-18-20	Yes; reciprocity required; Ind. Code §28-2-18-21	30% (per Riegle Neal)	Yes; Ind. Code §28-2-18-29
<b>Iowa</b>		1996 Iowa Acts 1056	4/4/1996	5 years; Iowa Code §524.1805(1)	No; Iowa Code §524.1205(4)	No	15%; Iowa Code §524.1802(7)	No
<b>Kansas</b>		1995 Kan. Sess. Laws 79	9/29/1995	5 years; Kan. Stat. Ann. §9-541(a)	No	No	15%; Kan. Stat. Ann. §9-520	No
<b>Kentucky</b>	Added reciprocity condition for minimum age requirement.	2004 Ky. Acts 13	3/22/2004	No; reciprocity required; Ky. Rev. Stat. §287.920	No	No	15%; Ky. Rev. Stat. §287.920	Yes
<b>Kentucky</b>	Eliminated minimum age requirement.	2000 Ky. Acts 135	3/17/2000	No; reciprocity not required; Ky. Rev. Stat. §287.920	No	No	15%; Ky. Rev. Stat. §287.920	No
<b>Kentucky</b>		1996. Ky. Acts 338	6/1/1997	5 years; Ky. Rev. Stat. §287.920	No	No	15%; Ky. Rev. Stat. §287.920	No



State	Changes to State Interstate Branching Laws	Session Law	Effective Date	1842(d)(1)(B) 1831(u)(a)(5)(A) Minimum Age of Institution (Bank or Branch) for Acquisitions	36(g)(1) & 1828(b)(4) opt-in Allows de novo Interstate Branching	1831(u)(a)(4) Interstate Branching by Acquisition of Single Branches or Other Portions of an Institution	1842(d)(2)(c) 1831u(b)(2)(B)(ii) Statewide Deposit Cap on Branch Acquisitions	Reciprocity Required for minimum age, de novo & branch acquisition
<b>Louisiana</b>		1995 La. Acts 1249	6/1/1997	5 years; La. Rev. Stat. Ann. §6:532(11)	No; La. Rev. Stat. Ann. §6:536(c) Yes; reciprocity required; Me. Rev. Stat. Ann. tit. 9B §373(1)	No; La. Rev. Stat. Ann. §6:536(c) Yes; reciprocity required; Me. Rev. Stat. Ann. tit. 9B §373(1)	30% (per Rieggle Neal)	No
<b>Maine</b>		1996 Me. Laws 628	1/1/1997	No	Yes; reciprocity required; Me. Rev. Stat. Ann. tit. 9B §373(1)	Yes; reciprocity required; Me. Rev. Stat. Ann. tit. 9B §373(1)	30%; Me. Rev. Stat. Ann. tit. 9B §241(10)	Yes; Me. Rev. Stat. Ann. tit. 9B §373(1)
<b>Maryland</b>		1995 Md. Laws 213	9/29/1995	No	Yes; Md. Code Ann. Fin Inst. §5-1003	Yes; Md. Code Ann. Fin Inst. §5-1003(2)	30%; Md. Code Ann. Fin Inst. §5-1013	No
<b>Massachusetts</b>		1996 Mass. Acts 238	8/2/1996	3 years; Mass. Gen. Laws ch.167 §39B	Yes; Mass. Gen. Laws ch.167 §39C	Yes; Mass. Gen. Laws ch.167 §39C	30%; Mass. Gen. Laws ch.167 §39B	Yes; Mass. Gen. Laws ch.167 §39B and ch.167 §39C
<b>Michigan</b>		1995 Mich. Pub. Acts 202	11/29/1995	No; Mich. Comp. Laws §487.13702	Yes; reciprocity required; Mich. Comp. Laws §487.13711(7)	Yes; reciprocity required; Mich. Comp. Laws §487.14107(1)	Statute explicitly states no deposit cap. Mich. Comp. Laws §487.11104(8) **	Yes; Mich. Comp. Laws §487.13711(7) and §487.14107(1)
<b>Minnesota</b>		1997 Minn. Laws 117	6/1/1997	5 years; Minn. Stat. §49.411(4)	No	No	30% (per Rieggle Neal)	No
<b>Mississippi</b>		1995 Miss. Laws 304	6/1/1997	5 years; Miss. Code Ann. §81-7-8(1)	No	No	25%; Miss. Code Ann. §81-7-8(2)	No
<b>Missouri</b>		1995 Mo. Laws 34	9/29/1995*	5 years; Mo. Rev. Stat. §362.077	No	No	13%; Mo. Rev. Stat. §362.915	No

