Regulation in Crisis: Bank Failures and Entry Barriers*

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Abstract

This paper uncovers and rationalizes a significant, previously overlooked shift in U.S. bank entry regulation during the interwar period. Using a newly constructed granular database of state banking laws, we document a striking countercyclical pattern: states systematically tightened entry barriers during the 1920s boom and loosened them during the Great Depression. The post-crisis reversal was driven by the severity of local banking distress: places more exposed to failures were more likely to relax entry restrictions. We argue that the crisis destroyed the incumbent rents that had sustained political support for high barriers, thereby transforming defenders of local banking monopolies into advocates for the entry deregulation they had previously opposed.

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1 Introduction

Financial crises disrupt credit supply, generate persistent output losses, and prompt policymakers to reform the rules governing financial intermediation. Macro-finance and political economy models alike predict regulation will tighten after crises as policymakers respond to systemic risk and public demand for greater oversight. However, crises also reshape the structure of the banking sector itself through widespread failures and consolidation, which alter the distribution of rents and the economic interests that shape regulatory outcomes. Building on this insight, we propose a mechanism in which the destruction of incumbent rents during crises shifts political support and leads to a reconfiguration of regulatory regimes.

We evaluate this mechanism in the context of U.S. banking regulation during the Great Depression. During this unprecedented crisis, over one-third of banks failed, which completely reshaped banking market dynamics. All of this occurred within a decentralized regulatory system in which states determined entry regulation that applied to local banking markets. This unique institutional structure in the United States allows us to isolate changes in incumbent interests from broader national financial reforms and other macroeconomic forces.

Using a newly constructed dataset of state banking laws mapped to local markets, we document several striking deviations from standard explanations of private interest-driven deregulation. First, entry regulation was pro-cyclical: many states tightened entry barriers during the 1920s boom but relaxed them during the Great Depression. Second, these changes were concentrated in areas with more severe banking distress, consistent with the collapse of incumbent rents and the resulting shift in voters' economic interests. Third, the resulting regulatory regime persisted for decades rather than gradually eroding over time (Quincy and Xu, 2025).

We argue that this reversal reflects the collapse of the incumbent rents that sustained restrictive entry regimes prior to the crisis, which shifted political support toward expanding access to banking services afterward. In the 1920s, high entry barriers protected local banking rents by limiting competition. The wave of bank failures during the early 1930s eliminated many of these incumbents and eroded the rents associated with local market power. As a result, the political support for restrictive entry weakened, increasing the appeal of policies that facilitated the expansion of surviving banks and restored access to credit.

We formalize this mechanism in a model of bank entry regulation in which the optimal choice of different policy instruments depends on both underlying economic conditions and the distribution of rents. Regions are characterized by two features: the concentration of local bank ownership and the level of credit demand. When macroeconomic conditions are stable and bank failures are sufficiently rare, incumbent rents are high, sustaining restrictive entry policies. When banks fail en masse and rents collapse in a financial crisis, the same policies become costly by limiting the

recovery of banking services in areas with unmet demand. The model predicts that crises can lead to a reconfiguration of entry regulation, even in the absence of changes in regulatory capacity or information.

Guided by this framework, we document five empirical findings. First, the tightening of entry regulation in the 1920s was closely linked to rural political influence. States with larger rural population shares were significantly more likely to raise capital requirements during the boom, and county-level exposure to these changes was greatest where local banking markets were most concentrated. Leveraging variation in local bank entry, we show that these patterns are robust to controlling for county-level fundamentals such as land productivity and farm profitability, indicating that they are not driven by underlying economic conditions. These results are consistent with entry restrictions serving to preserve local banking rents prior to the crisis.

Second, we show that these entry barriers exacerbated the decline in banking access during the Great Depression by raising the cost of replacing failed banks. Counties exposed to higher pre-crisis capital requirements experienced larger declines in banking presence during a period of widespread banking failures.

Third, we provide direct evidence of political realignment using a unique institutional feature of Illinois law, which required new banking entry statutes to be approved by public referendum in a general election. Rural voters supported higher entry barriers in the 1920s but opposed them in the 1930s, particularly in counties that experienced severe banking distress. These voting patterns align with the model's prediction that the collapse of local banking rents shifts support toward expanded access.

Fourth, as support for restrictive entry weakened, states liberalized bank expansion through branching, allowing existing banks to restore services in areas where new entry remained costly. Fifth, using household-level data from the mid-1930s, we show that these reforms substantially increased financial access, with effects concentrated in rural communities. Entry regulation thus shaped not only the structure of the banking system but also the distribution of financial access during the recovery from the Great Depression.

Taken together, our results show how financial crises can reshape regulation by altering the economic interests that sustain it. Rather than uniformly tightening rules, the 1930s collapse of incumbent banks weakened support for restrictive policies and instead expanded access through branching. More broadly, our findings highlight that the rents underpinning regulatory regimes are neither fixed nor exogenous, but rather depend on the economic environment and can be destroyed by large shocks. Endogenous rents thus realign economic incentives and can lead to sharp and persistent changes in the structure of financial regulation.

Related literature: This paper contributes to several literatures in finance, political economy, and

economic history on how financial regulation is shaped by coalitions and how those coalitions respond to economic shocks. A fundamental insight of this literature is that regulation reflects distributional conflict rather than purely technocratic optimization, with regulatory outcomes often shaped by the tension between persistent but concentrated private rents and more diffuse but less static economic losses (Stigler, 1971; Peltzman, 1976, 1989).

A related empirical literature shows that these forces generate regulatory regimes that persist over long periods of time (Kroszner and Strahan, 1999, 2001; Benmelech and Moskowitz, 2010; Mian, Sufi and Trebbi, 2010; Rajan and Ramcharan, 2011; Lucca, Seru and Trebbi, 2014; Agarwal, Lucca, Seru and Trebbi, 2014). In particular, Kroszner and Strahan (1999, 2001) document how technological and organizational changes gradually altered the distribution of rents in banking, contributing to the eventual adoption of branching. In these settings, however, rents evolve gradually in response to slow-moving structural forces.

A separate strand of the literature abstracts from these private interests and emphasizes how crises destabilize political coalitions, generate demand for institutional change, and lead to tighter financial regulation (e.g., Polanyi, 1944; Hirschman, 1970; Mian, Sufi and Trebbi, 2014; Gyöngyösi and Verner, 2022; Guriev and Papaioannou, 2022; Funke, Schularick and Trebesch, 2023).

We study a setting in which financial crises directly interact with regulatory regimes that sustain rents. In contrast to existing work in which rents evolve gradually or remain implicit, we show how financial crises can abruptly collapse these rents, leading to shifts in political support and regulatory outcomes. More generally, we link regulatory outcomes directly to micro-level changes in the distribution of rents across constituencies. This perspective highlights how crises can undermine rather than reinforce incumbent protection when the protected institutions themselves fail, in contrast to settings where incumbents survive and use crises to consolidate (e.g., Rajan and Zingales, 2003).

Our analysis also sheds light on the long-standing puzzle of why the United States was unusually slow to adopt branch banking relative to other countries. Existing explanations emphasize institutional rigidities, political opposition from rural interests, and the persistence of unit banking regimes (White, 1982, 1985; Calomiris and Gorton, 1991; Calomiris, 2000; Rajan and Ramcharan, 2011; Calomiris and Haber, 2014; Jaremski and Fishback, 2018). Our results suggest that this delay reflects the local banking rents' durability, which sustained opposition to branching in normal times. The Great Depression represents a critical juncture in which the collapse of these rents weakened that opposition, allowing for partial liberalization.[1] Moreover, our referendum voting returns provide unusually direct evidence of this reversal, connecting to work showing that vot-

[1]The persistence of these regimes has also been linked to long-running financial stability and market integration concerns, (Sylla, 1969; James, 1976; Mitchener, 2005, 2007; Wheelock, 1993) as well as economic voting on banking legislation (White, 1985; Abrams and Settle, 1993; Economides, Hubbard and Palia, 1996; Rajan and Ramcharan, 2016).

ers respond to policy positions when they are salient and credible (Cruz, Keefer, Labonne and Trebbi, 2024). States' highly variable regulatory responses further highlights the importance of studying these dynamics within a common institutional and macroeconomic environment. Unlike cross-country comparisons, the U.S. setting isolates variation in political and economic interests while holding many other factors constant, providing a uniquely clean setting to study how crises reshape financial regulation.

Finally, the paper also relates to the literature on the real economic importance of two key instruments of bank entry regulation: geographic branching restrictions and capital requirements. A large body of work shows that relaxing geographic restrictions on banks expands access to financial services, facilitates capital reallocation through internal bank capital markets, and supports local economic activity, particularly in areas with limited initial financial development (e.g., Kroszner and Strahan, 1999, 2001; Célerier and Matray, 2019; Fonseca and Matray, 2024; Quincy and Xu, 2025; Bordeu, González and Sorá, 2025). Similarly, research on capital requirements demonstrates their role in shaping bank entry, competition, and real growth over the long run (e.g., Carlson, Correia and Luck, 2022; Xu and Yang, 2024). While these literatures typically study these instruments in isolation, we consider how they interact within the political economy of regulation. We show how policymakers adjusted different margins of entry regulation in response to changing economic conditions and how these adjustments were shaped by the underlying distribution of rents.

2 Historical Background

States have long exerted control over bank entry conditions. The two primary regulatory instruments have been equity (capital) requirements and branch legality. Capital requirements set the minimum amount of paid-in capital for obtaining a charter while branching restrictions determined the scope of entry across locations, ranging from complete prohibition (unit banking) to various forms of limited or even unrestricted branching within-state. Together, these tools shaped the number, size, and geographic reach of banks operating across the country.

2.1 Bank entry regulation before the Great Depression

2.1.1 Capital requirements

Prior to the U.S. Civil War, banks operated through state charters. The rise of "free banking" regimes imposed minimal entry restrictions, with some banking systems operating without any capital requirements.[2] The creation of nationally-chartered banks following the passage of the

[2]We use the term "capital requirements" in line with its contemporary usage to refer to statutory minimum charter capital for new banks, as these shaped the conditions under which banks could open.

National Banking Act of 1863 fundamentally altered the landscape of regulating minimum capital requirements. Under the national banking system, capital requirements were tied to the population of the town in which the bank would operate, with populations set by the most recent U.S. decennial Census and requirements jumping discontinuously at specified thresholds (Barnett, 1911).[3] By the 1870s, most states had adopted similar frameworks for the state-chartered banks they regulated.[4]

Capital requirements effectively acted as entry barriers to establishing new banks, and therefore limited commercial banks' competition in local markets. They were particularly binding for rural areas in which lack of entry often resulted in one or two banks serving the entire community. These regulations thus fundamentally shaped local banking density, determining both the geographic availability of credit and the competitive structure of local banking markets (e.g., Wheelock, 1993; Fulford, 2015; Xu and Yang, 2024).

Rural communities' limited banking access proved to be politically contentious, with capital requirements portrayed as the main barrier to entry. The populist movement of the 1890s crystallized this discontent by mobilizing farmers and small-town merchants around demands for easier bank entry (Eichengreen, 1984; White, 2014; Jaremski and Fishback, 2018). In 1900, at the national level, Congress responded to this pressure to lower entry barriers in rural areas by halving the minimum capital requirement for national banks in places under 3,000 people from $50,000 to $25,000 (James, 2015). More generally during the National Bank Era, contractions in access were typically met by lowering capital requirements to facilitate entry. As the federal government eased capital requirements to lower entry barriers, state legislatures followed suit for the dual purposes of meeting constituent demands and of retaining banks that might otherwise seek national charters. This latter motive of regulatory competition drove frequent downward adjustments in state capital laws, acilitating bank openings in thousands of rural towns in the 1910s (White, 1982, 2014). Politicians further reduced barriers to entry by interceding with regulators to accelerate bank charter approvals (American Bankers Association, 1935). As we show in Section 2.2, the Great Depression marks a sharp break from this historical pattern of responding to local banking interests through threshold and minimum amount adjustments.

2.1.2 Branching restrictions

The incentive for states to encourage regulatory arbitrage also created powerful lobbies to (de)regulate bank branching.[5] The anti-branching constituency across states primarily consisted of unit bankers

[3]For instance, national banks required $50,000 for towns under 6,000, $100,000 for those above 6,000, $200,000 for population above 50,000 inhabitants, and finally $500,000 for cities with more than 200,000 inhabitants.

[4]States governed bank entry requirements for two-thirds of banks in 1929. Only 4% of banks opted for state charters and Federal Reserve membership (with national banks making up the remainder) (Board of Governors of the Federal Reserve System, 1976, 1930).

[5]A handful of states, like California, allowed branching in the early 20th century, but the vast majority remained resolutely opposed (White, 1982; Quincy, 2024).

and local elites, both of whom benefited from restrictions on geographic entry (Calomiris, 2000; Rajan and Ramcharan, 2011). Unit bankers faced less competition over lending rates and service fees when outside banks could not branch into their markets, while local elites, typically large farmers and small-town merchants, feared that branch entry would redirect their deposits toward investment outside their local area. These groups believed that a locally owned unit bank dependent on local business relationships was best positioned to serve their economic interests. Opposition to branching was especially strong in rural states, where political influence rested with locally owned banks and agricultural elites.

Economic incentives to limit geographic entry were also framed in a broader ideological manner. Rural newspapers and banking trade publications regularly portrayed branch banking as a threat to community autonomy and local control. The *Banker Farmer*, a journal explicitly dedicated to rural banking interests, exemplified this ideology by promoting tight alliances between local bankers and agricultural elites. These publications drew on Jeffersonian and Jacksonian traditions that valorized small-scale enterprise and portrayed large banks as predatory monopolies controlled by urban financial interests. In this rhetoric, shown in Appendix C.1, the unit bank represented independence, local knowledge, and democratic control, while branch banking represented concentration, absentee ownership, and Wall Street domination.

This anti-branching coalition proved highly effective. By the early twentieth century, branching remained prohibited or severely limited in nearly all states, leaving unit banking as the dominant organizational form nationwide (White, 1985; Rajan and Ramcharan, 2016).

This unit-banking equilibrium was further entrenched at the federal level by the McFadden Act of 1927, which limited nationally chartered banks to branching only where and to the extent permitted by state law. The McFadden Act thus gave state-level anti-branching coalitions effective veto power over the structure of all banks throughout the country, regardless of what federal regulators or large banks might prefer. By the late 1920s, branching remained politically infeasible across most states, leaving capital requirements as the primary adjustable margin of entry regulation.

2.1.3 Demand for branching reform

Two major economic developments during the 1920s placed increasing strain on the unit banking system. First, rapid industrialization required capital investment that was difficult for small, local unit banks to meet. For example, a unit bank in a town of 5,000 people, capitalized at $50,000, could not safely make loans of the size needed by growing manufacturing firms. These businesses sought access to branch networks that could pool resources across multiple locations, creating support for permitting urban branching at minimum (Giedeman, 2005).[6]

[6]Bond market access was concentrated among large firms in the 1920s and 1930s, so most firms relied on bank credit (Hunter, 1982; Benmelech, Frydman and Papanikolaou, 2019).

Second, a series of agricultural crises in the early 1920s exposed the fragility of small rural banks. The post-World War I agricultural downturn hit farm prices hard, leading to widespread farm failures, particularly in the Midwest and Great Plains. Small unit banks, with loan portfolios concentrated in a single town or county, had no way to diversify their lending away from local agricultural risk. When the local economy collapsed, the local bank often followed (Alston, 1983; Wheelock, 1992; Jaremski and Wheelock, 2020). Despite these disruptions, new bank charters outpaced bank failures between 1921 and 1929 (American Bankers Association, 1935). Areas experiencing banking disruptions in the 1920s (e.g. Section C.2) thus remained optimistic that financial access would rebound quickly, which created broad support for unit banking protections.

Despite the seeming resilience of the unit banking system, regulators were unsure that bank capital requirements were high enough to avoid more bank failures.[SQ: New footnote on supervision etc][7] Individual regulators had complained since at least 1910 that bank entry barriers were too low (American Bankers Association, 1935), but in 1929, the National Association of State Bank supervisors resolved that rural areas needed higher capital requirements (cited in Federal Reserve System, 1932, p.96). That same year, the Comptroller of the Currency observed that "the system of banking in the rural communities has broken down" so that the "depositor in the small country bank has suffered severely," with "no prospect of improvement" due to bank entry barriers (Office of the Comptroller of the Currency, 1929, p.3). This marked a shift in the understanding of the role of capital requirements—not merely as barriers to entry, but also as determinants of bank stability. Yet this new understanding created a dilemma: if capital requirements served a prudential function, then the traditional response of lowering them to restore access was no longer viable.

Pro-branching advocates argued that branch networks, by diversifying across regions and sectors, would prove more stable than isolated unit banks. A branch system could absorb losses in one area by drawing on profits from branches in other areas. This stability argument suggested that relaxing branching restrictions, rather than merely adjusting capital requirements, would better serve both bank safety and credit access goals.

However, these two arguments gained little traction in state legislatures. Unit bankers and local elites who had survived the agricultural downturn still benefited from protected local markets and had little reason to accept the competitive threat that branch entry would pose. Other potential banking customers continued to view branching as antithetical to local community development or independence due to the political language used to describe reform (e.g. Appendix C.1). Debates over branching in the mid-to-late 1920s typically ended in defeat for reform advocates. Where branching laws did pass, as in the case of the McFadden Act, they often came with severe restrictions

[7] Other safeguards, like reserve requirements and double liability, largely pre-dated the roll-out of state supervisory powers and deposit insurance programs in the 1910s and 1920s (Mitchener and Jaremski, 2015). We compare these latter two phenomena to bank entry legislation in Table B.1.

designed to protect existing unit banks (Rajan and Ramcharan, 2016). Common provisions included prohibitions on establishing branches in towns that already had a locally-owned bank, requirements for prohibitively high capital for branch networks, or limits on the geographic scope of branching that prevented true diversification.

2.2 Crisis and regulatory change in the 1930s

The Great Depression brought longstanding tensions in banking policy to a head. Some aspects of the crisis were familiar as smaller and more rural banks failed at higher rates (National Industrial Conference Board, 1932). However, the scale of the failures were unprecedented and almost double that of the 1920s (9,000 failures total as opposed to 5,000), leading to unprecedented disruptions in banking access and concerns about financial stability (Wheelock, 1995). Despite the American Bankers' Association that "some depressions are worse than these" (Summerville News, 1931*c*), there were many more places without banks than in the 1920s. These places also now faced higher replacement costs as the combination of higher capital requirements imposed during the 1920s and the capital lost in widespread bank failures made it prohibitively costly to restore basic banking services (72nd Congress, 1932, p.1417).

Bank entry regulation underwent substantial changes in response. A broad consensus around small banks' riskiness had emerged among regulators, bankers, and academics by 1933, so higher capital requirements were seen as a safeguard for financial stability (American Bankers Association, 1935). However, the question of how to open new banking offices without lowering capital requirements was far more controversial (Chapman, 1934). This impasse on branching shaped the final compromise embodied in the Banking Act of 1933, brokered by Carter Glass and Henry Steagall. While Glass-Steagall substantially expanded federal regulation, it went further than the McFadden Act by explicitly delegating all decisions over branching to state legislatures. As a result, the Depression marked a decisive jurisdictional shift: for the remainder of the twentieth century, states retained primary control over both margins of bank entry, capital requirements and geographic expansion.

3 Data

Tracing out the evolution of bank entry conditions and voter support for them requires that we bring together data on banking laws, voting behavior, and local voter characteristics.

3.1 State banking laws

We construct a new panel of state banking laws that captures bank entry conditions and related regulatory changes between 1925 and 1940. Our primary source is the biennial *State Law Index* compiled by the Library of Congress, which summarizes every law passed by state legislatures over the preceding two years. These comprehensive indexes organize laws by broad topic (e.g., "banks and banking") and by detailed legal provisions (e.g., chartering authority, capital requirements, branching restrictions), reporting the state, legislative session, date of passage, and law number.

Universe of banking laws. We digitize and harmonize all banking-related entries from these state statutes to code regulations at the level of individual legal conditions. A single statute may introduce multiple regulatory changes, such as tightening entry requirements while expanding supervisory authority. We standardize the topical and sub-topical categories across legislative sessions to ensure comparability over time, manually linking equivalent legal provisions whose labels vary across editions. This process yields a comprehensive database of 2,743 banking-related legal conditions passed over 1,109 legislative days between 1925 and 1940.

We supplement this universe of banking law conditions with detailed statutory information on capital requirements and branching legality spanning 1920 to 1940.

Capital requirement schedules. First, to measure the price of bank entry, we hand-collect statutory minimum capital requirements from original state session laws, guided by historical digests such as Welldon (1910).[8] For each state and year, we record the full schedule of minimum paid-in capital requirements and the population thresholds governing those requirements. Unlike prior work that typically records only the lowest requirement in a state (e.g., Wheelock, 1993; Mitchener, 2005, 2007), we document the entire statutory schedule across population bins and over time.

We translate statutory capital requirements into local entry costs by assigning each incorporated place the minimum capital requirement for its population according to the most recent decennial census. Place populations are harmonized across years using crosswalks from Bleemer and Quincy (2026).[9] For each place and year, we compute the minimum required bank capital per capita, defined as statutory minimum capital divided by local population. We then aggregate to the county level by taking the median across incorporated places within each county.

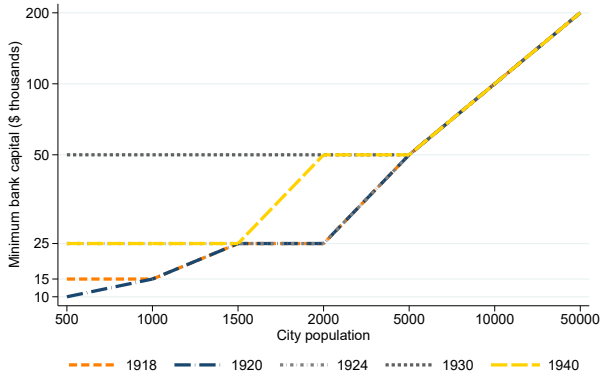
To illustrate this process, Figure 1 presents Illinois capital requirements over time and space. Figure 1a visualizes the statutory schedules from the five Illinois bank entry acts passed between 1918 and 1940, showing how these laws changed both minimum capital and population thresholds

[8] See Figure B.2 for a sample set of capital requirements.

