Should Interactive Teller Machines (ITMs) Be Considered Branches?

Implications for Bank Competition and Community Reinvestment

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Executive Summary

The launch of the first-ever automatic teller machine (ATM) on June 27, 1967, at a branch of Barclay's Bank in a suburb of London, set in motion a shift in how banks and customers would interact with each other in the future. ATM technology officially landed in the United States on September 2, 1969, at Chemical Bank in Rockville Centre, New York. To promote its new technology, the bank used an advertising slogan that seemed to predict the future of retail banking: "On September 2, our banks will open at 9 a.m. and never close again."[1]

Since the ATM's 1969 U.S. debut, there has been a deluge of innovations in banking aimed at maximizing customer convenience by allowing them to securely conduct more self-service transactions away from the traditional brick-and-mortar bank branch. This goal of increasing customer convenience has sparked the creation of many of the products and services that bank customers enjoy today, including mobile banking, remote deposit capture and, more recently online lending.

In recent years, the automatic teller machine has received a considerable upgrade with the advent of the interactive teller machine, or ITM. An ITM combines the functionality of an ATM, with the experience of connecting directly with a live remote teller. An ITM imbeds enhanced security features that assist in the verification of the user's identity and allows for a wide range of retail and business services to be transacted away from a bank's branch. ITMs also enable banks to significantly extend their hours of operation as most of the live tellers are centrally located at a remote facility which helps make the expansion of hours through the ITM more cost-effective for banks.

[1] See Rodriguez

The ability of U.S. banks to innovate and incorporate new technologies, such as the ITM, is one of the hallmarks of the U.S. financial system and enables it to be more productive than the financial systems of other countries. A 1996 study by the Organisation for Economic Co-Operation and Development (OECD) found that U.S. financial institutions were the first to broadly adopt ATM technology which significantly "reduced the labour needed to dispense cash and conduct other transactions." [2] As a result, the study found, "productivity in U.S. retail banking to be 30 percent higher than in Germany or the United Kingdom, mainly due to the use of more innovative technologies and practices."[3]

U.S. banks' ability to innovate, however, is not limitless. Banks in the U.S. are subject to a wide range of state and federal regulations designed to ensure the safe and efficient functioning of the U.S. financial system and to ensure that consumers who participate in the U.S. financial system have adequate protections and that credit is allocated fairly.

In the context of financial innovation, regulators are generally at a disadvantage. In an open and competitive marketplace, the speed of innovation will outpace the ability of regulators to fully understand and develop a regulatory framework around the new innovation or technology.

One such "innovation" that sparked considerable debate when it was first introduced, and continues to spark debate more than 150 years later, is branch banking. Branch banking may not seem controversial in today's banking environment where a bank branch might seem to exist on every corner in some major U.S. metropolitan areas,

[2] See Organisation for Economic Co-Operation and Development
[3] Ibid

but at the time of the Civil War, when the national banking charter was introduced, branch banking was considered the exclusive domain of state chartered banks who fought to ensure that nationally chartered banks were prohibited from establishing branches.

It wasn't until 131 years later, in 1994, with the passage of the Riegle-Neal Interstate Banking and Branching Efficiency Act (IBBEA), that a uniform set of rules for bank branching was established. During those 130 years, however, there was not only debate as to which entities could establish a branch, but also what actually constituted a branch.

In 1927, with the passage of the McFadden Act, a definition of what constitutes a branch emerged that has served as the foundation for many of the questions regarding branch banking. The Act specifically defined a branch as:

"…any branch bank, branch office, branch agency, additional office, or any branch place of business located in any State or Territory of the United States or in the District of Columbia at which deposits are received, or checks paid, or money lent."[4]

This definition leaves considerable room for interpretation, which has extended the debate over what constitutes a branch to today.

There is no question that automatic teller machines, and now interactive teller machines, under the McFadden Act definition, perform one of the three functions (receiving deposits, paying checks or lending money) that could qualify it as a branch. But regulatory interpretation, including specific opinions issued by the Office of the

[4] See McFadden Act of 1927 Section 5155 (f).

Comptroller of the Currency (OCC) and collectively by all the federal regulatory agencies through the Federal Financial Institutions Examinations Council (FFIEC) have specifically stated that ATMs, and by extension today, ITMs, are not branches.

On the surface, what qualifies as a branch may seem like an academic question, but the definition of a branch has considerable implications for a bank's ability to meet its obligations under the 1977 Community Reinvestment Act and for banking market competition across the U.S.

Developing a shared understanding of a branch is important because regulations tied to branching can lead to very real consequences for banks. Specifically:

1) Under the **Community Reinvestment Act**, a bank is given credit under the Act's "service test" for establishing branches in low-and moderate-income communities. While the cost of establishing brick and mortar branches can be significant, the cost of establishing ATMs or ITMs in these communities is much less. If ITMs were considered branches, banks would receive considerable credit for establishing these facilities in low income areas. This is not to suggest that the establishment of ATMs or ITMs is not viewed favorably by regulators since they do expand consumer access to banking facilities, but the establishment of a "branch" carries more weight. Establishment of a branch, however, also comes with more responsibility. Banks are expected to demonstrate a pattern of lending in their communities and lending is evaluated at the branch level. Since lending is not currently seen as a primary function for ITMs, a change to the definition also runs the possibility of affecting the bank negatively under the CRA.

2) The “competitiveness” of banking markets in the U.S. is currently determined by evaluating branch-level deposits in banking markets as defined by the 12 Federal Reserve Banks. The presence of a stand-alone ATM or ITM in any given banking market has no effect on the Department of Justice’s view of how competitive a given market is. Banks operating in markets determined to be uncompetitive, however (or as competitive factors analysts define them: concentrated) are limited in the amount of in-market expansionary activity they can engage in, or may have to sell off certain assets in an acquisitive transaction in order to comply with regulatory rules on competition. Acknowledging the significant capabilities of today’s ITMs and acknowledging them as branches for competitive purposes, would enable merger activity in markets where in-market merger activity would likely be prohibited based on the current competitive factors in the market. Additionally, re-defining ITMs as branches would alleviate the need to file a branch closure notice when a bank converts a stand-alone branch to an ITM which could forestall the loss of customers that can follow the publication of those notices.

This paper explores the legislative history of branching in the U.S. and looks at key legislation and court decisions that have led to the definition of a “branch” that banks operate under today. The paper then examines the state of bank compliance under the CRA and argues that a more expansive view of ITMs would benefit the banking industry and create incentives for greater technological penetration into low- and moderate income communities. A more expansive definition of an ITM, however, would still, in the current CRA context, lead to lending expectations that banks may not be able to meet through an electronic versus brick and mortar interface. Finally, this paper discusses the state of banking competition in the U.S. and argues that a more expansive definition of ITMs (and perhaps other technologies) is needed. With more than 75 percent of the banking markets in the U.S. considered uncompetitive by the Department of Justice, expansionary activity, or even essential consolidation will be hindered, with significant consequences for banks, their customers and their shareholders.

Ultimately, this paper looks at whether the definition of a branch <u>can</u> be changed and also whether it <u>should</u> be changed. This paper finds that the definition of a branch is clear in the law (and has been clear for decades), and regulators should therefore allow for a much more expansive interpretation. However, such a change would not necessarily be a net positive for either the banks or the communities and customers they serve. This paper recommends that regulators phase in any definitional change slowly, and might even want to consider decoupling lending expectations from a bank's branch network in their evaluation of the bank's performance under the CRA. Definitions that were created 90 years ago need to be updated to reflect the technological landscape banks operate in today. They also need to be broad enough and interpreted consistently, in order to provide a shared understanding of how technology today, and in the future, will affect regulators' view of bank community investment and competition.

Statement of Problem/Hypotheses

The recent proliferation of interactive teller machines (ITMs) across the U.S. has enabled banks to better engage their customers through technology. Beyond the account deposit and withdrawal services provided by traditional automatic teller machines (ATMs), ITMs enable bank customers to speak to a bank employee working out of a centralized location in order to facilitate transactions that cannot be conducted at a traditional ATM, including the taking of certain types of loan applications and the disbursement of loan proceeds. ITMs also integrate security features that allow for a wide range of retail and business services to be transacted away from a bank's branch. ITMs also enable banks to significantly extend their hours of operation as most of the live tellers are centrally located at a remote facility which helps make the expansion of hours through the ITM more cost-effective for banks. According to NCR, the leading manufacturer of ITMs, labor cost transactions are approximately 40 percent lower for an ITM than at a traditional teller line. ITMs also allow banks to redeploy their ATMs so that they no longer accept deposits, which saves considerable cost as non-depository ATMs require less frequent servicing and maintenance.[5]

As ITMs become more commonplace, regulators must address an important policy question:

Should an ITM be considered a branch?