State	Changes to State Interstate Branching Laws	Session Law	Effective Date	1842(d)(1)(B) 1831u(a)(5)(A) Minimum Age of Institution (Bank or Branch) for Acquisitions	36(g)(1) & 1828(b)(4) opt-in Allows de novo Interstate Branching	1831(u)(a)(4) Interstate Branching by Acquisition of Single Branches or Other Portions of an Institution	1842(d)(2)(c) 1831u(b)(2)(B)(ii) Statewide Deposit Cap on Branch Acquisitions	Reciprocity Required for minimum age, de novo & branch acquisition
Montana	Opted in. Allowed branch acquisition with 5 year minimum age requirement, increased state deposit cap by 1% annually to a maximum of 22%.	2001 Mont. Laws 36	10/1/2001 (enacted 1997)	5 years; Mont. Code Ann. §32-1-370	No	No	22%; Mont. Code Ann. §32-1-383	No
Montana	<i>Opted out</i>	1995 Mont. Laws 265 §5	9/29/1995	N/A	N/A	N/A	18%; increases 1% per year up to 22%; Mont. Code Ann. §32-1-383(3)	No
Nebraska		1997 Neb. Laws 351	5/31/1997	5 years; Neb. Rev. Stat. §8-2104	No; Neb. Rev. Stat. §8-2105	No; Neb. Rev. Stat. §8-2105	14%; Neb. Rev. Stat. §8-2106	No
Nevada		1995 Nev. Stat. 1555	9/29/1995*	5 years; Nev. Rev. Stat. §666.405(1)	No; Nev. Rev. Stat. §666.410 (Exception for counties of 100,000 or less)	No; Nev. Rev. Stat. §666.410 (Exception for counties of 100,000 or less)	30% (per Riegle Neal)	No
New Hampshire	Eliminated minimum age requirement.	2001 N.H. Laws 269	1/1/2002	No	Yes; reciprocity required; N.H. Rev. Stat. §384.60	Yes; reciprocity required; N.H. Rev. Stat. §384.60	30%; N.H. Rev. Stat. §384-B:2, §384-B:3	Yes; N.H. Rev. Stat. §384:60
New Hampshire	Allowed de novo branching, branch acquisition, and changed state deposit cap from 20% to 30%.	2000 N.H. Laws 236	8/1/2000	5 years; N.H. Rev. Stat. §384:59	Yes; reciprocity required; N.H. Rev. Stat. §384.60	Yes; reciprocity required; N.H. Rev. Stat. §384:60	30%; N.H. Rev. Stat. §384-B:2, §384-B:3, §383:59	Yes; N.H. Rev. Stat. §384:59, §384:60

State	Changes to State Interstate Branching Laws	Session Law	Effective Date	1842(d)(1)(B) 1831u(a)(5)(A) Minimum Age of Institution (Bank or Branch) for Acquisitions	36(g)(1) & 1828(b)(4) opt-in Allows de novo Interstate Branching	1831(u)(a)(4) Interstate Branching by Acquisition of Single Branches or Other Portions of an Institution	1842(d)(2)(c) 1831u(b)(2)(B)(ii) Statewide Deposit Cap on Branch Acquisitions	Reciprocity Required for de novo & branch acquisition
New Hampshire		1996 N.H. Laws 288	6/1/1997	5 years; N.H. Rev. Stat. §384:59	No	No	20%; N.H. Rev. Stat. §384:59	No
New Jersey		1996 N.J. Laws 17 §16	4/17/1996	No; N.J. Stat. Ann. §17:9A-133.1	No	Yes; N.J. Stat. Ann. §17:9A-133.1(e)	30%; N.J. Stat. Ann. §17:9A-133.1(b)	No
New Mexico		1996 N.M. Laws 2	6/1/1996	5 years; N.M. Stat. §58-1C-5(C)	No; N.M. Stat. §58-1C-6	No; N.M. Stat. §58-1C-6	40%; N.M. Stat. §58-1C-5(B)	No
New York		1996 N.Y. Laws 9	6/1/1997	5 years; N.Y. Banking Law §223-a	No; N.Y. Banking Law §224	Yes; N.Y. Banking Law §223	30% (per Riegle Neal)	No
North Carolina	Three statutes enacted between 1995 and 1999, but the last two contained no effective change. The original act (1995) permitted de novo branching and branch acquisition with reciprocity until 1997. In 1997, North Carolina extended the reciprocity condition until 1999. In 1999, North Carolina made the reciprocity condition permanent by eliminating the clause that reciprocity expire on 6/1/99.	1995 N.C. Sess. Laws 322	7/1/1995	No; reciprocity required; N.C. Gen. Stat. §53-224.19	Yes; reciprocity required; N.C. Gen. Stat. §53-224.12	Yes; reciprocity required; N.C. Gen. Stat. §53-224.13	30% (per Riegle Neal)	Yes; N.C. Gen. Stat. §53-224.14(c)