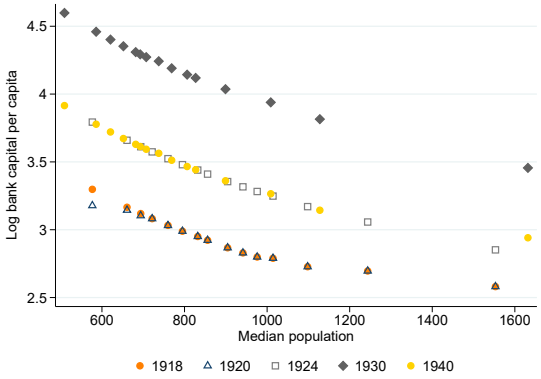
[9] These crosswalks harmonize the official Census Bureau list of places for each census with the corresponding restricted full count census, available through Ruggles et al. (2021), and standardize places over time.

Figure 1: Illinois capital requirements over time and space

(a) Legal bank capital requirements



(b) Bank capital costs per capita



Notes: Panel (a) plots the statutory minimum bank entry capital implied by the active Illinois banking law and the population of each city in the most recent preceding census for each Illinois law active between 1920 and 1940. Panel (b) assigns these statutory requirements to each incorporated place, computes minimum required bank capital per capita at the city level, and aggregates to the county level by taking the median across cities in each county and year, see Section 3.1 for details. Median population is the median incorporated-place population within each county based on the closest preceding census. Sources: Illinois legislative session laws; Ruggles et al. (2021); Bleemer and Quincy (2026); and authors' calculations.

over time. For instance, the 1920 law lowered the required capital to $10,000, but only for communities under 500 people, while the 1930 law increased barriers to entry for cities under 5,000 people. Figure 1b shows the resulting county-level median bank capital costs per capita, demonstrating how statutory changes translate into local entry barriers.[10]

Branching eligibility. Second, we code the legality of bank branching and the conditions under which branches may be established. These include outright prohibitions or permissions, as well as restrictions based on population size, geographic scope, existing competition, and capital requirements for branch networks. Applying these statutory provisions to city populations, we construct indicators for whether a given location is legally eligible to host a bank branch in each year. We aggregate these indicators to the county level using population weights to capture the share of residents living in branch-eligible locations.

Constructed variables. The resulting dataset produces three key objects used in the analysis: (i) an annual panel of state banking law changes by regulatory dimension, (ii) a county-level panel of median log bank entry costs per capita based on statutory capital requirements, (iii) a county-level measure of branch eligibility capturing the geographic margin of bank network expansion.

[10]Figure B.7 presents other state examples.

3.2 Support for bank laws

We complement our legislative data with direct measures of public support for changes in bank entry regulation. Because modern opinion polling does not exist for this period, we use a distinctive institutional feature of Illinois banking law that allows us to observe voter preferences directly.

Banking referenda. Until 1938, the Illinois state constitution required that all changes to banking laws be ratified by public referendum at the next general election. As a result, every major change to bank entry regulation during this period—including changes to capital requirements—was subject to a statewide vote. These referenda provide a rare opportunity to measure voter support for banking regulation without inferring preferences from legislative behavior.

We identify all bank-related referenda between 1920 and 1940 using Illinois Office of Secretary of State (various years) published by the Office of the Secretary of State. For each referendum, we link the ballot language to the underlying session law to determine the precise regulatory change being proposed, including whether it increased or decreased statutory capital requirements and which population classes were affected.

County-level voting returns. For each referendum, we transcribe county-level "yes" and "no" vote totals from the official election returns. We measure abstentions by subtracting the sum of "yes" and "no" votes from the total number of votes cast for the highest office on the ballot in that election. These data yield a county-by-referendum panel of voting outcomes for the specific proposed banking laws.

3.3 Economic and banking characteristics

We assemble a set of economic, demographic, and banking variables to relate changes in bank entry regulation to local conditions during the 1920s and 1930s. These data are constructed at the state, county, and household levels.

Demographic and economic characteristics. To measure local economic structure and constituency characteristics, we use decennial state- and county-level census data on population, agriculture, and manufacturing (Haines, 2010). These data provide information on population size and distribution across urban and rural places, farm values and land inequality, and manufacturing activity, which we use to proxy for local demand for banking services and the economic interests of potential voting blocs.

Local banking presence. We measure local banking presence using data on the number of independently chartered banks in each county and year between 1920 and 1936 (Federal Deposit

Insurance Corporation, 1992).

Banking distress. To capture shocks to local banking access, we use information on bank suspensions drawn from the same FDIC source. These data allow us to identify periods and locations in which communities experienced

Household banking access. Finally, we examine the consequences of bank entry regulation for household financial behavior using the 1935–36 Study of Consumer Purchases, the predecessor to the modern Survey of Consumer Finances. The survey records households' use of checking and savings accounts, along with demographic characteristics and location. The data were originally digitized by US Bureau of Labor Statistics (2009) and harmonized by Hausman (2016).

4 Regulatory Reversal: Patterns and Geography

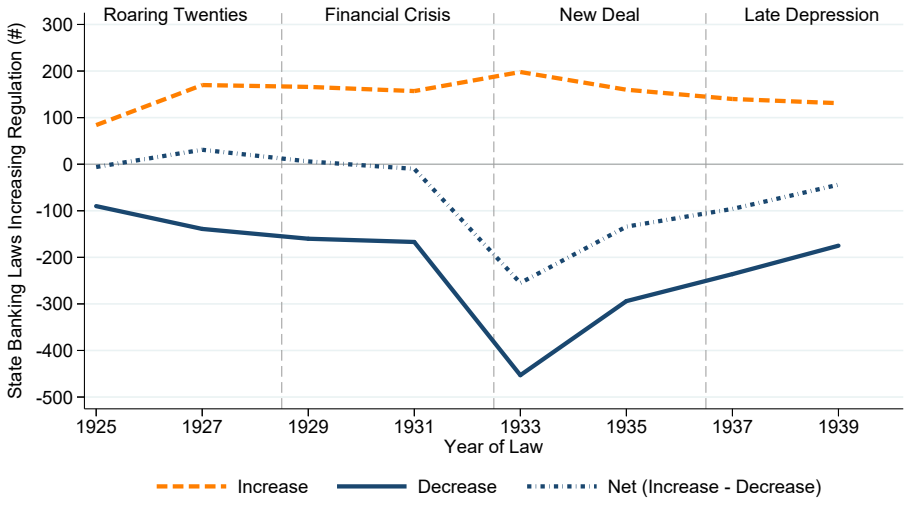
Having established the institutional backdrop of state control over bank entry, we now characterize how regulatory regimes evolved during the interwar period. We document three key patterns. First, regulation moved countercyclically: entry barriers tightened during the 1920s boom and loosened during the Great Depression. Second, this reversal operated through different instruments: states raised capital requirements in the 1920s but turned to branch deregulation in the 1930s while keeping capital barriers high. Third, these changes were concentrated geographically: the smallest, most rural counties experienced both the largest increases in entry costs during the boom and the greatest expansion in branch eligibility during the bust.

We divide the interwar period into four eras corresponding to stages of the business cycle: 1925–September 1929 (the Roaring Twenties boom), October 1929–February 1933 (the economic collapse and financial crisis), March 1933–1936 (the New Deal), and 1937–1940 (post–New Deal and late Depression). We use these eras to characterize the timing and direction of state banking legislation.

4.1 Countercyclical regulation

Figure 2 summarizes the direction of state banking regulation across four interwar eras. The figure plots the number of banking law provisions that tightened regulatory restrictions (orange) versus those that relaxed them (blue, plotted as negative values), along with the net difference. During the Roaring Twenties, tightening provisions far outnumbered loosening ones. This pattern reversed sharply during the financial crisis and New Deal eras, when the number of loosening provisions surged while tightening declined. By the late Depression, legislative activity had subsided in both directions.

Figure 2: Laws governing banking by era



Notes: The figure plots the number of banking law provisions enacted by U.S. states across four interwar eras, classified by regulatory direction. The Increase line (orange) counts provisions that tighten regulatory restrictions on banks. The Decrease line (solid blue) counts provisions that relax restrictions on banks or on public/government actions in the banking sector, plotted as negative values. Each law is counted once per category based on whether it contains at least one provision of that type. Because a single law may contain provisions in multiple categories (e.g., both tightening and loosening provisions), the Increase and Decrease counts are not mutually exclusive, and the Net line is their arithmetic difference rather than a count of net-loosening laws. See Section 3.1 for more details. Eras are defined by the date of passage: 1925–September 1929 (Roaring Twenties), October 1929–February 1933 (financial crisis), March 1933–1936 (New Deal), and 1937–1940 (late Depression). Sources: Library of Congress biennial state legislative indexes and authors' calculations.

Two patterns stand out. First, legislative activity remained high throughout the period and intensified during the New Deal. Second, despite this increase in activity, the direction of regulation shifted sharply countercyclical over the business cycle. In the late 1920s during the boom, a larger share of laws tightened regulation, reflecting a broad move toward more restrictive banking rules. After 1929 and the onset of the Great Depression, the number of new provisions that relaxed regulations more than doubled and dominated legislative output.

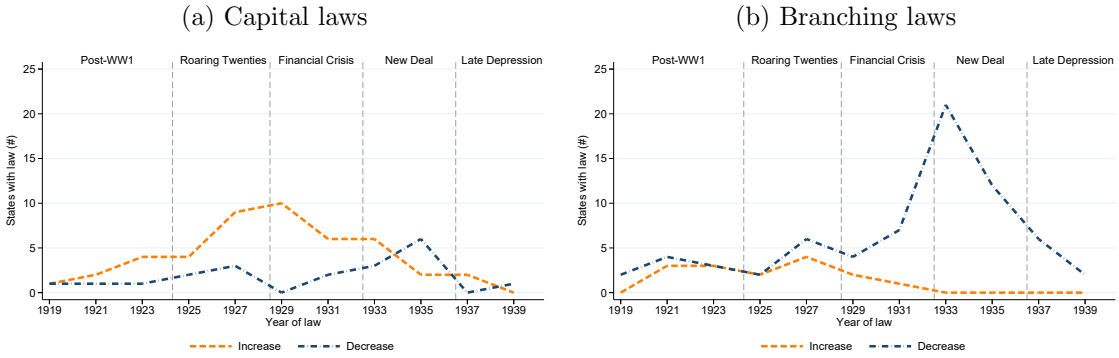
Thus, as legislatures became more active during the crisis and recovery, the composition of reforms reversed. In the conventional view, financial regulation is relaxed in booms and tightened in downturns. In interwar U.S. banking, the opposite occurred.

4.2 From capital requirements to branch deregulation

Figure 3 decomposes this regulatory reversal by bank entry margin, distinguishing between changes to capital requirements and changes to branching laws.[SQ: new footnote][11] Each panel plots the number of states introducing new entry-related provisions in a given biennial session, separating tightening from loosening within each instrument.

[11] These changes largely occurred without new supervisory innovations or changes in state provision of deposit insurance, see Table B.1.

Figure 3: States passing new entry laws by year and type



Notes: These lines represent the flow of states introducing new bank entry barriers which could increase or decrease. Panel (a) plots changes in minimum bank charter capital requirements, separating increases (orange) from decreases (blue). Panel (b) plots changes in bank branching laws, separating new branching restrictions (blue) from new branching permissions (orange). Counts reflect the passage of new legal conditions related to each entry type in each biennial legislative session according to state session laws see Section 3.1. Sources: State session laws and authors' calculations.

Capital requirements. Figure 3a shows that states frequently raised the minimum capital needed to charter a bank in the mid-to-late 1920s. While these laws were static prior to 1925, the frequency of capital requirement escalations rose sharply thereafter, and peaked in 1927 at the height of the Roaring Twenties boom.

During the Great Depression, these higher capital requirements were not reversed. This pattern of maintaining high capital entry barriers diverges sharply from earlier historical episodes, such as the 1890s farm crisis, when states rapidly reduced capital requirements in response to financial distress (White, 1982).

Branching. Figure 3b shows a starkly different pattern for branching laws. Prior to 1930, states rarely legislated branching, and when they did, permissions and restrictions were introduced at similarly modest rates. During the financial crisis and Depression, however, this balance shifted decisively. In 1933 alone, almost half of states legalized or expanded branching, with additional states following in the subsequent years of the New Deal.

4.3 Evolution of entry barriers

We now examine how the state-level regulatory changes documented above translated into local entry barriers and access. Because capital requirements depend on population thresholds and branching laws apply unevenly across locations, identical statutory changes can have very different effects across counties. This stands in marked contrast to changes in federal legislation (e.g. Glass-Steagall) or other state-level legislative changes which affect financial stability for all banks (e.g. deposit insurance, liability structure, or supervision).

To measure local entry barriers implied by state law, we map statutory capital requirements to the population distribution of towns within each county. State banking statutes typically specify minimum paid-in capital requirements as step functions of town population. Using decennial Census data, we assign each incorporated place its applicable minimum capital requirement based on the statute in force at that date. We then scale this requirement by local population to obtain an implied cost per capita. Finally, we aggregate these place-level per-capita requirements to the county level by computing the median per-capita minimum capital requirement across all incorporated places within a county.[12]

Figure 4 summarizes the spatial incidence of bank entry regulation in 1920, 1930, and 1940. Figure 4a shows the distribution of county-level bank entry costs, measured as the median minimum capital required per capita. Between 1920 and 1930, the distribution shifts sharply to the right (blue relative to orange), indicating a nationwide increase in the cost of chartering new banks, consistent with Figure 3. In contrast, there is little additional movement between 1930 and 1940 (gray relative to blue), reflecting the persistence of elevated capital barriers during the Depression. These effects are not the result of population changes; Figure B.4 fixes population in 1920 to demonstrate that the requirements increased irrespective of later population growth. Other state policies which changed over this time period, like state deposit insurance also do not affect this conclusion (Figure B.5). We find little evidence that capital cost adjustments were correlated with either 1910s banking growth or the World War I crop boom, see Figure B.6.

This increase in entry costs was not evenly distributed across counties. Figure 4b maps the change in median log bank capital per capita from 1920 to 1930 and shows substantial heterogeneity both across and within states. Some states, like Arkansas and North Carolina, raised capital requirements more than others (e.g., Nevada or Oklahoma). However, even where state statutes changed capital requirements at all population thresholds, their local effects varied widely depending on population structure.

Rising entry costs in rural counties. Figure 4c shows that these differences were systematically related to county population. In all years, the relationship is negative: bank entry costs are highest in the least-populous counties. Moreover, the rightward shift that captures the *change* in entry costs from the 1920s to the 1930s was also largest in these same small counties.

Branching expansion in rural counties. Figure 4d turns to the geographic margin of entry—branch eligibility. In 1920 and 1930, branch eligibility is negatively related to bank entry costs, mirroring the structure of capital requirements. However, after the wave of branch dereg-

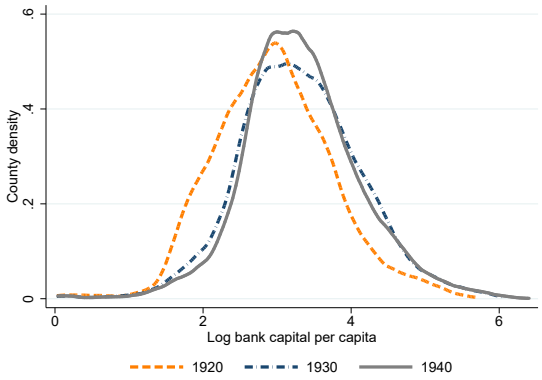
[12]Specifically, we calculate the per capita capital requirement $X_{c,t}$ for county c in year t given the regulatory requirement $K(P_{i,t})$ for place i of population P: $X_{c,t} = \text{median}_{i \in c}\left(\frac{K(P_{i,t})}{P_{i,t}}\right)$.

ulation in the 1930s, this relationship reverses and becomes positive. We see that by the 1940s, branching eligibility expands most sharply in counties facing the highest capital barriers to unit bank entry, which tended to be the least populous counties (Figure 4c).

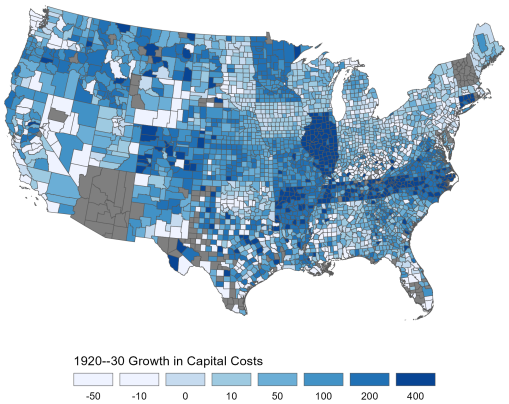
Taken together, these patterns show that the regulatory reversal operated through a substitution from capital requirements to branching: the rural communities most exposed to rising capital barriers in the 1920s were also those that experienced the largest expansion in branch eligibility.

Figure 4: Characteristics of county median bank entry requirements

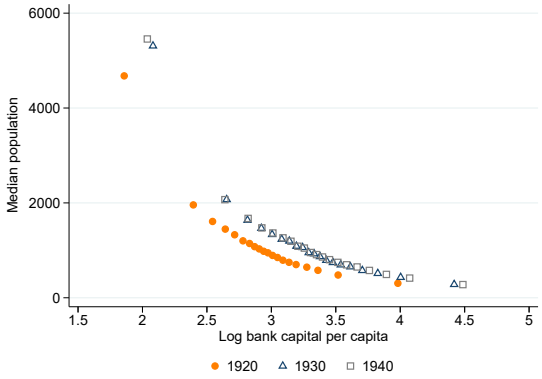
(a) Capital requirements over time



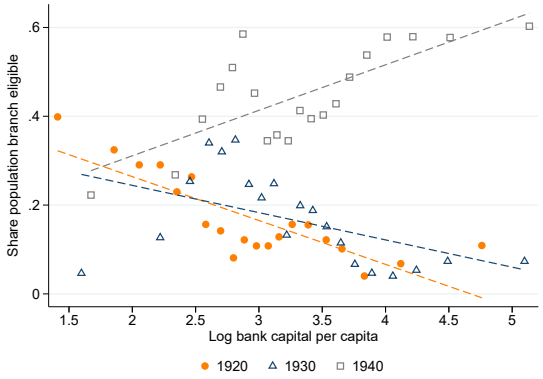
(b) %Δ Capital requirements, 1920–30



(c) Population versus capital requirements



(d) Branching eligibility vs capital requirements



Notes: Log bank capital per capita is the median log bank capital per capita in a given county in a given year. Bank capital per capita reflects the minimum bank entry capital assigned by the active state statute and prior census's population estimate, divided by the latter in each city, aggregated to the county level by taking the median in each county and year. Counties in states without minimum capital requirements in 1920 are shaded gray in Panel (b). Branch eligibility flags whether active statues permit branching in a given location. Panels (c) and (d) are binscatters for all US counties in each year with log bank capital per capita data. Counties are excluded if the state does not have minimum capital requirements or if there are no incorporated places in the county in that year. See Section 3.1 for data definitions. Sources: State session laws, Ruggles et al. (2021), Bleemer and Quincy (2026) and authors' calculations.

5 A Model of Entry Regulation and Voter Realignment

We develop a conceptual framework to rationalize the regulatory reversals documented in Section 4.3. We use a two-period model with complete information in which voters choose entry regulation under uncertainty about the future macroeconomic state. Regions differ in the degree of local bank ownership concentration and in credit demand, and these differences determine the policies that maximize welfare.

The model formalizes two central mechanisms. First, it captures the trade-off between preserving locally captured ownership rents and meeting demand for banking access—a trade-off governed by the joint distribution of ownership concentration and credit demand across regions. Second, it shows how prior policy choices endogenously shape crisis severity: entry barriers that sustain rents in normal times also concentrate the banking market, which amplifies the disruption to banking services when a macroeconomic shock arrives. The resulting collapse of both rents and access drives a preference reversal toward policies that restore banking services, even among constituencies that had previously supported restrictive entry.

5.1 Environment

Timing and uncertainty. The model has two periods. In period 1, voters choose banking regulation under uncertainty about future macroeconomic conditions. The period-1 policy regime persists as the status quo in period 2, when the macroeconomic state is realized and voters observe outcomes under their inherited regulatory regime. Reform requires that an alternative policy commands sufficient political support in the realized state—a condition that the model endogenizes through the interaction of crisis severity, ownership rents, and credit demand.

The macroeconomic state is summarized by a baseline fragility parameter $\phi \in (0, 1)$. Period 1 voters assign probability $p \in (0, 1)$ to a crisis state ϕ_C and probability $(1 - p)$ to normal conditions ϕ_N, where $\phi_C > \phi_N$.

Regions and regulatory tools. Consider a legislative area of the U.S. for instance a state, consisting of regions indexed by r. Each region is characterized by its local credit demand D^r and the degree to which residents hold ownership stakes in local banks, θ_b^r (defined below).

Regulators choose two banking policy instruments for the legislative area:

- Capital requirement: $e \in [0, \bar{e}]$, the minimum paid-in capital needed to obtain a bank charter and operate.
- Branching regime: $b \in \{0, 1\}$, where $b = 0$ denotes unit banking and $b = 1$ indicates that branching across geographic regions is allowed.

Markups and bank profits. Entry barriers and local market structure generate markups. We model the equilibrium markup as a reduced-form function $m(e, b)$ satisfying

$$m_e(e, b) > 0 \quad \text{and} \quad m(e, 1) < m(e, 0) \qquad \forall e \in [0, \bar{e}].$$

Higher capital requirements limit entry and increase market power, while branching increases competition by allowing branch networks to enter previously insulated markets served only by local monopolists.