There are several practical and policy implications in making such a re-designation.

First, current regulations that define what constitutes a branch would likely need to be reconciled across the federal regulatory agencies, through the Federal Financial

[5] See Shires

Institutions Examinations Council (FFIEC), to establish parameters, such as types of services offered, for an ITM to qualify as a branch. Current regulations, including Federal Reserve Regulations H and BB, and associated regulatory opinions, would suggest that, today, ITMs are not considered branches.

Second, designating ITMs as branches could significantly alter the competitive banking landscape across the U.S. The machines would no longer be viewed as "alternative systems for delivering retail banking services" but would instead result in ITMs being viewed as bona fide banking competitors – which could open up certain markets in the U.S. to merger and acquisitions activity that were previously (largely) closed due to competitive considerations by the Department of Justice. [6] Today, more than 75 percent of all of the defined banking markets in the U.S. could be classified as uncompetitive under the current criteria regulators and the U.S. Department of Justice use to evaluate anti-trust in banking.[7] Uncompetitive markets are generally closed to mergers between two in-market banks, which limits the ability of some to achieve the scale they believe is necessary to compete, and meet customer demand in their existing (and well known) markets.

Third, classifying ITMs as branches would also change how a bank is evaluated under the CRA, which still heavily weights branching activity in low- and moderate-income areas for purposes of a evaluating a bank's CRA performance. However, the weighting is also dependent on a bank's loan-to-deposit ratio at each "branch." If a bank is unable to generate sufficient loan activity from its ITM, it may not only lose the benefit of having established a "branch" in a low- and moderate income census tract, it may find

[6] See Regulation BB
[7] Author analysis conducted using the Federal Reserve Bank of St. Louis' Competitive Analysis and Structure Source Instrument for Depository Institutions (CASSIDI) database. https://cassidi.stlouisfed.org

itself struggling to satisfy the performance test under the CRA. While anecdotal evidence suggests that banks struggle to meet their obligations under the Act today, CRA ratings themselves have remained remarkably consistent over the past 10 years – a time period that includes the 2008 - 2009 financial crisis.[8]

Finally, re-designating ITMs as branches could incentivize banks to invest in this technology, albeit with a smaller geographic footprint than a traditional branch, which may not be necessary or needed in certain communities. As mobile banking becomes more commonplace, focusing solely on ITMs might not push the discussion far enough as more consumers are conducting an increasing number of transactions either online or remotely from a mobile device.

An example that underscores the challenges of implementing new ITM technology in today's regulatory environment is that of **[REDACTED].**[9] In March 2017, **[REDACTED]** converted its **[REDACTED]**, branch to an ITM and ATM-only facility. According to a member of the bank's management team, the bank is evaluating the extent to which the conversion leads to losses of customer relationships. If the bank feels that it can still maintain strong connections with its **[REDACTED]** customers through the ITM, it may convert other branches in the future.

Exacerbating the concerns the bank's leadership expressed about making the conversion was that, under current regulations, a conversion of a branch to an ITM is considered a "branch closure" and requires an official 30-day public notice, as well as direct outreach to the bank's account holders at the branch that the bank was "closing" 90-days prior to the expected closure date. Since branch closure notices have become

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[8] See www.ffiec.gov/cra

[9] See **[REDACTED]**, personal interview. The [REDACTED] executive asked to not be specifically named.

relatively prescriptive under guidance issued by the federal financial regulatory agencies following the passage of the Federal Deposit Insurance Corporation Improvement Act of 1991, the bank was concerned that the required notice could accelerate the loss of customers to a competitor, despite the fact that the ITM, according to **[REDACTED]** leadership, would "offer all of the same products and services currently available at the branch, but with better hours." [10] The bank's leadership felt limited in its ability to explain to its customers that despite regulations calling the move a "closure", the bank believed that the change was a technological one that gave its customers more options.

The **[REDACTED]** example highlights the challenges banks face in leveraging technology to reduce costs and still meet customer demand in a regulatory regime that was created prior to the advent of today's technologies. **[REDACTED]** evaluated its branch network and saw the deployment of ITMs as a way to close branches that were not as profitable while still maintaining a presence in communities they've historically served. As banks continue to deploy technologies that customers want, the opportunities and capabilities that those technologies present will inevitably challenge the regulatory framework in which banks and regulators must operate.

In today's environment of proliferating technology, a review of the regulations regarding community reinvestment and banking competition might be necessary, given the fact that regulations themselves were, by some measures, also based on the technology available and envisioned at the time of their development. A comprehensive review of the CRA and the statutes that the U.S. Department of Justice and the federal banking regulatory agencies use to enforce anti-trust in banking (e.g. the Banking

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[10] See "Policy Statement of Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, and Office of Thrift Supervision Concerning Branch Closing Notices and Policies"

Holding Company Act and the Bank Merger Act), however, are beyond the scope of this paper.

Instead, this paper acknowledges that that potential re-designation of an ITM as a branch is both a policy question and a legal question. It seeks to first understand what <u>could</u> be done from a legal and regulatory standpoint regarding the definition of a branch and then evaluates what <u>should</u> be done by understanding the policy implications that such a change would have on the delivery of banking services, the impact on CRA and on overall banking competition in the U.S.

By sparking a discussion with regulators and bankers about technology and its impact on access to banking services and competition, the goal of this paper is to develop a framework for thinking about both the promises and the perils of technological innovation.

Research Methodology: Data Sources, Analysis & Results:

Before analyzing the impact of a definitional change of a branch on the community reinvestment and banking competition landscape in the U.S., it's important to first understand the legal and regulatory definitions of what constitutes a branch. Fortunately, the laws and regulations that currently inform the definition are readily available on the websites of the federal regulatory agencies (the Federal Deposit Insurance Corporation (FDIC), the Office of the Comptroller of the Currency (OCC), and the Federal Reserve).

There is also a considerable amount of academic research that explores questions of branching and competition. It's also important to consult industry data on changing consumer preferences. Data from the FDIC's Summary of Deposits (SOD), which is available on an annual basis, provides information on branching trends and banking market competition. The SOD data also feeds the Federal Reserve Bank of St. Louis' CASSIDI (Competitive Analysis and Structure Source Instrument for Depository Institutions) tool which is used by all 12 Reserve Banks and the Department of Justice to analyze the competitive effects of potential merger transactions. CASSIDI is updated regularly as banking market definitions change across the U.S.

One data limitation of this research is the lack of official data on ATM networks. Comprehensive data on ATM distribution for all banks in the U.S. would have allowed for testing of how market competition would change if ATMs were to be converted over time (using a constant for technological adoption in the academic literature) to ITMs and if regulators considered them to be bona fide branches. However, based on personal interviews with 10 community bankers, it appears that most ITMs in use today (or being operationalized today) are at brick-and-mortar branches and used primarily to extend hours and signal that the bank is willing to leverage technology to meet customer demands.[11] The concept of a truly standalone ITM in a market in which an institution does not have a brick-and-mortar presence is not currently seen as a strategy by the banks interviewed as part of this research, not least because ITM technology is expensive and geographic proximity matters for banks that are currently investing in these terminals.

[11] Personal interviews were conducted with the presidents of the following banks: **[REDACTED]**

Findings and Conclusions

Findings

What is a "branch"?

