

# The Economic Consequences of Foreclosure Suspensions in the Great Depression\*

Pranjal Drall  
Ewan Rawcliffe

February 2026

## Abstract

We study the effects of mortgage forbearance on local economies and individuals. During the Great Depression, twenty-five states adopted foreclosure moratoria that temporarily prevented lenders from seizing farms. By interrupting foreclosures during systemic crises, forbearance policies can avert fire sales, stabilize bank balance sheets, and dampen credit contractions. At the same time, they can raise the cost of capital and entrench land in the hands of less productive operators. We empirically evaluate these trade-offs using county-level agricultural data and linked full-count census records. We show that the moratoria preserved at least 250,000 farms nationwide and that counties most exposed to mortgages—and thus foreclosure risk—experienced a persistent 15% increase in the number of farms. Farmers protected by the policy, and their children, were significantly more likely to remain in agriculture and less likely to transition into manufacturing even two decades later. The moratoria shifted agricultural production toward smaller, more labor-intensive farms operating on more marginal land with lower capital intensity. The resulting delay in consolidation depressed farm revenues and asset values. At the same time, the policies raised local borrowing costs by roughly 10% during a period of substantial interest rate convergence. We also find suggestive evidence that highly exposed counties developed weaker manufacturing sectors in the long run, consistent with slower labor reallocation out of agriculture. Taken together, our results show that well-intentioned policies that temporarily suspend creditor remedies can have significant long-run costs.

---

\*Drall is a JD-PhD candidate at Yale; Rawcliffe is a PhD candidate at Harvard. We thank Lee Alston, Ian Ayres, Edward Glaeser, Claudia Goldin, David Lagakos, Bentley MacLeod, Eric Ohrn, Rick Hornbeck, Ryan Kellogg, Roberta Romano, David Schleicher, and Andrei Shleifer, as well as participants in the Yale Finance Breakfast, Harvard Economic History Workshop, and UChicago Research Professionals Workshop, for helpful comments. All errors are our own.

## Introduction

Foreclosure moratoria, the legal suspension of lenders' ability to seize collateral, are a recurring response to economic crises. From the days of Babylonian kings to the Great Depression, the Global Financial Crisis, and the COVID-19 pandemic, governments have repeatedly used them to soften the blow of economic distress.<sup>1</sup> The appeal of such policies is straightforward—mortgage debt is widespread, and foreclosure has significant costs for households, communities, and local economies (Mian et al., 2015; Campbell et al., 2011; Ellen et al., 2013; Diamond et al., 2020).

But the very features that make moratoria valuable in a crisis can have persistent negative consequences. In the short run, they provide immediate relief to distressed borrowers and help them stay afloat. In the long run, however, the interference with the enforcement of private contracts may cause lenders to respond by rationing credit or demanding higher interest rates. At the same time, struggling firms or households that would otherwise exit are kept artificially in place, delaying reallocation and slowing the process of creative destruction. The moratoria, in essence, exemplify a familiar tradeoff—short run protection can generate long run misallocation.

American legal institutions have long recognized and grappled with this tension. The Constitution's Contracts Clause was drafted to prevent states from rewriting credit contracts and courts have generally enforced this restriction. In *Ogden v. Saunders*, a case testing whether New York could constitutionally release debtors from future contracts under a bankruptcy law, Chief Justice John Marshall warned that state interference in private contract would “destroy all confidence between man and man...not only impair commercial intercourse and threaten the existence of credit, but sap the morals of the people and destroy the sanctity of private faith.”<sup>2</sup> However, governments have repeatedly resorted to moratoria when faced with mass distress and such policies have been upheld during emergencies. Other countries lack any such constitutional constraints and can deploy similar policies even more freely.

This paper studies foreclosure moratoria during the Great Depression. The farm sector in the 1930s was in a fragile position. The collapse of European agriculture during the First World War had caused U.S. farm prices to soar which encouraged heavy borrowing and rapid expansion. However, once global supply came back in the late 1920s and drought conditions hit, highly leveraged farmers saw their incomes collapse almost overnight. Since one in five Americans worked on farms, political pressure to protect farmers during this period was intense (Perkins, 1969). Consequently, half of the U.S. states adopted some form of foreclosure moratorium in the early 1930s (Alston, 1983). This episode presents a natural experiment to evaluate the trade-offs

---

<sup>1</sup>For example, during the COVID-19 crisis, the federal government passed an eviction moratorium that banned foreclosure on rental properties with mortgages backed by federal programs. The share of households covered by this law has been estimated at 28% (Goodman et al., 2020). Separately, the Department of Agriculture suspended foreclosures on federally backed farm loans (USDA, 2021).

<sup>2</sup>12 Wheat. 213, 354-355 (1827).

involved. We show that while moratoria preserved farm operations during the crisis, the policies also raised capital costs, caused the misallocation of land between farmers, and slowed structural change out of agriculture for individual farmers and their children.

Economic theory helps explain why these tradeoffs exist. On the one hand, a temporary suspension can be effective when the shock is industry-wide. Suppose many similarly situated firms are affected at once. In that case, the foreclosed assets are unlikely to end up in the hands of the most efficient users of the asset, as they themselves will also be in distress (Shleifer and Vishny, 1992). Depressed asset prices then transmit the shock into the financial system, as banks holding the loans suffer balance-sheet losses and respond by curtailing lending. This leads to cycles of credit contraction and harms investment (Kiyotaki and Moore, 1997; Rajan and Ramcharan, 2016). If the failed loans also reflect underlying degradation of bank assets, foreclosures may also lead to bank failures (Messer and Rieder, 2025). A moratorium, therefore, can break this cycle by preserving otherwise viable farms until prices recover or refinancing becomes available. More broadly, suspensions benefit communities by preserving the social fabric and public goods, like schools, churches, and social networks.

On the other hand, moratoria are not without cost. Markets rely on the enforceability of contracts. When the government changes the rules of the market, lenders learn that their loan contracts risk being violated and may respond by rationing credit or bidding up the cost of capital (Stiglitz and Weiss, 1981)<sup>3</sup>. Moreover, by protecting the financially weakest owners of productive assets, the policy slows the exit of low-productivity “zombie” firms (Caballero and Hammour, 1996). This forestalls consolidation and sustains existing misallocation (Acharya et al., 2022; Chen et al., 2023; Aragón et al., 2024). When children inherit the family farm, as is common in this setting, the policy-driven land misallocation can become persistent occupational misallocation (Haws et al., 2025).

We provide evidence to assess the empirical relevance of these trade-offs during the Great Depression. Taken broadly, our results are consistent with the notion that moratorium policies have significant drawbacks for the local real economy in the long run. From an efficiency perspective, moratoria led to less farm consolidation, increased local capital costs as financial institutions responded to the government’s breach of contract by demanding higher interest rates, and reduced capital intensity and per-acre productivity. The moratoria successfully kept farmers on their farms during the crisis and likely mitigated some short-term impacts. However, since manufacturing provided the best long-run income opportunities, forgone sectoral shifts into manufacturing by farmers and their descendants likely represent a further unforeseen drawback of the policy in this setting.

---

<sup>3</sup>In more recent times, forbearance policies are almost always accompanied with government guarantees or other financial support for lenders to mitigate this risk (Rose, 2011). In the episode we study, such government financing was not associated with state forbearance policies, though Federal refinancing was available, as we discuss in detail in Section I

To guide our empirical analysis, we first lay out a simple two-sector (agriculture and manufacturing) model of the economy. Farmers differ in their ability, and higher ability farmers optimally run larger and more productive farms, releasing more labor into manufacturing ([Adamopoulos and Restuccia, 2014](#)). We embed this within-period optimization into a three-stage model of economic crisis. In the first period, the household allocates workers to sectors, farmers choose their land and capital inputs, and then obtain mortgages to purchase the land. In the second period, an unexpected productivity shock reduces farm revenues, which makes mortgage payments unaffordable for low-ability farmers. The lender forecloses upon farmers who cannot meet their mortgage payments. In this framework there is a simple connection between mortgage incidence and the impact of relief: counties with a higher proportion of farm mortgages are those most affected by the moratorium.

A moratorium policy, modeled as a subsidy to mortgage payments, allows some farmers to stay solvent. In addition to governing how many farms avoid foreclosure, the policy shapes the distribution of farmer abilities that survive the crisis. In the third stage, the shock dissipates, and surviving farmers can re-optimize their inputs. Foreclosed farmers reallocate into manufacturing, and foreclosed farms are offered to the market. We also consider the endogenous adjustment of local capital costs to the moratoria as a channel of adjustment. The key takeaway is that the policy dictates the distribution of farmer abilities, which in turn has implications for land consolidation, productivity, and sectoral choice.

Motivated by the relationship between mortgage incidence, moratorium adoption, and the number of farms, we turn to the data. States that adopted moratoria were not randomly selected. Consistent with the state-level analysis of [Alston \(1984\)](#), we find that treated counties are more populous, had more and larger farms, and had deeper financial markets. Our identification strategy deals with this selection using a triple-differences framework that leverages variation (1) across counties with different baseline mortgage shares, (2) across states that did or did not adopt moratoria, and (3) across time. We also directly control directly for other concomitant shocks such as county-specific New Deal spending ([Fishback et al., 2005a](#)) and Dust Bowl erosion ([Hornbeck, 2012](#)).

In addition to triple differences, we implement a border county design that compares only counties along state borders where one side adopts a moratorium and the other does not. This leaves us with a sample of 476 neighboring counties where baseline observable characteristics are almost fully balanced. Our main results are robust to this design and are similar in magnitude to those in the full sample. This implies that our findings are not driven by broad regional differences or other pre-shock imbalances.

We start by showing that the moratoria kept a large number of existing farms in operation by preventing consolidation. Counties in the top quartile of exposure saw an increase of 15% in

the number of farms (around 300 farms), which persists at least through 1960. This is entirely driven by foregone consolidation, as the amount of land in farming does not change. That is, the average farm size falls significantly and the resultant smaller farms are worth 20% lower on average.

County-level aggregates cannot reveal the extent to which these results are driven by selection among surviving farmers, or by re-optimization of resources within a fixed set of farmers. To show that the selection of surviving farmers likely drives these results, we use the full-count linked Census data for 1930-1940. We show that a higher share of individuals remain in agriculture and a lower share moves into manufacturing. Extending the linkage to 1950, we find that the additional agricultural activity is driven almost entirely by the children of farmers whose farms were protected in 1930. Moving from the median to the 90th percentile of the county farm mortgage share distribution, the children of farmers who are protected by the policy are around 2.5% more likely to have inherited the family farm.

The suspensions also altered local credit conditions. Counties most affected by the moratoria had interest rates rise by 9% even though interest rates sharply declined and converged over this time period. In 1930, county rates ranged from roughly 3% to 10% but by 1940 they were overwhelmingly clustered in the 4.5–5.9% range, with the upper tail rarely exceeding 8.5%. This increase cannot be explained by local banking conditions as the rate of bank failures in moratoria and non-moratoria states was identical thanks to Federal protections. Instead, we argue that the rate rises are driven by a localized and persistent risk premium. Suspending foreclosure rights weakened creditor protection, and the prevention of consolidation left lenders facing a riskier pool of smaller, less capitalized, and less productive farms.

We then examine how the policy reshaped agricultural production. In counties where the moratoria had the most bite, the average value of farms falls by roughly 20%. Protected farms devote more land to crops, operate with lower capital intensity, and experience higher rates of crop failure, leading to lower yields and lower revenues per acre. We are unable to distinguish between selection and re-optimization. Some of these patterns may reflect the types of farms preserved by the moratoria. However, we also argue that by keeping more workers in agriculture and raising the cost of capital, the policy pushed production toward labor intensity and away from capital deepening. The resulting decline in productivity, therefore, was a natural consequence of distorted input choices and weakened investment incentives.

Taken together, the findings show that crisis-era protection comes with long-run costs. We are unable to speak to overall welfare, but we present clear evidence that the suspensions prevented farm consolidation, raised credit costs, and had significant intergenerational effects. By holding resources in less efficient uses and increasing the cost of credit, the policy impeded the adjustment process central to economic recovery and subsequent growth.

Two comments are relevant to the external validity of our setting. First, the dramatic rise of the US manufacturing sector following WWII, and hence its desirability relative to agriculture, was far from evident to policymakers during the depths of the Depression. That we find moratoria had the effect of preserving labor in agriculture and delaying transitions to manufacturing is thus not an indictment of the policy *per se*. Second, more recent debt interventions tend to be accompanied by explicit government funding guarantees. By contrast, states did not compensate lenders for moratoria in our setting. This distinction is clearly relevant to the effect of moratorium policies on the financial system. Nonetheless, our central results regarding farmer selection and misallocation remain relevant even in settings with lender compensation.

Our study is most closely related to work on how borrower income shocks and foreclosure policy affected financial stability in the Great Depression. Building on the seminal analysis of Depression-era farm foreclosures in [Alston \(1983\)](#), this literature traces how agricultural income collapses transmit to the banking system and the real economy. [Messer and Rieder \(2025\)](#) show that the commodity price busts of the 1920s weakened banks through both loan defaults and deposit withdrawals, underscoring the tight link between farm incomes and financial fragility. [Wheelock \(2008\)](#) examines the federal response to residential mortgage distress in the 1930s—especially the Home Owners’ Loan Corporation—and emphasizes the tradeoff between preventing foreclosures and preserving credit discipline. [Rajan and Ramcharan \(2016\)](#) provide direct evidence that bank failures depress recovery values on foreclosed assets and land prices through fire-sale dynamics. Relative to these papers, we use a causal identification strategy to show that foreclosure moratoria durably changed the allocation of land and labor. By suspending foreclosure, states kept less-productive farmers in agriculture, raised borrowing costs, and slowed the transition into manufacturing, highlighting the long-run costs of weakening contract enforcement in the real economy.

More broadly, we contribute to the literature on foreclosure, bankruptcy, and credit crises. Prior work documents the local spillovers from residential foreclosures ([Campbell et al., 2011](#); [Gupta, 2019](#)) and the costs of bankruptcy for firms and communities ([Hansen and Ziebarth, 2017](#)). A central theme is that foreclosure generates negative externalities through fire sales and contagion ([Shleifer and Vishny, 1992](#)), while interventions risk sustaining “zombie” firms ([Acharya et al., 2022](#)). Our findings speak directly to this tradeoff since foreclosure moratoria relieved short-run distress but increased capital costs and preserved inefficient producers.

By focusing on farming, we contribute to the literature on land markets and agricultural misallocation. A large body of work finds that frictions in land markets can have sizable aggregate effects ([Chen et al., 2023](#); [Aragón et al., 2024](#); [Adamopoulos and Restuccia, 2014](#)). Historical studies show how land concentration and assignment mechanisms generate persistent distortions ([Smith, 2019](#); [Gates, 1942](#); [Haws et al., 2023](#)). Our evidence on intergenerational persistence

extends this literature by showing that saving farms in 1930 caused farmers' children to remain in agriculture through 1950, making the policy-induced misallocation long-lived rather than temporary.