Banking sector profits in region r are given by:

$$\pi^r(e, b) = m(e, b)D^r - F$$

where D^r denotes regional loan demand and $F > 0$ is a fixed operating cost. The fixed cost implies that in low-demand areas, banking activity (and especially replacement entry following failures) may be difficult to sustain.

Residents hold shares in the local banking sector. Let $\theta_b^r \in [0, 1]$ denote the share of local bank profits accruing to residents of region r under regime b.

Banking market fragility. We model $\Phi(e, b; \phi)$ as the probability that the local banking market is disrupted—that is, that the region loses effective access to banking services. This probability reflects the interaction between macroeconomic conditions and the structure of the local banking market:

$$\Phi(e, b; \phi) = \phi\, f(e, b).$$

The baseline fragility ϕ captures macroeconomic conditions, while $f(e, b)$ is a reduced-form function capturing how policy shapes the vulnerability of the local banking market.

Capital requirements affect market fragility through two opposing channels. First, higher capital requirements increase each bank's equity buffer, reducing the probability that any individual institution fails. Second, higher capital requirements deter entry, concentrating the market among fewer banks. A concentrated market is more vulnerable to systemic disruption: when few banks operate, the failure of even one can eliminate banking services for the region, and high entry costs prevent timely replacement. These channels have opposing effects on f, generating a non-monotonic relationship between capital requirements and market fragility.

Assumption 1 (Banking market fragility)**.** *For each $b \in \{0, 1\}$, $f(\cdot, b)$ is twice continuously differentiable on $[0, \bar{e}]$ with $f_{ee}(e, b) > 0$, and satisfies:*

1. Non-monotonicity in capital requirements: *There exists* $\hat{e}(b) \in (0, \bar{e})$ *such that*

$$f_e(e, b) < 0 \text{ for } e < \hat{e}(b), \qquad f_e(e, b) > 0 \text{ for } e > \hat{e}(b).$$

At low capital requirements, the stabilizing effect of larger equity buffers dominates; at high capital requirements, the destabilizing effect of market concentration dominates. The convexity of f *implies that the concentration channel accelerates as capital requirements increase beyond* $\hat{e}(b)$*.*

2. Branching reduces fragility:

$$f(e, 1) < f(e, 0) \qquad \forall e \in [0, \bar{e}].$$

Branching allows existing banks to diversify across markets and to expand into areas where other banks have failed, mitigating the concentration effect.

3. Feasibility: $\Phi(e, b; \phi) < 1$ *for all* $e \in [0, \bar{e}]$*,* $b \in \{0, 1\}$*, and* $\phi \in \{\phi_N, \phi_C\}$*.*

The non-monotonicity in Assumption 1 distinguishes this framework from a standard model in which capital unambiguously improves stability. When capital requirements are low, increasing them has the conventional stabilizing effect. But beyond $\hat{e}(b)$, further increases thin the market to the point where the banking system becomes fragile—not because individual banks are undercapitalized, but because too few banks operate to sustain services when any of them fail.

Banking access. Borrowers in region r receive value $A(D^r, m)$ from equilibrium credit provision, where A can be interpreted as borrower welfare or the net value of banking access. We assume:

Assumption 2 (Access technology)**.** $A(D, m)$ *is continuously differentiable and satisfies:*

$$\begin{aligned} A_D(D, m) &> 0, \\ A_m(D, m) &< 0, \\ A_{mm}(D, m) &< 0, \\ \Lambda(D, m) \equiv -\frac{A_m(D, m)}{D} &\text{ is increasing in } D. \end{aligned}$$

The last condition states that the per-unit welfare loss from a higher markup is larger when demand is higher. Intuitively, monopoly distortions are more costly in thick markets: when demand is high, a larger pool of potential borrowers is excluded by above-competitive pricing, so the welfare loss from a given markup scales with market size.

Regional heterogeneity. Regions differ along two dimensions: credit demand D^r and local ownership concentration θ_b^r. We assume that unit banking preserves local ownership rents relative to branching:

$$\theta_0^r \geq \theta_1^r \qquad \forall\, r.$$

That is, under unit banking, a weakly larger share of bank profits accrues to local residents. This reflects the historical pattern in which small-town banks were typically owned by local elites and merchants, while branching diluted local ownership (e.g., Calomiris, 2000).[13] Regions with high θ_b^r and low D^r correspond to rural areas in our empirical setting, while regions with low θ_b^r and high D^r correspond to urban areas. We formalize these parameterizations in the numerical illustration below.

5.2 Welfare

Welfare for residents in region r under policy (e, b) and macroeconomic state ϕ aggregates the value of access and locally valued profits, weighted by the probability that banking services survive:

$$W^r(e, b; \phi) = (1 - \Phi(e, b; \phi))\Big[A(D^r, m(e, b)) + \theta_b^r\, \pi^r(e, b)\Big]. \tag{1}$$

For notational convenience, define the *conditional-on-survival surplus*

$$S^r(e, b) \equiv A(D^r, m(e, b)) + \theta_b^r\, \pi^r(e, b).$$

Then $W^r(e, b; \phi) = (1 - \phi\, f(e, b))\, S^r(e, b)$.

The marginal effect of e on welfare, holding b fixed, is

$$\frac{\partial W^r}{\partial e}(e, b; \phi) = \underbrace{(1 - \phi\, f(e, b))\frac{\partial S^r}{\partial e}(e, b)}_{\text{access–rent trade-off}} + \underbrace{(-\phi\, f_e(e, b))S^r(e, b)}_{\text{fragility effect}}. \tag{2}$$

The first term captures the access–rent trade-off: higher e raises markups and locally captured profits but reduces access. The second term captures the fragility effect. When $e < \hat{e}(b)$, this term is positive: capital requirements stabilize the market. When $e > \hat{e}(b)$, this term is *negative*: further capital requirements concentrate the market and increase fragility. The magnitude of the fragility effect is proportional to ϕ, so it is muted in normal times and amplified during crises.

To see how the access–rent trade-off differs across regions, note that

$$\frac{\partial S^r}{\partial e}(e, b) = m_e(e, b)\Big[\theta_b^r D^r + A_m(D^r, m(e, b))\Big],$$

[13] Alternatively, we view these rents as reflecting the desire to "protect" the local community from external influences, which frequently were invoked to protect rural banks (Appendix C.1).

where the first term reflects the marginal gain from locally concentrated ownership rents and the second term reflects the marginal borrower-side loss from higher markups. Under Assumption 2, the borrower-side loss $-A_m(D, m)$ increases with demand, implying that the cost of raising capital requirements is larger in high-demand regions. At the same time, ownership rents are more salient in regions with concentrated ownership.

Branching: stability, access, and ownership components. Since b is discrete, compare welfare across regimes at fixed e and ϕ:

$$\Delta W^r(e;\phi) \equiv W^r(e,1;\phi) - W^r(e,0;\phi).$$

A useful decomposition is

$$\Delta W^r(e;\phi) = \Delta^{\text{stability},r}(e;\phi) + \Delta^{\text{access},r}(e;\phi) + \Delta^{\text{ownership},r}(e;\phi), \tag{3}$$

where, letting $S^r(e,b)$ denote conditional surplus,

$$\Delta^{\text{stability},r}(e;\phi) \equiv \phi\Big[f(e,0) - f(e,1)\Big]\, S^r(e,0), \tag{4}$$

$$\Delta^{\text{access},r}(e;\phi) \equiv (1-\phi\, f(e,1))\Big[A(D^r, m(e,1)) - A(D^r, m(e,0))\Big], \tag{5}$$

$$\Delta^{\text{ownership},r}(e;\phi) \equiv (1-\phi\, f(e,1))\Big[\theta_1^r \pi^r(e,1) - \theta_0^r \pi^r(e,0)\Big]. \tag{6}$$

The *stability* component captures the welfare gain from lower market fragility under branching, evaluated at the unit-banking surplus benchmark $S^r(e,0)$. The *access* component captures the borrower-side gain from lower markups under branching. The *ownership* component captures the change in locally valued bank profits, combining the compression of markups and the dilution of local ownership.

Lemma 1 (Monotonicity in baseline risk, access, and demand)**.** *Fix e and region r.*

1. *As baseline risk ϕ increases, the stability component $\Delta^{stability,r}(e;\phi)$ strictly increases. The access and ownership components are scaled by the survival probability $(1-\phi\, f(e,1))$, which is decreasing in ϕ.*

2. *For any two regions r and r' with $D^{r'} > D^r$, Assumption 2 implies that the access gain from branching is larger in the higher-demand region:*

$$A(D^{r'}, m(e,1)) - A(D^{r'}, m(e,0)) \;\geq\; A(D^r, m(e,1)) - A(D^r, m(e,0)).$$

Lemma 1 formalizes three forces. First, higher baseline risk increases the value of branching

through the stability channel because the gain from a lower market fragility is evaluated at the unit-banking surplus. Second, access gains from branching are larger in high-demand regions since the benefit of lower markups scales with credit demand. Third, higher ϕ discounts the ownership loss from branching, weakening opposition everywhere but most consequentially in regions where concentrated ownership had sustained opposition.

5.3 Period 1: Policy choice under uncertainty

In period 1, voters in region r choose (e, b) to maximize expected welfare:

$$V^r(e,b) = (1-p)\, W^r(e,b;\phi_N) + p\, W^r(e,b;\phi_C). \tag{7}$$

This simplifies to

$$V^r(e,b) = (1-\bar{\phi}\, f(e,b))\, S^r(e,b), \tag{8}$$

where $\bar{\phi} \equiv (1-p)\phi_N + p\,\phi_C$ is the expected level of macroeconomic fragility. The expected welfare has the same functional form as the single-period welfare function evaluated at $\bar{\phi}$. For small p, $\bar{\phi} \approx \phi_N$, and the period-1 problem closely approximates the case in which voters optimize for normal conditions.

Capital requirements in period 1. The first-order condition for e, holding b fixed, is

$$(1-\bar{\phi}\, f(e,b))\frac{\partial S^r}{\partial e}(e,b) \;=\; \bar{\phi}\, f_e(e,b)\, S^r(e,b). \tag{9}$$

The left-hand side captures the marginal surplus gain from higher capital requirements—dominated by rent extraction in high-θ regions. The right-hand side captures the marginal fragility cost. When $\bar{\phi}$ is small, the right-hand side is small regardless of the sign of f_e, so the optimal capital requirement is governed primarily by the surplus trade-off.

Critically, for regions in which $\partial S^r/\partial e > 0$ at $e = \hat{e}(b)$—that is, regions where the rent motive is still positive at the stability-optimal capital requirement—the optimum lies at $e^* > \hat{e}(b)$, on the upward-sloping portion of f. These regions rationally accept a more fragile banking market in exchange for higher ownership rents, a trade-off that is attractive when crises are perceived as unlikely.

5.4 Theoretical predictions

Proposition 1 (Non-crisis protectionism in high-ownership regions)**.** *For small p, if ownership rents dominate access costs and the fragility effect in region r, i.e.,*

$$\theta_b^r D^r + A_m(D^r, m(e,b)) > \frac{\bar{\phi}\, f_e(e,b)\, S^r(e,b)}{(1-\bar{\phi}\, f(e,b))\, m_e(e,b)} \qquad \text{at } e = \hat{e}(b),$$

then voters in region r choose $e_1^r > \hat{e}(b)$ and oppose branching. The period-1 regulatory regime concentrates the local banking market beyond the fragility-minimizing level.

This condition is more likely to hold in regions where ownership is concentrated (θ_b^r large) and credit demand is low (D^r small, which reduces $-A_m$ by Assumption 2). In the empirical setting, these correspond to rural regions. Conversely, in regions with high demand and diffuse ownership, the access gain from lower markups dominates, so voters favor lower entry barriers and support branching. These regions choose e_1^r near or below $\hat{e}(b)$, and their preferences are stable across economic states.

Proposition 2 (Endogenous crisis severity)**.** *Let regions r and r' satisfy the conditions of Proposition 1 and its converse, respectively, so that $e_1^r > \hat{e}(b)$ and $b_1^r = 0$, while $e_1^{r'} \leq \hat{e}(b)$ and $b_1^{r'} = 1$. When the crisis state ϕ_C is realized in period 2, the protectionist region experiences strictly higher banking market fragility:*

$$\Phi(e_1^r, 0; \phi_C) > \Phi(e_1^{r'}, 1; \phi_C).$$

That is, the probability of losing banking services is endogenously higher in regions whose period-1 policies concentrated the market and restricted geographic diversification.

This result follows directly from the structure of f. The protectionist region operates at $e > \hat{e}(0)$ on the upward-sloping portion of $f(\cdot, 0)$, where market concentration dominates the capital buffer effect, and under unit banking where $f(e,0) > f(e,1)$. The non-protectionist region operates near the fragility minimum under branching. The same macroeconomic shock ϕ_C therefore produces a more severe disruption in the protectionist region—not because its banks are individually unsound (they are in fact better capitalized), but because its market is too concentrated and too insulated to absorb the shock.

Proposition 2 provides the link between period-1 choices and period-2 outcomes that drives the demand for reform. The regulatory regime that maximized welfare in normal times endogenously amplifies the crisis, destroying both banking access and the ownership rents that had sustained political support for the regime.

Period 2: Reform. When ϕ_C is realized, voters in each region observe the consequences of their inherited regulatory regime and evaluate the welfare gain from reform. We now characterize the reform incentives for regions that chose protectionist policies in period 1.

Proposition 3 (Crisis-induced realignment toward branching)**.** *For any region r satisfying the protectionism condition of Proposition 1, there exists a threshold $\bar{\phi}^r \in (\phi_N, 1)$ such that, for all $\phi \geq \bar{\phi}^r$,*

$$W^r(e_1^r, 1; \phi) > W^r(e_1^r, 0; \phi),$$

that is, voters in region r prefer switching to branching at their inherited capital requirement e_1^r.

This result combines three forces from Lemma 1. As baseline fragility rises, branching delivers larger stability gains since $f(e, 0) > f(e, 1)$. The ownership loss from branching is increasingly discounted by the probability of market disruption. And because the protectionist region operates at $e > \hat{e}$, where market concentration is high, the stability gain from branching is particularly valuable: branching allows surviving banks to expand into markets where concentrated incumbents have failed, directly mitigating the fragility that high capital requirements created.

Proposition 4 (Capital requirements are not the reform margin)**.** *Fix a branching regime $b \in \{0, 1\}$. For any region r that chose $e_1^r > \hat{e}(b)$ in period 1, the marginal welfare effect of raising capital requirements further in the crisis state is:*

$$\frac{\partial W^r}{\partial e}\left(e_1^r, b; \phi_C\right) \; < \; 0.$$

That is, at the inherited capital requirement, higher capital requirements strictly reduce welfare during a crisis.

This result is immediate from Equation (2). At $e > hate(b)$, the fragility effect $(-\phi_C f_e)\, S^r$ is negative because $f_e > 0$, meaning that capital requirements are destabilizing at the margin. Simultaneously, in high-ownership regions the access–rent trade-off term may remain positive, but under high ϕ_C it is scaled by the low survival probability $(1 - \phi_C f)$. The destabilizing fragility effect dominates.

This is a stronger result than in a model where capital requirements always stabilize: there, the case against higher e in a crisis rests on diminishing marginal returns and the opportunity cost of restricted access. Here, higher capital requirements are actively counterproductive—they increase the probability of banking market disruption. As a result, neither raising nor maintaining high capital requirements is attractive during a crisis for regions that entered with $e > \hat{e}$. The natural reform margin is branching, which reduces fragility and improves access without the destabilizing concentration effect.

Capital policy when access costs are not internalized. Propositions 1–4 are derived under complete information in which voters fully understand that capital requirements affect both financial stability and competition. We now consider what happens when voters internalize capital's stabilizing role but underweight its effect on market concentration and credit access—that is, they recognize that well-capitalized banks are safer, but do not fully account for the entry-deterring and market-concentrating costs of high capital requirements.

The complete-information assumption is a conservative modeling choice because a crisis would generate a sharper reversal under imperfect information: beyond the collapse of ownership rents that drives realignment in our benchmark, voters who had previously accepted high barriers on stability grounds now directly observe that those barriers produced a concentrated market that failed to provide banking services when it mattered most.

Formally, suppose period-1 voters evaluate capital requirements using a perceived welfare function that captures stability and ownership rents but omits the borrower-side access value:

$$\widetilde{W}^r(e, b; \phi) \;=\; (1 - \phi\, f(e, b))\, \theta_b^r\, \pi^r(e, b).$$

The marginal perceived benefit of capital requirements is then

$$\frac{\partial \widetilde{W}^r}{\partial e}(e, b; \phi) \;=\; (1 - \phi\, f(e, b))\, \theta_b^r\, \frac{\partial \pi^r}{\partial e}(e, b) \;+\; (-\phi\, f_e(e, b))\, \theta_b^r\, \pi^r(e, b).$$

Since $\frac{\partial \pi^r}{\partial e} = m_e(e, b)\, D^r > 0$, the first term is always positive. The second term is positive when $e < \hat{e}(b)$ (capital stabilizes) and negative when $e > \hat{e}(b)$ (capital concentrates). Even under perceived welfare, voters would not raise e without bound—the fragility cost eventually dominates even for bank owners. But the perceived optimum $\tilde{e}^r$ exceeds the full-information optimum e^{*r} because omitting borrower-side access costs removes a force that would otherwise push toward lower entry barriers.

This bias is strongest in high-ownership, low-demand regions and in normal times—precisely the conditions under which Proposition 1 predicts protectionist entry regulation. In these regions, low demand D^r means the access cost of high markups is small even under full information, so the distortion from ignoring it may be modest in absolute terms. However, it is sufficient to sustain higher capital requirements than full-information voters would choose, potentially pushing these regions further past $\hat{e}(b)$ and into more concentrated—and more fragile—market structures.

A crisis disrupts this equilibrium by making access costs directly observable. When banks fail and are not replaced because entry barriers are prohibitively high, the previously invisible cost of market concentration becomes apparent. In terms of the model, a crisis effectively shifts voters from evaluating $\widetilde{W}^r$ toward evaluating W^r, generating a sharper and more abrupt preference reversal

than the smooth transition in the complete-information benchmark. The complete-information model therefore provides a lower bound on the magnitude of crisis-induced realignment.

Mapping to empirics. Taken together, Propositions 1–4 characterize a self-reinforcing cycle: high-ownership, low-demand regions adopt protectionist policies that concentrate the banking market (Proposition 1), this concentration amplifies the disruption when a crisis arrives (Proposition 2), the resulting collapse of rents and access drives a preference reversal toward branching (Proposition 3), and capital requirements are not the reform margin because they are destabilizing at the inherited level (Proposition 4).

High-demand, low-ownership regions, by contrast, choose policies near the fragility minimum with branching, experience milder disruption in crisis, and maintain stable policy preferences throughout.

These predictions map directly to the empirical patterns documented in Section 4.3, where high-ownership, low-demand regions correspond to rural areas and high-demand, low-ownership regions correspond to urban areas.

5.5 Numerical illustration

To build intuition for these theoretical results, we present numerical examples parameterized to match key features of the 1920s–1930s banking environment. We consider two representative region types that correspond to the empirical setting: a *rural* region with high ownership concentration and low credit demand (θ_b^R high, D^R low), and an *urban* region with diffuse ownership and high credit demand (θ_b^U low, D^U high). For simplicity we set p to be small. For the two macroeconomic states, we use a pre-crisis normal state with $\phi_N = 0.05$ and a crisis state with $\phi_C = 0.35$ to capture the peak crisis intensity during 1930–1933, when roughly one-third of banks failed (Wheelock, 1992). Appendix A.2 provides a detailed outline of all of the other parameter values.

Figure 5 illustrates the propositions by displaying welfare under unit banking (solid blue line) versus branching (dashed red line) as functions of the capital requirement for both region types across both normal (low ϕ) and crisis (high ϕ) states of the world. Each panel marks the policy that maximizes welfare as defined in Equation (1) with a dot and indicates which regime is preferred.

Proposition 1: Non-crisis protectionism in high-ownership regions. Under the rural parameterization, voters favor high capital requirements e in order to limit competition and increase markups. The welfare function is upward sloping in e over a wide range because the rent motive dominates the access cost and the fragility effect is weak when ϕ is small. The optimal e lies above $\hat{e}(0)$—past the fragility minimum—reflecting the willingness to accept a more concentrated (and fragile) market in exchange for higher rents. For most values of capital requirements, these voters

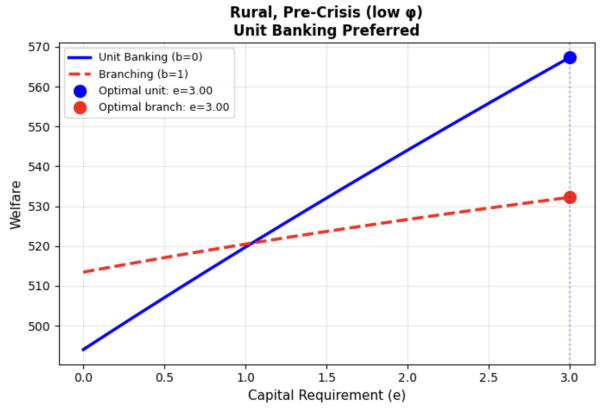
prefer unit banking, with the preference growing with capital requirements as the monopoly profit motive dominates.

Figures 5b and 5d also illustrate preferences under the urban parameterization. For these voters, ownership is diffuse (θ^U small), so the ownership loss is minimal, and they have high demand for credit (D^U large).