Under Section 42 of the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDI Act), a branch has been interpreted by the federal regulatory agencies to be a "traditional brick-and-mortar branch, or any similar banking facility other than a main office, at which deposits are received or checks paid or money lent." Excluded from this definition of a branch are, "non-branch facilities such as an ATM, remote service facility, or loan production office, or a temporary branch."[12]

According to section 208.2(c) of the Federal Reserve's Regulation H, the definition was expanded to include, "…any branch place of business that receives deposits, pays checks or lends money. A branch may include a temporary, seasonal, or mobile facility that meets these criteria." [13]

Regulation H also goes on to describe what a branch is not, this includes, "a loan origination facility where the proceeds of loans are not disbursed; an office of an affiliated or unaffiliated institution that provides services to customers of the member bank on behalf of the member bank so long as the institution is not established or operated by the bank; an automated teller machine; a remote service unit; a facility to which the bank does not permit members of the public to have physical access for

[12] See https://www.fdic.gov/regulations/laws/rules/5000-3830.html

[13] Regulation H "defines the membership requirements for state-chartered banks; describes membership privileges and conditions imposed on these banks; sets out procedures for requesting approval to establish branches and for requesting voluntary withdrawal from membership; provides information for registering and filing financial statements; sets out procedures for dealing with banks that are less than adequately capitalized; and establishes real estate lending standards." Section 208.6 addresses the establishment and maintenance of branches and Section 208.7 describes the Federal Reserve's prohibition on using interstate branches "primarily for deposit production."

purposes of making deposits, paying checks, or borrowing money (such as an office established by the bank that receives deposits only through the mail); or a facility that is located at the site of, or is an extension of, an approved main office or branch."

The FDI Act and Regulation H were written prior to the launch of ITMs which allow banks to offer customers a full suite of deposit and some loan services from a kiosk. ITMs also allow bank customers to communicate directly with a bank employee, generally from a centralized call center, as they conduct their transaction. Based on these capabilities, it appears well within the federal regulators' purview, to define ITMs as branches given the definitions in the FDI Act and Regulation H.

However, Regulation BB, which implements the Community Reinvestment Act of 1977, goes further than Regulation H in defining a branch. Specifically, Regulation BB (Section 228.12(f)) states that a branch is a "staffed banking facility approved as a branch, whether shared or unshared, including, for example a mini-branch in a grocery store or a branch operated in conjunction with any other local business or nonprofit organization." [14]

The regulation's explicit requirement that a branch must be "staffed" is what has prevented automatic teller machines and other remote service facilities (RSUs) from being designated as branches. The staffing requirement is also what enables mobile offices, such as those that serve senior centers, to be considered branches, while ATMs, even with their deposit taking capabilities are not given that same consideration.

An interpretive letter rendered by the OCC in 1997, also informs current thinking on ATMs and RSUs. In its 1997 letter, the OCC specifically concluded that RSUs are not

[14] See Regulation BB, https://www.gpo.gov/fdsys/pkg/FR-2016-07-25/pdf/2016-16693.pdf

branches. Following its 1997 opinion, the OCC adopted a regulation in 1999 that defined an RSU as an "automated facility, operated by a customer of a bank that conducts banking functions, such as receiving deposits, paying withdrawals, or lending money." It further noted that RSUs may be "equipped with a telephone or video component that allows contact with a bank employee." In its 1999 regulation, the OCC made clear that it believes that technological advances that increase the functionality of RSUs and the customer service experience they can provide would still not lead to a change in how these units are viewed. [15]

The first evidence that regulators were looking at how to apply current rules and interpretations to ITMs appeared to surface in a June 7, 2013, State of Massachusetts Division of Banks legal opinion in which the Division cited the OCC's 1999 regulation when outlining the state's regulatory approval process for the installation of an ITM. In that opinion, the state defined an ITM as it does an ATM: as an "electronic branch." The legal opinion rejected the idea that an ITM's video architecture made it a staffed facility because all of the transactions through an ITM are initiated by the customer and that there is no customer service representative onsite to operate the ITM on the customer's behalf.

It appears that the current definitions of what constitutes a branch rely more on the interpretation of federal (and state) regulators versus the actual text in the law. In fact, several court cases, which will be described in more detail below, highlight the complexity of defining what is and what is not a branch under the law.

[15] See Federal Register, Vol. 64, No. 213, Thursday, November 4, 1999, Rules and Regulations: https://comptrollerofthecurrency.gov/news-issuances/federal-register/64fr60092.pdf

But first, it's important to show that the definition of a "branch" is not a recent issue. It's not even a 21st or 20th century issue. The question of branching and branch banking has been controversial for more than 150 years, since the time of the Civil War.

A brief legislative and case history on branching and branch banking:

The dual banking system in the U.S., in which banks can choose to be chartered by either the federal government or by a state government, has been a feature of the U.S. banking landscape since the passage of the National Bank Act of 1863 (which created the national banking charter and led to the formation of the Office of the Comptroller of the Currency). Under the National Bank Act, the establishment of branches was considered "illegal" for national banks, which gave a distinct advantage to state chartered banks that operated in states in which branching was legal[16]. Initially, branching was completely prohibited for nationally chartered banks, but just two years after passage of the National Bank Act, a modification was made that allowed a state chartered bank that converted to a national charter to retain its branches[17].

From 1865 to 1900, the Comptroller of the Currency, made several attempts to give nationally chartered banks similar powers as state chartered institutions. Among its recommendations, was to allow national banks to establish branches in communities with populations of less than 1,000 residents. The comptroller argued that this would help extend credit in rural, agricultural communities and give them access to national bank

[16] The National Bank Act was silent on whether branching was permissible for nationally charted banks. The Comptroller of the Currency, however, interpreted the Act to mean that it was illegal. In 1924, a court case (First National Bank in St. Louis v. State of Missouri) made it clear that national banks could not establish branches in Missouri since Missouri law provided "that no bank shall maintain in this state a branch bank or receive deposits or pay checks except in its own banking house." (R.S. Mo., 1919)
[17] See Federal Reserve Committee on Branch, Group, and Chain Banking (1932)

notes. The Currency Act of 1900 made several changes to the national banking charter, but permitting the establishment of branches in rural communities was not one of them.

From 1916 to 1922, several amendments were proposed to the National Bank Act, including one that would have allowed national banks to open “not more than 10 branches within the city or county or within twenty-five miles of the part bank.” The amendment, however, was not passed by Congress.

The Comptroller of the Currency tried to circumvent Congress’ restrictions on national bank branching in 1922 by allowing a national bank to open “teller’s windows” in its home office city. A “teller window” allowed “…only routine business, such as the receipt of deposits and the cashing of checks.” Further, a “teller window” was only permitted in states that allowed their state-chartered banks to operate branches.

National banks were still dissatisfied with their inability to engage in branch banking. In fact, according to the Federal Reserve’s Committee on Branch, Group and Chain Banking, the “chief conflict” between state and national banks regarding attempts to equalize permissible activities between the two types of entities was branch banking.

It was not until the passage of the McFadden Act of 1927 (and its 1933 amendments) that nationally chartered banks were permitted to establish branches. Specifically, the McFadden Act stated: [18]

1. National banks were authorized to establish new branches within the city or town in which the bank was located, in those States in which State banks had the power to establish branches. However, no branch could be opened in cities of less than

[18] See McFadden, specifically: https://fraser.stlouisfed.org/scribd/?title_id=976&filepath=/files/docs/historical/congressional/1926_mcfaddenact_publiclaw639.pdf

25,000 in population, only one if the city had between 25,000 and 50,000 population, and only two if the city had between 50,000 and 100,000 population, while in cities of more than 100,000 population the comptroller could limit the number of branches.

2. A national bank was authorized to retain all its branches in lawful operation prior to the passage of the Act, and if subsequently a national bank consolidated with another bank, either national or State, all the branches of both institutions which had been in lawful operation at the date of approval of the Act could be retained, but their location could be changed only with the consent of the Comptroller of the Currency.
3. State member banks were governed by the same restrictions as national banks in respect to new branches and those in operation at the date of the passage of the Act, and State banks joining the [Federal Reserve] system could not retain out-of-town branches established after the date of the approval of the Act.

The McFadden Act also established a working definition of what constituted a "branch." The act specifically defined a branch as "…any branch bank, branch office, branch agency, additional office, or any branch place of business located in any State or Territory of the United States or in the District of Columbia at which deposits are received, or checks paid, or money lent."[19]

Despite these new rules permitting national banks to open branches on a limited basis, the McFadden Act still did not create consistent rules governing branches as state chartered banks that were not members of the Federal Reserve System could still branch

[19] See McFadden. The language, "…at which deposits are received, or checks paid, or money lent" was included in the FDI Act of 1991.

outside of the city in which their home office was located – nationally chartered and now state-chartered banks that were members of the Federal Reserve System could not.