Finally, we add to the economic history of the Great Depression. A central theme in this literature is how shocks and New Deal programs reshaped farm structure and rural credit markets. [Alston \(1984\)](#) document the scale of farm mortgage distress and the political economy of foreclosure interventions. Other work emphasizes how credit availability and banking institutions mediated the Depression and influenced structural change ([Rajan and Ramcharan, 2015a](#); [Quincy, 2024](#); [Angelova and D'Amico, 2024](#)), while related studies show that agricultural policies had enduring impacts on labor structure and land use ([Depew et al., 2013](#); [Hausman et al., 2019](#); [Kislev and Peterson, 1982](#)). Environmental shocks such as the Dust Bowl also altered farm structure, migration, and long-run adjustment ([Hornbeck, 2012, 2023](#)). By exploiting cross-state variation in foreclosure moratoria, one of the few large interventions outside national New Deal programs, we extend this work and provide new evidence on how crisis-era legal relief shaped both agricultural productivity and the transition into manufacturing.

## **I Historical and Legal Context**

By the early 1930s, farmers in the United States were overleveraged and illiquid. Wartime prices had encouraged acreage expansion financed by short-maturity and interest-only mortgages. Once commodity prices collapsed after 1920, those nominal debts hardened into binding constraints. Foreclosure—often judicial and followed by a redemption window—became the modal enforcement tool. The Depression then deepened income losses and produced a queue of pending sales. Against this backdrop, states passed moratoria to prevent involuntary transfers of depressed assets while incomes recovered or federal refinancing became available. We describe the backdrop against which the moratoria were passed, what they did, whom they were intended for, and how the policies varied across states.

### **I.A Agricultural Distress 1920-1933**

The First World War temporarily shifted relative prices in favor of American agriculture. European disruption boosted demand for U.S. grain and cotton as average crop prices doubled between 1915 and 1919, and land values rose by more than 50 percent between 1910 and 1920 ([Rajan and Ramcharan, 2015b](#)). Farmers responded by voluntarily expanding their acreage and taking on more debt. They cleared additional land, purchased machinery, and financed this expansion with mortgages. The boom also induced aggressive bank entry and balance-sheet expansion in agricultural counties ([Jaremski and Wheelock, 2018](#)). Government encouragement



and high wartime prices encouraged farmers to plant as much acreage as possible, including the bringing into production of large tracts of marginal and semi-marginal land that would not have been viable earlier (Saloutos and Hicks, 1951). Most loans required interest-only payments during the term, with the entire principal falling due in a single lump sum at maturity (a “balloon” payment). Outstanding farm-mortgage loans peaked in 1924, when the ratio of mortgage debt to value per acre approached 300 percent (Horton et al., 1942). We plot the national time series of the share of farms under mortgages in Figure 2a. This structure was sustainable only so long as high agricultural prices persisted.

However, once European supply recovered in 1920, commodity prices collapsed which transformed the nominally fixed mortgage obligations into a heavy burden (Messer and Rieder, 2025). Owner-operators faced a tightening cash-flow constraint, as loans written near the 1919 peak rolled over and repayment became difficult. In most states, foreclosure was the primary enforcement mechanism, and although bankruptcy was available, farmers could not be compelled to use it and often did not initiate it since it was relatively expensive (Wickens, 1936). Many borrowers and lenders therefore resorted to foreclosure or assignment of deed to the creditor (an owner-initiated transfer of title to the lender to avoid a forced sale). Because most states also granted redemption periods, the interval from the initiation of foreclosure (filing suit or noticing a sale) to issuance of the sheriff’s deed often ran a year or more. The historical record shows involuntary transfers of farm real estate—foreclosures, bankruptcies, and assignments—rose sharply after 1922 rather than immediately in 1920, consistent with these contractual and legal frictions (Messer and Rieder, 2025). We plot these trends in involuntary transfers in Figure 2b. One feature of note in this figure is that, consistent with our above discussion, foreclosure massively outweighs bankruptcy as the means of involuntary transfer. Another key feature is that distress rates reached their first significant peak in 1925, several years before the onset of the wider Great Depression.

The consequences were visible on the land. There was significant amount of distress during the 1920s. Foreclosure was not only a legal act but a social event, provoking “penny auctions” and local resistance in some counties when neighbors tried to keep families on their farms by deterring outside bidders (Woodruff, 1937). Even where auctions followed, the combination of lower land prices and limited credit meant that farms frequently reverted to creditors or shifted from owner-operation to tenancy. The change in ownership structure was itself a symptom of financial pressure, as equity built during the boom dissipated and borrowers lost access to collateral-based credit.

American agriculture was already fragile by the time of the Depression, which then multiplied the damage (Bernanke, 1983). After 1929, the nationwide contraction further squeezed farm incomes, notwithstanding the 1933 exchange rate devaluation, which temporarily lifted



crop prices (Hausman et al., 2019). The Dust Bowl, starting as early as 1930 but peaking in 1934–1936, imposed a highly uneven environmental shock that lowered yields, values, and population in the worst-affected areas (Hornbeck, 2012). Changes in aggregate measures were stark as personal income fell about 44% between 1929 and 1933. Agricultural mortgage debt remained large and farm foreclosures reached catastrophic levels—on the order of 96,000 per year between 1921 and 1940, with a peak near 200,000 in 1933 (Alston, 1983).

This backdrop explains why the states turned to foreclosure suspensions in 1933–1935. The Federal response, which we discuss below, was still some years away. Policymakers had to deal with a growing backlog of foreclosures as short-term debt came due amid falling prices. Farmers responded with violence towards judges and creditors and demanded relief (Skilton, 1946). States then passed laws that stayed forced farm sales and prevented creditors from foreclosure as they did not have any machinery to re-write debt contracts or extend new financing. Legislators hoped that slowing forced transfers until incomes recovered or refinancing became available through emergent federal programs would be beneficial in the long run (Alston, 1984). The next section describes these statutes and the cross-state variation that will anchor our empirical analysis.

## **I.B Applications of Moratoria Policies**

The idea of suspending debt obligations during periods of hardship is not new. As far back as 2250 B.C., the Code of Hammurabi allowed borrowers to suspend repayment when crops failed due to natural disasters (Poteat, 1938). The U.S. legal system, however, had firmly turned against debtor relief. The Contracts Clause of the Constitution (Art. I, §10), drafted to prevent states from altering contractual obligations, was widely interpreted by courts to prohibit moratorium-style legislation. Chief Justice John Marshall warned that state interference with contracts “destroy[ed] all confidence between man and man” and “sapped the morals of the people” (Poteat, 1938; Prosser, 1934). From the Civil War through the Panic of 1893, state attempts to delay or suspend foreclosures were repeatedly invalidated. But virtually every tool for debtor relief such as postponing foreclosures, limiting deficiency judgments and extending redemption periods had been tried and struck down (Anonymous, 1939).

The Depression led to unprecedented levels of agricultural distress. Between 1929 and 1933, personal income fell by nearly half and unemployment reached 25 percent (Wheelock, 2008). Farm mortgage debt remained large about \$7.7 billion and equaled a quarter of farm real estate value in 1933 (Hausman et al., 2019). Foreclosures averaged 96,000 per year between 1921 and 1940 and peaked at 200,000 in 1933 (Alston, 1983). The Dust Bowl further cut yields and land values in the Plains (Hornbeck, 2012). In Minnesota, half the land was mortgaged, prices fell below production costs, and many farms found no buyers (Prosser, 1934). The economic collapse

quickly translated into social and political crisis as well.

Farmers across states disrupted foreclosure sales and marched on the state capitol. The state governments threatened martial law, vowing to forcibly compel wealthy interests to cooperate unless legislative relief was passed (Prosser, 1934). Facing popular pressure, state legislators in the hard-hit Midwest and Great Plains introduced dozens of foreclosure relief bills—many of which were clearly unconstitutional under the prevailing legal doctrine (Prosser, 1934). From 1933 to 1935, 25 states enacted foreclosure moratoria to temporarily suspend or delay the enforcement of mortgage contracts (Wheelock, 2008). These measures were passed by states that were more likely to have higher farm foreclosure rates, a higher percentage of mortgaged farms, and a greater reliance on private credit markets (i.e., a lower percentage of federally held mortgage debt) (Alston, 1984; Wheelock, 2008).

Federally held loans, such as those administered through federal land banks, were less likely to result in foreclosure. There was significant variation in who held debt across the country (Jones and Durand, 1954). After 1933, the FCA became a dominant force while life-insurance companies reduced their exposure to farm mortgages by half (Wall and Cone, 1937). Additionally, joint-stock land banks and several state credit agencies moved into liquidation and came to hold large inventories of “acquired farm real estate” indicating heavy foreclosures, whereas the federal land-bank system emphasized refinancing (Wall and Cone, 1937). Therefore, states where farmers depended more on local banks and private individuals were more exposed to crisis dynamics and felt greater pressure to intervene.

## **I.C How the Moratoria Worked in Practice**

Foreclosure procedures varied widely across states. We give a stylized overview of the process in Figure 5. Many required judicial foreclosure (the lender sues and, if it prevails, a sheriff conducts a sale), while others permitted power-of-sale foreclosure (a faster, out-of-court auction under a mortgage or deed of trust) (Ghent, 2014). After the sale, lenders often sought deficiency judgments for any unpaid balance. Several Depression-era legislatures blunted this with “fair value” or upset-price rules that limited deficiencies where auction prices were plainly depressed by emergency conditions. State moratoria added to this baseline by pausing sales or extending redemption and, quite commonly, by conditioning any stay on payments so the creditor received some compensation during the hiatus.

Although the moratoria differed in form, the laws shared a central design choice—rather than permanently rewriting debts, they delegated to courts the power to grant temporary, conditional relief case by case. The most common tools were judicial stays of foreclosure and extensions of statutory redemption periods. Borrowers could petition for a stay, which judges granted where

equity warranted. In states like New York, for example, foreclosures on pre-1932 mortgages were suspended for principal-only defaults so long as the borrower kept current on interest and taxes (Wheelock, 2008). Elsewhere, the primary relief was to lengthen the period a borrower could redeem *after* a foreclosure sale. Minnesota's 1933 statute authorized courts to extend redemption as late as May 1, 1935, and required use-and-occupancy payments during the extension. The Supreme Court's decision in *Home Building & Loan Ass'n v. Blaisdell* (1934) upheld that law, emphasizing that emergency conditions, a legitimate public purpose, the temporary and limited nature of relief, fair protection for creditors (including payment terms), and ongoing judicial supervision made such measures consistent with the Contracts Clause. In *Blaisdell*, the borrowers were allowed to remain upon paying \$40 per month which applied first to taxes and upkeep and then went to the debt holder (Prosser, 1934). The ruling also effectively green-lighted analogous statutes nationwide.

Not all types of measures passed under the banner of emergency relief survived Contracts Clause scrutiny. In *W.B. Worthen Co. v. Kavanaugh*,<sup>4</sup> the Supreme Court invalidated Arkansas's 1933 statutes because the law gutted a mortgagee's security for many years. The law stretched procedural timelines from roughly two months to at least two and a half years before sale, followed by a four-year redemption. It also slashed penalties and fees and the purchaser's possession right was eliminated. Debtors could retain the property without paying taxes, interest, or rent without showing of hardship. Unlike *Blaisdell*'s narrowly tailored, temporary, and conditional relief, Arkansas's scheme was overly broad. The Court termed it an "oppressive and unnecessary" destruction of the contract's value and thus an unconstitutional impairment.

Consequently, the moratoria prevented foreclosures only at the margin. Courts only granted relief to debtors with a plausible path to recovery. They did not shield "hopelessly insolvent" owners who did not have a "reasonable probability" of saving the land (Poteat, 1938). Moreover, the moratoria and the workouts reached in courts required at least partial repayment which meant that farmers who had little income did not get any protection.

The Iowa Supreme Court's decision in *First Trust J.S.L. Bank v. Merrick*<sup>5</sup> shows how the policy was meant to operate. L.E. Julius had purchased his farm in 1929 and entered possession on March 1, 1930. He paid interest and taxes through 1931 but then defaulted as prices collapsed, losing the property at a May 1934 sheriff's sale. In February 1935, he petitioned under Iowa's moratorium statute for an extension of the redemption period. The creditor opposed, arguing he was insolvent and had failed to "do equity" by assigning the 1934 rents to a third party and not paying taxes. The court disagreed. Julius still owned substantial livestock and machinery, held an equity of roughly \$2,000 in personal property, had repaired flood-damaged fences, and had secured a \$7,500 refinancing commitment from the Federal Land Bank. Given these facts, the

---

<sup>4</sup>295 U.S. 56 (1935)

<sup>5</sup>221 Iowa 585 (1936)

justices found a “reasonable probability” he could save the farm and affirmed the trial court’s grant of an extension. This can be understood as a paradigmatic case of conditional relief where the Court gave the creditor with a credible prospect of rehabilitation some temporary breathing room.

The Minnesota Supreme Court’s decision in *Bukowski v. Travelers Ins. Co.*<sup>6</sup> illustrates the other side of the line. Mary Bukowski, a widowed owner of 200 acres in Lincoln County, had defaulted on her \$6,500 mortgage during the early Depression and lost the farm at a 1934 foreclosure sale. With the redemption period about to expire, she petitioned under the 1935 moratorium act for another year, offering to pay rent in kind. The trial court granted the extension, but on review the state high court reversed. The record showed five years of nonpayment, over \$1,300 in unpaid taxes, no refinancing efforts, and waste to the property through removal of small buildings and timber to adjoining land. At best, the justices concluded, the creditor would “receive practically nothing” from rent or crop-share arrangements. At worst, the extension would simply add taxes and interest to an already hopeless debt. The dissent cited successive crop failures, the plaintiff’s remaining equipment and livestock, and her apparent intent to continue farming. But the majority’s denial terminated her last chance to redeem, underscoring that the moratoria did not rescue those deemed beyond saving.

Relief was also unevenly applied. In Minnesota, fewer than 5 percent of eligible debtors sought formal relief, as most negotiated informally with lenders wary of litigation and reputational costs (Prosser, 1934). Where courts were involved, hearings were typically brief, judges acted more as mediators than adjudicators, and they exercised wide discretion in setting payment levels and deciding who was deserving of relief.

The moratoria were constitutionally valid as long as they remained temporary. The Supreme Court made this clear in *Blaisdell*, warning that the continued operation of such laws depended on whether the “emergency” still existed. This limit became critical as states began to extend their moratoria into the late 1930s. In 1938, the highest courts in both Nebraska and Mississippi ruled that the emergency had ended. The Nebraska court held that “continued depression” alone no longer justified impairing contract enforcement and struck down the law’s extension (Poteat, 1938). The Mississippi Supreme Court similarly questioned whether any emergency still justified a moratorium as late as 1938, suggesting that economic conditions had normalized to a degree incompatible with continued intervention (Poteat, 1938).

We model the moratoria as a temporary court-mediated reduction in the effective mortgage payment with full enforcement resuming thereafter (section II). This stylized representation captures several details. First, courts generally conditioned foreclosure relief on farmers making partial “use and occupancy payments” which aligns closely with the model’s temporary payment

---

<sup>6</sup>196 Minn. 31 (1935).

subsidy. Second, moratoria were explicitly temporary, typically lasting one to four years, which corresponds to our assumption of a limited-duration policy. Third, the policy did not eliminate debt or permanently guarantee possession. It temporarily shifted the foreclosure threshold which kept marginal yet viable farmers on their land while excluding hopeless cases. Lastly, cross-state policy variations (such as differences in duration, redemption extensions, and deficiency limits) naturally translate into differences in the magnitude and timing of the payment reduction in our model. Thus, although simplified, the model captures the essential features of the actual moratoria.