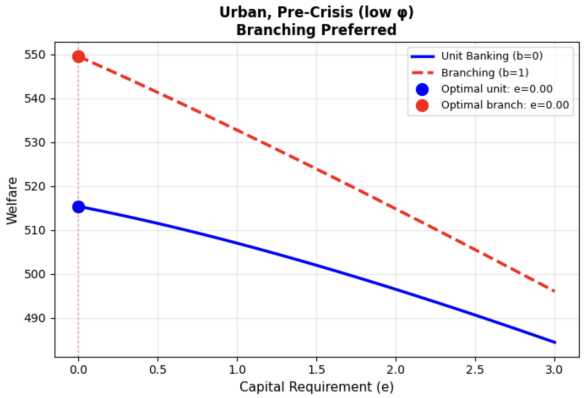
Figure 5b shows that urban voters prioritize the competition gain from lower markups relative to the profit motive and so welfare is declining in capital requirements. The competition also leads them to prefer branching as the method for lowering bank failure risk. Their optimal e is near $\hat{e}(1)$, close to the fragility minimum under branching.

Figure 5: Optimal policy choices

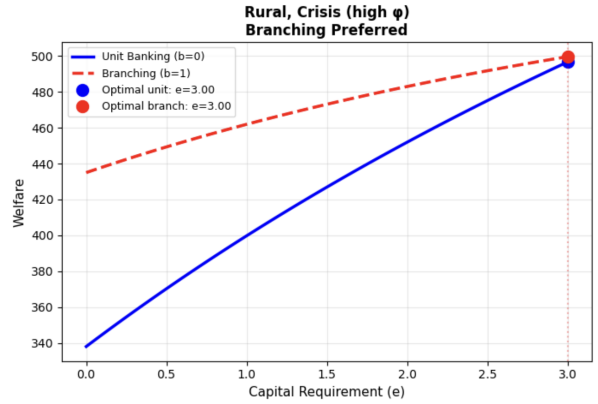
(a) Rural: Non-Crisis



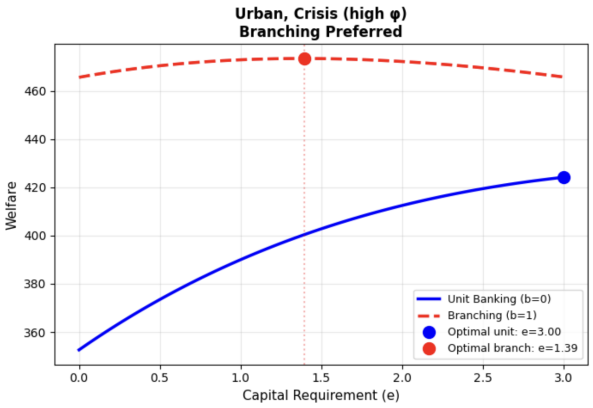
(b) Urban: Non-Crisis



(c) Rural: Crisis



(d) Urban: Crisis



Notes: Each panel plots welfare as a function of the capital requirement e for unit banking (solid blue line, $b = 0$) and branching (dashed red line, $b = 1$). Panels (a) and (b) show normal times with baseline failure risk $\phi_N = 0.05$, while panels (c) and (d) show crisis periods with $\phi_C = 0.35$. Panels (a) and (c) correspond to the rural parameterization with high ownership concentration and low credit demand. Panels (b) and (d) correspond to the urban parameterization with diffuse ownership and high credit demand. Dots indicate the optimal policy choice that maximizes welfare for each region-regime combination. The fragility-minimizing capital requirement $\hat{e}(b)$ is marked with a vertical line in each panel. See Appendix A.2 for full parameterization details.

Proposition 2: Endogenous crisis severity. A key feature of the numerical illustration is the difference in realized fragility across regions when the crisis state is evaluated at inherited period-1 policies. The rural region, having chosen $e > \hat{e}(0)$ and $b = 0$, operates on the upward-sloping portion of $f(\cdot, 0)$. When ϕ_C arrives, its banking market failure probability $\phi_C \cdot f(e_1^R, 0)$ is substantially higher than the urban region's $\phi_C \cdot f(e_1^U, 1)$. The rural region's crisis is worse not because the macroeconomic shock was larger, but because its prior policies produced a concentrated, undiversified banking market.

Proposition 3: Crisis-induced realignment. During the crisis state, the stability component $\Delta^{\text{stability}}$ becomes large and positive. For high-ownership regions, the ownership benefit of unit banking evaporates as failure risk rises: there are no profits to preserve if banks fail. Simultaneously, the stability benefit of branching increases dramatically, as does the value of credit access (which branching better ensures). These voters now prefer branching ($b = 1$) despite the ownership dilution.

For high-demand, low-ownership regions, credit access remains the dominant concern, and the increased stability benefit of branching reinforces their existing preference for liberalization.

The crisis affects the two types of regions asymmetrically. In high-ownership regions, banking market disruption eliminates ownership rents altogether, generating a discrete switch in the preferred branching regime. In high-demand regions, the crisis amplifies the stability channel without reversing their existing preference for branching.

Proposition 4: Branching as the reform margin. While crises increase the value of financial stability, Proposition 4 shows that capital requirements are not the reform margin. At the inherited $e_1^r > \hat{e}(b)$, further increases in capital requirements are destabilizing: they increase market concentration without a compensating stability gain. Even reducing e back toward $\hat{e}$ provides only modest stability improvements compared to branching, which reduces f across the entire range of e.

This implication contrasts sharply with a policy view in which capital requirements are understood only to restrict credit access, not to promote stability. Under such a perspective, the natural response to a crisis would be to relax or lower capital requirements in order to restore lending. The model shows that this gets the mechanism wrong: the problem with high capital requirements in a crisis is not that they restrict access per se, but that they have concentrated the market to the point of fragility. Branching addresses both concentration and access simultaneously, making it the dominant reform margin.

5.6 Discussion and empirical implications

The model generates several testable predictions that we examine in the empirical analysis. In the data, regions with high ownership concentration and low credit demand correspond to rural areas, while those with diffuse ownership and high demand correspond to urban areas:

- Capital requirements should rise in high-ownership, low-demand (rural) areas during the 1920s as these constituencies seek to protect local monopolies when failure risk is low. These same policies concentrate the banking market beyond the stability-optimal level (Proposition 1).
- Counties exposed to higher pre-crisis capital requirements should experience more severe banking distress during the Great Depression, as their concentrated markets are more vulnerable to disruption (Proposition 2).
- Counties with greater banking distress should be more likely to support branching in the 1930s (Proposition 3), as the rents that sustained opposition to branching have been destroyed.
- Despite heightened fragility in the 1930s, capital requirements should not be the primary reform margin. States should instead turn to branching liberalization to restore banking access (Proposition 4).

The two-period structure abstracts from the option value of waiting out a transient shock. In a richer dynamic setting, forward-looking voters might delay reform if they expected macroeconomic conditions to revert quickly, preserving the rent-generating regime for the future. However, this logic requires that the banking market itself recovers when the shock passes—and recovery is endogenous to the regulatory regime. Under high capital requirements and unit banking, the same entry barriers that concentrated the market in normal times now prevent the replacement of failed banks. Even after macroeconomic fragility subsides, the banking market remains disrupted because new entry is prohibitively costly and existing banks cannot branch into underserved areas. The effective crisis therefore persists beyond the macroeconomic shock, eliminating the option value of waiting. In a dynamic extension (Appendix A.3), we show that this endogenous persistence strengthens rather than weakens the demand for reform: the protectionist regime not only amplifies the initial crisis but also prevents recovery, making branching deregulation the only path to restoring banking services regardless of when macroeconomic conditions improve. The depth and duration of the Great Depression—in which over a third of banks failed across several years—is consistent with this mechanism.

The model abstracts from several institutional details for tractability. We do not explicitly model the political process by which constituencies with different (θ, D) characteristics aggregate

preferences, instead assuming a representative voter whose characteristics vary by region.[14] We also treat the two policy instruments as chosen simultaneously in period 1, while in practice capital requirements and branching laws could be decided in separate legislative sessions. The prior p is taken as common and exogenous; in practice, regions with different exposure to agricultural or financial risk may have differed in their assessment of crisis probability, though our empirical results suggest that pre-crisis policy was driven primarily by the ownership–access trade-off rather than by differential crisis expectations. Finally, our complete-information benchmark abstracts from the possibility that incumbents strategically frame regulation to obscure the tension between its prudential and protectionist functions, a channel that the historical evidence in Section 2 suggests was relevant, and that would amplify the mechanisms we formalize. Despite these simplifications, the model captures the key trade-off driving regulatory change: the tension between preserving local ownership rents and ensuring credit access, how this trade-off shapes the structure of the banking market, and how a crisis can turn the resulting market concentration against the very constituencies that chose it.

6 Empirical Evidence

This section tests the model's predictions about how the distribution of rents shapes regulatory choices across macroeconomic states outlined in Section 5. The model yields sharp predictions about when and where voters favor higher entry barriers, and about how ~~rising bank failure rates~~ declining bank access induces a realignment away from restrictive regimes.

[SQ: New paragraph to describe estimation intuition] The

We proceed in five steps. First, we document how rural coalition strength predicts increases in capital requirements during the 1920s but not thereafter, using state- and county-level regulatory outcomes as revealed-preference evidence. Second, we show that these capital requirements materially constrained bank entry and exacerbated banking access during the Great Depression. Third, we supplement this legislative evidence with direct measures of voter preferences from statewide referenda held in Illinois on individual banking laws. These voting data provide a direct test of the mechanism by linking within-referendum variation in exposure to entry barriers to voting behavior, holding fixed statewide political conditions. We measure whether counties that stood to lose most from higher entry barriers actively supported them in normal times, and withdrew that support once banking distress made access paramount. Fourth, we provide evidence that the constituencies voting for higher barriers in the 1920s realigned to support bank entry via branching in the 1930s,

[14] The importance of less-populous areas, however, is consistent with bicameral legislatures (e.g. an upper and lower chamber as in Congress). All US states in our period of study were bicameral, as Nebraska did not become a unicameral legislature until 1937.

and finally, we show that these regulatory changes indeed improved banking access.

6.1 Normal-times protectionism: Capital requirements and rural coalitions

We begin by testing the model's first prediction that in normal times, rural coalitions favor restrictive bank entry in order to preserve local ownership rents. Capital requirements provide a natural revealed-preference measure of this behavior: by raising the price of entry, these regulations directly limit competition. Using state- and county-level measures of capital requirement changes, we examine whether rural population shares and related indicators of local ownership concentration predict increases or decreases in entry barriers during the 1920s non-crisis period.

We estimate the following difference-in-differences specification:

$$\mathbb{I}\{\text{Capital Law}_{g,t}\} = \alpha_g + \alpha_t + \beta(\text{RuralPopShare}_g \times \mathbb{I}\{\text{Non-Crisis}_t\}) + \Gamma' X_{g,t} + \varepsilon_{g,t} \tag{10}$$

where g indexes geographical units (states s or counties c) and t indexes periods. The dependent variable $\mathbb{I}\{\text{Capital Law}_{g,t}\}$ is an indicator equal to one if a law is introduced that changes capital requirements in period t. The indicator variable $\mathbb{I}\{\text{Non-Crisis}_t\}$ is 1 for the two time periods in the 1920s to reflect the legal environment outside of the Great Depression.

At the state level, we use the provisions of the legislation itself to indicate whether capital thresholds or amounts increased or decreased for anywhere in the state. At the county level, statutory capital schedules bind through within-county town-level population thresholds, so the same state-level law change implies different changes in effective entry costs across counties with different city size distributions. To reflect the effective regulatory change, we map town-level populations to counties and compute the implied change in the county's median statutory capital requirement under the relevant capital schedule (Figure 4b). We measure these changes using indicators for whether the county's median implied capital requirement increases or decreases in period t, denoted $\mathbb{I}\{\text{Increase}_{g,t}\}$ and $\mathbb{I}\{\text{Decrease}_{g,t}\}$, respectively. The specification includes geographical unit fixed effects α_g and time (era) fixed effects α_t, the former of which absorb location-specific unobservables such as voter sophistication, and the latter of which address any aggregate changes in policy preferences from period to period. The vector $X_{g,t}$ includes additional county-level controls. These controls are taken from the closest preceding census and then are converted into standard deviations for comparability over time and geographic level. We cluster standard errors at the level of g.

We treat capital requirement increases and decreases as distinct policy actions rather than collapsing them into a single signed measure. A signed specification would implicitly impose symmetry—i.e., that a loosening of entry barriers is the mirror image of a tightening of the same magnitude. Neither the model nor the institutional setting suggests this restriction is appropriate.

Politically, increases in capital requirements are the relevant protectionist instrument in Proposition 1, whereas decreases reflect a different coalition and objective and may occur under different macrofinancial conditions. Economically, tightening and loosening need not have symmetric effects. Separating increases and decreases therefore allows for asymmetric responses across regimes and yields coefficients with a direct interpretation: differential propensity to tighten (or loosen) entry pricing during the boom relative to other periods. The coefficient of interest is β, which measures whether geographic units with greater rural exposure were more likely to introduce legislation increasing or decreasing capital requirements during the 1920s, relative to other periods.

Table 1 presents the results. Panel A estimates Equation (10) at the state level, where $g = s$ and rural exposure is measured using each state's population share living in rural areas.[15] Panel B estimates the same specification at the county level, where $g = c$ and rural exposure is measured using county-level rural population shares.

We report results at both levels because political influence in state legislatures is not determined solely by population shares, but also by the number and distribution of geographically distinct constituencies. While banking laws are enacted at the state level, legislative coalitions are formed through representation approportioned by counties.[16] The county-level specification therefore captures how the rural constituencies' presence and preferences maps into locally binding regulatory outcomes, complementing the state-level specification that reflects overall population weights.

Columns 1 – 3 shows that regions with larger rural population shares were significantly more likely to raise capital requirements during the 1920s while columns 4–6 show that these places were significantly less likely to reduce them. These effects are economically significant: at the county-level, a one standard deviation increase in rural population share is associated with a 8.9 percentage point increase (approximately 40% of the baseline mean) in the probability of raising capital requirements during the 1920s boom. These effects are robust to additional control variables including the population overall, farm sizes, and other observable characteristics.

In Appendix Table B.4, we replicate these results using alternative proxies for local banking concentration: (i) the share of counties in a state served by a single bank and (ii) an indicator for whether a county is served by a single bank. In both cases, the interaction with the 1920s boom continues to predict capital requirement increases (and to reduce the likelihood of decreases) in a manner similar to Table 1. Appendix Table B.5 instead controls for alternative local-level political, economic, and banking policies like the World War I crop boom, presidential election vote shares, and state deposit insurance and finds the results are unchanged.

Overall, consistent with Proposition 1, we find that rural coalition strength strongly predicts

[15] We use the census definition of town populations under 2,500 and convert the population shares to a census- and geographic level-specific standard deviation to make the estimates comparable.

[16] In this time period, all state legislatures had an upper house which gave counties equal representation.

higher capital requirements in the 1920s boom, but not in other periods, indicating that support for restrictive entry pricing was specific to normal economic conditions.

Table 1: Rural constituency and capital requirements

	𝕀(Increase)			𝕀(Decrease)		
	(1)	(2)	(3)	(4)	(5)	(6)
A: State-Level						
$\beta_{\text{Non-Crisis}} \times$ Rural	7.84*	9.89*	8.21	-5.91***	-4.73**	-8.12**
	(4.50)	(5.06)	(5.98)	(2.14)	(2.18)	(3.43)
Dep Var Mean	18.30	18.30	18.30	7.23	7.23	7.23
N	235	235	235	235	235	235
B: County-Level						
$\beta_{\text{Non-Crisis}} \times$ Rural	9.44***	8.92***	8.74***	-7.72***	-6.29***	-6.22***
	(0.92)	(0.92)	(0.92)	(0.91)	(0.89)	(0.89)
Dep Var Mean	23.32	23.32	23.32	9.20	9.20	9.20
Geographic Unit FE	Y	Y	Y	Y	Y	Y
Era FE	Y	Y	Y	Y	Y	Y
Population		Y	Y		Y	Y
Farm Controls			Y			Y
N	15,170	15,170	15,170	15,170	15,170	15,170

Notes: The outcome is an indicator (scaled by 100) for passing a law that increases or decreases capital requirements in a geographic unit in a pooled regression including geographic unit and era fixed effects. The non-crisis period refers to the 1920–1923 or 1924–1928 time periods only. Rural population share is from the closest preceding census and is expressed in standard deviations. Farm controls include log average farm value, the share of farms under 100 acres, and the farmland Gini coefficient, all reflecting the closest preceding census and measured as standard deviations. Standard errors clustered by state (Panel A) or county (Panel B) in parentheses. See Section 3.1 and 3.3 for more detail on law and economic data sources, respectively. Sources: State session laws, Haines (2010), Ruggles et al. (2021), Federal Deposit Insurance Corporation (1992), Bleemer and Quincy (2026), and authors' calculations.

6.2 When protection backfires: Capital requirements and banking access during the Great Depression

We next show that the entry regime supported in normal times became politically unsustainable once widespread bank failures occurred. While higher capital requirements deter entry in booms, they also raise the cost of replacing failed banks during crises. Using county-level banking outcomes, we examine how pre-crisis changes in capital requirements affected the evolution of local banking markets during the Great Depression.

We estimate the following specification at the county–period level:

$$\Delta Y_{c,t} = \alpha_c + \alpha_t + \beta_N \, T_{c,t-1} \times \mathbb{I}\{\text{Non-Crisis}_t\} + \beta_C \, T_{c,t-1} \times \mathbb{I}\{\text{Crisis}_t\} + \varepsilon_{c,t}, \tag{11}$$

where $\Delta Y_{c,t}$ is a county-level change in a banking outcome (e.g., an indicator for whether the number of banks decreases, or the percentage change in the number of banks). The treatment variable $T_{c,t-1}$ captures the county-specific change in statutory capital requirements implied by

state policy changes between $t-1$ and t where t is any of our eras. We operationalize $T_{c,t-1}$ as either the actual growth rate over the prior period in median capital costs or an indicator for whether the county's median implied capital requirement increased in the prior period. We estimate regime-specific effects of a capital requirement increase by interacting treatment with indicators for non-crisis (β_N) and crisis (β_C) periods. Because the banking data end in 1936 and the legal data begin in 1920, we compare the 1924–1928 non-crisis period to the 1929–1932 and 1933–1936 eras of financial crisis and immediate legislative response. Throughout, standard errors are clustered by county.

Figure 6 plots the effects comparing the impact of capital requirement increases during non-crisis (blue) relative to crisis (orange) periods. The two outcomes on banking are expressed on a common "lower banking access" scale. We plot the probability that the number of banks decreases and the negative of the percentage change in the number of banks, so that higher values in both panels correspond to greater contraction in local banking markets. Coefficients marked in solid colors are the baseline effects while those without filling are estimates after adding controls.

The effects of capital regulations during non-crisis periods are small and close to zero for both outcomes, while crisis-period effects are positive and economically meaningful, indicating larger banking contractions. The consistency of this pattern across outcome measures visually reinforces the central result that capital requirements that appear relatively benign in normal times substantially impede the replacement of failed banks during crises.

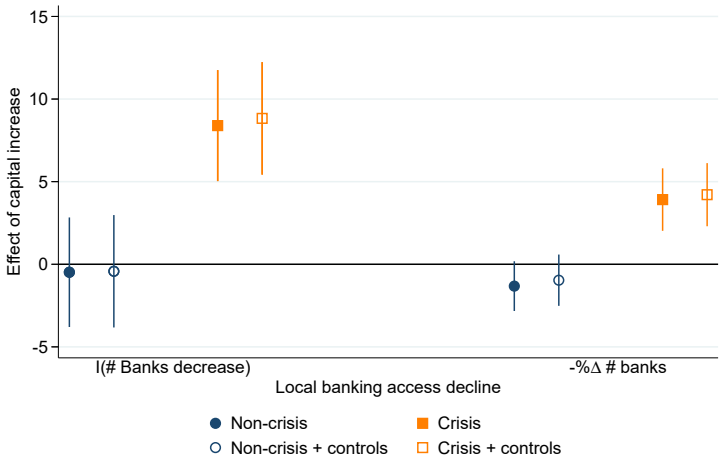
Appendix Figure B.8 reports corresponding effects on bank entry while Appendix Figures B.9 and B.10 replicate this visualization for continuous policy-implied changes in capital costs and capital requirement decreases, respectively.

6.3 Voter realignment: Direct evidence from Illinois banking referenda

The preceding analyses rely on revealed preferences inferred from legislative outcomes. We now turn to direct evidence on voter preferences using a unique institutional feature of Illinois banking law. Until 1940, all changes to state banking statutes—including capital requirements—had to be approved by statewide referendum. These electoral outcomes allow us to observe directly whether voters supported or opposed changes in bank entry barriers in their own local markets, abstracting from legislative bargaining and lobbying. We directly measure county-level variation in exposure to proposed capital requirement changes and test whether voters who stood to face higher entry costs supported such policies in normal times, and whether that support reversed after the onset of the Great Depression.

Empirically, we construct a county-specific measure of exposure to each referendum proposal. For each election e, we compute the change in minimum bank capital per capita that would result

Figure 6: County banking markets after capital requirement increases



Notes: The outcome is either an indicator for a net decline in the number of banks or the percent decline in number of banks during the time period. The treatment is an indicator (multiplied by 100) for increasing median capital requirements in that county during prior period. Additional controls include log population, log average farm value, the share of farms under 100 acres, and farmland Gini coefficient, all from the closest preceding census and converted to standard deviations. County and time period fixed effects not shown. Standard errors clustered at county level. See Section 3.3 for more detail on banking data and Section 3.1 on capital requirements. Sources: State session laws, Haines (2010), Federal Deposit Insurance Corporation (1992), Ruggles et al. (2021), Bleemer and Quincy (2026), and authors' calculations.

from the proposed law relative to the existing statute. Because capital requirements are specified as step functions of city population from the closest preceding census, exposure varies across locations: a proposal that raises the minimum capital for cities under 1,500 people affects small communities but leaves larger ones unchanged. For each incorporated place, we assign the applicable minimum capital under both the existing and proposed statutes. We then aggregate to the county level by taking the median across incorporated places for the actual and proposed capital requirements and then take the percent change, yielding a county-level exposure measure $X_{c,e}$. For example, the 1924 referendum proposed raising capital requirements to \$25,000 for all cities under 1,500 people (up from \$10,000 for under 500 and \$15,000 for 500–1,500) while leaving requirements for larger cities unchanged. Using 1920 census populations, this generates cross-county variation in the per-capita cost increase implied by the proposal.