Branching rules were largely driven by the 1927 McFadden Act for more than 65 years, effectively confining nationally chartered banks and state-chartered banks that were members of the Federal Reserve System to only branching within their home state and only to the same extent that state banks in the home state, could branch.

The challenges for banks looking to leverage new technology or otherwise devise new customer friendly ways to serve the customers is highlighted in a few court cases that highlight just how difficult it was to define a branch. For example, in the 1984 Independent Bankers Association of New York State v. Marine Midland Bank, N.A. case, the United States Court of Appeals, 2nd Circuit, overturned an earlier ruling, also in 1984, that held that Marine Midland Bank had engaged in "unauthorized branch banking" by offering banking services to its customers through an automatic teller machine that was owned and operated by a Wegmans grocery store.[20]

In its opinion, the U.S. Court of Appeals highlighted the challenges of defining a "branch" under the laws in place at the time. Specifically, the Court stated that:

> *"'Brick and mortar' banking, with a single physical locus of bank-customer transactions, has been supplemented by many other forms of communication that could not have been contemplated in 1927. In the past two decades in particular, the industry has been transformed by the advent of computer technology."* [21]

[20]See Independent Bankers Association of New York State, Inc. v. Marine Midland Bank, N.A. https://openjurist.org/757/f2d/453/independent-bankers-association-of-new-york-state-inc-v-marine-midland-bank-na-na
[21] Ibid

Complicating the view of branching was a decision by the U.S. Supreme Court in 1969 in the case of First National Bank in Plant City v. Dickinson. In the case, the court held that an armored car service operated by a national bank in Florida, was indeed a branch because the armored car, which was staffed by bank employees "delivered cash in exchange for checks and received cash and checks at the depositors' premises" with the bank "insuring the funds during transit."[22]

In each of these cases, the courts applied a two-part test to determine if an office or facility was a branch of the bank. The first test was whether the facility was "established and operated" by the bank. If it was found to be established and operated by the bank, the second test is applied which evaluates if the facility is "accepting deposits, paying checks or lending money." In Marine Midland, the facilities in question were not considered branches because there was no ownership interest by the bank. In Plant City, the armored car service was considered a branch because the bank owned the armored car and it was staffed by bank employees. These questions turned on the question of "ownership" even though the ATM and the armored car service essentially delivered the same services.

The rules around branching changed for the first time in 67 years with the passage of the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994[23]. The Act, which had the support of both state and nationally chartered banks, created a uniform standard for branching. A September 1994 article by Bill Medley, Federal Reserve Bank of Kansas City, summarized the act as follows: [24]

[22] See First National Bank in Plant City v. Dickinson, 396 U.S. 122 (1969)
[23] See Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994
[24] See Medley

- Bank holding companies that were well-managed and well-capitalized would be allowed to acquire banks in any state after September 29, 1995.
- Bank holding companies could merge banks located in different states into a single branch network after June 1, 1997.
- States had until June 1, 1997, to choose whether to opt-out of the new law's branching provisions.
    - Only Montana and Texas decided to opt-out initially, but both states eventually agreed to allow interstate branching.
- A bank holding company could not control more than 10 percent of the nation's total deposits, or 30 percent of any single state's total deposits, unless a state elected to establish its own deposit cap above or below this 30 percent limit.[25]

Although Riegle-Neal eased the branching restrictions that had been in place since 1927, it did not modify the definition of a branch, instead relying on the definition in the Federal Deposit Insurance Act of 1991.

The vagueness of the definition of a "branch", the case law that explored this definitional question from the time of the passage of the McFadden Act to the passage of Riegle-Neal, and the significant evolution of the technology since branches were defined in law and in statute suggests that re-defining an ITM as a branch is well within the regulators' purview and would likely not even require a change in law.

ITMs do appear to meet most of the core requirements of being considered a branch: they are staffed (albeit remotely through a video screen but with live tellers), they

[25] Ibid

can receive deposits, pay checks, and even allow a customer to make loan payments (which is different than "lending money" in the Regulation H definition, which will be addressed below).

The benefits and limitations of ITMs

According to NCR's website, a leading manufacturer of ITMs, their machines allow bank customers to access the following services: [26]

- Dispense cash
- Deposit checks
- Cash a check to the penny
- Cardless transactions
- Loan payments
- Bill payments
- New account opening and funding
- Transfer to any account
- Adjust check holds and floats
- Order replacement cards
- Teller service in non-branch locations
- Teller reviewed check cashing
- Provide cash and check advances
- Process savings bond redemptions
- Advice on credit card application inquiries
- Process customer CD renewals and inquiries

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[26] www.ncr.com

- Identify new product sales opportunities
- Open/close accounts and/or log referrals
- Issue bank checks or money orders
- Business account deposits
- Business account withdrawals
- Business account transfers
- 3rd party account deposits
- 3rd party account transfers
- Sub-account actions
- Investment account transactions
- Access to all accounts
- Home equity account payments
- Home equity account withdrawals
- Credit card payments

In interviews with bankers that have adopted ITM usage, reviews of bank websites that use ITMs and in conversations with providers of ITM services, it does not appear that ITMs are currently being used to take specific loan applications, but a customer can work directly with a teller and authorize the disbursement of loan proceeds to a specific account.

Although it could be interpreted that the inability to apply for loan, be approved for a loan and receive disbursements on a loan at an ITM makes it different from a full service branch, technology does not appear to be the limiting factor. It may just be one of consumer preference. According to an executive at **[REDACTED]**, there are certain circumstances, particularly in regards to consumer loans, where the customer, if they were pre-approved for a credit card or an unsecured line of credit (or even a mortgage), could finalize the transaction through a discussion with a teller through an ITM.[27]

Underscoring the rapid adoption of technology are the findings from the 2017 National Survey of Community Banks conducted by the state banking regulators through the Conference of State Bank Supervisors.[28] According to the survey, which was conducted from April to July 2017, 33.1 percent of community banks currently offer online loan applications, while another 23.7 percent do not currently offer this service but plan to in the future.

The same survey found that 86.9 percent of community banks offered mobile banking services, with another 7.3 percent stating that they planned to offer the service in the future. The adoption of mobile and interactive online technology by the nation's smallest banks suggests that there are very few banking transactions that require a brick and mortar presence to actually consummate.

According to **[REDACTED]** a consultant with Federal Protection, Inc., a company that installs, maintains, repairs, and provides security monitoring for ITMs, there are no transactions that can currently be handled by a teller that cannot be handled by an ITM. [29]

Quicken Loans has developed an entire mortgage lending and consumer lending business around mobile and/or online loan applications with its Rocket Mortgage and Rocket Loans product. Rocket Loans are unsecured installment loans, of up to $35,000, whose entire application, approval and disbursement process is completely online.[30]

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[27] [**REDACTED]**, personal interview

[28] Community Banking in the 21st Century 2017 "National Survey of Community Banks", Federal Reserve / Conference of State Bank Supervisors, page 19.

[29] **[REDACTED]**, consultant, Federal Protection, Inc., personal interview

[30] See Rocket Loans, www.rocketloans.com

The Rocket Mortgage process, while not fully online (borrowers must get their final closing documents notarized which is still an offline process), highlights just how much consumer behavior has shifted in recent years. Prior to the launch of its Rocket Mortgage service portal, Quicken Loans was already a sizeable online lender. Today, it is currently the largest online mortgage lender in the U.S. and is the second largest retail mortgage lender behind Wells Fargo. The bank originated more than $90 billion in mortgage loans in 2016. The Quicken Loans example illustrates not only the current speed of technological innovation in banking, but it highlights the practical and policy challenges that regulators will continue to face in an environment of proliferating technology. [31]

Given the rapid change in financial technology offerings, the fast pace of adoption across the a wide spectrum of banks, including smaller community banks, and the vagueness, in statute, of what constitutes a branch, it seems reasonable to conclude that regulators could redefine an ITM as a branch in a way that is consistent with the legislative history of branching and accounts for the unique opportunities customers have to transact business outside of a branch.

But despite having the authority, and perhaps even the motivation to make this change, the question remains, should regulators redefine ITMs as branches?

[31] See Inside Mortgage Finance

Redefining ITMs as branches: The impact on CRA and on overall banking competition in the U.S.