## **I.D Farm Possession and Legal Title**

Although the moratoria temporarily delayed creditor remedies and preserved farmer occupancy, the laws did not guarantee farmers the ultimate retention of legal ownership. The original statutes and judicial opinions interpreting them clearly distinguished between possession and the final transfer of title. The laws allowed farmers to remain on their land only temporarily, pending potential redemption or refinancing.

Minnesota's statute clearly stated this distinction. Under the law, the foreclosure sale remained valid which meant that the lender became the purchaser and was positioned to obtain full title if redemption failed. The statute simply extended the redemption period which allowed the debtor to retain physical possession during this extended interval as long as the payments were paid. The Supreme Court explicitly noted that the statute "does not affect the validity of the sale or the right of a mortgagee-purchaser to title in fee" if redemption ultimately failed.<sup>7</sup> During the extension, the mortgagor remained in occupancy but the creditor received "the equivalent of possession" through these court-mandated rental payments (Skilton, 1943).

Iowa's moratorium statute similarly distinguished between possession and title. The 1933 act explicitly withheld issuance of the sheriff's deed—the formal document confirming title transfer—until March 1, 1935. The law stated that "no sheriff's deed shall be issued until March 1, 1935. In the meantime the owners may redeem the property and are entitled to the possession thereof." This language illustrates directly that the state was providing temporary occupancy without any final title transfer.

In practical terms, even after a sheriff's sale, farmers could remain on the land but did not hold formal title. The Iowa Supreme Court's decision in *First Trust Joint Stock Land Bank v. Merrick* (1936) demonstrates this arrangement. In Merrick, the farmer stayed in possession after the sale and petitioned for an extended redemption period under Iowa's moratorium statute. The court granted the extension because the farmer demonstrated a "reasonable probability" of

---

<sup>7</sup>Blaisdell at 425.

securing refinancing and eventually redeeming the property. Thus, the court allowed temporary possession and provided a chance at redemption but did not confirm or restore the farmer's ownership of the land. The extension merely deferred the final transfer of title rather than transferring it outright.

These cases illustrate two distinct legal mechanisms. In the case of pre-sale stays, situations in which no sheriff's sale had yet occurred, courts can postpone foreclosure and condition continued occupancy on payments to maintain the property. This action preserved debtor possession temporarily and provided additional time but it did not transfer title to the borrower. Foreclosure proceedings resumed if the stay ended without full redemption.

In post-sale contexts, where a foreclosure sale had already occurred, statutes extended the statutory redemption period and temporarily blocked dispossession. The laws explicitly stated that the purchaser was not entitled to immediate possession during the extended redemption period. Farmers paid rental fees covering carrying charges, but these payments alone never restored title. The purchaser's title fully vested only if the extended redemption period expired unpaid.

If a farmer wanted to regain full legal ownership, the farmer needed to complete full redemption. Redemption required paying off the entire outstanding mortgage debt including principal, accrued interest, penalties, and foreclosure-related costs. In practice, full redemption often meant securing new financing, usually through refinancing or loans provided by federal land banks or private lenders. Once the debt was fully paid, either with fresh funds or from accumulated resources, the borrower formally reclaimed title from the creditor or foreclosure-sale purchaser. Statutes defined this process explicitly. In Iowa, for example, redemption involved "payment of the debt so that title... is restored to the debtor." Thus, while moratoria provided temporary relief, full restoration of ownership was achievable only through full repayment or refinancing within the statutory redemption period.

In sum, Depression-era moratoria explicitly distinguished debtor possession from legal ownership. They offered distressed farmers temporary relief, preserving their opportunity to redeem their properties. Legal title returned to borrowers only if debts were fully redeemed or refinanced within the statutory window. Otherwise, title permanently went to the foreclosure-sale purchasers, exactly as it would have without moratoria.

Consequently, although we can confidently hypothesize that the policy ought to increase the number of farms at the county-level, the implications for ownership structure are ambiguous. Since the laws preserved possession without guaranteeing title, the same farm could appear as owner-operated, lender-owned with the former owner in place, or effectively tenant-operated in the Census. In theory, the case-by-case judicial discretion and payment conditions ought to select relatively viable and better-capitalized borrowers into relief while excluding "hopeless"

cases which would push some owners toward tenancy or exit but enabling others to refinance and regain title.

Lender behavior also muddies the categories as creditors often bought at sale, deferred possession, leased back, or negotiated informal workouts. Because the measures were temporary and their expiration and enforcement varied across states and courts, legal status could change short windows. As a result, while we expect a clear effect on the count of farms, the composition among owner-operators, tenants, and manager operated farms can plausibly move in either direction.

## **I.E The Moratoria as a bridge to the New Deal**

Beginning in the middle of 1933, the federal response gained steam. The Agricultural Adjustment Act paid farmers to restrict acreage and marketed supply. These payments were designed to raise farm purchasing power and they did. The U.S. Department of Agriculture's (USDA) own retrospective reports that farm income in 1935 was more than 50 percent higher than in 1932, and that rental and benefit payments account for about a quarter of the improvement over 1933–1935 (?). Dollar devaluation worked alongside the AAA. Traded crop prices rose almost at once in spring 1933. Counties more exposed to those price increases saw stronger consumption and faster recovery, with the impact larger where farm debts were heavier ([Hausman et al., 2019](#)).

At the same time, the Farm Credit Administration (FCA) moved on an extraordinary scale. The Emergency Farm Mortgage Act of 1933 allowed land the Federal Land Banks to make direct loans to farmers where national farm associations had previously not serviced. From 1933 to 1939, the Federal Land Banks (FLBs) alone held 48 percent of the nation's farm-mortgage debt. Prior to this, the FLB's peak was just 9 percent in 1922 ([Rose, 2013](#)). In parallel, Land Bank Commissioner (LBC) lending—often taken as junior liens to cure delinquencies—expanded rapidly. Over the life of the program the LBC made roughly 680,000 loans. By March 31, 1940, the FLBs and LBC together had nearly \$2.7 billion of farm mortgages outstanding at a time when total farm-mortgage debt was about \$12 billion. Congress also cut the cost of LBC relief, fixing the interest rate at 4 percent in 1937 and extending that emergency rate through mid-1940 ([Rose, 2013](#)). According to FCA annual reports, although a third of all FCA loans became delinquent, only 7 percent were ultimately foreclosed before 1944 ([Rose, 2013](#)). This suggests that the refinancing worked and ultimately ended up saving a vast majority of troubled farms.

In summary, the AAA payments and land-bank refinancing made the effects of the moratoria sticky. The moratoria acted as a bridge by helping farmers preserve title until prices had doubled from the lows of 1932 and federal lenders refinanced debt. The moratoria's importance, therefore, was not limited by their temporary nature.



## I.F Federal Response and Bankruptcy

In addition to refinancing debt and raising farm prices, the federal government also pursued bankruptcy reform. The Frazier–Lemke Farm Bankruptcy Act of 1934 allowed indebted farmers, after bankruptcy had been adjudged, to retain possession of their land for up to five years while paying a court-set “reasonable rental,” with the right to repurchase the property at its then-appraised value over a six-year schedule at one percent interest. However, in *Louisville Joint Stock Land Bank v. Radford*<sup>8</sup>, the Supreme Court unanimously struck down the Act in 1935, finding that it violated the Fifth Amendment by depriving mortgagees of property without just compensation and “scal[ing] down the indebtedness to the present value of the property” at the debtor’s option, which exceeded constitutional limits on government interference with secured creditors’ rights.

Congress responded by passing a revised version, commonly known as the “Farm Mortgage Moratorium Act” of 1935, which included more limited terms. It reduced the moratorium to three years, included a formal declaration of emergency, allowed public sale under certain conditions (with farmer redemption rights), and adjusted procedural flexibilities to retain constitutionality. The revised law was upheld.<sup>9</sup>

The Frazier–Lemke amendments and related Depression-era bankruptcy reforms offered farmers new legal tools, but they never displaced foreclosure as the main channel for distressed land transfers. Farmer bankruptcies in the 1930s were rare relative to foreclosures. Between 1930 and 1934, the national incidence of farmer bankruptcies was 0.75 per 1,000 farms, while foreclosure rates during the same period ranged from 20 to over 35 per 100,000 (Messer and Rieder, 2025). This gap persisted despite the 1933–34 reforms that lowered costs and simplified procedure. As Wickens (1936) documents, the average farmer bankruptcy case still took more than eight months to complete and cost over \$200 in filing, referee, appraisal, and attorney fees. Farmers could not be forced into bankruptcy, moreover, so use of the procedure depended entirely on their willingness to initiate it (Messer and Reider 2025). In 1934, only 4,464 farm bankruptcies were recorded nationwide (Wickens 1936).

Several factors help explain why bankruptcy was not more widely used. Wickens (1936) noted that “the more common method of liquidation [was] by foreclosure,” reflecting both speed and creditor control. Costs remained high. The average cost of farmer bankruptcy proceedings was “more than \$200 per case,” a prohibitive amount for many debtors. Resolution times were lengthy, averaging over eight months, with some states exceeding a year and a half. Farmers were exempt from involuntary petitions, and many “did not know about their privileges under the federal bankruptcy law.” Finally, the average liabilities of bankrupt farmers, \$9,600 against \$4,250 in assets, suggest that only the most deeply insolvent operations resorted to bankruptcy,

---

<sup>8</sup>295 U.S. 555 (1935)

<sup>9</sup>*Wright v. Vinton Branch of Mountain Trust Bank of Roanoke*, 300 U.S. 440 (1937).

while smaller or moderately leveraged farms faced quicker foreclosure.

Foreclosure, by contrast, could be initiated by a single creditor, did not stay collection on other debts, and culminated in a sale if redemption failed (Messer and Reider 2025). In practice, the institutional frictions help explain why, even after the Frazier–Lemke revisions, bankruptcy never rivaled foreclosure as a resolution mechanism for distressed farms. Therefore, despite the institutional changes in bankruptcy law, foreclosures remained the primary (involuntary) method for land reallocation during the Depression. That is, the overwhelming majority of distressed transfers occurred through foreclosure.

## II Theoretical Framework

Our static setup closely follows [Adamopoulos and Restuccia \(2014\)](#), which embeds a span-of-control problem in a two-sector, county-level economy with a fixed allocation of land and capital. We derive comparative statics for farm size and agricultural employment in response to changes in the distribution of ability, motivated by a shock to selection into farming. We then extend the static framework to a dynamic model in which farmers face an exogenous price shock and a moratorium.

### II.A Static Problem

#### Manufacturing

A non-agricultural good is produced with technology:

$$Y_n = AK_n^\alpha N_n^{1-\alpha}$$

where  $A$  is an economy-wide productivity term. The firm maximizes in the standard way, facing a numeraire price for each unit of the manufactured output,  $Y_n$ , and taking the prices of labor,  $w$ , and capital,  $r$ , as given. The capital stock is exogenous to the local economy. We will introduce a locally endogenous capital price shortly.

#### Agriculture

An immutable unit of mass of farmland is homogeneous ex ante in quality. Farmers have productivity  $s > 0$  drawn from cdf  $F$  with support on  $[\underline{s}, \bar{s}]$ . The production technology for agricultural

output  $y_a$  is a farm with working capital  $k$  and land  $\ell$  as inputs:

$$y_a = A\kappa [\theta k^\rho + (1 - \theta)(s\ell)^\rho]^{\frac{\gamma}{\rho}}$$

where  $\kappa$  is agriculture-specific productivity and  $\theta$  is the importance of capital relative to ability-augmented land. Since a farmer's ability is land-augmenting, capital-land ratios can vary with farm size. The span-of-control parameter is  $\gamma \in (0, 1)$ <sup>10</sup>. There is no hired labor, so one farm uses one unit of labor (the farmer).

The farmer with ability  $s$  solves the problem:

$$\max_{\ell, k} \pi(s) = p_a A\kappa [\theta k^\rho + (1 - \theta)(s\ell)^\rho]^{\frac{\gamma}{\rho}} - m\ell - rk$$

where farm outputs sell for  $p_a$  and input costs are  $(m, r)$ . All farmers are price-takers, but higher-ability farmers make positive profits. The optimal farm size is:

$$\ell(s) = \left[ \gamma(1 - \theta)A\kappa \frac{p_a}{m} \right]^{\frac{1}{1-\gamma}} \left[ \theta \left( \frac{\theta}{1 - \theta} \frac{m}{r} \right)^{\frac{\rho}{1-\rho}} + (1 - \theta)s^{\frac{\rho}{1-\rho}} \right]^{\frac{\gamma-\rho}{\rho(1-\gamma)}} s^{\frac{\rho}{1-\rho}},$$

Farm size rises with farmer ability so long as  $0 < \rho < 1$ , making land and capital substitutes. From this, we have that a given distribution of managerial ability  $F$  pins down the distribution of farm sizes.

The optimal capital-land ratio decreases in farmer ability under the same condition: more able farmers use less capital per acre on their larger farms. Less-able farmers operate smaller farms and employ higher capital intensity. All else equal, farmers use less capital as the price of capital relative to land increases.

$$\frac{k}{\ell} = \left[ \frac{\theta}{1 - \theta} \frac{m}{r} \right]^{\frac{1}{1-\rho}} s^{-\frac{\rho}{1-\rho}}$$

## Preferences and endowments

Let  $L$  and  $K$  denote fixed quantities of farmland and capital. There is a representative household with utility:

$$\phi \log(c_a - \bar{a}) + (1 - \phi) \log(c_n)$$

with a food subsistence term  $\bar{a} > 0$ . The household can allocate a mass-one continuum of members between each sector; each member has one unit of inelastically supplied labor. Each

<sup>10</sup>Empirical estimates of this parameter from [Adamopoulos and Restuccia \(2014\)](#) suggest  $\gamma \approx 0.54$  in modern US agriculture.

household member has an ability normalized to one in the non-agricultural sector. Their agricultural ability  $s$  is realized ex post from  $F$ , abstracting from selection. This means that despite some farmers making positive profits, the household cannot increase consumption by reallocating members to agriculture. In equilibrium, expected profit in farming equals the wage in manufacturing.

### Equilibrium and comparative statics

In the simple limiting case where  $\theta = \alpha = 0$  (there is no capital) and  $\phi \rightarrow 0$ , agricultural consumption is at the subsistence level. Then the constraint on agricultural production is  $c_a = \bar{a} = A\kappa L^\gamma [E(s)N_a]^{1-\gamma}$ , where  $E(s) = \int_{\mathcal{S}} s^{\frac{\gamma}{1-\gamma}} dF(s)$  is average farmer ability and  $\mathcal{S}$  is the set of household members allocated to agriculture. Re-arranging to get the agricultural employment share (where  $N_n + N_a = 1$ );

$$N_a = \left[ \frac{\bar{a}}{A\kappa L^\gamma E(s)^{1-\gamma}} \right]^{\frac{1}{1-\gamma}}$$

We can then see immediately that:

$$\frac{\partial N_a}{\partial E(s)} = - \left( \frac{\bar{a}}{A\kappa L^\gamma} \right)^{\frac{1}{1-\gamma}} \cdot E(s)^{-2} < 0 \quad (1)$$

Agricultural employment is decreasing in average farmer ability, since more able farmers can produce the subsistence food demand on fewer farms. This, in turn, implies average farm size under market-clearing for land:

$$\bar{\ell} \equiv \frac{L}{N_a} = \left[ \frac{A\kappa}{\bar{a}} \right]^{\frac{1}{1-\gamma}} E(s) L^{\frac{1}{1-\gamma}}$$

Hence:

$$\frac{\partial \bar{\ell}}{\partial E(s)} = \left[ \frac{A\kappa}{\bar{a}} \right]^{\frac{1}{1-\gamma}} L^{\frac{1}{1-\gamma}} > 0 \quad (2)$$

Farm sizes increase linearly with average farmer ability. The slope is steeper when productivity is higher, the subsistence requirement is lower, there is more land, and when the span-of-control problem is less acute for farmers ( $\gamma \rightarrow 1$ ).