We measure the county-level support for these statutory changes in two ways. The first is the county-level vote share in support of the proposal, and the second is an indicator variable for whether the proposal passed. We code the outcome $Support_{c,e}$ so that higher values always indicate support for *higher* entry barriers (i.e., voting "Yes" on proposals that raise capital requirements and voting "No" on proposals that lower capital requirements). We present the indicator version

for simplicity but provide the continuous version in Table B.7.[17] We then estimate the following:

$$Support_{c,e} = \alpha_c + \alpha_e + \beta_{\text{Non-crisis}}(X_{c,e} \times \mathbb{I}\{\text{Non-crisis}_e\}) + \beta_{\text{Crisis}}(X_{c,e} \times \mathbb{I}\{\text{Crisis}_e\}) + \Gamma' Z_{c,e} + \varepsilon_{c,e}, \quad (12)$$

where α_c are county fixed effects and α_e are election (referendum) fixed effects. The indicators $\mathbb{I}\{\text{Non-crisis}_e\}$ and $\mathbb{I}\{\text{Crisis}_e\}$ classify referenda into the pre-Great Depression "non-crisis" period (1920 and 1924) and the crisis period associated with the Great Depression and its aftermath (1930 and 1940). The vector $Z_{c,e}$ optionally includes time-varying county controls (e.g., population and voter turnout). Standard errors are clustered at the county level.

Because the specification includes both county fixed effects and referendum fixed effects, the coefficients on the interacted terms are interpreted relative to counties with lower exposure within the same referendum. In particular, the omitted category consists of counties at the baseline level of $X_{c,r}$, pooling across all referenda. The coefficient $\beta_{\text{Non-crisis}}$ therefore captures how voting varies with local exposure during normal times (again defined as the 1920s), while β_{Crisis} captures the analogous relationship during a financial crisis, both relative to other counties participating in the same referendum. The difference between these coefficients then isolates whether the association between local exposure and voting behavior shifts systematically across macroeconomic regimes.

Table 2 reports the results. In Columns 1–3, consistent with the model, we find that counties more exposed to higher entry costs were more supportive of restrictive entry pricing during the non-crisis period, but that this relationship reverses during the financial crisis: the same counties withdraw support for higher entry barriers once banking distress makes access paramount.[18] These voting results provide a clean and direct test of crisis-induced political realignment.

Salience of local banking distress. A further implication of the model is that crisis-induced realignment should be strongest where the costs of restricted entry are largest. We test this prediction by using within-referendum variation across counties. Specifically, we augment equation (12) by interacting county exposure to higher entry costs with an indicator for whether the county experienced a bank suspension in the year preceding the referendum.[19]

Let $\mathbb{I}\{\text{Suspend}_{c,e-1}\}$ denote an indicator equal to one if county c experienced at least one bank

[17] Since the referenda were over capital requirements that monotonically shifted capital requirements in different directions, this transformation allows us to compare all referenda together. Our results are similar when we examine each referendum separately (Table B.7)

[18] Figure 1 shows that the changes in capital requirements all affected the same segment of the city population distribution, so we interpret voting shifts as deriving from the same communities preferences over a $1 increase in capital costs.

[19] We define banking disruptions as whether any bank was suspended in the calendar year following the data definitions in Federal Deposit Insurance Corporation (1992), which elides the distinction between failures and re-openings.

suspension in the year prior to referendum e. We estimate:

$$\begin{aligned} Support_{c,e} = \alpha_c + \alpha_e + \delta(X_{c,e} \times \mathbb{I}\{\text{Crisis}_e\} \times \mathbb{I}\{\text{Suspend}_{c,e-1}\}) \\ + \beta_{\text{Non-Crisis}}(X_{c,e} \times \mathbb{I}\{\text{Non-crisis}_e\}) + \beta_{\text{Crisis}}(X_{c,e} \times \mathbb{I}\{\text{Crisis}_e\}) \\ + \phi(\mathbb{I}\{\text{Crisis}_e\} \times \mathbb{I}\{\text{Suspend}_{c,e-1}\}) + \kappa(X_{c,e} \times \mathbb{I}\{\text{Suspend}_{c,e-1}\}) + \psi\,\mathbb{I}\{\text{Suspend}_{c,e-1}\} + \varepsilon_{c,e}. \end{aligned} \tag{13}$$

where county and referendum fixed effects are included as before. The coefficient of interest is δ on the triple interaction, which captures whether the effect of exposure to higher entry costs during the crisis differs in counties that suspended banks within past year of the general election. Equation (13) includes all lower-order terms implied by the triple interaction. With county and referendum fixed effects, the main effect of the crisis indicator is absorbed, but $\mathbb{I}(\text{Suspend}_{c,e-1})$ and $\mathbb{I}(\text{Crisis}_r) \times \mathbb{I}(\text{Suspend}_{c,e-1})$ remain identified given that bank suspensions occur in crisis (1930) and non-crisis (1924) referenda. Including the interaction between exposure and recent suspensions ensures that the triple interaction isolates the additional amplification of voting responses to exposure during crisis periods in suspension counties, net of any baseline differences in sensitivity associated with suspensions. Standard errors are clustered at the county level.

Consistent with the model, we find that the negative relationship between exposure to higher capital requirements and voter support for restrictive entry pricing during the crisis is substantially stronger in counties with banking sector disruptions. In these counties, voters are predisposed to oppose higher entry barriers, likely reflecting the heightened salience of banking services.[20]

Importantly, this heterogeneity sharpens the interpretation of the baseline realignment result. The reversal in voting behavior during the crisis is concentrated in locations where the consequences of restricted entry are directly experienced immediately before a regularly scheduled election, which suggests salience, not voter sophistication, drive changes in legislative preferences. This pattern reinforces the interpretation that voters update their preferences in response to observed disruptions to the normal-times regulatory regime.

6.4 Crisis response and policy alternatives: The branching entry margin

We next examine how states responded once capital requirements adopted in normal times were revealed to impede banking access during the crisis. While voter preferences shifted away from restrictive entry pricing (Section 6.3), policymakers still needed to restore banking access while maintaining prudential standards.[21] Branching deregulation provides a natural alternative margin:

[20] The lower-order terms implied by the triple interaction are omitted from the table for brevity.

[21] Unlike earlier financial crises, regulators strongly preferred not to lower capital requirements in the 1930s, perhaps because deposit insurance required more incentive compatibility for bank management (Chapman, 1934).

Table 2: Illinois referenda on bank capital increases

	𝕀(County passes capital increase)				
	(1)	(2)	(3)	(4)	(5)
$\beta_{\text{Non-Crisis}} \times$ %ΔCapital	75.44**	78.18**	75.26**	12.30	13.35
	(32.21)	(32.34)	(33.37)	(60.12)	(61.14)
$\beta_{\text{Crisis}} \times$ %ΔCapital	-31.45	-28.88	-25.45	36.80	39.58
	(21.05)	(21.73)	(15.42)	(31.22)	(34.28)
$\beta_{\text{Crisis}\times\mathbb{I}(\text{Suspend})} \times$ %ΔCapital				-233.55*	-239.28*
				(138.84)	(142.93)
Dep Var Mean	30.15	30.15	25.82	56.86	56.86
$\beta_{\text{Non-Crisis}} = \beta_{\text{Crisis}}$ P-value	0.00	0.00	0.02		
County FE	Y	Y	Y	Y	Y
Referendum FE	Y	Y	Y	Y	Y
Time-varying controls		Y	Y		Y
Political controls			Y		
N	408	408	306	204	204

Notes: The outcome is an indicator that a majority of votes in a county favored increasing the state's capital requirements, scaled by 100. The explanatory variable is split into two mutually exclusive treatments, those in the Great Depression or after (1930 and 1940) versus those outside the crisis (1920 and 1924). The explanatory variable is the implied growth in bank capital per capita if the measure passed. Controls include log population, log rural population share, farmland Gini coefficient, and log voter turnout, all standardized in each election. Political controls additionally control for the presidential vote share for Democrats and Republicans, also as standard deviations, which omits 1930 in Column 3. Bank suspension data only available for the prior year for 1924 and 1930 and hence reduce the number of observations in Columns 4 and 5. Capital cost, voting, and bank data described in Sections 3.1, 3.2 and 3.3, respectively. Sources: Illinois Blue Books, Haines (2010), Ruggles et al. (2021), Bleemer and Quincy (2026), and authors' calculations.

it allows existing banks to expand geographically and replace failed institutions without lowering capital requirements for new entry.

We show that branching deregulation during the 1930s is systematically associated with indicators of impaired banking access. Moreover, the relationship between capital requirements and branching reverses over time: while the two instruments act as substitutes in the 1920s, they become complements in the 1930s, as states layer branching permissions on top of persistently high capital barriers. This pattern highlights branching as a crisis-specific policy addition, consistent with Propositions 3 and 4.

To study this expansion of the policy space, we estimate the following pooled panel specification:

$$Branching_{c,t} = \alpha_c + \alpha_t + \beta \text{Barriers}_{c,t} \times \mathbb{I}\{\text{Non-crisis}_t\} + \gamma \text{Barriers}_{c,t} \times \mathbb{I}\{\text{Crisis}_t\} + \varepsilon_{c,t}, \quad (14)$$

where c indexes counties and t indexes eras. The dependent variable $Branching_{c,t}$ is either the share of the county's population now legally able to have branching in t but not $t-1$ or an indicator for whether branching became legal in county c during era t. The variable "$\text{Barriers}_{c,t}$" measures the costs of bank entry at the start of each time period prior to any branching changes adopted during the era. We use two primary proxies: the first is an indicator for the county having zero banks, and the second is the level of policy-implied bank capital requirements per capita. As

before, the indicator $\mathbb{I}\{\text{Non-crisis}_t\}$ is one for the 1920s and $\mathbb{I}\{\text{Crisis}_t\}$ equals one for the 1930s. The specification includes county fixed effects α_c, which absorb time-invariant political and institutional characteristics, and era fixed effects α_t, which absorb common national shocks. The γ coefficient therefore captures the differential effects of demand for banking access during the crisis. Standard errors are clustered at the county level.

Table 3 reports the results. Columns 1–3 use the county population share eligible for branching as an outcome while Columns 3–6 use an indicator for whether branching became legal anywhere in the county. For each outcome, we include a set of lagged county-level controls; the coefficients on these additional controls are suppressed for brevity.

Panel A examines how statutory capital requirements shaped branching policy. The interaction between log capital costs and the crisis indicator is positive and statistically significant across all specifications, while the non-crisis interaction remains small and statistically insignificant. The estimates imply that rising capital requirements in the 1920s account for approximately half of the expansion in branching access during the 1930s crisis.[22] Counties facing higher statutory entry costs due to their population distributions were disproportionately likely to expand access through branching during the crisis.

Panel B examines banklessness—the most extreme form of barriers to banking access—as a driver of branching reform. Counties without any operating banks at the start of the time period show no differential likelihood of adopting branching during the boom period ($\beta_{\text{Non-Crisis}}$ is small and insignificant). However, during the crisis, bankless counties experienced an 11.6 percentage point increase in branching eligibility relative to counties with banks, more than doubling the baseline rate of 9.6 percent. Together, these patterns indicate that branching deregulation emerged as a targeted response to severe access failures during the Depression.

Tables B.2 and B.3 validate this further by showing that rural population share predicts higher capital costs in the 1930s and introducing bank branching only in the 1930s, and especially when branch legalization emphasized opening offices where no banks operated.

These patterns support the view that branching deregulation emerged as a policy substitute for lower entry costs when capital requirements became binding. Counties facing higher statutory entry costs were disproportionately likely to expand access to banking by lowering geographic barriers during the crisis, consistent with policymakers responding to the access failures documented in Section 6.6 and the voter realignment shown in Section 6.3.

[22] We calculate this by multiplying the Column 6 estimate in Panel A for log capital costs × crisis by the change in median costs and dividing by the dependent variable mean ($(10.31 \times 0.42)/10.31 = 0.46$).

Table 3: Banking access and branching deregulation

	Share ↑ branching access			𝕀(Branching access ↑)		
	(1)	(2)	(3)	(4)	(5)	(6)
A: Capital costs						
$\beta_{\text{Non-Crisis}} \times \text{Capital costs}_t$	-1.03	-0.85	-0.13	1.31	1.55*	2.08**
	(0.85)	(0.85)	(0.87)	(0.93)	(0.93)	(0.95)
$\beta_{\text{Crisis}} \times \text{Capital costs}_t$	6.37***	6.77***	8.04***	8.54***	9.03***	10.31***
	(0.91)	(0.93)	(0.94)	(1.01)	(1.03)	(1.04)
Dep Var Mean	8.56	8.57	8.58	9.36	9.37	9.38
N	9,457	9,446	9,436	9,459	9,446	9,436
B: Banklessness						
$\beta_{\text{Non-Crisis}} \times \mathbb{I}(\text{Unbanked})_t$	5.58	5.47	4.68	6.69	6.57	5.61
	(5.91)	(5.91)	(5.82)	(5.93)	(5.94)	(5.86)
$\beta_{\text{Crisis}} \times \mathbb{I}(\text{Unbanked})_t$	11.29**	11.13**	12.03**	10.58**	10.41**	11.65**
	(5.11)	(5.11)	(5.07)	(5.19)	(5.20)	(5.18)
Dep Var Mean	8.75	8.75	8.76	9.51	9.52	9.52
County FE	Y	Y	Y	Y	Y	Y
Era FE	Y	Y	Y	Y	Y	Y
Population		Y	Y		Y	Y
Farm controls			Y			Y
N	9,408	9,404	9,400	9,450	9,446	9,442

Notes: Outcomes are county level branching eligibility either as share of the county population living somewhere eligible to open a branch (Columns 1–3) or an indicator that any place in the county could open a branch (Columns 4–6). Eligibility varies by whether states permit any branching, whether branching is dependent on no banks operating in a city and/or city population in the previous census. All counties having branching at the start of the time period are omitted from the sample, as the bank data do not measure branches operating in non-headquarter bank counties. The explanatory variable is split into two mutually exclusive treatments, those in the Great Depression (1929–1936) or previously (1921–1928). The explanatory variable is the log median bank capital per capita at the start of the era in Panel A and an indicator for the county having zero banks in Panel B. Controls include log population in Columns 2 and 5, and also log average farm value, the share of farms under 100 acres, the farmland Gini coefficient in Columns 3 and 6. Regression estimated using Equation 14 including county and time period fixed effects. Branching and capital laws described in Section 3.1. Bank and economic data information can be found in Section 3.3. Standard errors clustered at the county level. Sources: Illinois Blue Books, Haines (2010), Ruggles et al. (2021), Bleemer and Quincy (2026), and authors' calculations.

6.5 Restoring banking access: Household evidence from branch deregulation

The preceding analysis shows that capital requirements adopted in normal times impeded replacement entry during the crisis, and that voters and legislators responded by shifting toward geographic expansion through branching. We conclude by examining whether that shift mitigated the access shortfalls that emerged most sharply in rural areas in the Great Depression (see also Célerier and Matray, 2019, on the consequences of banking deserts for household financial inclusion).

We use household-level data from the 1935–36 Study of Consumer Purchases, which provides different measures of bank account usage. We estimate specifications of the following form at the location–period level:

$$Y_{c,t} = \alpha_s + \beta\, \mathbb{I}\{\text{Branching}_{s,t}\} + \varepsilon_{c,t}, \tag{15}$$

$$Y_{c,t} = \alpha_{s,t} + \beta\, \mathbb{I}\{\text{Rural}_c\} \ + \varepsilon_{c,t}, \tag{16}$$

$$Y_{c,t} = \alpha_{s,t} + \beta\,\mathbb{I}\{\text{Rural}_c\} + \delta\,(\mathbb{I}\{\text{Rural}_c\} \times \mathbb{I}\{\text{Branching}_{s,t}\}) + \varepsilon_{c,t}, \tag{17}$$

where $Y_{c,t}$ denotes a measure of banking access in community c and period t, such as having a bank account, a checking account, and/or a savings account. The indicator $\mathbb{I}\{\text{Rural}_c\}$ equals one for villages and farming communities and zero for all other city size categories. The variable $\mathbb{I}\{\text{Branching}_{s,t}\}$ indicates whether state s permits branching in period t. All specifications include state-year $\alpha_{s,t}$, except equation 15, which restricts to states deregulating branching in 1935 or 1936 and estimates the post-deregulation access benefit within each state. Standard errors are clustered at the state level.

Table 4 reports the results. Panel A documents that introducing branching increased banking access using fine-grained variation in survey timing within states in the year before or after branch legislation passed via equation (15).[23] The probability of bank account usage nearly doubled for households surveyed after branch legislation relative to those in the same size community in the same state surveyed just beforehand. The intensive margin, presented in columns 4–6, is similarly large and precisely estimated, which indicates that branch legalization boosted banking access immediately. These effects remain similar after adding demographic or economic status controls.

Panel B documents that rural areas were no more likely to have banking access overall than other communities in the same state and year (Equation (16)). If anything, these estimates suggest a borderline significant ($p = 0.14$) negative relationship between bank deposit holdings and rural communities (column 6).

Panel C combines these two sources of variation to test whether branching regulation was especially effective at restoring banking access for rural communities using equation (17). The coefficient on the interaction term δ captures the differential effect of branching in rural areas holding constant time-varying shocks to rural areas and state-level differences in bank deposit usage. This coefficient is consistently positive and precisely estimated for both the extensive and intensive margins.

Together, these results indicate that branching deregulation improved banking access even as capital requirements remained elevated. By enabling existing banks to expand geographically, branching reforms disproportionately improved access in rural areas, resolving the access failures that had emerged under the normal-times regulatory regime.

6.6 Discussion

The empirical results in this section provide an empirical chain of evidence supporting the political economy mechanism outlined in Section 5. We have shown that: (1) rural constituencies drove the tightening of capital requirements during the 1920s boom (Section 6.1), consistent with Proposition

[23] There are not enough rural communities within this subset of states to estimate the difference-in-difference specification in equation (17).

Table 4: Effects of branch deregulation on household bank use

	$\mathbb{I}\{\text{Bank Account}\}$			Net Δ Bank Deposits		
	(1)	(2)	(3)	(4)	(5)	(6)
A: Timing variation only						
$\mathbb{I}\{\text{Branching}_{s,t}\}$	57.89***	70.56***	66.03***	345.74*	345.76*	331.48*
	(11.43)	(13.29)	(13.13)	(193.43)	(179.11)	(180.90)
Dep Var Mean	31.16	31.16	31.16	34.91	34.91	34.91
Fixed effects	State×Size	State×Size	State×Size	Size× State	Size× State	Size× State
N	430	430	430	430	430	430
B: Rural variation only						
$\mathbb{I}\{\text{Rural}_c\}$	2.17	1.40	1.59	-13.25	-19.47	-24.73
	(4.17)	(4.35)	(5.04)	(15.38)	(16.09)	(16.28)
Dep Var Mean	37.49	37.49	37.49	22.26	22.26	22.26
Fixed effects	State×Year	State×Year	State×Year	State×Year	State×Year	State×Year
N	3,209	3,209	3,209	3,209	3,209	3,209
C: Difference-in-difference						
$\mathbb{I}\{\text{Branching}_{s,t}\} \times \mathbb{I}\{\text{Rural}_c\}$	15.46**	16.07**	16.83**	47.49**	47.89**	47.51**
	(6.33)	(6.01)	(6.36)	(17.07)	(18.14)	(17.87)
Dep Var Mean	37.49	37.49	37.49	22.26	22.26	22.26
Fixed effects	State×Year	State×Year	State×Year	State×Year	State×Year	State×Year
Demographic Controls		Y	Y		Y	Y
Economic Controls			Y			Y
N	3,209	3,209	3,209	3,209	3,209	3,209

Notes: The outcome is an indicator for households reporting use of a bank account during the survey year (Columns 1–3) or the net inflow of household savings into bank deposits (Columns 4–6). States already permitting bank branching before 1930 omitted. Panel A compares households in same sized communities in same state based on whether interviewed before or after branching introduced that year with city size bin x state fixed effects. Panel B compares households in the same state and year based on whether they were rural with state x year fixed effects. Panel C presents the interaction between 1930s branch legalization and household rural status with fixed effects for city size bin, and state x interview year. Covariates include demographic characteristic fixed effects (household head age, race and household size) and economic characteristics (single family home, household head employment status, and home ownership). Survey data described in Section 3.3. Standard errors are robust in Panel A and clustered at state level in Panels B and C. Sources: State session laws, US Bureau of Labor Statistics (2009), and authors' calculations.

1's prediction of normal-times protectionism; (2) these same entry barriers impeded banking sector recovery during the Depression by raising the cost of replacing failed banks (Section 6.2), creating the conditions for realignment; (3) direct voting evidence from Illinois referenda show that rural voters actively supported restrictive entry in the 1920s but withdrew that support in the 1930s, particularly in counties experiencing banking distress (Section 6.3), directly testing Proposition 3's crisis-induced realignment; (4) states responded to this shift in political support by liberalizing branching rather than rolling back capital requirements (Section 6.4), consistent with Proposition 4; and (5) these branching reforms materially improved household banking access, with effects concentrated in rural communities where the access-stability tradeoff was most acute (Section 6.5).

It is worth noting several limitations of our analysis. First, while we document a clear political realignment in favor of branching deregulation, we observe this most directly in Illinois, where the referendum requirement provides unusual transparency into voter preferences. The legislative evidence from other states is consistent with the same mechanism, but we cannot rule out that

different political processes or interest group dynamics operated elsewhere. Second, our focus on the interwar period means we study a banking system that differs in important respects from the modern regulatory environment—most notably in the absence of deposit insurance before 1933 and in the much smaller scale of individual banking institutions. Third, while we identify the political realignment that drove branching deregulation, we do not fully characterize the role of other actors in the policy process, such as state banking regulators, governors, or banking industry lobbying groups. These actors likely shaped the timing and specific design of branching reforms, even if the underlying shift in legislative coalitions reflected changing voter preferences in rural constituencies.