Impact on Community Reinvestment Act (CRA) performance:

Since its passage in 1977, the CRA has evolved considerably. Banks were originally evaluated based on what is known as a "service test." This test looks at the extent to which a bank provides convenient access to banking services for low- and moderate income communities. According to Regulation BB, "the service test performance standards place primary emphasis on full service branches while still considering alternative systems. The principal focus is on an institution's current distribution of branches and its record of opening and closing branches, particularly branches located in low- or moderate-income geographies or primarily serving low- or moderate-income individuals."[32]

Regulation BB is specific to point out that the service test does not require banks to operate unprofitable branches and even mentions that "alternative systems for delivering retail banking services" may be considered as long as the institution can demonstrate that they are "effective alternatives in providing needed services to low- and moderate income areas and individuals."[33]

In the questions and answers (Q&A's) that are included in the instructions for Regulation BB, alternative systems are defined as "ATMs, online and mobile banking, and other means by which institutions provides services to their customers." The Q&As also acknowledge that non-branch delivery systems "evolve over time."[34]

[32] See Regulation BB
[33] Ibid
[34] Ibid

The Q&A's highlight the criteria by which an alternative system may be evaluated under CRA's service test. These include:

- the ease of access, whether physical or virtual;
- the cost to consumers, as compared with the institution's other delivery systems;
- the range of services delivered;
- the ease of use;
- the rate of adoption and use; and
- the reliability of the system.[35]

Given these parameters, a bank's use of an ITM (whether or not it's considered a branch) would appear to improve its performance under CRA's service test, as ITMs can be used to extend hours and increase the number of different types of transactions that can be conducted from a remote facility. In fact, looking at the service test alone suggests that if ITMs were to be considered branches, it would be a net positive to banks across the country from a CRA standpoint since the service test specifically evaluates a bank's record of opening and closing branches in low and moderate income (LMI) areas and compares hours and services at LMI branches with those that non-LMI branches.

It is under CRA's lending test, however, where banks may struggle if ITMs were to be re-designated as branches. The lending test requires bank examiners to evaluate the geographic distribution of loans throughout a bank's entire assessment area. According to **[REDACTED]** at the Federal Reserve Bank of St. Louis, examiners would expect to see considerable lending in any area in which a bank has an established branch since those

[35] Ibid

geographies are automatically included in bank's assessment area. In contrast, the geographies of a bank's ATM network (especially standalone ATMs not attached to a branch or in a market where the bank has established a branch) are not automatically included in an assessment area. This means that banks can use ATMs and other remote service facilities to extend their reach and access to customers without necessarily being held accountable for lending in those same areas. This has been particularly advantageous for banks that wish to provide ATM access to customers in major metropolitan areas, where individuals tend to travel for work. In this situation, a bank, perhaps one headquartered in a suburb or exurb of the city, could provide some retail services through an ATM without triggering an expectation that it lend in a market where it has no physical presence. If an ITM were to be re-designated as a branch, a bank wishing to convert its ATMs to ITMs in those same metropolitan markets would now trigger an expectation under the CRA, that it also lend there. Although there is a phase-in period between branch openings and when regulators would expect to see lending penetration, lending performance remains a key factor in a bank's CRA rating.[36] While Federal consumer compliance examiners do look at the type of facility and the purpose for which it was established in its evaluation of the bank, they would, at some point, expect some level of lending at any facility that is considered a branch.

From a policy perspective, it's important to understand if re-designating ITMs as branches would actually improve consumer access to bank products and services (especially LMI customer access) and help or hinder a bank's ability to meet its CRA obligations.

[36] **[REDACTED]**, Federal Reserve Bank of St. Louis, personal interview, November 6, 2017.

An analysis of CRA ratings over the past ten years suggests that banks have been remarkably successful at meeting their CRA obligations. The cost to the industry of meeting CRA obligations, however, is difficult to quantify.

Over the ten year period from 2007 to 2017, only 40 examinations resulted in the lowest CRA rating (“substantial noncompliance) from bank regulators. Over that same ten-year period, another 361 examinations resulted in the second lowest rating (“needs improvement). The vast majority of CRA ratings therefore, were either “satisfactory” or “outstanding” suggesting that most banks are able to meet their CRA obligations. These ratings are consistent across years and don’t appear to move considerably even during the 2008/2009 financial crisis.

As seen in Table 1 below, there is no observable trend in the number of examinations that resulted in the different CRA ratings. Table 2 looks at CRA ratings as a percentage of overall ratings given in a particular year and also shows no observable pattern. [37]

[37] In general, banks are evaluated for CRA performance every four years.

Table 1

Year	CRA Rating *(# of banks)* Outstanding	Satisfactory	Needs to Improve	Substantial Noncompliance	Total
2017	66	691	13	2	772
2016	106	1077	19	1	1203
2015	129	1243	19	8	1399
2014	149	1505	31	2	1687
2013	131	1632	39	3	1805
2012	139	1451	31	4	1625
2011	120	1239	44	4	1407
2010	163	1563	60	2	1788
2009	188	1938	43	6	2175
2008	207	1863	36	4	2110
2007	213	1550	26	4	1793

Source: FFIEC Interagency CRA Ratings Database (www.ffiec.gov/craratings)

Table 2

Year	CRA Rating *(% of banks)* Outstanding	Satisfactory	Needs to Improve	Substantial Noncompliance	Total
2017	8.55%	89.51%	1.68%	0.26%	772
2016	13.73%	89.53%	1.58%	0.08%	1203
2015	16.71%	88.85%	1.36%	0.57%	1399
2014	19.30%	89.21%	1.84%	0.12%	1687
2013	16.97%	90.42%	2.16%	0.17%	1805
2012	18.01%	89.29%	1.91%	0.25%	1625
2011	15.54%	88.06%	3.13%	0.28%	1407
2010	21.11%	87.42%	3.36%	0.11%	1788
2009	24.35%	89.10%	1.98%	0.28%	2175
2008	26.81%	88.29%	1.71%	0.19%	2110
2007	27.59%	86.45%	1.45%	0.22%	1793

Source: FFIEC Interagency CRA Ratings Database (www.ffiec.gov/craratings)

As mentioned earlier in this section, despite strong and consistent performance by banks in meeting their CRA obligations, as reflected in their public CRA ratings, a more complete analysis would require an evaluation of the cost to banks in meeting their CRA obligations.

Since specific compliance costs related to CRA are not collected as part of a bank's quarterly report on condition and income, it is difficult to determine what it costs to comply with this rule, which hinders a complete evaluation of whether the cost savings of converting branches to ITMs would be offset by the added compliance cost burden under CRA. Or, if the costs of placing ITMs in under-served communities, which would clearly expand consumer access to products or services, would be compounded by the additional compliance burden of trying to lend in those same markets (if the ITM were indeed considered a branch).

A working paper by researchers at the Federal Reserve Bank of St. Louis, attempts to quantify the overall cost of compliance for community banks. The authors use data from the 2017, 2016 and 2015 National Surveys of Community Banks, administered by the Conference of State Bank Supervisors (CSBS), to track the compliance portion of non-interest expense over this three year period. Non-interest expenses are reportable on the FFIEC's Reports of Condition and Income (call report) but the compliance portion of these costs are not. [38]

As part of the National Survey, respondents were asked to estimate, as best they could, the compliance portion of year-end expenses reported in five non-interest expense categories: data processing; accounting and auditing; consulting and advising; legal; and

[38] See Dahl, Meyer and Neely.

personnel. The authors found that across all years and across all survey respondents, mean compliance expenses represented 7.2 percent of a bank's total non-interest expenses, with significant variation based on the asset size of the banks (compliance costs represented a larger percentage of non-interest expense at smaller-asset institutions).

Again, this data, while providing a snapshot into overall compliance expenses, is not granular enough to understand the CRA portion of these expenses, which would have enabled a simulation to be run on potential trade-offs of using ITMs versus branches to engage customers. Given the variability of how banks meet their CRA obligations, this type of analysis might best be conducted through a case study of an institution. This approach could be incorporated into a future expanded version of this paper.

Impact on Competition:

A redefinition of ITMs as branches could also have a significant impact on the competitive landscape for banks. Unlike the question of how such a re-designation would impact banks under the CRA, however, the benefits for banks of such a re-designation, from a competition standpoint, are more straightforward.