State	Changes to State Interstate Branching Laws	Session Law	Effective Date	1842(d)(1)(B) 1831u(a)(5)(A) Minimum Age of Institution (Bank or Branch) for Acquisitions	36(g)(1) & 1828(b)(4) opt-in Allows de novo Interstate Branching	1831(u)(a)(4) Interstate Branching by Acquisition of Single Branches or Other Portions of an Institution	1842(d)(2)(c) 1831u(b)(2)(B)(ii) Statewide Deposit Cap on Branch Acquisitions	Reciprocity Required for minimum age, de novo & branch acquisition
<b>North Dakota</b>	Allowed de novo branching and branch acquisition. Added reciprocity condition for de novo branching and branch acquisition.	2003 N.D. Laws 75 §4	8/1/2003	No; reciprocity required; N.D. Cent. Code §6.08.4-04	Yes; reciprocity required; N.D. Cent. Code §6-08.4-04	Yes; reciprocity required; N.D. Cent. Code §6-08.4-04	25%; N.D. Cent. Code §6-08.3-03.1	Yes; N.D. Cent. Code §6-08.4-06.1
<b>North Dakota</b>		1997 N.D. Laws 79 §19	5/31/1997	No; reciprocity required; N.D. Cent. Code §6.08.3-13	No	No	25%; N.D. Cent. Code §6-08.3-03.1	Yes; N.D. Cent. Code §6-08.4-06.1
<b>Ohio</b>		1997 Ohio Laws 22	5/21/1997	No; Ohio Rev. Code Ann. §1115.05(B)	Yes; Ohio Rev. Code Ann. §1117.01	Yes; Ohio Rev. Code Ann. §1117.01	30%; Ohio Rev. Code Ann. §1115.05(B)(1)(a)	No
<b>Oklahoma</b>	Allowed de novo branching, branch acquisition, eliminated minimum age requirement, and increased state deposit cap from 15% to 20% in 2000.	2000 Okla. Sess. Laws 205 §18	5/17/2000	No; Okla. Stat. tit. 6 §501.1(K)	Yes; Okla. Stat. tit. 6 §501.1	Yes; Okla. Stat. tit. 6 §501.1	20%; Okla. Stat. tit. 6 §501.1	Yes; Okla. Stat. tit. 6 §501.1
<b>Oklahoma</b>		1997 Okla. Sess. Laws 120 §1	5/31/1997	5 years; Okla. Stat. tit. 6 §501.1(K)	No	No	15%; Okla. Stat. tit. 6 §501.1	No
<b>Oregon</b>	Prohibited branch acquisition.	1997 Or. Laws 631 §284	7/1/1997	3 years; Or. Rev. Stat. §713.270	No	No	30% (per Riegle Neal)	No
<b>Oregon</b>		1995 Or. Laws 6 §3	2/27/1995	3 years; Or. Rev. Stat. §711.017	No	Yes	30% (per Riegle Neal)	No