## II.B Model Dynamics

Time is  $t = 0, 1, 2, \dots, T$ : pre-shock, crisis, followed by recovery and steady-state from period 2 onwards. Let all variables be time-varying. In addition, let the parameters  $\kappa_1 < \kappa_0 = \kappa_2 \dots \kappa_T$

represent an unanticipated shock to agricultural productivity in the crisis period.

In period 0, the household allocates members to sectors, draws the farmers' types, and solves their within-period optimization problem (i.e., does not anticipate the price shock) for land and capital. Farmers obtain mortgages to finance the land purchase. The lenders are exogenous to the economy and offer mortgages with payments equal to the land's rental value at  $t = 0$ . Mortgage contracts are multi-period, so in period  $t = 1$ , farmers do not re-optimize their inputs, and face an exogenous probability  $p(m)$  that a per-acre payment  $m$  is due on their mortgage this period. In aggregate, a share  $M = p(m)$  of farms have mortgage payments due during the crisis. Lenders can foreclose on farmers if they fail to make the payment<sup>11</sup>. A moratorium (if adopted) suspends foreclosure at  $t = 1$  and requires a good-faith continuation payment  $\tilde{m} \leq m$  for farmers at the margin of viability, with full repayment returning at  $t = 2$ . From this period onwards, farmers can re-optimize their inputs.

We make sector choice binding in the short run at period  $t = 0$ , thereby reflecting substantial fixed costs of retraining across sectors. Households cannot ex post reallocate members from agriculture to non-agriculture in response to either a bad ability draw or a negative shock. This allows foreclosure and moratoria policies to encompass the entire margin of selection into agriculture. Our central focus on the foreclosure channel is grounded in the empirical evidence of the crisis<sup>12</sup>.

## II.C Lenders

To introduce the financial system into our model, we partially endogenize local capital costs. The local rental price of capital  $r$  is given by:

$$r = r^N + \phi\left(\frac{\tilde{m}}{m} - 1\right), \quad \phi(0) = 0, \phi'(\cdot) < 0. \quad (3)$$

We capture the reduced-form effects on lender equity via  $\phi(\cdot)$ . When there is no intervention,  $\tilde{m} = m$  and so the local price equals the national price  $r^N$ . As the intervention reduces the recovery rate for local lenders ( $\frac{\tilde{m}}{m} \downarrow$ ), the local price of credit rises.

This reduced form could reflect a genuine deterioration in bank balance sheets (Messer and Rieder, 2025). Lenders operate in a competitive credit market but face financial frictions when equity is low. These frictions manifest as an increased marginal cost of external finance, such that  $\phi(\cdot)$  captures agency costs, regulatory constraints, or limits to arbitrage (Bernanke and Gertler,

<sup>11</sup>Lenders are not required to foreclose with or without the policy, but tend to foreclose to prevent further deterioration in collateral value, deter strategic default by farmers, and comply with balance sheet regulations. See Messer and Rieder (2025) on the lender's foreclosure decision.

<sup>12</sup>In 1933, there were just 16 voluntary sales per 1,000 farms, compared to 50 involuntary transfers, the majority of which were foreclosures (Stauber, 1933).

1989).

A separate interpretation is that  $\phi(\cdot)$  represents a risk-premium adjustment given by either expectations of future government intervention that reduce the profitability of loan contracts (Wheelock, 2008), or by an anticipation that the policy will reduce the quality (and so increase the riskiness) of the borrower pool.

This formulation treats the interest rate as a sufficient statistic for credit conditions. We do not imply that credit markets clear by price alone. In environments with information frictions, tighter lending standards or outright rationing can be represented by an increase in the shadow cost of funds (Stiglitz and Weiss, 1981). Hence, the interest rate should be interpreted as the effective price of credit — encompassing both explicit rates and implicit non-price rationing.

## II.D Default Thresholds and Allocation

In the crisis, a leveraged incumbent with type  $s$  survives if period-1 cash flow covers the required payment. Conversely, land that is foreclosed is reallocated to clear the market under inelastic aggregate demand for land. Let  $\pi^*(s)$  denote the period-1 cash flow of farmers who optimized inputs in period-0 before they face a mortgage payment  $m$ . Survival for farmers requires solvency:

$$\pi^*(s) \geq \begin{cases} m & \text{no moratorium} \\ \tilde{m} < m & \text{moratorium} \end{cases} \quad (4)$$

defining cutoffs in ability  $s^+$  and  $\tilde{s}^+ < s^+$ . Lowering the payment from  $m$  to  $\tilde{m}$  keeps additional, relatively low- $s$  incumbents in place in the crisis period. As such, the expected farmer ability is increased by the shock (survivorship effect) but decreased relative to the benchmark by a moratorium (subsidy effect).

Given we do not allow the short-run sectoral re-allocation of labor, foreclosed land is offered in period  $t = 2$  to i) existing, surviving farmers and ii) *outsiders*; entrant farmers from outside the county. In a severe downturn, the highest-valuation buyers of foreclosed land, nearby high- $s$  farmers, may themselves be borrowing-constrained. Therefore, an immediate auction can reallocate plots to less efficient outsiders (“fire sales”) when the ability distribution  $F_0$  is first-order stochastically dominated by  $F$  (Shleifer and Vishny, 1992). In that case, a short moratorium can improve selection by forestalling the entry of lower- $s$  farmers (the fire-sale effect).

Alternatively, the moratorium policy might judiciously reduce payments only for farmers assessed as high- $s$ . In Section I, we provided details on exactly how judges attempted to do this. We do not model this process as we expect this to be the least relevant empirical selection effect.

## II.E Connection to Empirical Results

The model establishes competing effects of a foreclosure moratorium on the selection of farmer ability in the short run. Relative to laissez-faire, a moratorium protects the lowest-ability farmers ( $E(s) \downarrow$ ), but outside entrants under a fire sale might be even lower-ability than the incumbents ( $E(s) \uparrow$ ). In turn, changes in average farmer ability will govern sectoral allocation (1) and average farm size (2) once the household re-optimizes after the crisis.<sup>13</sup> We will assess the comparative-static predictions for agricultural outcomes as a test of the moratorium’s net effects. To the extent that the predictions are consistent with the model, we will fail to reject the hypothesis that the moratoria operate as a force governing selection on farmers’ ability.

The capital cost response  $\phi'(\cdot) > 0$  in (3) is an assumption we can test in the data. By this assumption, we expect that farmers protected by the moratorium will face endogenously higher local capital costs. Recall that, all else equal, lower ability farmers choose a *higher* capital intensity. This establishes a joint prediction that could lead to the model’s rejection. Suppose we find that protected farmers opt for a *lower* capital intensity. In that case, this is compatible with our model only if we also observe a strong lending response that raises capital costs.

The effect of the moratorium thus operates directly through selection on farmers’ abilities and indirectly through financial intermediation. Consistent with the comparative statics, these changes will govern sectoral allocation and agricultural input choices in the post-crisis period.

## III Data and Empirical Strategy

### III.A Data Sources

Table 1 displays summary statistics for our primary analysis variables at the county level in 1930 (and 1920 in the case of interest rates). We describe here our sources and processing of these data.

#### Foreclosure Policies

We follow Alston (1984) and build on a contemporaneous USDA report titled *State Measures for the Relief of Agricultural Indebtedness in the United States, 1933 and 1934* (Olcott and Bercaw, 1934) and the 1936 version of the same report. We digitize and reproduce the excerpts of state laws in the Appendix (Table VIII). The USDA report is explicit about scope and verification. It *includes* measures “tending to keep the farmer from losing his real estate through mortgage

---

<sup>13</sup>Since, in the model, land is fixed and the number of farms equals the number of farmers, our prediction is also that these variables will also follow from the comparative static in (1).



foreclosure or tax sale” (e.g., sale moratoria, fair-value deficiency rules, extended redemption, and tax-sale/penalty relief). It explicitly *excludes* programs that provide new credit, for example. Using these excerpts, we also produce [Table 2](#), which summarizes the key features for each state: year of passage, length of the moratoria, and whether the law included a stay of foreclosures, extended the redemption period, and limited a lender’s right to sue farmers for remaining debt after foreclosures.

Although we follow [Alston \(1984\)](#), three statutes sit at the boundary of what can be considered a moratorium law. Arkansas briefly postponed foreclosure filings under Act 21 of 1933, but its stronger 1935 measure, which abolished deficiency judgments, was struck down. Maryland’s 1933 law restricted certain foreclosures unless a quarter of the holders’ total bond value consented. This was initially invalidated but eventually restored. We reason that consent from a quarter of bondholders is not a significant barrier. Oregon’s 1933 joint resolution only advised courts to delay sales, leaving its legal force uncertain. We code these as zero in the baseline, but our results are invariant to treating them as moratoria.

Illinois, by contrast, clearly enacted a moratorium but was not present in the report because the law had expired by the time the report was published. It is listed in the report as “Moratorium period provided by legislation in this State has now expired.” House Bill 507 (1933), however, authorized courts to stay foreclosures on pre-June 1933 mortgages and allowed the governor or insurance commissioner to halt proceedings on insurance-held loans. The law expired in mid-1935 but was real and binding for two years. Therefore, we follow [Alston \(1984\)](#) and include it.<sup>14</sup>

## U.S. Agricultural Census

We use county-level data on the number of farms, average farm size, total farmland area, crop and animal revenues, land and building values, and machinery values from [Haines et al. \(2018\)](#), who compile the U.S. Agricultural Census over many years. The data are based on farm-level enumeration, but only the county aggregations are systematically available. We collect data at decennial intervals beginning in 1900, with additional data available every five years from 1925 until we end our sample in 1960. This gives a broadly symmetric 30-year window on either side of the policy change, allowing us to examine pre-trends and longer-term outcomes.

Crucial to our analysis is the definition of a farm. From 1925, this definition was standardized as follows: A tract or tracts of land directly farmed by one person (a “farmer”), either alone or with household members and/or hired labor. Each separate tract operated by “tenants, renters, croppers, or managers,” even under the same land owner, is counted as a distinct farm.

---

<sup>14</sup>Charles Bunn, “The Impairment of Contracts: Mortgage and Insurance Moratoria,” 1 *U. Chi. L. Rev.* 495 (1933). J. Douglass Poteat, “State Legislative Relief for the Mortgage Debtor During the Depression,” 5 *Law & Contemp. Probs.* 517 (1938).

Thus, by definition, the number of farms equals the number of farmers (as in our model). A farm must additionally be of at least three acres or produce at least \$250 worth of produce. This final caveat differed in enumerations prior to 1925, when farms smaller than three acres were counted as long as they required the full-time labor of one farmer. The exclusion of these small, subsistence, or lifestyle farms from the 1925 definition onward resulted in a net reduction in the number of farms. However, time fixed effects in our analysis adequately capture this change. To the extent that this definition change had differential regional impacts, the decrease in farm counts was largest in the Northeast, the region least important for the agricultural crisis and foreclosure policy.

Farmland is defined as all land under the farmer’s control, whether or not it is under cultivation, but excluding land under the control of a tenant or cropper. Farm values are collected to include the farmer-reported value of all land and buildings under ‘normal’ (as opposed to stressed) conditions. We stress that these are not values from market transactions. The share of farms under mortgage is assessed by the proportion of returns answering that they have a non-zero amount of mortgage debt on farm land or buildings *anywhere*, potentially including on another farm. However, variation in how this question was asked before 1925 indicates that the vast majority of responses correspond to the farm which they themselves farmed (i.e., the farm and county of current enumeration, rather than a different farm owned by the same farmer elsewhere). Farmers were asked to report the interest rate on their agricultural mortgage in 1920, 1930, and 1940.

## U.S. Decennial Census

We use individual-level census microdata from the U.S. Decennial Census, as provided by [Ruggles et al. \(2024\)](#). In particular, we collect data on age, family structure, sector and occupational choices, schooling, and residence (including living on a farm). The linking procedure of [Ruggles et al. \(2025\)](#) connects individuals across censuses to build the Multigenerational Longitudinal Panel, which we study for the censuses from 1910 to 1950. Their method incorporates ancillary genealogical data from the Social Security Administration, Ancestry.com, and FamilySearch to enable the linking. While significant improvements have been made to this methodology for linking women, we adopt a conservative approach and focus solely on men in our linked-sample analysis, for whom we expect more accurate linkage. Since farming is generally a household-level decision, we still expect the male sample to adequately represent the entire population. With this sample, we construct occupational transitions and migration among workers. We define occupational transitions at the county level as the share of individuals from a given occupation in census  $t - 1$  who are still in the same occupation in census  $t$ , among the individuals successfully

linked across censuses<sup>15</sup>.

The census provides several ways to identify farmers: occupational code, industry code, and farm residence. The latter provides the broadest definition, in that it captures the adult household of a farmer who may provide farm labor yet is not formally counted as employed. Under occupational codes, the census distinguishes between *farm owner*, who may be full or partial owners of the land or tenant farmers, and *farm workers*, who are hired labor on farms but not themselves farmers in the sense of the agricultural census definition discussed above. We use all three definitions, as they capture subtly distinct economic content.

We focus in particular on the children of farmers to understand the effect of foreclosure policy on farm retention. We take the 1930 census and identify children who live on farms. We link these children to their census returns as adults in 1950. We restrict this link to children who do not migrate from their county of birth, to clarify that observed differences arise from the 1930 county rather than a potentially different 1950 county. Moreover, this restriction helps alleviate concerns about the nature of selective attrition from the linked sample under migration, which is hard to observe.

In 1940, the census asked respondents to recall their migration history: in which county did they live five years ago? The variable is commonly used in the migration literature ([Derenoncourt, 2022](#); [Hornbeck, 2023](#)). This provides an alternative approach to understanding migration without relying on establishing successful links between censuses, which may be compromised by differential attrition under migration<sup>16</sup>.

## U.S. Manufacturing Census

We access county-level data on the number of manufacturing establishments, wage earners, total wages, and value added from the Census of Manufacturers. The data are compiled by [Hornbeck \(2012\)](#) and supplemented with additional years from the ICPSR historical county data series ([Haines et al., 2010](#)). We collect data for 1920, 1927, 1930, 1935, 1940, 1947, 1954, and 1958, which provides a symmetric window around the policy change and allows us to examine both pre-trends and longer-term outcomes. Certain variables (value added and payroll) have changed definitions, but we harmonize them in accordance with ([Hornbeck and Keskin, 2015](#)).