The reason the definition of a branch is important from a competitive standpoint is because bank competition in the U.S., as evaluated by the DOJ, is measured using branch-level deposit data contained in the Federal Deposit Insurance Corporation's annual Summary of Deposits. The level of competition in a banking market is calculated using a Herfindahl-Hirschman Index (HHI) which squares the market share of each market participants' deposits and then sums the aggregate squares. A 10,000 HHI indicates a pure monopoly, while an HHI of 1 means perfect competition. Under current guidance, a market with an HHI of more than 1800 is considered "concentrated" which generates additional scrutiny by regulators and the Department of Justice in a merger or acquisition transaction. Market participants that operate in concentrated markets are limited in the level of in-market merger and acquisition activity they can engage in due to these limits[39].

As highlighted in Map 1 below, more than 75 percent of all defined banking markets in the U.S. are currently considered "concentrated" under the DOJ's standard. In fact, the mean HHI in the U.S. was 3,319 during the 2009 financial crisis[40]. In 2017, the mean HHI had risen to 3,443 – both significantly higher than the 1800 threshold. The geographic distribution of today's competitive markets is also counterintuitive as cities like New York City are considered "moderately concentrated" (HHI of 1,248) while cities like Oklahoma City (HHI of 643), St. Louis, Mo. (HHI of 737), Springfield, Mo. (HHI of 670), and Kansas City Mo. (HHI of 791), are considered "unconcentrated", or highly competitive, using the DOJ's standard.[41]

Even if the threshold were raised to 2500, instead of 1800 (which is the standard the DOJ and Federal Trade Commission use in all other industries except banking), 58 percent of all defined U.S. banking markets would still be considered highly concentrated.[42]

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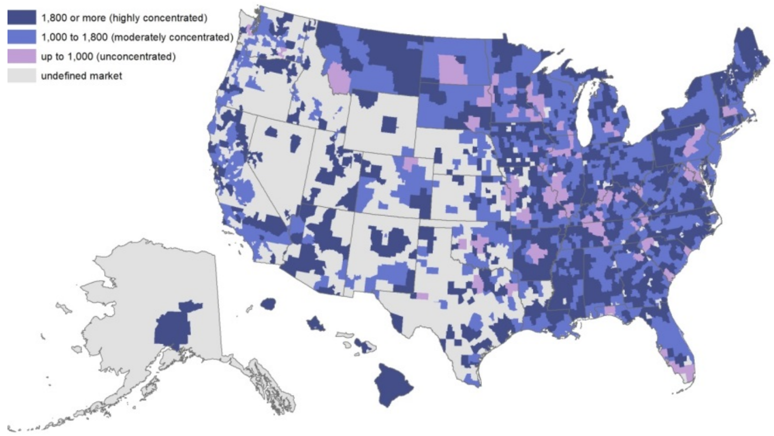
[39] M&A activity is also limited by several other factors. For example, a merger cannot generally result in one institution having more than 35 percent of the deposit share in the market, and the merger should not change the HHI by more than 200 points.
[40] Author's calculations using 2017 Summary of Deposits Data (FDIC)
[41] HHIs were determined using the CASSIDI database. Visit https://cassidi.stlouisfed.org
[42] Ibid, and author calculations

Map 1



Source: *Competitive Analysis and Structure SOURCE Instrument for Depository Institutions*

If more banks choose to replace branches with ITMs (which don't "count" as branches), this situation would only exacerbate leaving an even larger number of concentrated (read: monopoly) U.S. banking markets with fewer options for growth through mergers and acquisitions (M&A).

A scan of U.S. banks that have already adopted ITM technology suggests that most institutions are currently using them at existing brick-and-mortar branches in order to expand hours and to provide customers with the option of engaging a teller through technology or face-to-face. Banks such as **[REDACTED]** (described earlier in this paper), whose ITM plans included replacing a brick-and-mortar branch with an ITM still appear to be rare. However, that may change.

As customers demand more ITM services, banks may see opportunities to accelerate closures of their traditional branches while leveraging technology to maintain (what they believe could still be) a strong physical presence (through the ITM) in the communities previously served by a branch. Such conversions could be particularly appealing given the fact that ITMs are cheaper to maintain than traditional branches and allow banks to centralize staff in a single location while still allowing customers to engage their banks from their local communities.

In a 2015 interview with online publication ATM Authority, Bert Watson, general counsel, United Bank, Zebulon, Georgia, envisioned a future where the bank would employ a "strategy of micro-branches, where ITMs are handling the routine transaction and our staff working in concierge and lending focused roles." Watson also mentioned that ITMs would allow the bank to "reach markets where we couldn't afford a traditional branch" suggesting that as customers become more comfortable with ITM technology, they may replace branches altogether[43].

If ITMs begin replacing branches, instead of just ATMs, it's easy to see how the competitive landscape for banking in the U.S. would get even more concentrated. Redefining ITMs as branches, however, could potentially "create" competition where none existed before. This warrants an explanation:

> Take a hypothetical example where a banking market has five banks, each controlling 20 percent of the deposits in that market. The HHI for that market would be 2,000 ($20^2 + 20^{2\,+}\,20^{2+}\,20^{2+}20^2$) exceeding the 1800 HHI threshold. As a result, this market would be considered "concentrated" and oligopolistic by the Department of Justice. Additionally, none of the banks in this market could merge with another in-market bank because the resulting institution would control more than 35 percent of the deposits in the market, and the resulting market HHI would

[43] See Rishel.

be 2800, an increase of 800, and considerably more than the original 2,000. If an ITM were able to enter the market and capture, say, 15 percent of the deposits (with the remaining institutions each capturing 17% of the market's deposits) the resulting HHI would be 1670 (not "concentrated" under DOJ standards), and in-market institutions could merge, as total deposit share would be 34 percent.[44]

In the **[REDACTED]** example mentioned earlier in this paper, the bank wanted to convert its branch in the **[REDACTED]** banking market into an ITM. The **[REDACTED]** market already had an HHI above 2100, so in the case of **[REDACTED]** ITM conversion, the resulting change didn't alter the bank's market share of deposits since it had a second physical branch in the market (and all branch deposits for the same institution in the same market are aggregated). However, it's easy to see how the conversion of a branch to an ITM could change the market concentration enough to actually impact M&A activity.

Currently, deposits captured through an ITM are still counted as deposits captured by the nearest branch facility that services the ITM (similar to the way ATM deposits are counted). In the FDIC's 2017 Summary of Deposits dataset, for example, New Peoples Bank in Honaker, Virginia, reported an ITM call center branch, but the bank reported $0 in deposits for the branch. Each of the bank's 20 branches, as well as its one loan production office in Jonesborough, Tennessee, has a staffed ITM that it uses to extend its hours. The bank's branch hours are typically 9 a.m. to 5 p.m., with most closed on Saturday. The bank's ITM hours, however, are generally 7 a.m. to 7 p.m. Monday –

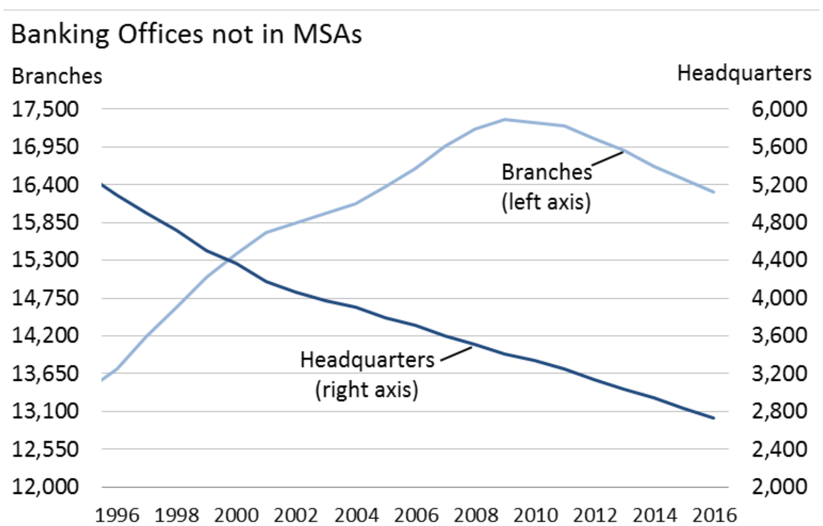
[44] Author calculations

Saturday. Since the branch deposits gathered through the ITM are currently counted at the branch level, New Peoples' Bank's use of ITMs does not impact the competitive landscape in the market it serves. If the deposits, however, were centrally booked, or were at some point required to be centrally booked because the ITM replaced the stand-alone branch, it would affect the local market HHI[45].