State	Changes to State Interstate Branching Laws	Session Law	Effective Date	1842(d)(1)(B) 1831u(a)(5)(A) Minimum Age of Institution (Bank or Branch) for Acquisitions	36(g)(1) & 1828(b)(4) opt-in Allows de novo Interstate Branching	1831(u)(a)(4) Interstate Branching by Acquisition of Single Branches or Other Portions of an Institution	1842(d)(2)(c) 1831u(b)(2)(B)(ii) Statewide Deposit Cap on Branch Acquisitions	Reciprocity Required for minimum age, de novo & branch acquisition
<b>Pennsylvania</b>		1995 Pa. Laws 39	7/6/1995	No; 7 Pa. Stat. Ann. §1602	Yes; reciprocity required; 7 Pa. Stat. Ann. §904(b)	Yes; reciprocity required; 7 Pa. Stat. Ann. §904 & Pa. Stat. Chap. 16	30% (per Rieggle Neal)	Yes; 7 Pa. Stat. Ann. §904(b)
<b>Rhode Island</b>		1995 R.I. Pub. Laws 82 §45	6/20/1995	No; R.I. Gen. Laws §19-7-3	Yes; R.I. Gen. Laws §19-7-9	Yes; R.I. Gen. Laws §19-7-9	30% (per Rieggle Neal)	Yes; R.I. Gen. Laws §19-7-9
<b>South Carolina</b>		1996 S.C. Acts 310 (H.B. 4790)	7/1/1996	5 years; S.C. Code Ann. §34-25-240(c)	No	No	30%; S.C. Code Ann. §34-25-240	No
<b>South Dakota</b>		1996 S.D. Laws 280	3/9/1996	5 years; S.D. Codified Laws §51A-7-16	No	No	30% (per Rieggle Neal)	No
<b>Tennessee</b>	Reduced minimum age requirement from 5 to 3 years in 2003.	2003 Tenn Pub. Acts 32	3/17/2003	3 years; Tenn. Code Ann. §45-2-1403	Yes; reciprocity required; Tenn. Code Ann. §45-2-1412	Yes; reciprocity required; Tenn. Code Ann. §45-2-1402(1)	30%; Tenn. Code Ann. §45-2-1404	Yes; Tenn. Code Ann. §45-2-1412(b)
<b>Tennessee</b>	Allowed de novo branching. Added reciprocity condition for de novo branching.	2001 Tenn. Pub. Acts 140	7/1/2001	5 years; Tenn. Code Ann. §45-2-1403	Yes; reciprocity required; Tenn. Code Ann. §45-2-1402	Yes; reciprocity required; Tenn. Code Ann. §45-2-1412(1)	30%; Tenn. Code Ann. §45-2-1404	Yes; Tenn. Code Ann. §45-2-1412(b)
<b>Tennessee</b>	Allowed branch acquisition. Added reciprocity condition for branch acquisition.	1998 Tenn. Pub. Acts 742	5/1/1998	5 years; Tenn. Code Ann. §45-2-1403	No	Yes; reciprocity required; Tenn. Code Ann. §45-2-1412(1)	30%; Tenn. Code Ann. §45-2-1404	Yes; Tenn. Code Ann. §45-2-1412(b)

State	Changes to State Interstate Branching Laws	Session Law	Effective Date	1842(d)(1)(B) 1831u(a)(5)(A) Minimum Age of Institution (Bank or Branch) for Acquisitions	36(g)(1) & 1828(b)(4) opt-in Allows de novo Interstate Branching	1831(u)(a)(4) Interstate Branching by Acquisition of Single Branches or Other Portions of an Institution	1842(d)(2)(c) 1831u(b)(2)(B)(ii) Statewide Deposit Cap on Branch Acquisitions	Reciprocity Required for minimum age, de novo & branch acquisition
Tennessee		1996 Tenn. Pub. Acts 768	6/1/1997	5 years; Tenn. Code Ann. §45-2-1403	No	No.	30%; Tenn. Code Ann. §45-2-1404	Yes; Tenn. Code Ann. §45-2-1412(b)
Texas	Allowed de novo branching and branch acquisition. Added reciprocity condition for de novo branching and branch acquisition. No minimum age requirement for states with reciprocity, 5 year minimum age requirement for states with no reciprocity.	1999 Tex. Gen. Laws 344	9/1/1999	No, if reciprocity; 5 years if no reciprocity for de novo; Tex. Fin. Code Ann. §203.005	Yes; reciprocity required; Tex. Fin. Code Ann. §203.002 (a)	Yes; reciprocity required; Tex. Fin. Code Ann. §203.002(c)	20%; Tex. Fin. Code Ann. §203.004	Yes; Tex. Fin. Code Ann. §203.002
Texas	<i>Opted out</i>	1995 Tex. Gen. Laws ch. 58	8/28/1995	N/A	N/A	N/A	20%	N/A
Utah	Allowed de novo branching. Added reciprocity condition.	2001 Utah Laws 211	4/30/2001	5 years; Utah Code Ann. §7-1-703(7)	Yes; reciprocity required; Utah Code Ann. §7-1-702(5)(b) & 5(c)	Yes; Utah Code Ann. §7-1-702(4)(a); Utah Code Ann. §7-1-703(7).	30% (per Riegle Neal)	Yes; Utah Code Ann. §7-1-702(5)(b) & 5(c)
Utah		1995 Utah Laws 49	6/1/1995	5 years; Utah Code Ann. §7-1-703(7)	No; Utah Code Ann. §7-1-702(5)(b)	Yes; Utah Code Ann. §7-1-702(4)(a); Utah Code Ann. §7-1-703(7).	30% (per Riegle Neal)	No
Vermont	Eliminated minimum age requirement, allowed de novo branching. Added reciprocity condition for de novo branching.	1999 Vt. Acts & Resolves 153 §2	1/1/2001	No; 8 Vt. Stat. Ann. tit. 205 §15202	Yes; reciprocity required; 8 Vt. Stat. Ann. §15202(b)(2)	Yes; 8 Vt. Stat. Ann. §15202(b)(1)	30%; 8 Vt. Stat. Ann. §14108	Yes; 8 Vt. Stat. Ann. §15202(b)(2) and 8 Vt. Stat. Ann. §15202(b)(1)