Despite these caveats, the evidence strongly supports the view that the Great Depression produced a fundamental realignment in banking regulation driven by changing political coalitions. The collapse of local ownership rents transformed rural constituencies from defenders of restrictive entry into advocates for geographic expansion, breaking a political equilibrium that had persisted for decades and reshaping the regulatory landscape in ways that would have lasting consequences for the structure of American banking.

7 Conclusion

This paper shows that the Great Depression fundamentally transformed state banking regulation through two distinct phases of regulatory change. During the 1920s economic expansion, states broke from historical precedent by systematically raising capital requirements—a deliberate tightening of entry barriers that protected local banking monopolies, particularly in rural areas. The widespread bank failures of the 1930s exposed the fragility of this regime: capital requirements that had generated rents in normal times now sharply constrained the replacement of failed banks, leaving many communities without access to basic financial services.

The regulatory response to this crisis was not simply to reverse course by lowering capital requirements. Instead, the 1930s marked a new phase of policy innovation in which states expanded their regulatory toolkit to address the dual objectives of financial stability and credit access. Policymakers maintained or even raised capital standards as a bulwark against future instability, while simultaneously liberalizing branching restrictions to restore banking services in underserved areas. This reconfiguration of the policy mix stemmed from ownership rents collapsing in rural markets, where monopolies had been easiest to establish in the 1920s but credit access was most limited in the 1930s.

By improving banking services in remote markets, bank entry regulation became both procyclical and persistent, which yields several broader lessons. First, regulatory change reflects the interaction between economic shocks and potentially conflicting voter preferences. The same crisis that might appear to demand "more regulation" in the aggregate can simultaneously produce

tightening on some margins and loosening on others as policymakers navigate competing objectives with multiple instruments. Second, the political coalitions supporting particular regulatory regimes in normal times can prove fragile when the economic conditions that generated them disappear. Third, pro-cyclical incumbent rents can create the same pattern in regulation if the crisis is sufficiently severe, echoing discussions around post-crisis regulation in recent years (Rajan, 2011).

In U.S. banking, these dynamics had consequences extending far beyond the Depression era. By establishing that branching could coexist with, and indeed complement, prudential capital standards, the 1930s reforms broke the decades-long political stalemate over geographic expansion. This precedent laid the groundwork for subsequent waves of branching deregulation at the state level during the 1970s and 1980s, and ultimately for nationwide branching under the Riegle-Neal Act of 1994. More broadly, understanding this episode clarifies how political economy forces shape regulatory evolution and why crises can accelerate, not obstruct, transformation.

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A Model Appendix

A.1 Proofs omitted from the main text

Throughout, recall that welfare in region r is

$$W^r(e,b;\phi) = (1-\phi f(e,b))\Big[A(D^r, m(e,b)) + \theta_b^r \pi^r(e,b)\Big], \qquad \pi^r(e,b) = m(e,b)D^r - F.$$

Proof of Proposition 1 (Non-crisis rural protectionism)

Proof. Fix a branching regime b and consider normal times $\phi = \phi_N$. Differentiating welfare with respect to e yields

$$\frac{\partial W^r}{\partial e} = \underbrace{(1-\phi f(e,b))\, m_e(e,b)\Big[\theta_b^r D^r + A_m(D^r, m(e,b))\Big]}_{\text{static access–rent trade-off}} + \underbrace{(-\phi f_e(e,b))\Big[A(D^r, m(e,b)) + \theta_b^r \pi^r(e,b)\Big]}_{\text{stability gain}}.$$

The stability term is proportional to ϕ_N, while the static term equals $(1-\phi_N f(e,b))$ times a factor independent of ϕ_N. For sufficiently small ϕ_N, the static term dominates, and the sign of $\partial W^r/\partial e$ is determined by

$$\theta_b^r D^r + A_m(D^r, m(e,b)).$$

Under the condition $\theta_b^R D^R > -A_m(D^R, m(e,b))$, this expression is positive for rural regions, so rural welfare is increasing in e. Rural voters therefore prefer higher capital requirements in normal times.

For branching, consider the welfare difference

$$\Delta W^R(e;\phi_N) = W^R(e,1;\phi_N) - W^R(e,0;\phi_N).$$

Using the decomposition in equation (4), when ϕ_N is small the stability component $\Delta^{\text{stability},R}(e;\phi_N) = \phi_N[f(e,0) - f(e,1)]S^R(e,0)$ is of order $O(\phi_N)$. The access component $\Delta^{\text{access},R}(e;\phi_N)$ is positive but bounded, while the ownership component $\Delta^{\text{ownership},R}(e;\phi_N)$ is negative since branching dilutes local ownership ($\theta_1^R < \theta_0^R$) and compresses markups ($m(e,1) < m(e,0)$). If

$$\theta_0^R \pi^R(e,0) - \theta_1^R \pi^R(e,1) > A(D^R, m(e,1)) - A(D^R, m(e,0)),$$

i.e., ownership losses exceed access gains, then for sufficiently small ϕ_N the sum $\Delta^{\text{access},R} + \Delta^{\text{ownership},R} < 0$ dominates the stability component, yielding $\Delta W^R(e;\phi_N) < 0$. Rural voters therefore oppose branch deregulation in normal times. □

For urban preferences, the proof is the following:

Proof. Fix e and suppress functional arguments.

(i) Capital requirements. Differentiating urban welfare with respect to e gives

$$\frac{\partial W^U}{\partial e} = (1 - \phi f(e,b))\, m_e(e,b)[\theta_b^U D^U + A_m(D^U, m)] + (-\phi f_e(e,b))[A(D^U, m) + \theta_b^U \pi^U].$$

Urban regions have diffuse ownership (θ_b^U small) and high demand (D^U large). By Assumption 2, $-A_m(D, m)$ is increasing in D, so the borrower-side loss from higher markups is large in urban areas. Under the condition

$$\theta_b^U D^U < -A_m(D^U, m),$$

the static term is strictly negative. The stability term is non-negative but proportional to ϕ. For sufficiently small ϕ_N, the static access loss dominates, so urban voters prefer lower capital requirements.

(ii) Branching. Define

$$\Delta W^U(e;\phi) = W^U(e,1;\phi) - W^U(e,0;\phi).$$

Using the decomposition in equation (4),

$$\Delta W^U(e;\phi) = \Delta^{\text{stability},U}(e;\phi) + \Delta^{\text{access},U}(e;\phi) + \Delta^{\text{ownership},U}(e;\phi).$$

The stability component $\Delta^{\text{stability},U} = \phi[f(e,0) - f(e,1)]S^U(e,0) \geq 0$ since branching reduces failure risk. The access component $\Delta^{\text{access},U} = (1 - \phi f(e,1))[A(D^U, m(e,1)) - A(D^U, m(e,0))] > 0$ since branching lowers markups and $A_m < 0$. The ownership component $\Delta^{\text{ownership},U}$ may be negative, but is small in magnitude because urban ownership is diffuse (θ_b^U small).

To show urban preferences are stable across states, note that $\Delta W^U(e;\phi)$ is increasing in ϕ: the stability component is strictly increasing in ϕ, while the access and ownership components are scaled by $(1 - \phi f(e,1))$, which decreases in ϕ but affects both terms proportionally. Since the stability component is unambiguously positive and grows with ϕ, while ownership losses (the only negative component) are discounted by survival, $\Delta W^U(e;\phi) > 0$ for all $\phi \geq \phi_N$ whenever it holds at ϕ_N. Thus urban voters consistently favor branching across economic conditions. □

Proof of Proposition 3 (Crisis-induced realignment)

Proof. Fix e and consider the welfare difference from branching:

$$\Delta W^R(e;\phi) = \Delta^{\text{stability},R}(e;\phi) + \Delta^{\text{access},R}(e;\phi) + \Delta^{\text{ownership},R}(e;\phi).$$

Using equation (4):

- $\Delta^{\text{stability},R}(e;\phi) = \phi[f(e,0)-f(e,1)]S^R(e,0) > 0$ since branching reduces failure risk ($f(e,1) < f(e,0)$ by Assumption 1).
- $\Delta^{\text{access},R}(e;\phi) = (1-\phi f(e,1))[A(D^R, m(e,1)) - A(D^R, m(e,0))] > 0$ since branching lowers markups and $A_m < 0$.
- $\Delta^{\text{ownership},R}(e;\phi) = (1-\phi f(e,1))[\theta_1^R \pi^R(e,1) - \theta_0^R \pi^R(e,0)] < 0$ since branching dilutes local ownership and compresses markups.

We show $\Delta W^R(e;\phi)$ is strictly increasing in ϕ. Differentiating:

$$\frac{\partial \Delta W^R}{\partial \phi} = [f(e,0) - f(e,1)]S^R(e,0) - f(e,1)[\Delta_0^{\text{access},R} + \Delta_0^{\text{ownership},R}],$$

where $\Delta_0^{\text{access},R} \equiv A(D^R, m(e,1)) - A(D^R, m(e,0)) > 0$ and $\Delta_0^{\text{ownership},R} \equiv \theta_1^R \pi^R(e,1) - \theta_0^R \pi^R(e,0) < 0$ denote the unscaled access and ownership components. The first term is strictly positive. The second term is $-f(e,1)$ times the sum of access gains and ownership losses; since $f(e,1) > 0$ and access gains are positive, this term's sign depends on magnitudes but does not reverse the overall positive effect of the first term when ownership losses are not too large relative to stability gains. Under the conditions of the model, $\partial \Delta W^R / \partial \phi > 0$.

By Proposition 1, rural voters oppose branching in normal times: $\Delta W^R(e;\phi_N) < 0$. To establish that $\Delta W^R(e;\phi) > 0$ for sufficiently high ϕ, note that as $\phi \to 1$, the ownership component approaches $(1-f(e,1))[\theta_1^R \pi^R(e,1) - \theta_0^R \pi^R(e,0)]$, which remains bounded, while the stability component $\phi[f(e,0) - f(e,1)]S^R(e,0) \to [f(e,0) - f(e,1)]S^R(e,0) > 0$ dominates. Hence $\Delta W^R(e;\phi) > 0$ for ϕ sufficiently close to 1.

Since $\Delta W^R(e;\phi)$ is continuous in ϕ, strictly increasing, negative at ϕ_N, and positive for ϕ near 1, by the intermediate value theorem there exists a unique threshold $\bar{\phi} \in (\phi_N, 1)$ such that $\Delta W^R(e;\bar{\phi}) = 0$ and $\Delta W^R(e;\phi) > 0$ for all $\phi > \bar{\phi}$. □

Proof of Proposition 4 (Capital requirements are not the crisis adjustment margin)

Proof. Fix a branching regime b. Let $e_r^N \equiv e_r^*(b, \phi_N)$ denote the normal-times optimal capital requirement, and assume interior solutions so that the first-order condition holds with equality.

We first establish that $e_R^N > e_U^N$. The first-order condition for optimal capital requirements is

$$(1 - \phi_N f(e,b))\, S_r'(e;b) = \phi_N f_e(e,b)\, S_r(e;b).$$

Recall that $S_r'(e;b) = m_e(e,b)[\theta_b^r D^r + A_m(D^r, m(e,b))]$. Under the conditions of Proposition 1, rural regions have $\theta_b^R D^R > -A_m(D^R, m)$, so $S_R' > 0$ for relevant capital levels, while urban regions

have $\theta_b^U D^U < -A_m(D^U, m)$, so $S_U' < 0$. Since the right-hand side of the FOC is negative (as $f_e < 0$ and $S_r > 0$), rural regions require higher e to satisfy the FOC, implying $e_R^N > e_U^N$.

We now prove the two parts of the proposition. Welfare satisfies

$$\frac{\partial W^r}{\partial e}(e, b; \phi) = (1 - \phi f(e, b))\, S_r'(e; b) - \phi f_e(e, b)\, S_r(e; b).$$

Evaluating the marginal incentive to raise capital at the crisis state $\phi_C > \phi_N$ and using the normal-times FOC yields

$$\frac{\partial W^r}{\partial e}(e_r^N, b; \phi_C) = (\phi_C - \phi_N)\, \frac{-f_e(e_r^N, b)}{1 - \phi_N f(e_r^N, b)}\, S_r(e_r^N; b) > 0,$$

which establishes part 1.

For part 2, define

$$k_{\phi_N}(e; b) \equiv \frac{-f_e(e, b)}{1 - \phi_N f(e, b)}.$$

Differentiating,

$$\frac{\partial k_{\phi_N}}{\partial e} = \frac{-f_{ee}(1 - \phi_N f) - \phi_N (f_e)^2}{(1 - \phi_N f)^2} < 0,$$

since $f_{ee} > 0$ and $f_e < 0$ by Assumption 1. Thus $k_{\phi_N}(e; b)$ is decreasing in e. Since $e_R^N > e_U^N$, we have $k_{\phi_N}(e_R^N; b) < k_{\phi_N}(e_U^N; b)$. Combined with $S_R(e_R^N; b) \leq S_U(e_U^N; b)$ (urban regions have higher demand and thus higher surplus at their respective optima), we obtain

$$\frac{\partial W^R}{\partial e}(e_R^N, b; \phi_C) < \frac{\partial W^U}{\partial e}(e_U^N, b; \phi_C).$$

□

A.2 Parameterization of numerical illustration

This section provides a numerical illustration of the model to visualize the welfare trade-offs described in Section 5 and to illustrate how preferences over regulatory instruments vary across regions and economic states. The numerical example is intended solely for intuition and exposition. All theoretical results in the main text are derived under general conditions and do not rely on the specific functional forms adopted here.

Functional forms. For tractability, we impose simple parametric forms for bank markups, credit access, and failure risk. In particular, we assume that the effective wedge faced by borrowers is given by

$$m(e, b) = \alpha e - \beta b,$$

with $\alpha, \beta > 0$, so that higher capital requirements raise markups while branching reduces them. This linear specification captures the reduced-form impact of entry barriers and competition on borrowing costs.

Credit access in region r is modeled as

$$A(D^r, m) = D^r - \frac{1}{2}m^2,$$

which satisfies the assumptions imposed in Section 5: access is increasing in local demand ($A_D > 0$), decreasing in the wedge ($A_m < 0$), and the marginal loss from a higher wedge is larger in higher-demand environments ($\partial_D(-A_m) > 0$).

Bank profits in region r are given by

$$\pi^r(e, b) = m(e, b)D^r - F,$$

where $F > 0$ is a fixed operating cost. As in the main text, this formulation allows for the possibility that entry is unprofitable under sufficiently restrictive regimes.

Finally, failure risk is assumed to factorize as

$$\phi_t(e, b) = \phi_t \exp(-\lambda e - \gamma b),$$

with $\lambda, \gamma > 0$, so that both higher capital requirements and branching reduce the probability of bank failure through capitalization and diversification, respectively.

These functional forms satisfy all sign and monotonicity conditions imposed in the general model and allow us to compute welfare analytically and illustrate the comparative statics underlying Propositions 1–3.

Parameterization. We set the baseline failure risk at $\phi_N = 0.05$ to reflect the relatively low failure rates during the 1920s boom, and $\phi_C = 0.35$ to capture the peak crisis intensity during 1930–1933, when roughly one third of banks failed.

We parameterize the markup effect of capital at $\alpha = 1.6$ and the competition effect of branching at $\beta = 1.5$, reflecting the historical reality that branching substantially reduced local monopoly power.

The stability parameters are $\lambda = 0.3$ (capital reduces failure risk) and $\gamma = 0.6$ (branching provides diversification benefits). Credit access is valued at $A = 550$, borrowers bear markup costs at rate $\chi = 2.5$, and fixed operating costs are $F = 50$.

For regional characteristics, we parameterize urban-type regions with diffuse ownership ($\theta^U_{b=0} = 0.15$, $\theta^U_{b=1} = 0.12$) and high credit demand ($D^U = 100$), satisfying the urban-type condition

$\theta_b^U D^U < \chi$. Rural-type regions have concentrated ownership ($\theta_{b=0}^R = 0.6,\ \theta_{b=1}^R = 0.4$) and lower credit demand ($D^R = 50$), satisfying the rural-type condition $\theta_b^R D^R > \chi$. These parameter choices ensure that our definition of urban regions being net borrowers who benefit from competition and rural regions being net owners who benefit from monopoly rents is met.

A.3 Dynamic extension: Endogenous persistence of banking market disruption

The two-period model in the main text abstracts from the possibility that forward-looking voters might delay reform if they expect macroeconomic conditions to improve. In this appendix, we embed the model in a dynamic setting with an explicit banking market state variable and show that the demand for reform is weakly stronger than in the two-period benchmark.

Setup. In each period t, the local banking market is in one of two states: *functioning* ($\mathcal{F}$) or *disrupted* ($\mathcal{D}$). When the market is functioning, residents receive the conditional-on-survival surplus $S^r(e, b)$ as defined in the main text. When the market is disrupted, banking services are unavailable and flow welfare is zero.

The macroeconomic state ϕ_t follows an exogenous stochastic process with support on $[\phi_N, \phi_C]$. Transitions between market states depend on the regulatory regime (e, b), the macroeconomic state ϕ_t, and the current market state:

- *Disruption probability.* A functioning market becomes disrupted with probability $\phi_t \cdot f(e, b)$, where f satisfies Assumption 1 from the main text. This is the same object as in the two-period model.
- *Recovery probability.* A disrupted market returns to functioning with probability $g(e, b)$, where:

$$g_e(e, b) < 0 \qquad \text{and} \qquad g(e, 1) > g(e, 0) \qquad \forall\, e \in [0, \bar{e}].$$

  Higher capital requirements impede recovery by raising the cost of chartering a replacement bank. Branching facilitates recovery by allowing surviving banks from other markets to expand into the disrupted area.

Value functions. Fix a regulatory regime (e, b) and let $\delta \in (0, 1)$ be the discount factor. The expected present value of welfare starting from each market state satisfies:

$$V_{\mathcal{F}}(e, b) = S^r(e, b) + \delta\Big[(1 - \mathbb{E}[\phi]\, f(e, b))\, V_{\mathcal{F}}(e, b) + \mathbb{E}[\phi]\, f(e, b)\, V_{\mathcal{D}}(e, b)\Big], \tag{A.1}$$

$$V_{\mathcal{D}}(e, b) = \delta\Big[g(e, b)\, V_{\mathcal{F}}(e, b) + (1 - g(e, b))\, V_{\mathcal{D}}(e, b)\Big]. \tag{A.2}$$

where $\mathbb{E}[\phi]$ denotes the unconditional expectation of ϕ_t under the stationary distribution of the macroeconomic process.

Result 1: Disruption is absorbing under the protectionist regime. Under the protectionist regime $(e_{\text{high}}, 0)$ with $e_{\text{high}} > \hat{e}(0)$, the recovery probability $g(e_{\text{high}}, 0)$ is close to zero: high capital requirements block new charters, and unit banking prevents geographic expansion by surviving banks. From Equation (A.2), as $g \to 0$:

$$V_{\mathcal{D}}(e_{\text{high}}, 0) \;\to\; 0.$$

Once the banking market is disrupted under the protectionist regime, the present value of future welfare is approximately zero *regardless of the future path of macroeconomic conditions*. The disrupted state is effectively absorbing: even if ϕ reverts to ϕ_N in the next period, the market cannot recover because the regulatory barriers to entry remain.

This is the key result that distinguishes the dynamic model from the two-period benchmark. In the two-period model, the cost of disruption is a one-period loss. In the dynamic model, disruption under the protectionist regime is a *permanent* loss of banking services and ownership rents, capitalizing the welfare cost over all future periods.

Result 2: Recovery is feasible under branching. Under branching ($b = 1$), $g(e, 1) > 0$: surviving banks from neighboring markets can establish branches in the disrupted area, restoring banking services. From Equation (A.2), $V_{\mathcal{D}}(e, 1) > 0$ for any e, since the market has a positive probability of returning to the functioning state each period.

Result 3: The demand for reform is weakly stronger than in the two-period model. Consider a region in the disrupted state under the inherited protectionist regime $(e_{\text{high}}, 0)$. The dynamic gain from reforming to branching is:

$$V_{\mathcal{D}}(e, 1) - V_{\mathcal{D}}(e_{\text{high}}, 0) \;\approx\; V_{\mathcal{D}}(e, 1) > 0,$$

since $V_{\mathcal{D}}(e_{\text{high}}, 0) \approx 0$. This gain capitalizes the recovery option over all future periods. In contrast, the two-period model captures only the one-period welfare difference $W^r(e, 1; \phi_C) - W^r(e, 0; \phi_C)$. For any $\delta > 0$ and $g(e, 1) > 0$, the dynamic reform incentive exceeds the static one:

$$V_{\mathcal{D}}(e, 1) - V_{\mathcal{D}}(e_{\text{high}}, 0) \;\geq\; W^r(e, 1; \phi_C) - W^r(e, 0; \phi_C).$$

The two-period model therefore provides a *lower bound* on the demand for reform.

Result 4: The option value of waiting is zero under the protectionist regime. A forward-looking voter in state $\mathcal{D}$ under $(e_{\text{high}}, 0)$ might consider delaying reform in the hope that macroeconomic conditions improve. But this option has no value: the banking market cannot recover under the protectionist regime regardless of ϕ. Formally, $V_{\mathcal{D}}(e_{\text{high}}, 0) \approx 0$ does not depend on the distribution of future ϕ_t. Waiting for ϕ to revert to ϕ_N cannot restore the banking market when $g(e_{\text{high}}, 0) \approx 0$. The only path to recovery runs through regulatory reform.

Discussion. The dynamic extension introduces one additional object relative to the main model: the recovery function $g(e, b)$, which governs transitions out of the disrupted state. Its two properties—$g_e < 0$ and $g(e, 1) > g(e, 0)$—reflect the same economic forces as the disruption function f: capital requirements impede entry while branching facilitates geographic expansion. The dynamic results do not depend on the specific functional form of g or on the stochastic process for ϕ; they require only that recovery is near-impossible under high capital requirements with unit banking and feasible under branching.