In fact, banking market competition is already undergoing a transformation due to the current wave of banking consolidation in the U.S. and the overall change in the geographic footprint of commercial banks in the U.S. over the last 40 years. The result of these changes can be traced to changes in law, the need for scale, and the need for greater overall efficiency in the face of a more stringent consumer compliance regime following the passage of the Dodd-Frank Act in 2010.

For example, in 1995, there were more than 12,000 separately chartered commercial banks in the U.S. By the end of 2016, there were only 5,685 (Chart 1).[46]

Chart 1



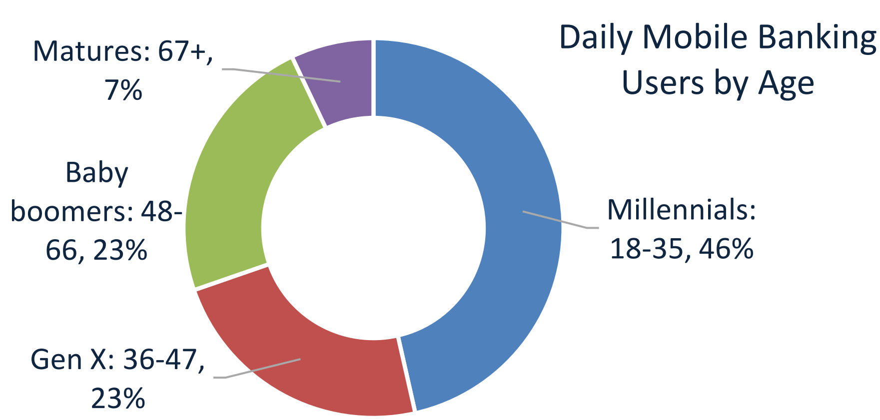
Source: FDIC Summary of Deposits

45 See 2017 FDIC Summary of Deposits: https://www.fdic.gov/regulations/resources/call/sod.html

46 Ibid

From a community access standpoint, this contraction in overall charters did not initially alter access to physical banking facilities as the number of branches increased significantly, from approximately 65,000 in 1995, to a peak of 92,053 in 2009. After 2009, however, the number of branches began to decline nationwide, as consumers began to show a distinct preference for online banking over visiting a physical branch location. This preference for technology continues today and will likely continue in the future. According to a May 2017, study by S&P Global Market Intelligence, 46 percent of those that use mobile banking services daily are millennials (Chart 2). Only 23 percent of those that use mobile banking services daily are baby boomers; and only 23 percent are from Generation X. Given the speed of technology adoption, it is likely that this trend away from using a physical branch for deposit and loan transactions will exacerbate with the next generations[47].

Chart 2



Source: S&P Global Market Intelligence, May 2017

After 2009, the decline in the number of banking facilities (headquarters and branches) began to impact the competitive landscape for banking in the U.S. It also

[47] S&P Global Market Intelligence, May 2017

reduced access to physical branches in many communities. This is problematic not just because banks have made considerable investments in physical spaces, but because many of the regulations that guide regulators' understanding of banking market competition and (as described earlier) performance under the CRA are exclusively tied to the presence of a physical branch.

As the number of "brick and mortar" banking facilities declines, we also see an increase in the number of regions in the U.S. classified as "banking deserts." A 2016 study by researchers at the Federal Reserve Bank of New York defined a banking desert as a census tract in which there are no bank headquarters or branches within a 10-mile radius for the center of the census tract. [48]

A recent study by the Federal Reserve Bank of St. Louis, using the "banking deserts" data from the Federal Reserve Bank of New York's study, takes the analysis further and identifies "potential deserts" in addition to the 1,132 deserts (population 3.74 million) that the Federal Reserve Bank of New York found were in existence at the end of 2014. The St. Louis Fed identifies "potential deserts" as those with only one branch remaining within a 10-mile radius from the center of a census tract. They found that 1.9 million people live in 1,055 potential deserts, the majority of which were in rural markets with very low population densities, which shows that lack of access to brick and mortar banking facilities has been, and will likely continue to be, most pronounced in rural areas of the U.S.[49]

This begs the question, of course, as to whether a "banking desert" is a real or theoretical phenomenon in terms of "access" to banking services. Just because a bank

[48] See Morgan, Pinkovskiy, and Yang
[49] Morgan, Pinkovskiy and Yang found 204 potential deserts in urban census tracts and 851 in rural census tracts.

branch may not be present within a 10-mile radius from the center of a census tract, does not mean that individuals in those geographies do not, in fact, have access to financial services given today's technologically evolving banking landscape. As far back as 2000, there was evidence that the nature of relationship lending was already changing in the U.S. as researchers at the Federal Reserve Bank of Chicago found evidence that small businesses were choosing lenders that were farther away from their business home office and that they were communicating with these more distant lenders in less personal ways (i.e. over the phone or email/mail versus face-to-face) than in the past. The authors concluded that given better small business access to financial services outside of their immediate geographic footprint (due to innovations in technology), a nationwide consolidation in banking services might not be as harmful to small business credit availability as some might think. They also concluded that consolidation may not raise as many "anti-trust" concerns as in the past.[50]

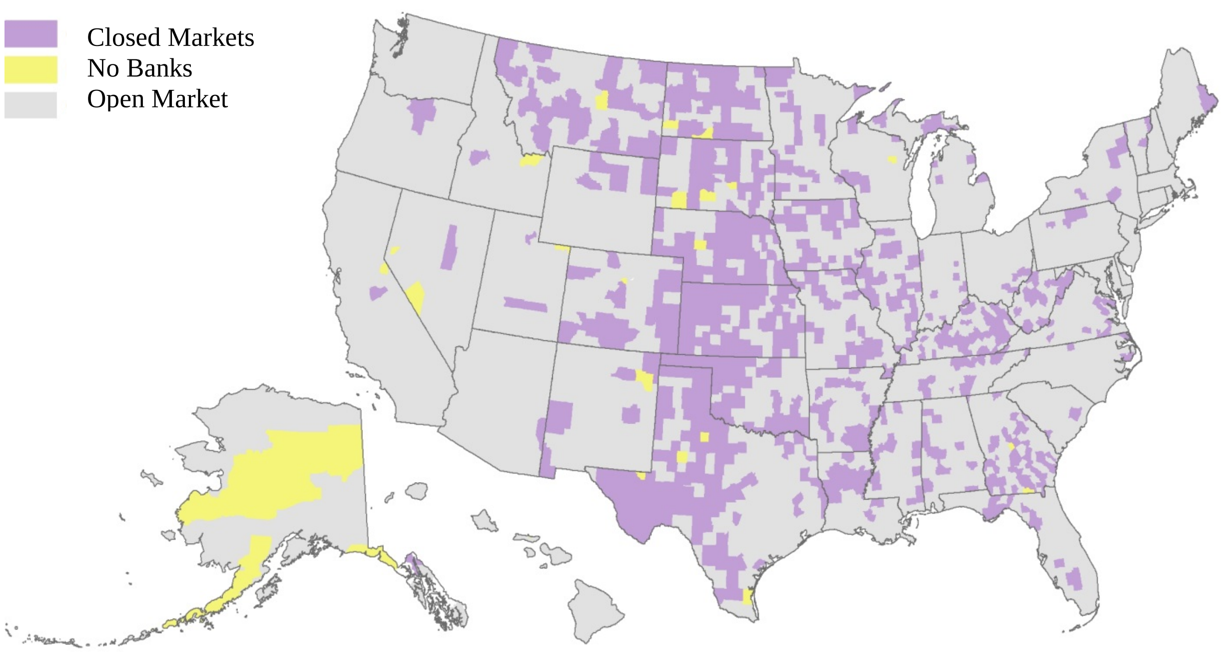
As the number of branches continues to decline, the competitive landscape in the U.S. only becomes more monopolistic. At some point, certain markets in the U.S. could become "stuck" (see Map 2) which happens when none of the banks in a market can merge with each other. The only way an acquisition can happen, in these situations, is if it comes from a potential acquirer from outside the market. Unfortunately, markets that become "stuck" are those that generally generate little interest from out-of-market banks. Growing markets rarely have trouble attracting business investment, such as the establishment of new branches from out-of-market banks. For those markets that are

[50] See Petersen and Rajan. The authors specifically call for anti-trust policy in the U.S. to weigh the "expansion in competition" due to changes in technological innovation. The authors conclude that "information technology does indeed increase productivity" and suggest that policymakers look beyond brick and mortar branches to measure banking competition.

experiencing economic challenges, banks that are already struggling are limited in their ability to merge in-market. Most of these markets are also exclusively served by community banks whose relationship lending model requires them to leverage in-depth local market knowledge to be successful. It appears as though the current competitive landscape in the U.S., and the current definitions that guide M&A activity, not only prevent commonsense in-market mergers that would preserve local market knowledge in a community, they also hurt shareholders as banks that wish to sell may have to significantly adjust their asking prices in order to attract an out-of-market buyer.