The Census of Manufacturers enumerated establishments meeting minimum output thresholds, typically \$5,000 in annual product value. For each county, the census reports the number of establishments, the count of wage earners (production workers), total wages paid, and value

---

<sup>15</sup>Given that our treatment is at the county level, we lose nothing by collapsing this data to the county level for the regression. We can achieve similar results at the individual level with appropriate weighting and clustering.

<sup>16</sup>The MLP procedure of [Ruggles et al. \(2025\)](#) under-represents lifetime migrants in the linked sample by approximately 15% (4 percentage points) relative to the full census.

added by manufacture. We use these variables to construct both extensive- and intensive-margin outcomes (establishment counts, total employment, aggregate wages) and intensive-margin outcomes (workers per establishment, average wage, value added per establishment, and payroll per establishment).

## New Deal and Dustbowl

To understand how our policy interacts with other important forces in 1930s agriculture, we use data from [Hornbeck \(2012\)](#) on the extent of dust-bowl erosion (high, medium, and low) in each county and the expenditure of various New Deal programs, originally collated from the Office of Government Reports in [Fishback et al. \(2005a\)](#).

## Geographic data

[Schroeder et al. \(2025\)](#) provides GIS files for US counties in each decade of our sample. We use the method of [Eckert et al. \(2020\)](#) to generate an area-weighted crosswalk from each county-year to a baseline set of 1930 counties, which we use as the consistent unit of analysis. This entails that whenever a county boundary differs from the 1930 definition, we compute the area of intersection with the 1930 county and re-aggregate the data from the altered county back into the 1930 unit in proportion to the overlap. This assumes a uniform spatial density of the data within the county.

The majority of county border changes in our sample are concentrated in the West, Southwest, and Texas. We exclude the independent cities of Virginia, Hawaii, Alaska, and U.S. territories from our analysis.

## III.B Identification Strategy

We aim to identify the effects of foreclosure laws on counties and their economies over time. We conceptualize the policy as protecting farms at the margin of viability during the crisis from foreclosure by lowering the effective mortgage payment,  $m$ , to  $\tilde{m}$ . Variation in the size of this viability margin at the county level is governed by the share of farms under mortgage during the crisis ( $M$  in our model). We obtain this data from the 1930 Agricultural Census.

At the state level, [Alston \(1983\)](#) reports a correlation coefficient of 0.65 between foreclosure incidence and the farm mortgage share  $M$ , lending empirical relevance to our use of the mortgage share to indicate the size of the foreclosure margin. We prefer the share of mortgaged farms to debt-to-value ratios for our measure of this margin because debt was often valued based on boom-period land prices. Given that these prices collapsed during the 1920s, this series is very volatile over time as farms seek refinancing. We do not expect this volatility to be a feature of the

foreclosure margin. [Figure 1](#) compares the spatial distribution of foreclosure rates in 1932 (at the state level) to mortgage rates (at the county level) in 1930. The overall correlation reported above is striking (and reassuring) while sufficient county-level variation in mortgage rates creates the opportunity to make even tighter within-state comparisons. Our analysis of treatment balance motivates the use of a triple difference (DDD) estimator.

*Treatment Balance.* The central challenge of this setting is non-random assignment of the foreclosure policy to counties, as shown in column 1 of [Table 3](#), which studies balance in the 1930 cross-section. Counties treated by a moratorium have a larger share of farms under mortgage, are larger in population, and are more agricultural. There are approximately 20% more farms, and those farms are approximately 40% larger. These factors match the drivers of policy adoption documented in [Alston \(1984\)](#).

In column 2, we include indicator variables for each decile of the mortgage share distribution to assess the validity of comparisons between counties with similar mortgage rates. This approach mechanically captures nearly all differences in the mortgage share attributable to treatment, but generally fails to mitigate imbalance in other observables within the 1930 cross-section.

Column 3 further restricts the sample to the 476 counties adjacent to a state border on which the treatment status differs. The location of these counties is shown in [Figure 3b](#). Geographic contiguity helps address nearly all observable imbalances in treatment assignment. Moreover, this contiguity is particularly useful for addressing unobservable differences in soil and climatic characteristics that are important for agricultural outcomes. While one could control directly for some of these characteristics, our approach avoids introducing measurement error and reduces the number of degrees of freedom in covariate selection.

Column 4 adds to the border sample specification a set of indicators for each specific border segment. For example, all counties along the Arizona/New Mexico border are included in one indicator, such that our comparison is made within this set of counties (across the border). There are 43 distinct state border pairs among the 25 states that adopt moratoria. This approach further controls the observable-likely unobservable balance, following the minimum wage literature, which extensively uses state-level legislative changes ([Allegretto et al., 2017](#)). The outstanding imbalance is in the agricultural mortgage interest rate. The specification in column 4 indicates that, even in neighboring counties, farmers faced interest rates approximately 3% lower in states that adopted foreclosure policies. This is evidence that banking conditions were highly local, with interstate banking illegal until 1994, although some states had eased regulations in the 1970s ([Jayaratne and Strahan, 1996](#)).

*Empirical Strategy.* This empirical problem lends itself to a triple difference design ([Gruber, 1994](#)). It nests three sources of variation: (1) variation over time (2) variation across states induced by the policy changes (3) variation across counties in their baseline mortgage shares. Our analysis

also uses a rich set of fixed effects, including state–year fixed effects. We expect the largest effects in counties that received the foreclosure moratorium and had the highest share of mortgaged farms in 1930. The standard triple difference estimator is  $\beta_0$  in the regression:

$$\begin{aligned}\ln(Y_{ct}) = & \beta_0(D_s \times \ln(M_{c,1930}) \times \mathbb{I}_{t>1930}) \\ & + \beta_1(D_s \times \mathbb{I}_{t>1930}) \\ & + \beta_2(\ln(M_{c,1930}) \times \mathbb{I}_{t>1930}) \\ & + \alpha + \eta_c + \sigma_t + \chi_{st} + \epsilon_{ct}\end{aligned}$$

where  $s$ ,  $c$ , and  $t$  index state, county, and time, respectively.  $D_s$  indicates that the state adopts a moratorium law.  $\ln(M_{c,1930})$  is the log of the share of farms with mortgages in 1930 in the county.  $\mathbb{I}_{t>1930}$  indicates the post-treatment period. This specification abstracts from treatment timing heterogeneity, given the rapid rollout (1933–34) that occurs entirely between observation periods. The treatment is fully absorbing, despite moratoria that last no more than five years, even in the longest instances. 1930 is the last period during which we observe pre-treatment, which occurs across 1933 and 1934. We thus first examine the policy impacts in the 1935 data.

Crucially, we include three sets of fixed effects in all DDD specifications. State–year fixed effects  $\chi_{st}$  absorb any time-varying state-level shocks, including other relief policies, laws, and macroeconomic conditions. County fixed effects capture time-invariant county characteristics, such as soil quality, long-run agricultural potential, and persistent historical differences. Year fixed effects capture common shocks affecting all counties in a given census year.

Because we include state–year fixed effects along with county and year fixed effects, the primary variation used to estimate  $\beta_0$  arises from within-state, within-year differences across counties with different baseline mortgage shares. The inclusion of fixed effects also makes the inclusion of  $D_s$ ,  $\ln(M_{c,1930})$ , and  $\mathbb{I}_{t>1930}$  in levels redundant. Standard errors are clustered at the county level to account for serial correlation, and regressions are weighted by 1930 farmland area.<sup>17</sup>

The identifying assumption requires that the relative outcome of high and low-mortgage share counties in the treated states trend in the same way as the relative outcome of high and low-mortgage share counties in the control states in the (counterfactual) absence of treatment (Olden and Møen, 2022). Note that this does not require two sets of parallel trend assumptions, despite the triple difference being interpretable as the difference of two double difference (DD) estimates. The DD parallel trends assumption can be violated, provided that the violation is

<sup>17</sup>Olden and Møen (2022) argue that unit-clustered standard errors are appropriate for triple-difference designs in most applications, while Ortiz-Villavicencio and Sant’Anna (2025) show that efficiency gains are possible using doubly-robust estimators.

stable across groups (Ortiz-Villavicencio and Sant’Anna, 2025). We study these violations below.

*Testing Assumptions.* We extend the cross-sectional assessment of covariate balance to a full examination of pre-trends that help us justify the identifying assumption of DDD. We follow Lin and Peri (2025) in the exposition of this approach. First, we make two statements that together establish our identifying assumption in this context.

**Assumption I:** Before the adoption of foreclosure moratoria, differential changes in outcomes across counties in states that adopt and those that do not must be parallel for counties with high and low mortgage shares.

**Assumption II:** Before the adoption of foreclosure moratoria, differential changes in outcomes across counties with high and low mortgage shares must be parallel in states that adopt and those that do not adopt moratoria.

We analyze the pre-trends corresponding to these assumptions in Figure A1 for two outcomes: log value per farm (Figure A2a) and log number of farms (Figure A2b). Our specification follows the standard TWFE event study specification and is estimated separately for each subgroup (indicated by color).

The upper figure in each panel corresponds to Assumption I, in which counties are classified as high or low mortgage shares by comparing the top decile ( $\geq 63\%$ ) to the remainder of the distribution. We then plot the time-varying effect of the moratoria treatment for each group. The lower panel corresponds to Assumption II, which tests for the effects of the 1930 mortgage share. We fail to reject the equality of the pre-trend across groups for a vast majority of the coefficients. Although there are nonzero pre-trends, the differences between groups are broadly parallel until after the treatment, which reassures us that the triple difference specification is valid. We use a standard dynamic triple difference specification in addition to our static results:

$$\begin{aligned} \ln(Y_{ct}) = & \sum_{\tau \neq 1930} \beta_{\tau}(D_s \times \mathbb{I}_{M_c > p90}) \\ & + \sum_{\tau \neq 1930} \gamma_{\tau}(D_s) \\ & + \sum_{\tau \neq 1930} \theta_{\tau}(\mathbb{I}_{M_c > p90}) \\ & + \alpha + \eta_c + \sigma_t + \epsilon_{ct} \end{aligned}$$

We also compare our triple-difference results with a standard double-difference specification estimated in a sample restricted to counties in the top quartile of the 1930 mortgage-share distribution. This has the benefit of allowing for a nonlinear effect of mortgage share in the most



exposed counties and of making effect sizes easier to interpret.

## IV Effects on Farms, Farmers, and their Children

This section discusses how foreclosure moratoria reshaped the allocation of households to farming, before we turn to efficiency implications and mechanisms. Our analysis shows that moratoria generally insulated incumbent farmers in counties experiencing severe mortgage distress. This protection had two immediate consequences. First, it increased the number of operational farms and slowed occupational reallocation away from agriculture. Second, these initial dislocations had significant intergenerational consequences for children of farmers. The next generation disproportionately stayed in agriculture rather than transitioning to manufacturing.

### IV.A Number of Farms

We begin by examining the most direct consequence of foreclosure moratoria—the number of farms in a county. Event-study estimates displayed in [Figure 6a](#) indicate stable pre-trends and a pronounced, sustained increase in farm counts beginning in 1940. Given that most moratoria were enacted in 1933, it is plausible that their effects took time to materialize. Additionally, as discussed in [Section I.E](#), New Deal agricultural policies introduced after 1935 likely reinforced and extended these effects, explaining the absence of an immediate impact in 1935.

Conceptually, the DDD design asks whether farm counts rose more in treated states and in counties that were more exposed *ex ante* (higher mortgage shares), beyond (i) generic post-1930 changes and (ii) any differential post-1930 changes in high-mortgage places that occurred everywhere. The triple interaction is the key parameter of interest, and including lower-order interactions eliminates policy-only and exposure-only post-treatment trends.

For additional clarity, double-difference (DD) estimates restrict the analysis to counties in the highest quartile of mortgage exposure and directly compare the most severely treated counties with both untreated and less-treated counties. Here, the coefficient of interest is 0.137 and is significant at the 1 percent level in the full sample. In the border county specification (DD), it ranges from 0.182 to 0.287 ([Table 4](#)). These coefficients imply roughly 15%–30% higher farm counts in the top quartile of mortgaged counties in moratoria states after the policy. For the median county in this top quartile, this would translate to roughly 300 more farms.

While DD estimates are intuitive and straightforward, they sacrifice variation in mortgage exposure and could be confounded if high-mortgage counties followed different secular trends unrelated to the policy. The DDD specification utilizes continuous variation in exposure. In this specification, we estimate a coefficient of 0.231 that is statistically significant at the 1% level

(Table 4). Since both the dependent and independent variables are in log form, this coefficient can be interpreted as an elasticity for counties in states that received the moratoria. Therefore, we find that counties with a 10% higher baseline mortgage share experienced approximately a 2.3% greater increase in farm numbers than lower-exposure counties. The border-county specification yields even larger coefficients (ranging from 0.369 to 0.397), further reinforcing confidence in our main finding that moratoria effectively preserved farm operations in distressed counties.

From 1930 to 1940, the total number of farms in the U.S. declined from 6.3 million to 6.1 million; the trend was one of farmers leaving agriculture. The effects of this policy mitigate the overall decline in the number of farms during this period by approximately 125,000–262,000 in the top quartile of counties.

These results are not driven by any single region, as we find limited regional heterogeneity. In Table A3, we estimate the triple differences specification while individually excluding Census Bureau Regions (Northeast, Midwest, South Atlantic, South, and West). This tests for regional heterogeneity while retaining sufficient observations to maintain statistical power. The coefficient on the number of farms is largely stable across these specifications. The largest deviation from the baseline coefficient occurs when we exclude the South, an agricultural region characterized by a greater emphasis on cotton and sharecropping.

A natural concern with this analysis is that concurrent New Deal programs could drive the observed impact of the moratoria. We address these concerns directly. We control for county level exposure to major New Deal programs—Agricultural Adjustment Administration (AAA) benefit payments and Farm Security Administration (FSA) credit to farms, as well as Works Progress Administration (WPA), Civilian Conservation Corps (CCC), and Public Works Administration (PWA) relief and public-works spending—using the county-level series assembled by Fishback et al. (2005b). Moreover, we fully interact with each of these variables in our treatments. This leaves the DDD estimate essentially unchanged (Table 4, Column 5). If anything, coefficients modestly increase because AAA payments and FSA credit, depending on the specification, either do not predict higher farm counts or are weakly associated with declines in farm counts in this setting.

We also explicitly test the sensitivity of our results to the Dust Bowl using erosion severity data from Hornbeck (2012). By interacting county-level Dust Bowl severity indicators with our treatments, we confirm that our key coefficient remains robust and statistically significant (Table 4, Column 6). Notably, counties experiencing the most severe erosion show a substantial reduction in the number of farms when interacting with our treatment. Counties with medium erosion exhibit no meaningful change. Thus, the Dust Bowl conditions either offset or have minimal effect on our treatment estimate, reinforcing the conclusion that Dust Bowl dynamics are not driving the observed moratoria effects. Together, these tests indicate that neither New Deal

spending patterns nor Dust Bowl dynamics are driving the farm-count results.

## IV.B Individual Farmers

The increase in farm counts corresponds directly to an increase in the number of farmers. Foreclosure moratoria preserved these farmers' livelihoods by insulating them from some of the economic pressures that drove the nationwide shift out of agriculture. Using individual-level data from the U.S. Census linked between 1910 and 1940, we find that moratoria significantly slowed this reallocation of labor.