The central implication is that the two-period model, if anything, *understates* the case for reform. By abstracting from the persistence of banking market disruption, the two-period model treats the crisis as a one-period cost. The dynamic model shows that under the protectionist regime, disruption is effectively permanent, eliminating both the rents that sustained the regime and the option value of preserving it. This reinforces the main text's conclusion that the demand for branching deregulation during the Great Depression reflected not a temporary response to short-run distress, but a rational recognition that the inherited regulatory regime could not deliver recovery.

B Additional Tables and Figures

B.1 Additional Tables

Table B.1: Changes in State Bank Supervision and Regulation, 1919–1940

	Deregulate Capital (1)	Regulate Capital (2)	Deregulate Branching (3)	Regulate Branching (4)	Introduce Supervision (5)	End Deposit Insurance (6)
Post-WW1	3	7	9	6	4	2
Roaring Twenties	5	21	11	8	1	4
Financial Crisis	5	12	25	1	0	2
New Deal	6	4	16	0	0	0
Late Depression	0	2	8	0	0	0

Notes: We tabulate the number of states passing laws which lower or raise capital or branching permissions in Columns 1 to 4 alongside the number of states introducing state banking departments or publishing state bank balance sheets to capture intensity of supervision (e.g. Mitchener and Jaremski, 2015) and the number of deposit insurance programs for state-chartered banks closing by state. No state starts their own deposit insurance program in this period. See Sections 3.1 and 3.3 for capital and branching data details. Sources: State session laws, Dehejia and Lleras-Muney (2007), Mitchener and Jaremski (2015), and authors' calculations.

Table B.2: Interest group correlates of state capital requirement increases

	1920–1924	1925–1929	1930–Feb. 1933	March 1933–1936	1937–1939
	(1)	(2)	(3)	(4)	(5)
Pop. share 2500-25K places	-0.030	-0.094	-0.098	0.016	-0.005
	(0.08)	(0.11)	(0.07)	(0.08)	(0.01)
Pop. share under 2500 places	-0.030	0.303**	-0.046	-0.059	-0.011
	(0.15)	(0.12)	(0.08)	(0.11)	(0.02)
Log average farm value	0.081	-0.038	0.049	-0.011	-0.033
	(0.08)	(0.09)	(0.08)	(0.05)	(0.03)
Farm share under 100 acres	-0.262	0.240	-0.201	0.065	-0.005
	(0.16)	(0.20)	(0.14)	(0.09)	(0.07)
Farm land Gini	0.198	-0.209	0.094	-0.041	-0.008
	(0.13)	(0.17)	(0.11)	(0.09)	(0.05)
Log mfg. output per estab.	0.103	0.062	-0.004	0.014	0.035
	(0.09)	(0.12)	(0.05)	(0.05)	(0.03)
Log population	0.175**	0.297***	0.008	-0.047	-0.010
	(0.08)	(0.08)	(0.10)	(0.16)	(0.02)
Dep Var Mean	0.17	0.38	0.17	0.15	0.04
R-sq	0.44	0.46	0.32	0.25	0.23
N	48	48	48	48	48

Notes: The outcome is an indicator for increasing capital requirements in a state between prior period and this one. All covariates are from the closest preceding census and standardized in each year. Census region fixed effects not shown. Standard errors are heteroskedasticity robust. See Sections 3.1 and 3.3 for data details. Sources: State session laws, Haines (2010), Ruggles et al. (2021), Bleemer and Quincy (2026), and authors' calculations.

Table B.3: Interest group correlates of introducing bank branching

	1930–1939			1920–1929	
	𝕀(Any branching)	𝕀(Cross-city branching)	𝕀(Banklessness)	𝕀(Any branching)	𝕀(Cross-city branching)
	(1)	(2)	(3)	(4)	(5)
Pop. share 2500-25K places	-0.171*	-0.161	-0.211**	0.001	-0.118
	(0.10)	(0.11)	(0.09)	(0.12)	(0.12)
Pop. share under 2500 places	0.153	0.300**	0.354**	0.103	0.176
	(0.13)	(0.15)	(0.14)	(0.15)	(0.19)
Log average farm value	0.166*	0.136	0.057	0.154	0.123
	(0.09)	(0.09)	(0.09)	(0.10)	(0.09)
Farm share under 100 acres	0.585***	0.432**	0.459***	0.195	0.131
	(0.12)	(0.18)	(0.15)	(0.15)	(0.15)
Farm land Gini	-0.251**	-0.071	-0.283*	-0.034	-0.065
	(0.10)	(0.16)	(0.15)	(0.13)	(0.15)
Log mfg. output per estab.	-0.054	-0.027	-0.148*	0.021	0.081
	(0.09)	(0.08)	(0.08)	(0.10)	(0.10)
Log population	-0.116*	-0.108	0.036	0.167*	0.035
	(0.06)	(0.14)	(0.12)	(0.10)	(0.12)
Dep Var Mean	0.71	0.67	0.42	0.38	0.25
R-sq	0.46	0.48	0.52	0.48	0.29
N	48	48	48	48	48

Notes: The outcome is an indicator for legalizing bank branching in each period. States already permitting bank branching at start of period omitted from sample. There are no banklessness requirements in state branching laws before 1930. Census region fixed effects not shown. Standardized census covariates from 1930 in Columns 1 to 3 and 1920 in Columns 4 and 5. Standard errors are robust. See Sections 3.1 and 3.3 for data details. Sources: State session laws, Haines (2010), and authors' calculations.

Table B.4: Rural constituency and capital requirements robustness: one banked counties

	𝕀(Increase)			𝕀(Decrease)		
	(1)	(2)	(3)	(4)	(5)	(6)
A: State-Level						
$\beta_{\text{Non-Crisis}} \times \mathbb{I}$(One Bank)	7.84*	141.88	141.53	-44.21	-59.32	-63.17
	(4.50)	(95.75)	(109.69)	(41.15)	(42.21)	(49.85)
Dep Var Mean	18.30	18.30	18.30	7.23	7.23	7.23
N	235	235	235	235	235	235
B: County-Level						
$\beta_{\text{Non-Crisis}} \times \mathbb{I}$(One Bank)	8.80***	8.82***	10.38***	-4.16**	-4.22**	-4.54**
	(2.77)	(2.77)	(2.78)	(2.07)	(1.99)	(2.04)
Dep Var Mean	29.11	29.11	29.11	10.66	10.66	10.66
Geographic Unit FE	Y	Y	Y	Y	Y	Y
Era FE	Y	Y	Y	Y	Y	Y
Population		Y	Y		Y	Y
Farm Controls			Y			Y
N	11,953	11,953	11,953	11,953	11,953	11,953

Notes: The outcome is an indicator (scaled up by 100) for passing a law that increases or decreases capital requirements in a geographic unit in a pooled regression including geographic unit and era fixed effects. Non-crisis defined as either 1920–1923 or 1924–1928. We omit Wyoming and the post-1936 period because they are omitted from the bank data. Independent variable is the share of counties with exactly one bank (states) or an indicator for having exactly one bank (counties) at any point in each time period. Farm controls include log average farm value, the share of farms under 100 acres, and the farmland Gini coefficient, all reflecting the closest preceding census and measured as standard deviations. Standard errors clustered by state in parentheses in Panel A and county in Panel B. See Section 3.1 and 3.3 for more detail on law and economic data sources, respectively. Sources: State session laws, Haines (2010), Ruggles et al. (2021), Federal Deposit Insurance Corporation (1992), Bleemer and Quincy (2026), and authors' calculations.

Table B.5: Rural constituency and capital requirements robustness: other county shocks

			𝕀(Increase)				𝕀(Decrease)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
β_Non-Crisis × Rural	9.05***	10.35***	9.62***	9.27***	-6.28***	-7.63***	-7.28***	-7.12***
	(0.94)	(1.02)	(1.05)	(0.92)	(0.90)	(0.90)	(0.99)	(0.88)
Dep Var Mean	23.38	28.95	23.52	23.32	9.21	10.75	9.17	9.20
Geographic Unit FE	Y	Y	Y	Y	Y	Y	Y	Y
Era FE	Y	Y	Y	Y	Y	Y	Y	Y
Population	Y	Y	Y	Y	Y	Y	Y	Y
Farm Controls	Y	Y	Y	Y	Y	Y	Y	Y
Other Controls	Pres.	Pres. + Cong.	WW1 Prices x Era	Dep. Ins, x Era	Pres.	Pres. + Cong.	WW1 Prices x Era	Dep. Ins. x Era
N	15,110	11,940	13,070	15,170	15,110	11,940	13,070	15,170

Notes: The outcome is an indicator (scaled by 100) for passing a law that increases or decreases capital requirements in a geographic unit in a pooled regression including county and era fixed effects. The non-crisis period refers to the 1920–1923 or 1924–1928 time periods only. Rural population share is from the closest preceding census and is expressed in standard deviations. Farm controls include log average farm value, the share of farms under 100 acres, and the farmland Gini coefficient, all reflecting the closest preceding census and measured as standard deviations. Standard errors clustered by county in parentheses. We add Democratic vote shares via CITE, county-level exposure to the World War I crop boom via Rajan and Ramcharan (2015), and state deposit insurance schemes from Wheelock (1993). See Section 3.1 and 3.3 for more detail on law and economic data sources, respectively. Sources: State session laws, Haines (2010), Ruggles et al. (2021), Federal Deposit Insurance Corporation (1992), Bleemer and Quincy (2026), and authors' calculations.

Table B.6: Illinois Referendum-Specific Capital Increase Votes

	1920	1924	1930	1940
	(1)	(2)	(3)	(4)
A: No Controls				
%ΔCapital	14.37	91.94**	-42.48	-5.71
	(14.85)	(45.32)	(26.38)	(4.16)
Dep Var Mean	4.90	70.59	43.14	1.96
Time-varying controls				
N	102	102	102	102
B: Time-Varying Controls				
%ΔCapital	21.22	99.73**	-16.81	-3.37
	(18.21)	(45.75)	(31.78)	(19.78)
Dep Var Mean	4.90	70.59	43.14	1.96
Time-varying controls	Y	Y	Y	Y
N	102	102	102	102

Notes: Outcomes are county level votes on capital increases either as an indicator a majority of votes favored an decrease in capital requirements (Columns 1–3) or a share of votes cast in the county (Columns 4–6).The explanatory variable is split into two mutually exclusive treatments, those in the Great Depression or after (1930 and 1940) versus those outside the crisis (1920 and 1924). The explanatory variable is the actual growth in bank capital per capita if the measured passed. Controls include log population, log rural population share, farmland Gini coefficient, and log voter turnout, all standardized in each election. Capital cost, voting, and bank data described in Sections 3.1, 3.2 and 3.3, respectively. Sources: Illinois Blue Books, Haines (2010), Ruggles et al. (2021), Bleemer and Quincy (2026), and authors' calculations.

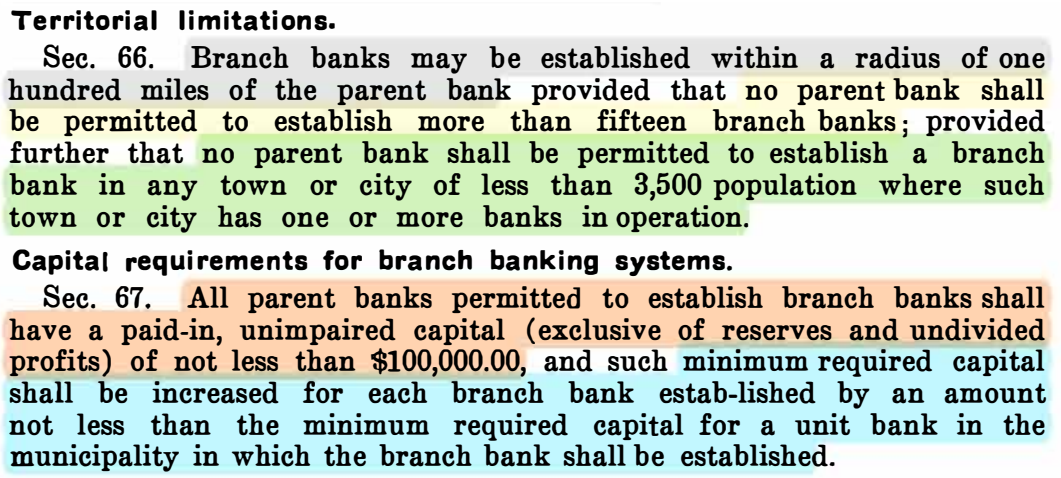
Table B.7: Year-Specific Illinois Referenda Effects

	$\mathbb{I}$(Increase $\geq$ 50%)		Share of votes for increase	
	(1)	(2)	(3)	(4)
%ΔCapital $\times$ $\mathbb{I}$(1920)	55.63	59.88	54.39**	54.93**
	(36.09)	(36.13)	(20.95)	(21.28)
%ΔCapital $\times$ $\mathbb{I}$(1924)	84.92*	86.59*	7.44	7.65
	(45.14)	(45.68)	(13.48)	(13.58)
%ΔCapital $\times$ $\mathbb{I}$(1930)	-25.30	-23.59	-15.51**	-15.29**
	(23.70)	(24.51)	(7.11)	(7.20)
%ΔCapital $\times$ $\mathbb{I}$(1940)	-84.87***	-76.58**	-10.09*	-9.04
	(24.22)	(30.33)	(5.36)	(5.65)
Dep Var Mean	30.15	30.15	41.70	41.70
County FE	Y	Y	Y	Y
Referendum FE	Y	Y	Y	Y
Time-varying controls		Y		Y
N	408	408	408	408

Notes: Outcomes are county level votes on capital increases either as an indicator a majority of votes favored an increase in capital requirements (Columns 1–2) or the share of votes favoring higher capital requirements (Columns 3–4), scaled by 100.The explanatory variable is split into four mutually exclusive election-specific treatments where the treatment variable is the actual growth in bank capital per capita if the measured passed. Controls include log population, log rural population share, farmland Gini coefficient, and log voter turnout, all standardized in each election. Capital cost, voting, and bank data described in Sections 3.1, 3.2 and 3.3, respectively. Sources: Illinois Blue Books, Haines (2010), Ruggles et al. (2021), Bleemer and Quincy (2026), and authors' calculations.

B.2 Additional Figures

Figure B.1: Sample of bank branching regulation



Territorial limitations.

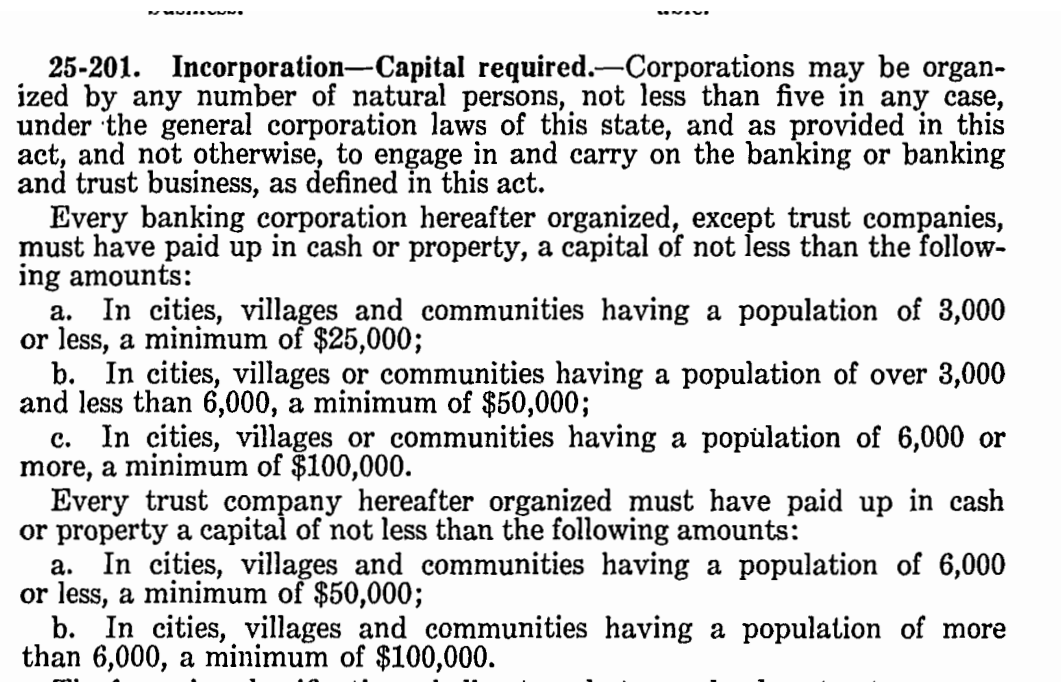
Sec. 66. Branch banks may be established within a radius of one hundred miles of the parent bank provided that no parent bank shall be permitted to establish more than fifteen branch banks; provided further that no parent bank shall be permitted to establish a branch bank in any town or city of less than 3,500 population where such town or city has one or more banks in operation.

Capital requirements for branch banking systems.

Sec. 67. All parent banks permitted to establish branch banks shall have a paid-in, unimpaired capital (exclusive of reserves and undivided profits) of not less than $100,000.00, and such minimum required capital shall be increased for each branch bank estab-lished by an amount not less than the minimum required capital for a unit bank in the municipality in which the branch bank shall be established.

Notes: Each color corresponds to a different clause governing bank branching. These laws apply to all banks except capital for Federal Reserve member banks (which was higher). Sources: Mississippi Session Laws 1934, ch.134.

Figure B.2: Sample of bank capital regulation



25-201. Incorporation—Capital required.—Corporations may be organized by any number of natural persons, not less than five in any case, under the general corporation laws of this state, and as provided in this act, and not otherwise, to engage in and carry on the banking or banking and trust business, as defined in this act.

Every banking corporation hereafter organized, except trust companies, must have paid up in cash or property, a capital of not less than the following amounts:

a. In cities, villages and communities having a population of 3,000 or less, a minimum of $25,000;

b. In cities, villages or communities having a population of over 3,000 and less than 6,000, a minimum of $50,000;

c. In cities, villages or communities having a population of 6,000 or more, a minimum of $100,000.

Every trust company hereafter organized must have paid up in cash or property a capital of not less than the following amounts:

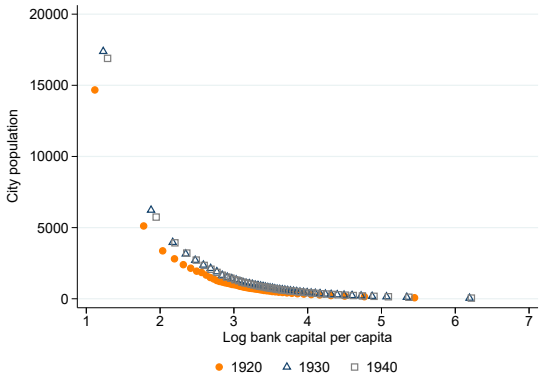
a. In cities, villages and communities having a population of 6,000 or less, a minimum of $50,000;

b. In cities, villages and communities having a population of more than 6,000, a minimum of $100,000.

Notes: These laws apply to all Fed non-member banks because member bank requirements were higher. Sources: Idaho Session Laws 1925, ch. 133 §6.

Figure B.3: Characteristics of city bank entry costs

(a) Population versus capital costs

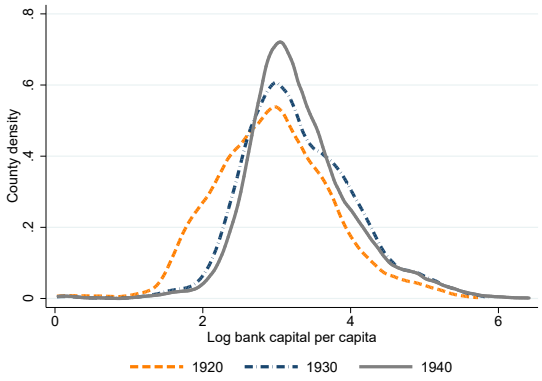


(b) Branching eligibility versus capital costs

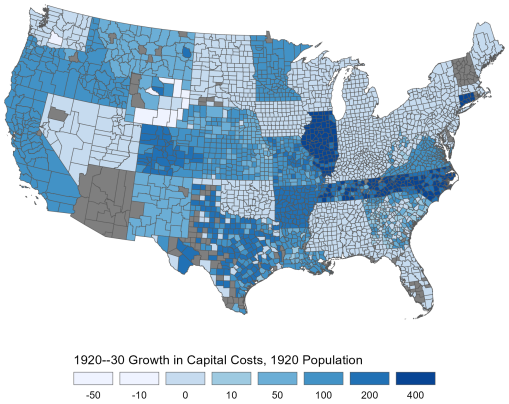
Notes: Log bank capital per capita is the log bank capital per capita in a given city in a given year. Bank capital per capita reflects the minimum bank entry capital assigned by the active state statute and prior census's population estimate, divided by the latter. Branch eligibility flags whether active statues permit branching in a given location. Cities are excluded if the state does not have minimum capital requirements. See Section 3.1 for data definitions. Sources: State session laws, Ruggles et al. (2021), Bleemer and Quincy (2026), and authors' calculations.