State	Changes to State Interstate Branching Laws	Session Law	Effective Date	1842(d)(1)(B) 1831u(a)(5)(A) Minimum Age of Institution (Bank or Branch) for Acquisitions	36(g)(1) & 1828(b)(4) opt-in Allows de novo Interstate Branching	1831(u)(a)(4) Interstate Branching by Acquisition of Single Branches or Other Portions of an Institution	1842(d)(2)(c) 1831u(b)(2)(B)(ii) Statewide Deposit Cap on Branch Acquisitions	Reciprocity Required for minimum age, de novo & branch acquisition
<b>Vermont</b>		1995 Vt. Acts & Resolves 142 §4	5/30/1996	5 years; 8 Vt. Stat. Ann. §654	No	Yes; 8 Vt. Stat. Ann. §654(b)(2)	30%; 8 Vt. Stat. Ann. §1015	No
<b>Virginia</b>		1995 Va. Laws 301	9/29/1995*	No; Va. Code Ann. §6.1-44.18	Yes; reciprocity required; Va. Code Ann. §6.1-44.4	Yes; Va. Code Ann. §6.1-44.5	30% (per Rieggle Neal)	Yes; Va. Code Ann. §6.1-44.7
<b>Washington</b>	Allowed de novo branching and branch acquisition. Added reciprocity condition for de novo branching and branch acquisition.	2005 Wash. Laws 348	5/9/2005	5 years; Wash. Rev. Code §30.04.232	Yes; reciprocity required; Wash. Rev. Code §30.38.015	Yes; reciprocity required; Wash. Rev. Code §30.38.015	30% (per Rieggle Neal); Wash. Rev. Code §30.49.125****	Yes; Wash. Rev. Code §30.38.015
<b>Washington</b>		1996 Wash. Laws 2	6/6/1996	5 years; Wash. Rev. Code §30.04.232	No	No	30% (per Rieggle Neal); Wash. Rev. Code §30.49.125****	No
<b>West Virginia</b>		1996 W. Va. Acts 72	5/31/1997	No; W. Va. Code §31A-8D-4	Yes; reciprocity required; W. Va. Code §31A-8E-4	Yes; reciprocity required; W. Va. Code §31A-8E-4	25%; W. Va. Code §31A-2-12a	Yes; W. Va. Code §31A-8E-4
<b>Wisconsin</b>		1995 Wis. Laws 336	5/1/1996	5 years; Wis. Stat. §221.0901(8)	No	No	30%; Wis. Stat. §221.0901(7)****	No
<b>Wyoming</b>		1997 Wyo. Sess. Laws	5/31/1997	3 years; Wyo. Stat. Ann. §13-2-804(c)	No	No	30%; Wyo. Stat. Ann. §13-2-804(b)	No

**NOTES:**

\* No precise date is listed in statute, only the year. We assume for each of these states that the effective date is 09/29/1995.

\*\* Statute states no deposit cap -- which implicitly implies 100%

\*\*\* Idaho requires reciprocity, but it does not allow de novo branching, acquisition of a branch and has a five year minimum age requirement to buy a bank, making it one of the most restrictive states. Thus, the reciprocity requirement has little value.

\*\*\*\* Statute expressly references IBBEA deposit cap.

\*\*\*\*\* Statute states 30% statewide deposit cap per IBBEA, but State Banking Commissioner may waive the cap.



## Working Paper Series

A series of research studies on regional economic issues relating to the Seventh Federal Reserve District, and on financial and economic topics.