The coefficient of interest for remaining in agriculture by 1940 is 0.04, while the coefficient for transitioning into manufacturing is  $-0.007$  (Table 6). This implies that in moratorium states, counties with a 10 percentage-point higher mortgage share in 1930 retained approximately 0.4 percentage points more of their agricultural workforce by 1940, with approximately 0.07 percentage points fewer workers moving into manufacturing. To better contextualize these magnitudes, moving from the median mortgage share (approximately 43%) to the 90th percentile (approximately 63%) corresponds to roughly 0.8 percentage points greater agricultural retention and 0.14 percentage points fewer exits into manufacturing in moratorium states. Border-pair estimates exhibit the same directional effect, though slightly less precise, thereby reinforcing our main specification.

These occupational effects are persistent. After linking farmers from 1930 to 1950, we find even more evidence of stronger agricultural retention in Panel A of Table A1. The coefficient for remaining in agriculture increases to 0.058 and remains statistically significant at the 1% level. Similarly, the coefficient on the transition to manufacturing remains negative. Interpreting these coefficients, moving from the median to the 90th percentile of mortgage share implies an approximately 1.1 percentage points greater agricultural retention and 0.36 percentage points fewer exits into manufacturing by 1950.

These results are driven by keeping people in the agricultural sector broadly rather than preserving their specific status as farm owners. The coefficient on the probability of remaining a farm owner is small and not statistically significant (Column 3). The same is true for the county-level results (Table A2). This is consistent with the institutional design of moratoria. Judicial stays and extended redemption periods lowered the foreclosure threshold, keeping leveraged farms in operation even when under different ownership. The near-zero effect on owner retention indicates that the policy mainly preserved agricultural employment rather than legal title. By reducing the transition from agriculture to manufacturing, moratoria slowed structural change in the counties with the highest leverage.

To further strengthen confidence in our occupational results, we conduct a placebo test that

directly assesses the validity of our triple-difference identification strategy. Specifically, we replicate our empirical design in a period entirely unaffected by foreclosure moratoria, computing occupational transitions from 1920 to 1930. Given that moratoria were implemented after 1933, any detectable effects during the 1920–1930 interval would reflect spurious differential trends rather than the policy itself. This test is particularly demanding given that the 1920s were already a period of significant foreclosure rates and agricultural distress.

We present the results in Panel B of [Table A1](#), which confirms the absence of such effects. The coefficients for remaining in agriculture, continuing farm ownership, and transitioning from agriculture to manufacturing are all close to zero and statistically insignificant. These null findings are consistent across the border-pair specification as well.

#### **IV.C Intergenerational Effects of the Moratoria**

We now examine how foreclosure moratoria shaped the economic trajectories of farmers’ children. This speaks to the persistence of policy effects and their intergenerational consequences. Using individual-level records from the 1950 Census linked to parental occupations in 1930, we ask whether children of farmers in counties with high pre-moratorium mortgage exposure—within moratorium states—followed different adult occupations than otherwise similar children.

We identify children living on farms in 1930, link them to their 1950 census returns, and restrict the sample to non-movers who remained in their childhood county between 1930 and 1950, so that differences can be attributed to the 1930 county environment. Our analysis is at the individual level and controls for age, race, and county economic characteristics.

We find that the children of farmers in higher-mortgage counties within moratorium states are more likely to work in agriculture in 1950 ([Table 7](#)). Children of farmers in high mortgage counties in moratorium states are significantly more likely to be in agriculture in 1950. The triple-interaction coefficient is 0.071 in the parsimonious specification and 0.079 with controls. Both are significant at the 1 percent level. This implies that moving from the median to the 90th percentile of mortgage share raises the probability that a farmer’s child works in agriculture by 5%.

This effect is additive to the baseline occupational inheritance among children of farmers. The baseline effect of being a farmer’s child is large: children of farmers are 39 percentage points more likely to be in agriculture in 1950 and 13 percentage points less likely to be in manufacturing than other children. The triple interaction, therefore, captures an additional policy-induced tilt toward agriculture, specifically in the high-exposure counties of moratorium states, beyond baseline intergenerational persistence.

The evidence from this analysis is suggestive that the additional farms we observe under

moratoria are 1930 farms that remain in family ownership and operation. To determine whether this is the case, we follow the approach in [Haws et al. \(2025\)](#) to proxy for farm succession. Our outcome is an indicator variable indicating that a child remains in the same county, is employed in agriculture, and, critically, shares common neighbors (defined as shared census returns within 50 observations) with their linked child return. The results in columns 3 and 4 show that the triple interaction coefficient is around 0.03. This implies that, moving from the median to the 90th percentile of the mortgage share distribution in a treated state increases by around 2.5% the probability that a child retains the family farm, relative to an untreated state. These specifications also reveal no effect of farm succession on those who are not the children of farmers, which helps clarify that our measurement indeed captures an inheritance channel.

The moratoria also reduced the entry of farmers' children into manufacturing. The triple interaction is negative and statistically significant in the parsimonious specification ( $-0.051$ ), but it becomes smaller and statistically insignificant with demographic and economic controls ( $-0.014$ ). The weakness of this channel is intuitive: the agricultural effect is direct, whereas the manufacturing transmission likely operates in a general equilibrium. This interpretation is supported by the coefficient on the interaction between the mortgage share and moratoria, which is large and significant in both specifications. By delaying or preventing foreclosures, the policy directly retained marginal farm households and increased the likelihood that farmer children remained in agriculture, including on their family farms. In contrast, manufacturing effects could arise primarily indirectly from lower demand from manufacturing establishments, which we explore in a later section.

In sum, these findings reveal that foreclosure moratoria had significant and enduring intergenerational effects. The policy substantially influenced the occupational paths of farmers' children by increasing agricultural persistence and reducing transitions into manufacturing. Moratoria kept farms in the family.

## V Effects on Credit Markets

The moratoria had a significant effect on local credit markets. Rural credit markets during this period were extremely local due to both physical barriers and regulation. In the early twentieth century, most farmers did not own cars, and telephones were rare, so repeated in-person interaction with a lender was effectively a prerequisite for obtaining and maintaining credit ([Rajan and Ramcharan, 2016](#)). Even in the late twentieth century, when information and transportation costs had fallen dramatically, ? shows that physical distance still matters for small borrowers' access to bank credit. Modern loan-level evidence also shows that smaller borrowers face tighter liquidity access in stress periods ([Chodorow-Reich et al., 2020](#)).

In our setting, regulatory frictions were even more severe. The Federal Reserve Act of 1913 explicitly limited national banks’ ability to originate real-estate loans across district borders, and although the McFadden Act of 1927 modestly relaxed these constraints, interstate branching remained largely prohibited (Jayaratne and Strahan, 1996). State banks were not formally subject to the same cross-district restrictions, but they operated under similar de facto geographic limits. Following Rajan and Ramcharan (2016), we therefore take “the banks within a county and in physically proximate counties” to be the relevant local market willing to finance borrowers.

Within this locally segmented market, the foreclosure moratoria raised the cost of credit. Our baseline estimates in Table 10 indicate that by 1940, farm mortgage interest rates in the most-exposed counties were about 30 basis points higher than in unexposed counties. This is roughly a 4 percent increase relative to the sample mean interest rate of around 7.5 percent. The effect is robust to flexibly controlling for the Dust Bowl and New Deal spending.

The magnitude of this effect is economically meaningful when set against the dramatic convergence in farm interest rates between 1930 and 1940. As Figure A2 shows, county-level rates were highly dispersed in 1930, but by 1940, interest rates had mostly converged across the country. Using the 1930 cross-sectional dispersion as a baseline, our estimates imply that foreclosure suspensions account for roughly 30 percent of the remaining gap in county-level interest rates in 1940.

We now discuss why a temporary suspension of foreclosures could have translated into persistently higher borrowing costs. We consider three broad channels. First, one natural hypothesis is equity depletion. Moratoria might have weakened local banks’ balance sheets, either by preventing them from foreclosing on delinquent borrowers or by triggering depositor runs (Mitchener and Richardson, 2024), which in turn could have produced a classic credit crunch (Correia et al., 2026). However, this mechanism has little support in the data. Between moratoria and non-moratoria states, rates of bank failure in the late 1930s are strikingly similar (see Figure A3). Moreover, national policies, including the creation of the FDIC in 1933 and subsequent recapitalization programs, had largely stabilized the banking system by the middle of the decade. We therefore view pure equity-depletion or “credit crunch” stories as an unlikely explanation for the higher post-moratorium rates.

Second, the moratoria likely raised risk premia by weakening creditor rights. A large literature shows that stronger legal protection for creditors lowers borrowing costs and increases credit supply, both in cross-country comparisons and within countries across jurisdictions with different foreclosure or bankruptcy rules (La Porta et al., 1997). In our setting, the moratoria were an extreme, highly salient instance of the state overriding private contracts and suspending enforcement of secured claims. However, since the moratoria were implemented across the country, one might expect this to be a step change as opposed to show up in the data as cross-sectional

variation. At the same time, if a lender is burned by local moratoria, then they might rationally respond to shocks by demanding a higher rate. As in, even though the moratoria were temporary, a lender may plausibly revise their beliefs about such policies being enacted again by state politicians in future downturns. Rational lenders respond to this institutional risk by charging higher interest rates particularly on long-maturity loans like farm mortgages that are exposed to multiple business cycles. The fact that higher rates are concentrated in counties and states that actually suspended foreclosures, rather than in neighboring areas facing similar macroeconomic shocks but no legal intervention, can be explained with a creditor-rights risk-premium channel.

Third, the moratoria clearly induced negative selection in farming. As shown in Sections IV and VI, counties where the moratoria had the most bite caused an increase in smaller, less valuable, and less productive farms. These farms are likely more sensitive demand and supply shocks. Therefore, when lenders resume foreclosure and refinancing activity after the moratoria expire, the pool of incumbent borrowers is tilted toward riskier farms relative to non-moratorium states. If lenders update their beliefs about the average default risk of borrowers based on this composition, they will optimally raise interest rates on new and renewed loans, holding legal enforcement constant. This mechanism is reminiscent of classic adverse selection models in credit markets (Stiglitz and Weiss, 1981) and of modern work on how crisis-era interventions can distort the ex post borrower pool. The persistence of elevated rates in moratoria counties—even after controlling for observable farm characteristics—supports such a negative-selection story.

In summary, we find that foreclosure moratoria left a clear imprint on local credit markets by raising farm borrowing costs by a large amount. Our results explain a sizable share of the residual cross-county dispersion in interest rates by 1940, and did so not through continued bank distress but through higher risk premia and adverse selection in the pool of surviving farms.

## VI Effects on the Farm Economy

### VI.A Farm Values and Size

We now turn to the question of how foreclosure moratoria reshaped the value of land and the structure of American farming. Table 5 reports our main results. The triple-difference specification yields a treatment elasticity of  $-0.107$  for the average value of farm land and buildings per farm. Moving from the median to the 90th percentile of mortgage exposure corresponds to a decline of roughly 6–7 percent. The border-pair specification, which exploits within-border variation in policy, produces an even larger elasticity of  $-0.236$ . Double difference estimates focusing solely on the most exposed counties imply a roughly 20 percent decline in average farm values following the moratoria. Event study figures confirm that there are no discernible pre-trends,



and a sharp, persistent fall in value appears after 1940, remaining large through 1960 ([Figure 7](#)).

Per-farm land value represents the discounted present value of expected net income from the farm as an operating unit. A decline therefore signals a fall in expected profitability at the farm level. If markets had fully adjusted after the moratoria—through consolidation, refinancing, or reallocation of land to more productive users—then per-farm values should have rebounded. Instead, the persistent decline suggests that the policy durably lowered expected returns on farm operations.

A key dimension of this structural distortion is revealed by decomposing the change in value. The decline in value per farm is not driven by a reduction in per-farmland acre values. Instead, we find that the moratoria led to a slight but persistent *increase* in the average value of farm land and buildings per acre. The triple difference specification yields a positive treatment elasticity of 0.156 for the average value of land and buildings per farmland acre ([Table A8](#), Column 1). This counter intuitive pattern can be captured by the following accounting identity:

$$\frac{\text{value}}{\text{farm}} = \frac{\text{value}}{\text{acre}} \times \frac{\text{acres}}{\text{farm}}. \quad (5)$$

In logs,

$$\log\left(\frac{\text{value}}{\text{farm}}\right) = \log\left(\frac{\text{value}}{\text{acre}}\right) + \log\left(\frac{\text{acres}}{\text{farm}}\right). \quad (6)$$

Our first-stage results confirm that the moratoria increased the number of farms significantly while county-level total farmland acres remained fixed. This implies that the average farm size, that is *acres per farm*, decreased dramatically. Thus, the entire drop in *value per farm* reflects the loss of scale economies due to foregone consolidation. We also find that total value of land and buildings and total acres in farmland stays flat throughout our sample (XX) which is necessary for the above identity to hold.

We posit two explanations for the increase in value per farmland acre even though we are not able to verify either empirically. First, the moratoria artificially inflated observed land prices by altering the type of transaction reported in the market. The policy's chief objective was to suspend involuntary land transfers at depressed prices that would occur due to the nature of the shock and because the land for the market was illiquid and didn't have many buyers. The most natural buyers (other local farmers) were also likely capital-constrained during the crisis. We do not observe price data for transfers but it would have been based on farmer-reported appraisals, which rely heavily on observable recent sales, or "comparable sales." By legally preventing the lenders from forcing the (low priced) distress sales, the moratoria effectively removed the left tail of the market's price distribution ([Campbell et al., 2011](#)). The remaining observable sales used for appraisal were, therefore, skewed toward voluntary and non-distressed transactions.

The suppression of this left (distress) tail would mechanically drive up the average observed or reported value per acre. This is wholly unrelated to any genuine improvement in the land's economic future or fundamental value and is simply a statistical artifact of an artificially illiquid market.

Second, the land economics literature finds that per-acre prices rise as parcel size falls. This difference can be very significant. One study found that average price per acre of 40-160 acre farms is almost twice as high as per acre prices of farms greater than 640 acres for transactions recorded in 1971 (Brorsen et al., 2015). As farms get smaller but many improvements or existing capital on the land (house, barn) are lumpy and partly fixed, so dividing by fewer acres raises per-acre value mechanically. Additionally, this puzzle can at least partially be explained by liquidity effects, higher road frontage per unit of area (Tsoodle et al., 2006) and increased potential for non-agricultural or "hobby" farming uses (Sengupta and Osgood, 2003). Therefore, the increase in the number of smaller farms can explain the average per-acre increase in land values.

## VI.B Farm Productivity

We now discuss how the moratoria affected cropland productivity. First, we document a significant shift in land use. Faced with higher cost of capital (as we discuss below) and relatively abundant labor (Section IV.B), farmers substituted away from capital-intensive production and toward labor-intensive production. The primary margin for this substitution was land allocation. We find that the share of farmland dedicated to cropland increases substantially in response to the moratoria. Our triple-difference specification yields a treatment elasticity of 0.252 (Table A12). For a county moving from the median (43%) to the 90th percentile (63%) of mortgage exposure, this implies a 10 percent increase in the share of farmland being used for crops.