Figure B.4: Characteristics of county median bank entry costs fixing population in 1920

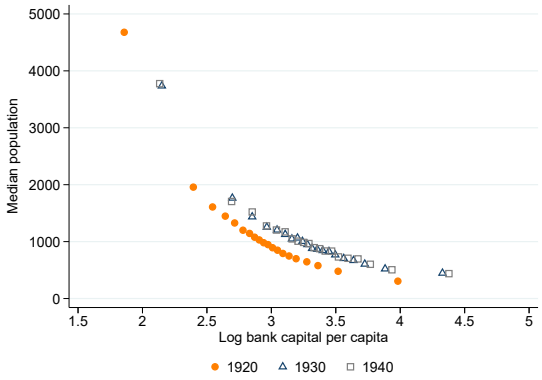
(a) Capital costs over time



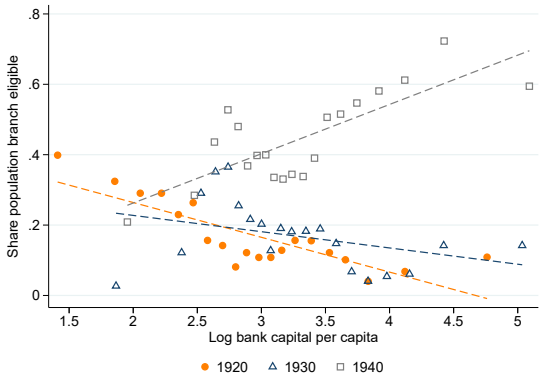
(b) %Δ capital costs, 1920–30



(c) Population versus capital costs

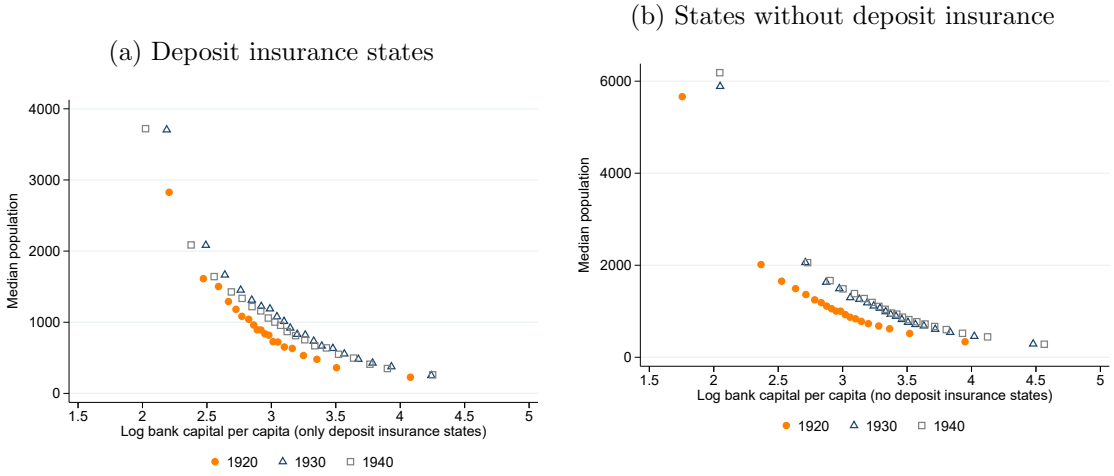


(d) Branching eligibility versus capital costs



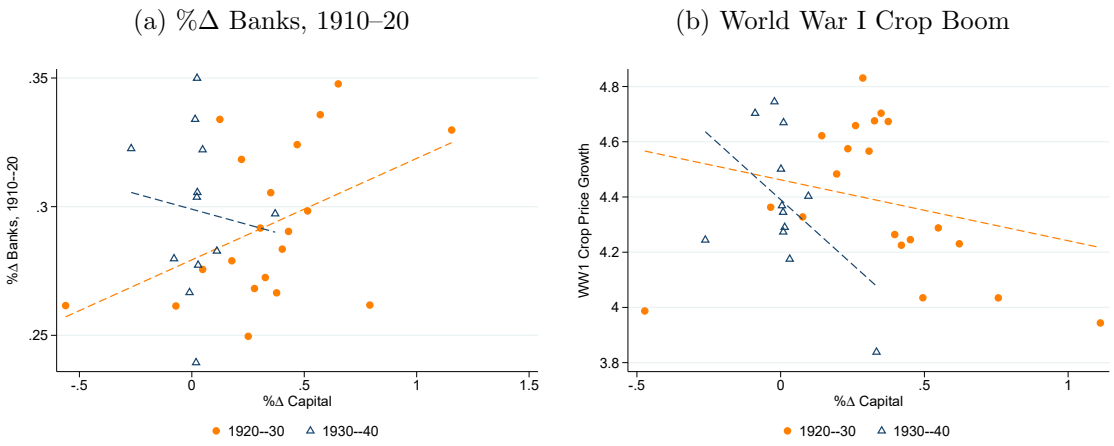
Notes: Log bank capital per capita is the median log bank capital per capita in a given county in a given year using 1920 population to assign capital costs based on each year's laws. Bank capital per capita reflects the minimum bank entry capital assigned by the active state statute and 1920 population estimate, divided by the latter in each city, aggregated to the county level by taking the median in each county and year. Counties in states without minimum capital requirements in 1920 are shaded gray in Panel (b). Branch eligibility flags whether active statues permit branching in a given location using 1920 population information. Panels (c) and (d) are binscatters for all US counties in each year with log bank capital per capita data. Counties are excluded if the state does not have minimum capital requirements or if there are no incorporated places in the county in that year. See Section 3.1 for data definitions. Sources: State session laws, Ruggles et al. (2021), Bleemer and Quincy (2026) and authors' calculations.

Figure B.5: Characteristics of county median bank entry costs separating by state deposit insurance program availability



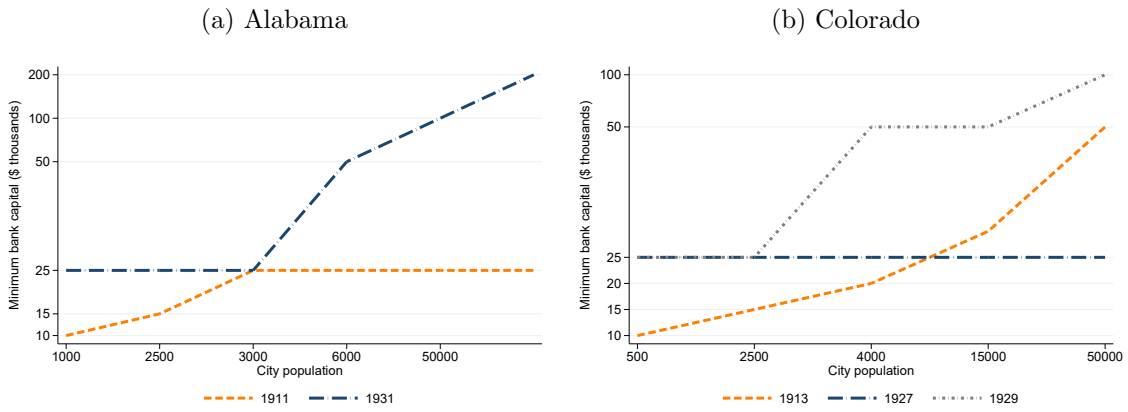
Notes: Log bank capital per capita is the median log bank capital per capita in a given county in a given year using 1920 population to assign capital costs based on each year's laws. Bank capital per capita reflects the minimum bank entry capital assigned by the active state statute and most recent population estimate, divided by the latter in each city, aggregated to the county level by taking the median in each county and year. Counties are excluded if the state does not have minimum capital requirements or if there are no incorporated places in the county in that year. We define state deposit insurance availability using the list in Wheelock (1993). See Section 3.1 for data definitions. Sources: State session laws, Ruggles et al. (2021), Bleemer and Quincy (2026) and authors' calculations.

Figure B.6: Correlation between county median bank entry growth and 1910s shocks



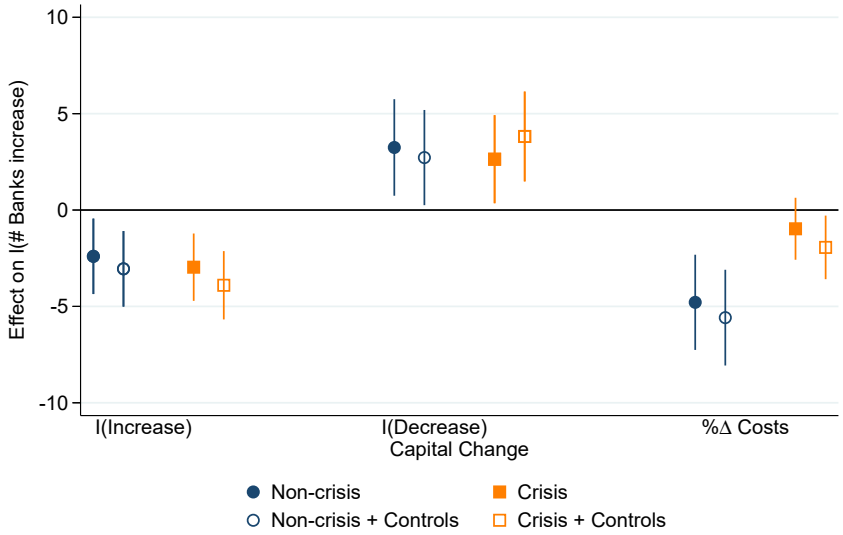
Notes: Log bank capital per capita is the median log bank capital per capita in a given county in a given year using 1920 population to assign capital costs based on each year's laws. Bank capital per capita reflects the minimum bank entry capital assigned by the active state statute and most recent population estimate, divided by the latter in each city, aggregated to the county level by taking the median in each county and year. Counties are excluded if the state does not have minimum capital requirements or if there are no incorporated places in the county in that year. Y-axis variables are from Rajan and Ramcharan (2015) and are measured at the county level. See Section 3.1 for data definitions. Sources: State session laws, Ruggles et al. (2021), Bleemer and Quincy (2026) and authors' calculations.

Figure B.7: Sample state capital requirement time series



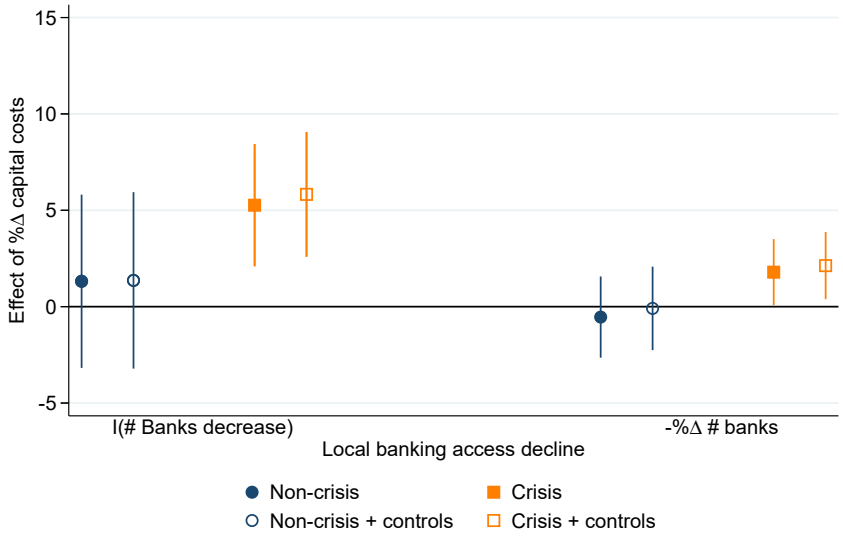
Notes: Each panel plots the statutory minimum bank entry capital implied by the active Alabama (a) or Colorado (b) banking law and the population of each city in the most recent preceding census for each law active between 1920 and 1940 in each state. see Section 3.1 for data details. Median population is the median incorporated-place population within each county based on the closest preceding census. Sources: Alabama and Colorado legislative session laws; Ruggles et al. (2021); Bleemer and Quincy (2026); and authors' calculations.

Figure B.8: Probability of county banking market entry after capital policy changes



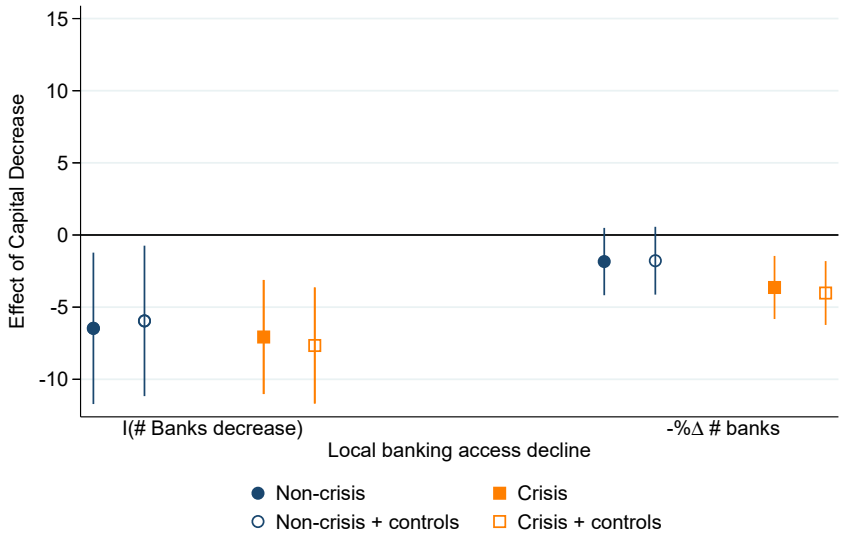
Notes: The outcome is an indicator for an increase in the number of banks in a county between the start and end of a time period. The treatment is an indicator (multiplied by 100) for changing median capital requirements in that county during prior period in either direction or the log change in median per capita bank capital costs at the start of each era. Additional controls include log population, log average farm value, the share of farms under 100 acres, and farmland Gini coefficient, all from the closest preceding census and converted to standard deviations. County and time period fixed effects not shown. Standard errors clustered at county level. See Section 3.3 for more detail on banking data and Section 3.1 on capital requirements. Sources: State session laws, Haines (2010), Federal Deposit Insurance Corporation (1992), Ruggles et al. (2021), Bleemer and Quincy (2026), and authors' calculations.

Figure B.9: Declines in county banking markets in response to the capital cost growth rate



Notes: The outcome is either an indicator for the number of banks falling during the time period or the percentage decline in the number of banks during the time period. The treatment is the log change in median per capita bank capital costs at the start of each era. Additional controls include log population, log average farm value, the share of farms under 100 acres, and farmland Gini coefficient, all from the closest preceding census and converted to standard deviations. County and time period fixed effects not shown. Standard errors clustered at county level. See Section 3.3 for more detail on banking data and Section 3.1 on capital requirements. Sources: State session laws, Haines (2010), Federal Deposit Insurance Corporation (1992), Ruggles et al. (2021), Bleemer and Quincy (2026), and authors' calculations.

Figure B.10: Declines in county banking markets after lowering capital requirements



Notes: The outcome is either an indicator for the number of banks falling during the time period or the percentage decline in the number of banks during the time period. The treatment is an indicator (multiplied by 100) for lowering median capital requirements in that county during prior period. Additional controls include log population, log average farm value, the share of farms under 100 acres, and farmland Gini coefficient, all from the closest preceding census and converted to standard deviations. County and time period fixed effects not shown. Standard errors clustered at county level. See Section 3.3 for more detail on banking data and Section 3.1 on capital requirements. Sources: State session laws, Haines (2010), Federal Deposit Insurance Corporation (1992), Ruggles et al. (2021), Bleemer and Quincy (2026), and authors' calculations.

C Historical Evidence on Banking Legislation

C.1 Political Ideology of Bank Entry

Regulators and bankers regularly defended unit banking as central to rural American life. Unlike other developed countries, the United States remained dominated by unit banks in the years before the Great Depression. The Comptroller of the Currency defended unit banking as the "institution most representative of the genius of the American people" for its support of local community independence (quoted in Bankers Magazine, 1930, p.463). The *Commercial and Financial Chronicle* heralded it as "peculiarly suited to the genius of the American people, to the democratic republican form of government which we have developed, ...and to the individualism which is the foundation of our national progress" (cited in Bryan, 1942, p.60–61). The American Bankers Association couched its opposition to branch banking in similar language, emphasizing "Americanism" and "independence" to contrast branch banking with concentration of power (Chapman and Westerfield, 1942; Bryan, 1942). The ABA also published periodicals, including the *Banker Farmer*, to promote unit banking as essential to agricultural investment and rural prosperity.

Politicians and newspapers leveraged the same ideological language to drum up voter support. A party newspaper accused bankers of continuing a "century of robbery" dating back to the end of Andrew Jackson's presidency by refusing to accommodate farmers' and workers' debt burdens (American Guardian, 1933, p.1). A former Illinois governor launched his re-election campaign by alleging that the disappearance of rural banks was a conspiracy orchestrated by urban elites to "drive the farmer to distress and bankruptcy [and]...compel the farmer to work the land as if he... were a serf" (Manhattan American, 1931, p.4). However, as the Great Depression worsened, newspapers began to suggest that unit banking itself had contributed to the crisis. *Business Week* described the 1932 Chicago banking crisis as "a heavy installment on its bill for preserving rugged individualism in the banking field" (Business Week, 1932, p.6).

Congressional debates on bank reform reflected this populist focus on rural constituencies. In 1932 and 1933, the Senate voted on several forms of branch bank legalization to address the ongoing financial crisis. Anti-branching advocates called unit banks "the American kind of a bank... owned and managed by the home folks of a community," unlike branch banks which were "a foreign system" reminiscent of the Bank of the United States' control over credit before Andrew Jackson's efforts (72nd Congress, 1932, p.9974–5). Maintaining American unit banking would counteract Wall Street, "international financiers," and other elites' ability to concentrate power and starve rural areas (73rd Congress, 1933*a*, p.3772). In contrast, pro-branching advocates argued that branching was the only way to "preserve decentralized life in America" because banklessness was so endemic (72nd Congress, 1933, p.1414–15). Combining branching and higher capital requirements would

"make the small bank safe or . . . put it out of business" (73rd Congress, 1933*b*, p. 3940).

C.2 Rural Newspaper Case Study

During the 1920s, capital requirements increased and bank failures occurred frequently. These two events could be related if legislators raised requirements to combat financial instability. However, qualitative evidence indicates that small bank failures in the 1920s did not inspire concerns about the stability-access tradeoff formalized in our model, but those in the 1930s did. We contrast coverage of a 1920s rural crisis with the 1930s national crisis in a rural newspaper, *Summerville News* in Chattooga County, Georgia, and the *Wall Street Journal* to demonstrate this shift.

Rural failures in the 1920s. This timeline covers the period between a spate of Georgia rural bank failures in 1926 and the passage of a new banking law in 1927. This year, "the worst year for banking in Georgia," marked a surge in bank failures as low cotton prices weakened agricultural borrowers (Carlson, 1992, p.35). Bankers asserted that financial access would not remain impaired, and both regulators and the public concurred, leading to higher barriers to entry through increased small-town capital requirements and branching prohibitions.

1. **August 3, 1926:** The *Wall Street Journal* reports that Georgia banks are sound: despite the failure of 86 "small banks" because agricultural prospects remain strong. The closure of banks with little capital was merely a "temporary inconvenience," according to the president of the Atlanta Clearing House Association (who was also a bank president) (Wall Street Journal, 1926, p.15).

2. **August 5, 1926:** The *Summerville News* prints a review of the above failures, which concludes that these small banks' closures had been "greatly magnified," such that the only parties concerned were "those who do not know the complete situation" (Summerville News, 1926*a*, p.1).

3. **August 19, 1926:** The *Summerville News* notes that the closest bank failure to Summerville, in an adjacent county, was resolved by the immediate opening of a new bank (Summerville News, 1926*b*). The same article mentions that the state attorney general announces his investigation into the bank failures will be decided by asking the state bankers' association for recommendations on future actions.

4. **March 3, 1927:** Banks continue to close, including in an adjacent county to the *Summerville News*. The newspaper reports that this office closure left the other county bankless and speculates that branch network (which was legal in Georgia at that time—see 7. below) would try to open an office to restore services (Summerville News, 1927*a*).

5. **March 9, 1927:** A Federal Reserve report on the 1926 bank failures, reprinted in the *Wall Street Journal*, concludes that most failures had been in small, rural areas because "there were more banks than could profitably engage in the local banking business, and that many of these banks had insufficient capital" (Wall Street Journal, 1927*a*, p.12).[24]

6. **May 21, 1927:** The *Wall Street Journal* reports that the president of the American Bankers Association recommends higher bank capital requirements (Wall Street Journal, 1927*b*).

7. **August 18, 1927:** The *Summerville News* reports that the Georgia legislature passed a new banking bill. This law both raised minimum capital requirements in cities under 10,000 people and prohibited rural bank branching in order to "protect depositors" (Summerville News, 1927*b*, p.1).

Nationwide crisis in the 1930s. We revisit the same newspaper in 1931 as Southern bank failures intensified to see how rural banking access and stability shifted relative to the 1926 period. Unlike the earlier rural crisis, there is a disconnect between local banking news and bankers' continued support for the incumbent system. For instance, one front page reported on both the need for branch legalization and the closure of the only bank in a nearby town. That bank had opened in late 1926, during the prior rural crisis and before they raised capital requirements, but was not replaced by at least 1937.

1. **February 12, 1931:** The front page of the *Summerville News* prints two banking stories next to each other. One is a call for branching to restore banking access (Summerville News, 1931*a*), while the other is a notice that a small unit bank in the county would be closing (Summerville News, 1931*b*).

   (a) The first story reports on the congressional testimony of the chairman of General Electric, Owen D. Young. Young recommended legalizing branch banking in order to restore banking services nationwide. The number of bank failures left "no escape" from branching. Legalizing branching would create a sound banking system even though it would loosen bank regulation after "an orgy of speculation."

   (b) The second, immediately to the right of the first, is a notice of a bank closure penned by the president of the bank. He asserts that deposits were too low to justify the costs of running a small bank.

2. **September 3, 1931:** The *Summerville News* prints remarks made by the president of the American Bankers Association under the headline "Some Depressions Worse Than This"

[24] This is not unique to the 1926 failures, as the *Wall Street Journal* also characterized earlier bouts of bank closures as rurally concentrated but unconcerning because these banks were rapidly replaced by new institutions (Wall Street Journal, 1920).

(Summerville News, 1931*c*). The opinion piece continually emphasizes how well the banking system provided both stability and access despite rural bank failures: "None of these elements of a true financial panic has been present in this depression of the 1930s. At no time was the banking structure as a whole shaken, despite the unprecedented rate of small bank failures that it had to absorb. At no time was the banking and credit machinery unable to extend support to the panic-stricken and broken."