Standing Facilities and Interbank Borrowing: Evidence from the Federal Reserve's New Discount Window <i>Craig Furfine</i>	<b>WP-04-01</b>
Netting, Financial Contracts, and Banks: The Economic Implications <i>William J. Bergman, Robert R. Bliss, Christian A. Johnson and George G. Kaufman</i>	<b>WP-04-02</b>
Real Effects of Bank Competition <i>Nicola Cetorelli</i>	<b>WP-04-03</b>
Finance as a Barrier To Entry: Bank Competition and Industry Structure in Local U.S. Markets? <i>Nicola Cetorelli and Philip E. Strahan</i>	<b>WP-04-04</b>
The Dynamics of Work and Debt <i>Jeffrey R. Campbell and Zvi Hercowitz</i>	<b>WP-04-05</b>
Fiscal Policy in the Aftermath of 9/11 <i>Jonas Fisher and Martin Eichenbaum</i>	<b>WP-04-06</b>
Merger Momentum and Investor Sentiment: The Stock Market Reaction To Merger Announcements <i>Richard J. Rosen</i>	<b>WP-04-07</b>
Earnings Inequality and the Business Cycle <i>Gadi Barlevy and Daniel Tsiddon</i>	<b>WP-04-08</b>
Platform Competition in Two-Sided Markets: The Case of Payment Networks <i>Sujit Chakravorti and Roberto Roson</i>	<b>WP-04-09</b>
Nominal Debt as a Burden on Monetary Policy <i>Javier Díaz-Giménez, Giorgia Giovannetti, Ramon Marimon, and Pedro Teles</i>	<b>WP-04-10</b>
On the Timing of Innovation in Stochastic Schumpeterian Growth Models <i>Gadi Barlevy</i>	<b>WP-04-11</b>
Policy Externalities: How US Antidumping Affects Japanese Exports to the EU <i>Chad P. Bown and Meredith A. Crowley</i>	<b>WP-04-12</b>
Sibling Similarities, Differences and Economic Inequality <i>Bhashkar Mazumder</i>	<b>WP-04-13</b>
Determinants of Business Cycle Comovement: A Robust Analysis <i>Marianne Baxter and Michael A. Kouparitsas</i>	<b>WP-04-14</b>
The Occupational Assimilation of Hispanics in the U.S.: Evidence from Panel Data <i>Maude Toussaint-Comeau</i>	<b>WP-04-15</b>

## **Working Paper Series** *(continued)*

Reading, Writing, and Raisinets <sup>1</sup> : Are School Finances Contributing to Children's Obesity? <i>Patricia M. Anderson and Kristin F. Butcher</i>	<b>WP-04-16</b>
Learning by Observing: Information Spillovers in the Execution and Valuation of Commercial Bank M&As <i>Gayle DeLong and Robert DeYoung</i>	<b>WP-04-17</b>
Prospects for Immigrant-Native Wealth Assimilation: Evidence from Financial Market Participation <i>Una Okonkwo Osili and Anna Paulson</i>	<b>WP-04-18</b>
Individuals and Institutions: Evidence from International Migrants in the U.S. <i>Una Okonkwo Osili and Anna Paulson</i>	<b>WP-04-19</b>
Are Technology Improvements Contractionary? <i>Susanto Basu, John Fernald and Miles Kimball</i>	<b>WP-04-20</b>
The Minimum Wage, Restaurant Prices and Labor Market Structure <i>Daniel Aaronson, Eric French and James MacDonald</i>	<b>WP-04-21</b>
Betcha can't acquire just one: merger programs and compensation <i>Richard J. Rosen</i>	<b>WP-04-22</b>
Not Working: Demographic Changes, Policy Changes, and the Distribution of Weeks (Not) Worked <i>Lisa Barrow and Kristin F. Butcher</i>	<b>WP-04-23</b>
The Role of Collateralized Household Debt in Macroeconomic Stabilization <i>Jeffrey R. Campbell and Zvi Hercowitz</i>	<b>WP-04-24</b>
Advertising and Pricing at Multiple-Output Firms: Evidence from U.S. Thrift Institutions <i>Robert DeYoung and Evren Örs</i>	<b>WP-04-25</b>
Monetary Policy with State Contingent Interest Rates <i>Bernardino Adão, Isabel Correia and Pedro Teles</i>	<b>WP-04-26</b>
Comparing location decisions of domestic and foreign auto supplier plants <i>Thomas Klier, Paul Ma and Daniel P. McMillen</i>	<b>WP-04-27</b>
China's export growth and US trade policy <i>Chad P. Bown and Meredith A. Crowley</i>	<b>WP-04-28</b>
Where do manufacturing firms locate their Headquarters? <i>J. Vernon Henderson and Yukako Ono</i>	<b>WP-04-29</b>
Monetary Policy with Single Instrument Feedback Rules <i>Bernardino Adão, Isabel Correia and Pedro Teles</i>	<b>WP-04-30</b>