This expansion of cropland came at the expense of capital-intensive uses such as pasture. For instance, Hornbeck (2012) finds that more-eroded counties with better access to banking immediately shifted land from cropland to pasture after the Dust Bowl. In contrast, there was no difference in shifting land from wheat to hay. In the present setting, the reduction in capital per acre is also consistent with the large reduction in the capital-to-labor ratio (Table A10). The results support the idea that farmers responded to distorted factor prices by trading off labor for capital.

Given this endogenous expansion along the cropland margin, examining outcomes *per farmland acre* would be misleading, as that would conflate the intensive margin (productivity on existing land) with the extensive margin (the addition of new, likely lower-quality, land). To isolate the impact on production intensity and efficiency, the correct metric is per cropland acre.

This denominator captures how effectively farmers utilized the primary production margin they expanded into.

We find clear evidence of lower capital intensity per cropland acre. As the share of cropland increased, the capital applied to it diminished. The amount of machinery available per cropland acre decreases significantly (Table A11). Our primary state-year fixed effect specification yields an elasticity of  $-0.339$  which is significant at the 1 percent level. In addition to observing a decline in self-reported value of machinery, we also see a reduction in physical capital. The share of farms with tractors decreases with an elasticity of  $-0.065$  (Table A15).

This combination of more land being worked with less capital had predictable negative consequences for output. We find suggestive that the total value of crop sold per cropland acre fell with an elasticity of  $-0.235$  (Table A13). We find stronger evidence that the increase in cropland led to greater wasted acreage as the share of cropland that failed increased significantly after the policy. We find that the share of cropland acres actually harvested declined after the policy (Table A14). This decline can be directly attributed to an increase in crop failure or cropland being left idle.<sup>18</sup>

This decline in productivity per cropland acre can be rationalized by two complimentary channels. First, farmers spread their diminished capital stock too thinly over their expanded cropland acres which lead to lower yields. Second, the newly activated cropland was of marginal and lower quality and thus inherently less productive and more prone to failure.

In conclusion, the fall in productivity per cropland acre, combined with the fact that the number of farmland acres and total crop output stays flat, implies that farmers were cultivating a much larger, but less productive, cropland base just to produce the same total output. We conclude that the moratoria locked in a high-labor, low-capital, low-yield farming model, cementing the inefficiency that ultimately drove the permanent decline in per-farm asset values.

## VII Effects on Manufacturing and Migration

Our final set of results asks whether foreclosure moratoria affected local manufacturing. Ex ante, one should expect a policy that slows exits from agriculture to also cause weaker manufacturing performance in line with the standard view of structural transformation as a reallocation of labor from agriculture into manufacturing and then services (Kuznets, 1973).

---

<sup>18</sup>In the Agricultural Census, total cropland is the sum of acres harvested, failed, and idle. Beginning in 1950, the reported columns for failed and idle cropland appear to be data errors, reporting all zeros. Harvested cropland, however, remains complete. We therefore use "cropland failure" for 1925-1945 and "harvested share" (which moves inversely to failure and idleness) as a consistent measure throughout the sample (1925-1960). We see suggestive evidence for this when the outcome is cropland failure (??).

## VII.A Manufacturing

We measure manufacturing outcomes using the historical Censuses of Manufacturing, which report the number of establishments, wage earners, total wages, and value added. We use these to construct intensive margin outcomes such as employees per establishment, average wage, value added per establishment, and average establishment's wage bill. These variables are noisy and strongly correlated. Rather than presenting numerous separate regressions, we summarize manufacturing performance using two standardized indices that capture the extensive and intensive margins. Each index is the first principal component of the underlying variables, scaled to have a mean of 0 and unit standard deviation for the pre-moratorium period. The underlying regressions for each component are similar to the index results (reported in the appendix), so the indices primarily improve precision and facilitate discussion.

First, to set ideas, the median county in 1930 had just 17 manufacturing establishments employing 247 workers, paying a total of \$206,000 in wages, and generating \$519,000 in value added. The bottom quartile of counties had 6 or fewer establishments, whereas the top decile had 90 or more. Indeed, 17 percent of counties had no manufacturing. Among counties with at least one establishment, the median plant employed about 18 workers and paid roughly \$16,000 in annual wages—approximately \$1,020 per worker.

Now we turn to our results. We find a clear null on the extensive margin. In the preferred triple difference specification, the coefficient is indistinguishable from zero (Table A21). As noted above, the same holds when we examine the log of the number of establishments, workers, or total wages. Event study estimates indicate no systematic divergence between high-mortgage counties in moratorium states and their comparison counties, and no evidence of pre-trends (Figure 9). The confidence intervals are sufficiently wide that we cannot rule out very small changes, but we can rule out a significant decline in the number of plants or manufacturing workers. In sum, the moratoria do not measurably change the number of manufacturing establishments, employment, payroll, or total value added in treated counties.

For the intensive margin index, we find suggestive evidence that the moratoria had a negative impact. In the full county sample, the triple difference coefficient is negative and statistically significant from 1920 to 1947. The estimates imply that moving from the median-exposure county to the top decile of pre-moratorium farm mortgage exposure is associated with an intensive margin index of 0.05 standard deviations lower than that of otherwise similar counties, almost a decade after the moratoria expired (Table A23). The results are less strong when we extend the sample to 1957 (Table A22). The individual regressions indicate that this results in 5% fewer workers per plant, 6% lower payroll per plant, and 5% lower value added per plant, while wages per worker remain flat. The magnitudes are modest, but they indicate weaker manufacturing activity within existing establishments.

The event study for the intensive margin index shows the same pattern. Before the moratoria, the treated and comparison counties moved in parallel. After implementation, the treated coefficients fall below zero and remain moderately negative through 1947 ([Figure 9](#)). Confidence intervals for individual years during the 1930s and early 1940s often exclude zero or barely include it, which we interpret as marginal statistical significance. These findings suggest that manufacturing in high-mortgage counties operated at somewhat lower intensity during the decade and a half following the moratoria. At the same time, the intensive margin results are not robust enough to support strong claims. When we restrict the sample to border counties, the estimated coefficients shrink in magnitude and become imprecise. By 1958, when we extend the sample to the full postwar period, the coefficients are statistically indistinguishable from zero. Any early difference in manufacturing intensity across counties appears to have largely closed by the late 1950s. Therefore, we treat the intensive margin evidence as suggestive. The moratoria may have temporarily weakened manufacturing activity within existing plants in counties with high mortgage exposure, but there is no sign of a large or permanent manufacturing collapse.

These patterns are consistent with a view in which the moratoria primarily distort the agricultural sector and affect manufacturing only indirectly through reduced local demand for manufactured goods—especially farm investment goods (implements, machinery, repairs) and locally purchased consumer durables. Earlier results show that high-exposure counties remain characterized by smaller, less capitalized farms and lower land values, implying a persistent decline in demand for more sophisticated farm implements, which in turn depresses demand for relatively advanced manufacturing goods (even if aggregate county-level farm values don’t change). When per-farm wealth falls, and credit is tight, rural households reduce their purchases of locally produced durables and inputs, just as foreclosure-driven wealth losses depressed consumption of cars and household services during the Great Recession ([Mian et al., 2015](#)). The same mechanism applies to farm households in our setting. In heavily mortgaged counties, the moratoria depress farm values and limit access to credit, thereby reducing demand for local manufacturing.

It is worth thinking through a stylized example to make the point. Suppose there is a local manufacturer that could either continue producing simple farm tools or incur a high fixed cost to switch to tractors. With depressed farm incomes and smaller farms, the need for tractors never becomes large enough to justify the sunk investment, so firms continue to produce low-value implements. In comparison, manufacturers in counties with larger farms move up the technology ladder. Models of irreversible and lumpy investment show that when demand falls, firms optimally delay or forgo large, discrete capital upgrades, even if they remain in operation, precisely the kind of intensive-margin response that our data capture ([Dixit and Pindyck 1994](#); [Cooper and Haltiwanger 2006](#)). This framework explains why we observe lower value added and wages per establishment in high-exposure counties, while the number of plants remains roughly unchanged.

Classic development economics treated agricultural progress as a precondition for industrialization. According to [Johnston and Mellor \(1961\)](#), increasing farm productivity and income frees labor from subsistence agriculture and increases rural purchasing power and savings—thereby expanding demand for manufactured goods and easing local financing constraints for non-farm enterprises. In this framework, agricultural income growth should generate positive downstream effects on local industry. [Matsuyama \(1992\)](#) challenges this view, arguing that once comparative advantage and market integration matter, higher agricultural productivity can pull resources toward agriculture and away from manufacturing, so the sign of the agriculture–industry relationship need not be positive.

Empirically, recent quasi-experimental work finds that agricultural productivity gains can raise welfare and reshape where activity occurs without necessarily producing a broad-based, local industrial takeoff. [Asher et al. \(2022\)](#) finds that large irrigation-driven productivity gains (from dam construction) in India generate persistent increases in agricultural outcomes and population density, but do not translate into commensurate long-run increases in nonfarm employment shares in treated rural areas, with structural transformation occurring largely through the growth of regional towns rather than pervasive rural industrialization. Taken together, this literature suggests that “agriculture lifts manufacturing” is not a universal truth and the relationship is shaped by general-equilibrium forces (demand, costs, mobility, and trade exposure) ([Matsuyama, 1992](#); [Asher et al., 2022](#)).

In a setting very similar to ours, [Hornbeck and Keskin \(2015\)](#) studies the impact of technology that enabled farmers to access water from the Ogallala aquifer on the Great Plains post-World War II. They find that despite increases in agricultural revenue,s there was no long-run expansion in manufacturing. Their interpretation emphasizes offsetting channels: higher farm productivity/income raises local demand, but it also bids up local factor prices (land and wages), thereby increasing costs and potentially crowding out non-agricultural activity.

Our results line up with that logic but in the opposite direction. The foreclosure moratoria operate as a negative and distortionary agricultural shock that reduces farm wealth and impedes efficient reallocation, so the demand channel points toward weaker local manufacturing, while the cost channel points toward lower wages/land costs that could attract tradable manufacturing. Consistent with [Hornbeck and Keskin \(2015\)](#), we find essentially no response in manufacturing establishment counts, which suggests that these forces may roughly offset on the extensive margin.

## VII.B Migration

In theory, foreclosure relief may change a farmer’s incentives in opposing ways. On the one hand, suspending foreclosure can reduce “distress migration” by preventing displacement. On the other hand, once the farm is effectively “saved,” relief can loosen constraints and increase the option to leave agriculture (e.g., by preserving housing wealth and reducing the immediate threat of eviction), potentially raising migration.

Despite salient cultural narratives, there was little net migration during the Great Depression. Contemporary USDA analysis notes that the net movement away from farms averaged about 630,000 per year in the 1920s, but fell to roughly 195,000 per year between 1930 and 1935 and even reversed in 1932, when about 325,000 more people moved *to* farms than left them (Bernert, 1944). This reversal of urbanization and the use of farms as a form of “migratory insurance” during the crisis is also emphasized by (Wilse-Samson and Boone, 2021).

Table 11 reports the DDD estimates using two migration measures. The first, *Linked Migration* (1930–1940), measures whether an individual linked between the 1930 and 1940 censuses lives in a different county in 1940 than in 1930. The second, *Migration* (1935–1940), uses the 1940 census “county of residence in 1935” question to measure whether the individual changed counties during 1935–1940. A key advantage of the 1935–1940 measure is that it does not mechanically depend on the linkage procedure for migration status, whereas the 1930–1940 measure can be inflated by false matches that appear as cross-county moves (Wilse-Samson and Boone, 2021).

Overall, the results are modest. Moving from the median to the 90th percentile of mortgage exposure in moratoria states reduces the linked 1930–1940 migration rate by about 0.28 percentage points and reduces the 1935–1940 migration rate by about 0.82 percentage points. These magnitudes are economically modest. These results are also not especially stable across specifications. In the border-county comparisons (cols. (3) and (6)), the interaction flips sign and becomes imprecise. Taken together, the evidence suggests that foreclosure moratoria do not generate large or robust changes in county-to-county migration. This is consistent with the broader Depression-era pattern documented by Wilse-Samson and Boone (2021)—the crisis disrupted structural change primarily through sectoral reallocation and the temporary reversal of urbanization rather than through large net increases in spatial mobility.

## VIII Conclusion

Foreclosure moratoria are a recurring policy response to economic crises. The Great Depression offers a unique opportunity to study what happens when governments actually deploy these tools at scale. We exploit cross-state variation in whether moratoria were adopted and within-



state variation in the extent of exposure of counties to mortgage distress, using a triple-difference design supplemented by a state-border empirical strategy.

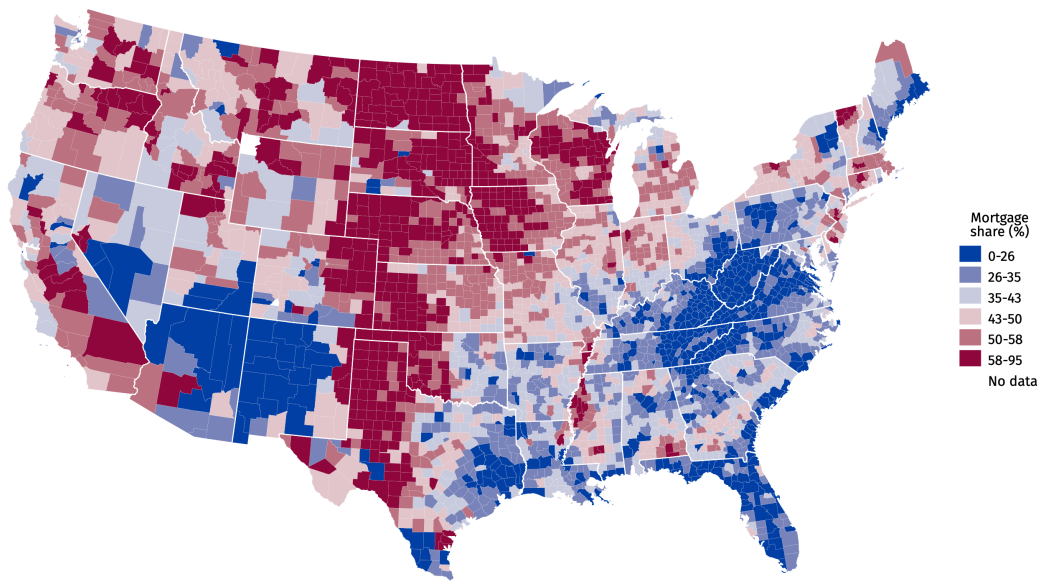
We show that the moratoria worked, at least in the narrow sense that they kept farms in operation. Counties where the policy had the most bite saw a persistent 15-30% rise in farm counts and a corresponding fall in average farm size. The linked census evidence corroborates this account. We find that farmers in high-exposure treated counties were more likely to stay in agriculture and less likely to move into manufacturing. Their children followed suit. A generation later, the sons of protected farmers were still disproportionately working the family plot.

We also show that preserving farms came at a cost. Moratoria pushed up local borrowing costs, likely reflecting both weakened creditor protections and a riskier pool of surviving borrowers. The remaining farms were smaller, more labor-intensive, and less productive. Cropland expanded onto marginal acres, capital per acre declined, crop failures increased, and per-acre revenues declined. Per-farm values dropped and stayed down. We find no evidence that manufacturing collapsed on the extensive margin, although there is suggestive evidence that existing plants operated at lower intensity, consistent with weaker local demand and slower labor reallocation.