Map 2

"Stuck" Markets in the U.S.[51]



Source: CASSIDI, author calculations

[51] Closed markets are those that would likely be very limited (or stuck) in the amount of in-market merger activity that would be allowed under current competition rules. Open markets are those that could support some in-market merger activity.

As illustrated in Map 2, the situation facing certain banking markets in the central corridor of the U.S. appears dire. Today's competitive landscape coupled with increasing usage of mobile banking technology by consumers strongly suggests that a re-evaluation of what constitutes a branch is needed in order to maintain an efficient market for banks and banking services.

Although branching has been controversial since 1863, the legal definitions of what constitutes a branch have generally been clear: a branch accepts deposits, cashes checks or lends money. The operating definitions have changed, however, based on opinions rendered by various regulatory agencies.

It's curious that the regulatory definition of a branch was much more expansive when regulators and banks, particularly state chartered banks, wanted to limit competition from national banks, or, more recently (prior to 1994) limit competition from any out-of-market bank. The courts have struggled to interpret what constitutes a branch given the frequent conflict between what's written in statute and how regulators interpret the law. One court concluded that grocery store-owned ATMs were branches (later overturned on appeal) while the Supreme Court ruled that an armored car service that offered teller-like services (deposit and check cashing only) was indeed a branch. And yet, ITMs that offer a full suite of retail products are still excluded from the definition of a branch.

As outlined in this paper, how regulators view a bank's performance under the CRA and how they view banking market competition still centers today on the presence of brick-and-mortar branches.

While this research highlights that the vast majority of banks in the U.S. are able to meet their obligations under the CRA, there is also evidence to suggest that the cost of regulatory compliance overall is high. Although a bank's overall compliance costs cannot be dissected to a level to understand just how much CRA compliance costs them specifically, it is arguably, considerable. And as long as branches are a key factor in a bank's CRA evaluation, banks have a disincentive to close branches, even when it may be more profitable to do so (and customer friendly, particularly if the bank was going to replace a branch with an ITM). As technology proliferates and consumer adoption increases, the cost of maintaining a brick-and-mortar branch only increases.

From a competition standpoint, this research highlights a dire situation for banks operating in certain markets. The majority of banking markets in the U.S. are considered uncompetitive, or monopolistic, under Department of Justice guidelines. Operating in an uncompetitive market limits the strategic and growth options that a bank may engage in. The situation is particularly pronounced in the Midwest where a number of markets would face challenges if in-market banks wished to merge.

This research demonstrates that banks have been forced to constantly balance customer demand, and technological innovation, with regulations that were written well before any of the technologies that are driving current retail strategies even existed. Yet despite a fairly expansive definition of branching in statute, banks have had to navigate a series of regulatory opinions, some of which directly contradict what's written in law, in order to understand how to operate.

This paper's findings do not suggest that brick-and-mortar branch banking is a thing of the past, but it does highlight that there are consequences for only defining a branch as a brick-and-mortar facility. These consequences are not just felt by banks, but by consumers as well.

As banks are incentivized to maintain a robust brick-and-mortar branch network, they have less money to spend on the technological upgrades that consumers have indicated they clearly want. The 2017 National Survey of Community Banks gives a window into how important technology is to the nation's smallest banks. Given current consumer demand, banks will be challenged to keep up with technology. Redefining ITMs as branches, while not a panacea, at least gives banks a bit more flexibility as they re-think all of their customer interfaces.

ITMs are currently giving banks the ability to improve the customer experience by expanding hours and enabling customers to conduct more in-depth transactions at a remote terminal. This research also shows that technology has moved past even the ITM on some level. Lending decisions are being made from a consumer computer or mobile device, and it's likely only a matter of time before an ITM's teller interface can be accessed from a customer's personal device.

A 2016 white paper published by Adrenaline, a marketing agency that advises banks on their branch network strategies, found that branch transactions have declined by more than 45 percent since 1992. Over this same time period, the study found that labor costs have increased by more than 84 percent, which means that the labor cost per in-person transaction has increased by 124 percent.[52]

So while this research supports the conclusion that ITMs could be re-designated as branches, there's still an open question of whether regulators should re-designate them. As shown, such a re-designation could have negative consequences for banks under the CRA's lending test. But perhaps more fundamentally, re-designating ITMs as branches

[52] See Bleedorn.

may not go far enough. There are many technologies beyond just ITMs that allow banks to accept deposits, cash checks or lend money. Specifically carving out a niche branch definition for an ITM, seems to follow the same pattern that has prevented ATMs from receiving this definition for years, despite capabilities as far back as the late 1960s that could have warranted a "branch" designation.

If nothing else, this research highlights the cost of developing regulations to support protectionism in an industry (i.e. in the case of prohibiting national banks from branching) and the cost and consequences of not adjusting regulations to accommodate new technologies or new approaches to doing business.

Recommendations

On the surface, the answer to how ITMs should be classified, appears to be a matter of regulatory discretion: if a majority of policymakers want to reclassify ITMs as branches, current laws appear to give them the flexibility to do so.

Changing the definition of a branch to simply address ITMs when many other viable options are also giving consumer access to branch-like services, however, might be short-sighted. There is a deluge of technologies that give consumers a fully customizable mobile banking experience and allow them to avoid a branch visit entirely, so why limit regulatory efforts and just focus on the ITM?

The analysis in this paper supports the conclusion that ITMs should be re-categorized as branches, but, as with any significant regulatory change, it should be phased-in slowly. Since a considerable portion of a bank's consumer compliance performance is based on its branch network, as is banking competition, a fast change could be unnecessarily disruptive to the industry and to consumers. The research also supports a fundamental re-evaluation of the branching definition so that it is harmonized between consumer compliance regulations and more operational regulations (e.g. Regulation H). The definition should accommodate a wide range of technologies that allow core deposit, check cashing or lending services, effectively decoupling the branch definition from any geographical construct.

The CRA should also be revised to more broadly define what it means to have a "staffed" facility and to reduce the Act's reliance on physical facilities when evaluating a bank’s CRA performance and identify alterative metrics for determining how well a bank is serving low- and moderate-income communities.[53]

Technology is constantly changing the business of banking, and regulations always take time to adjust. The concept of a branch, however, has so fundamentally changed that the industry has lost valuable time (and perhaps missed out on some key innovations) over the decades when the branch definition was static. The CRA and rules regarding banking competition came about when the branch definition was essentially fixed. Despite case law to the contrary, regulators resisted a more expansive view of a branch through regulatory fiat.

Expanding the definition of a branch not only reflects the realities of today’s technological environment, it also reflects changes in consumer behavior. Gone are the days where consumers have to choose between a highly personal and low tech experience versus a high tech, impersonal experience. Branches still play an important role in the business of banking, but consumer access and competition are impacted by much more than the physical presence of a brick-and-mortar facility in a given community. For these reasons, the regulatory structure needs to change to reflect these new realities.

[53]See Ensign. A change to the CRA may already be underway. The Trump administration announced on January 10, 2018, that it would be releasing a “major revision” to the CRA in 2018.According to the Wall Street Journal, the Trump administration has stated that CRA has not kept up with technological changes in the industry, it fails to recognize certain types of lending, and penalizes banks for activities unrelated to lending in LMI communities.

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