## **Working Paper Series** *(continued)*

Firm-Specific Capital, Nominal Rigidities and the Business Cycle <i>David Altig, Lawrence J. Christiano, Martin Eichenbaum and Jesper Linde</i>	<b>WP-05-01</b>
Do Returns to Schooling Differ by Race and Ethnicity? <i>Lisa Barrow and Cecilia Elena Rouse</i>	<b>WP-05-02</b>
Derivatives and Systemic Risk: Netting, Collateral, and Closeout <i>Robert R. Bliss and George G. Kaufman</i>	<b>WP-05-03</b>
Risk Overhang and Loan Portfolio Decisions <i>Robert DeYoung, Anne Gron and Andrew Winton</i>	<b>WP-05-04</b>
Characterizations in a random record model with a non-identically distributed initial record <i>Gadi Barlevy and H. N. Nagaraja</i>	<b>WP-05-05</b>
Price discovery in a market under stress: the U.S. Treasury market in fall 1998 <i>Craig H. Furfine and Eli M. Remolona</i>	<b>WP-05-06</b>
Politics and Efficiency of Separating Capital and Ordinary Government Budgets <i>Marco Bassetto with Thomas J. Sargent</i>	<b>WP-05-07</b>
Rigid Prices: Evidence from U.S. Scanner Data <i>Jeffrey R. Campbell and Benjamin Eden</i>	<b>WP-05-08</b>
Entrepreneurship, Frictions, and Wealth <i>Marco Cagetti and Mariacristina De Nardi</i>	<b>WP-05-09</b>
Wealth inequality: data and models <i>Marco Cagetti and Mariacristina De Nardi</i>	<b>WP-05-10</b>
What Determines Bilateral Trade Flows? <i>Marianne Baxter and Michael A. Kouparitsas</i>	<b>WP-05-11</b>
Intergenerational Economic Mobility in the U.S., 1940 to 2000 <i>Daniel Aaronson and Bhashkar Mazumder</i>	<b>WP-05-12</b>
Differential Mortality, Uncertain Medical Expenses, and the Saving of Elderly Singles <i>Mariacristina De Nardi, Eric French, and John Bailey Jones</i>	<b>WP-05-13</b>
Fixed Term Employment Contracts in an Equilibrium Search Model <i>Fernando Alvarez and Marcelo Veracierto</i>	<b>WP-05-14</b>
Causality, Causality, Causality: The View of Education Inputs and Outputs from Economics <i>Lisa Barrow and Cecilia Elena Rouse</i>	<b>WP-05-15</b>

## **Working Paper Series** *(continued)*

Competition in Large Markets <i>Jeffrey R. Campbell</i>	<b>WP-05-16</b>
Why Do Firms Go Public? Evidence from the Banking Industry <i>Richard J. Rosen, Scott B. Smart and Chad J. Zutter</i>	<b>WP-05-17</b>
Clustering of Auto Supplier Plants in the U.S.: GMM Spatial Logit for Large Samples <i>Thomas Klier and Daniel P. McMillen</i>	<b>WP-05-18</b>
Why are Immigrants' Incarceration Rates So Low? Evidence on Selective Immigration, Deterrence, and Deportation <i>Kristin F. Butcher and Anne Morrison Piehl</i>	<b>WP-05-19</b>
Constructing the Chicago Fed Income Based Economic Index – Consumer Price Index: Inflation Experiences by Demographic Group: 1983-2005 <i>Leslie McGranahan and Anna Paulson</i>	<b>WP-05-20</b>
Universal Access, Cost Recovery, and Payment Services <i>Sujit Chakravorti, Jeffery W. Gunther, and Robert R. Moore</i>	<b>WP-05-21</b>
Supplier Switching and Outsourcing <i>Yukako Ono and Victor Stango</i>	<b>WP-05-22</b>
Do Enclaves Matter in Immigrants' Self-Employment Decision? <i>Maude Toussaint-Comeau</i>	<b>WP-05-23</b>
The Changing Pattern of Wage Growth for Low Skilled Workers <i>Eric French, Bhashkar Mazumder and Christopher Taber</i>	<b>WP-05-24</b>
U.S. Corporate and Bank Insolvency Regimes: An Economic Comparison and Evaluation <i>Robert R. Bliss and George G. Kaufman</i>	<b>WP-06-01</b>
Redistribution, Taxes, and the Median Voter <i>Marco Bassetto and Jess Benhabib</i>	<b>WP-06-02</b>
Identification of Search Models with Initial Condition Problems <i>Gadi Barlevy and H. N. Nagaraja</i>	<b>WP-06-03</b>
Tax Riots <i>Marco Bassetto and Christopher Phelan</i>	<b>WP-06-04</b>
The Tradeoff between Mortgage Prepayments and Tax-Deferred Retirement Savings <i>Gene Amromin, Jennifer Huang, and Clemens Sialm</i>	<b>WP-06-05</b>
Why are safeguards needed in a trade agreement? <i>Meredith A. Crowley</i>	<b>WP-06-06</b>

## **Working Paper Series** *(continued)*

Taxation, Entrepreneurship, and Wealth <i>Marco Cagetti and Mariacristina De Nardi</i>	<b>WP-06-07</b>
A New Social Compact: How University Engagement Can Fuel Innovation <i>Laura Melle, Larry Isaak, and Richard Mattoon</i>	<b>WP-06-08</b>
Mergers and Risk <i>Craig H. Furfine and Richard J. Rosen</i>	<b>WP-06-09</b>
Two Flaws in Business Cycle Accounting <i>Lawrence J. Christiano and Joshua M. Davis</i>	<b>WP-06-10</b>
Do Consumers Choose the Right Credit Contracts? <i>Sumit Agarwal, Souphala Chomsisengphet, Chunlin Liu, and Nicholas S. Souleles</i>	<b>WP-06-11</b>
Chronicles of a Deflation Unforetold <i>François R. Velde</i>	<b>WP-06-12</b>
Female Offenders Use of Social Welfare Programs Before and After Jail and Prison: Does Prison Cause Welfare Dependency? <i>Kristin F. Butcher and Robert J. LaLonde</i>	<b>WP-06-13</b>
Eat or Be Eaten: A Theory of Mergers and Firm Size <i>Gary Gorton, Matthias Kahl, and Richard Rosen</i>	<b>WP-06-14</b>
Do Bonds Span Volatility Risk in the U.S. Treasury Market? A Specification Test for Affine Term Structure Models <i>Torben G. Andersen and Luca Benzoni</i>	<b>WP-06-15</b>
Transforming Payment Choices by Doubling Fees on the Illinois Tollway <i>Gene Amromin, Carrie Jankowski, and Richard D. Porter</i>	<b>WP-06-16</b>
How Did the 2003 Dividend Tax Cut Affect Stock Prices? <i>Gene Amromin, Paul Harrison, and Steven Sharpe</i>	<b>WP-06-17</b>
Will Writing and Bequest Motives: Early 20th Century Irish Evidence <i>Leslie McGranahan</i>	<b>WP-06-18</b>
How Professional Forecasters View Shocks to GDP <i>Spencer D. Krane</i>	<b>WP-06-19</b>
Evolving Agglomeration in the U.S. auto supplier industry <i>Thomas Klier and Daniel P. McMillen</i>	<b>WP-06-20</b>
Mortality, Mass-Layoffs, and Career Outcomes: An Analysis using Administrative Data <i>Daniel Sullivan and Till von Wachter</i>	<b>WP-06-21</b>

## **Working Paper Series** *(continued)*

The Agreement on Subsidies and Countervailing Measures: Tying One's Hand through the WTO. <i>Meredith A. Crowley</i>	<b>WP-06-22</b>
How Did Schooling Laws Improve Long-Term Health and Lower Mortality? <i>Bhashkar Mazumder</i>	<b>WP-06-23</b>
Manufacturing Plants' Use of Temporary Workers: An Analysis Using Census Micro Data <i>Yukako Ono and Daniel Sullivan</i>	<b>WP-06-24</b>
What Can We Learn about Financial Access from U.S. Immigrants? <i>Una Okonkwo Osili and Anna Paulson</i>	<b>WP-06-25</b>
Bank Imputed Interest Rates: Unbiased Estimates of Offered Rates? <i>Evren Ors and Tara Rice</i>	<b>WP-06-26</b>
Welfare Implications of the Transition to High Household Debt <i>Jeffrey R. Campbell and Zvi Hercowitz</i>	<b>WP-06-27</b>
Last-In First-Out Oligopoly Dynamics <i>Jaap H. Abbring and Jeffrey R. Campbell</i>	<b>WP-06-28</b>
Oligopoly Dynamics with Barriers to Entry <i>Jaap H. Abbring and Jeffrey R. Campbell</i>	<b>WP-06-29</b>
Risk Taking and the Quality of Informal Insurance: Gambling and Remittances in Thailand <i>Douglas L. Miller and Anna L. Paulson</i>	<b>WP-07-01</b>
Fast Micro and Slow Macro: Can Aggregation Explain the Persistence of Inflation? <i>Filippo Altissimo, Benoît Mojon, and Paolo Zaffaroni</i>	<b>WP-07-02</b>
Assessing a Decade of Interstate Bank Branching <i>Christian Johnson and Tara Rice</i>	<b>WP-07-03</b>
Debit Card and Cash Usage: A Cross-Country Analysis <i>Gene Amromin and Sujit Chakravorti</i>	<b>WP-07-04</b>