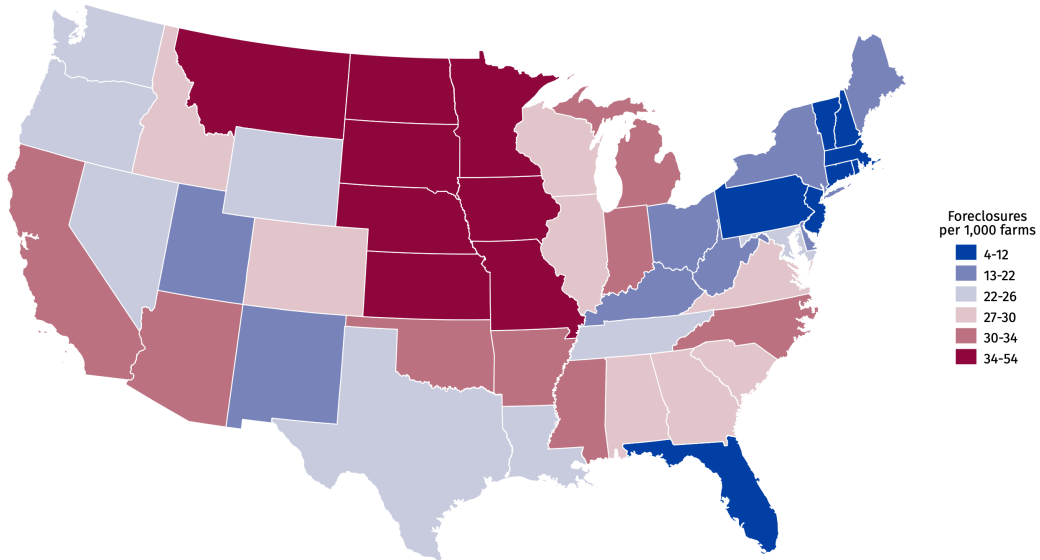
Two key limitations of our paper point to directions for future work. First, while our data provide evidence consistent with selection on surviving operators, they cannot fully disentangle selection from post-crisis re-optimization within farms. Second, a complete welfare analysis would require quantifying short-run insurance benefits and potential spillovers (e.g., avoided fire-sale losses and community stabilization) against the long-run distortions we document.

Our results speak to a fundamental tension in crisis-era policymaking. Temporary suspensions of creditor rights can provide valuable breathing room during periods of acute distress, but such interventions entail substantial costs. We cannot speak to overall welfare, but our evidence demonstrates that the long-run costs of foreclosure moratoria—in terms of misallocation, reduced productivity, and slower structural change—were substantial and persistent. Policymakers considering similar interventions should weigh these trade-offs carefully, recognizing that short-run protection may generate long-run distortions that outlast the crisis itself.

Figure 1: Geography of the Foreclosure Crisis



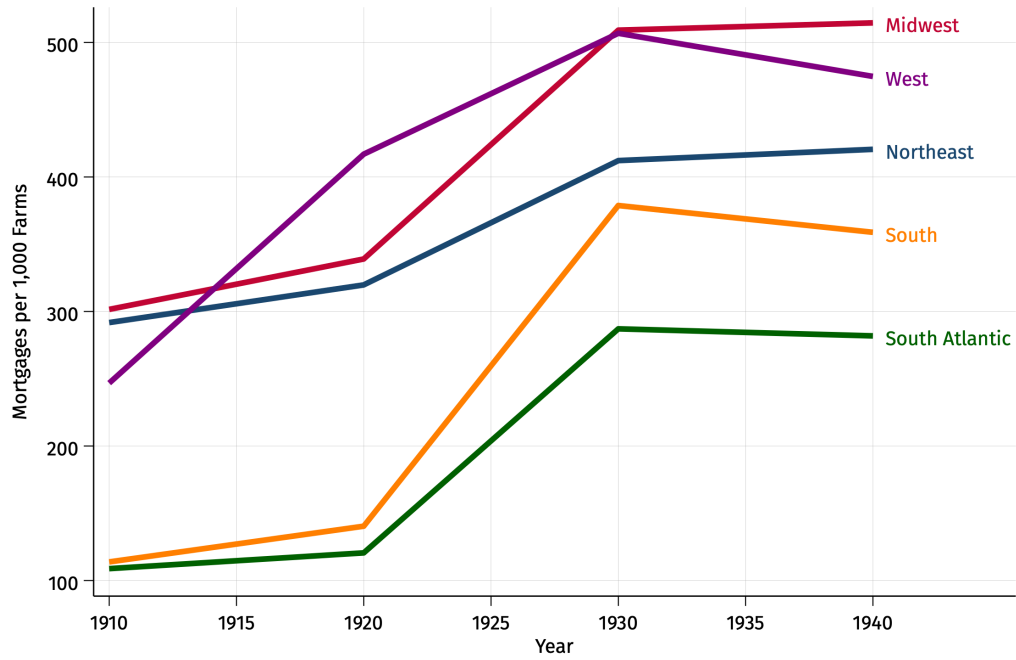
(a) Share of farms with a mortgage in 1930



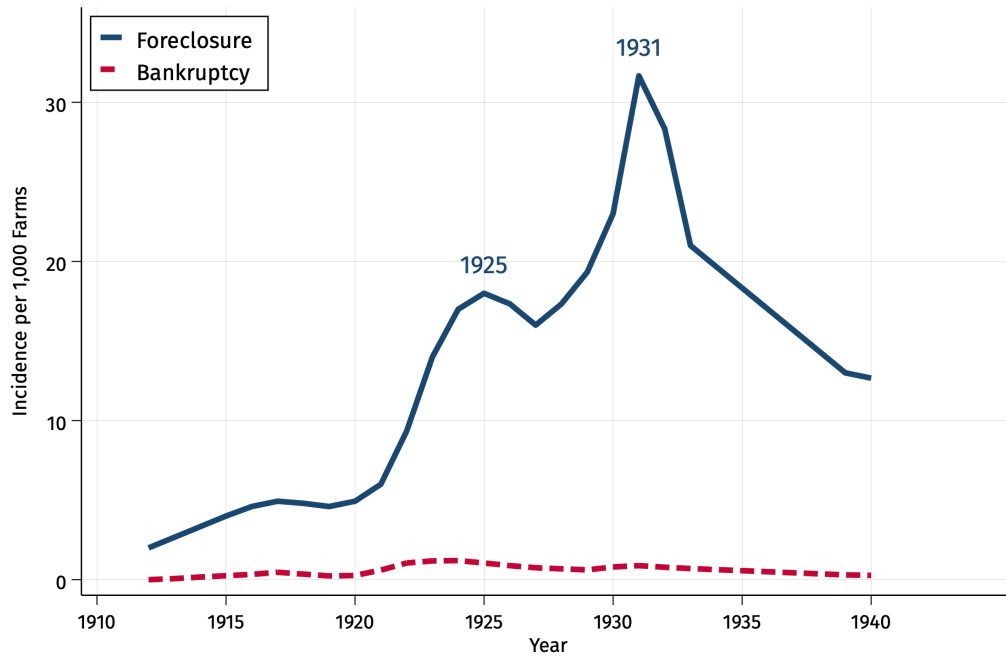
(b) Farm foreclosure rates in 1932

Notes: The upper map shows the county-level share of farms under mortgages in 1930, as recorded in the United States Census of Agriculture (Haines et al., 2018). Missing counties reflect an absence of county-level mortgage data. The lower map shows the state-level farm foreclosure rates (Stauber, 1933).

Figure 2: Timeline of the Foreclosure Crisis



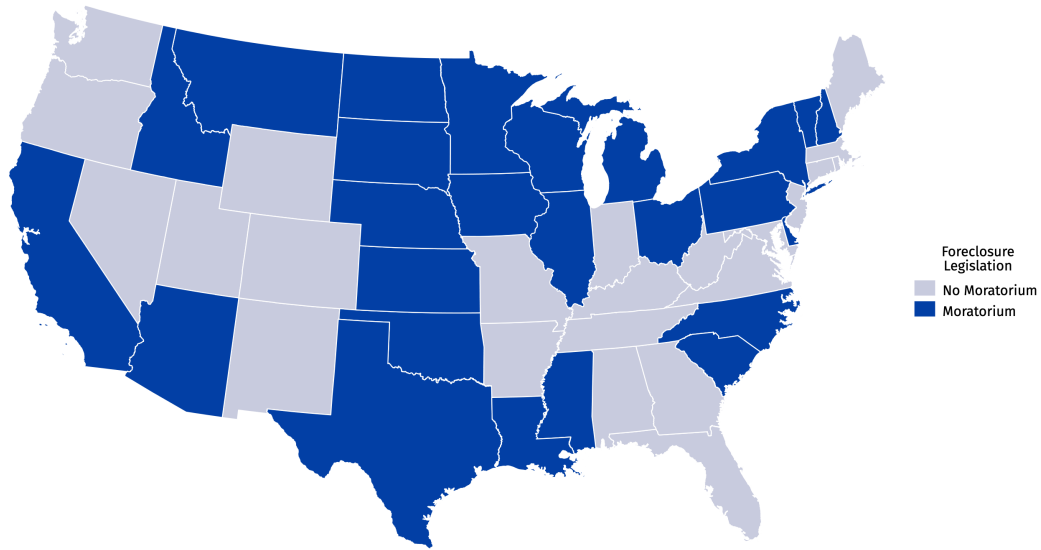
(a) Share of farms under mortgage by region



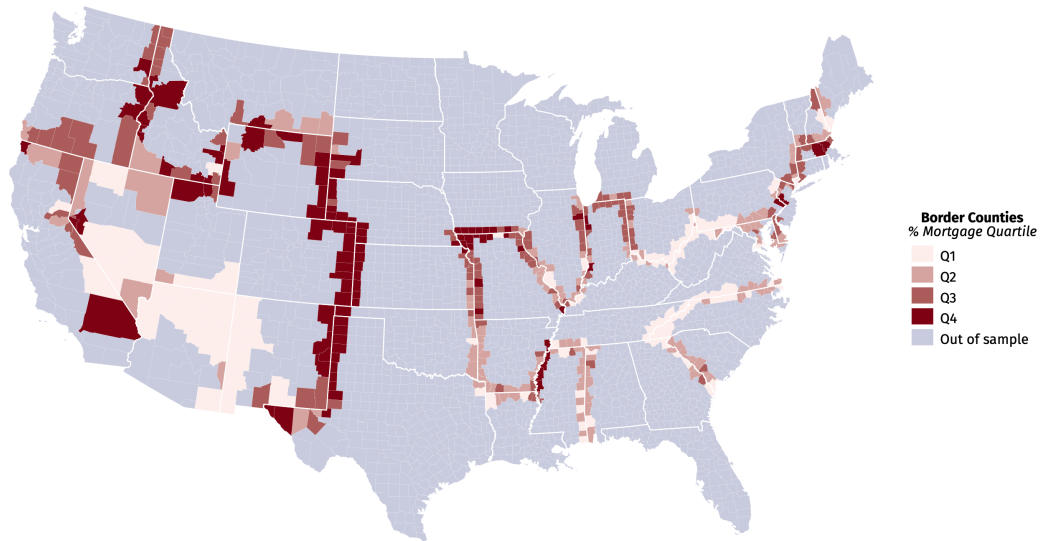
(b) Share of farms under involuntary transfer

Notes: Data in the upper panel from the Agricultural Census (Haines et al., 2010). Data in the lower panel are very approximate from the WPA county sample (Messer and Rieder, 2025).

Figure 3: Geography of the Foreclosure Moratoria



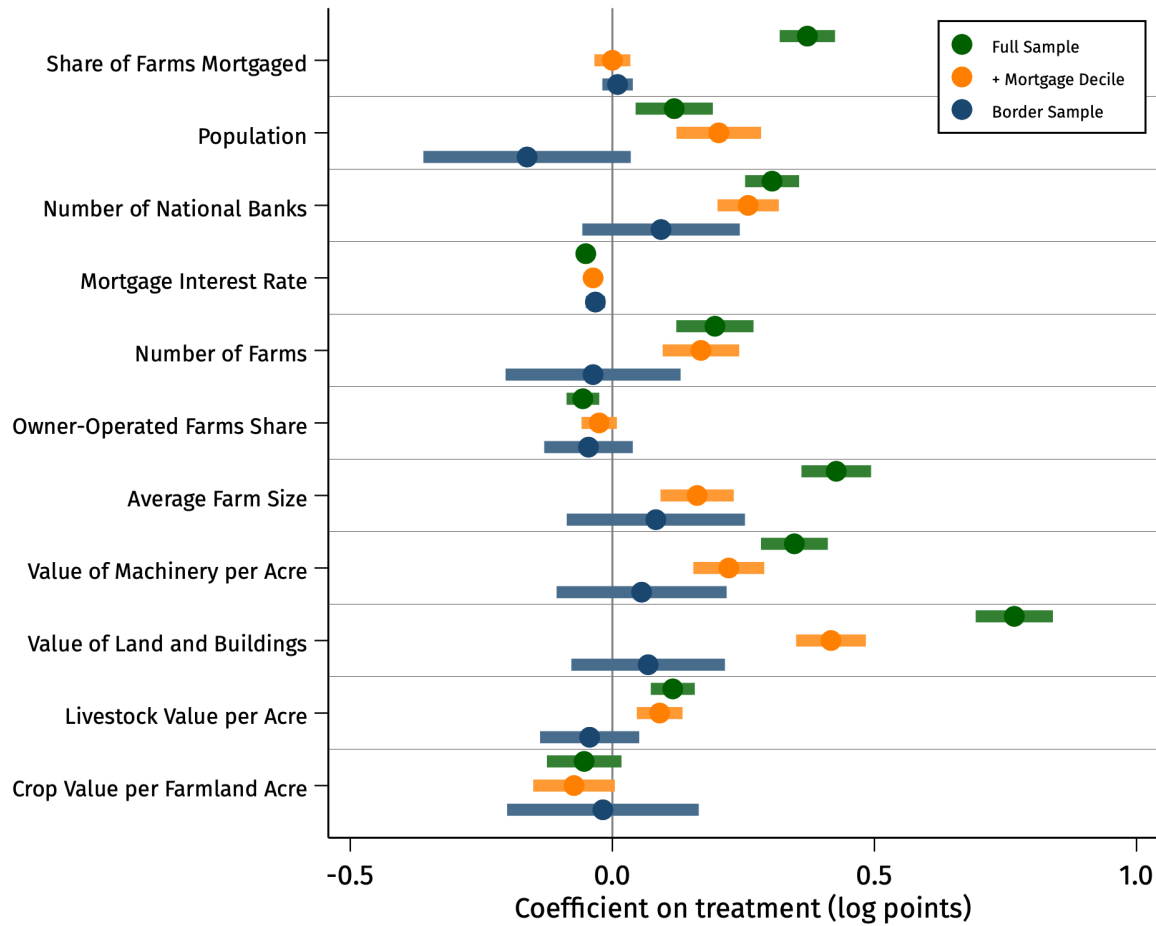
(a) States adopting foreclosure moratorium laws



(b) Counties in the border sample and their mortgage share ( $N = 476$ )

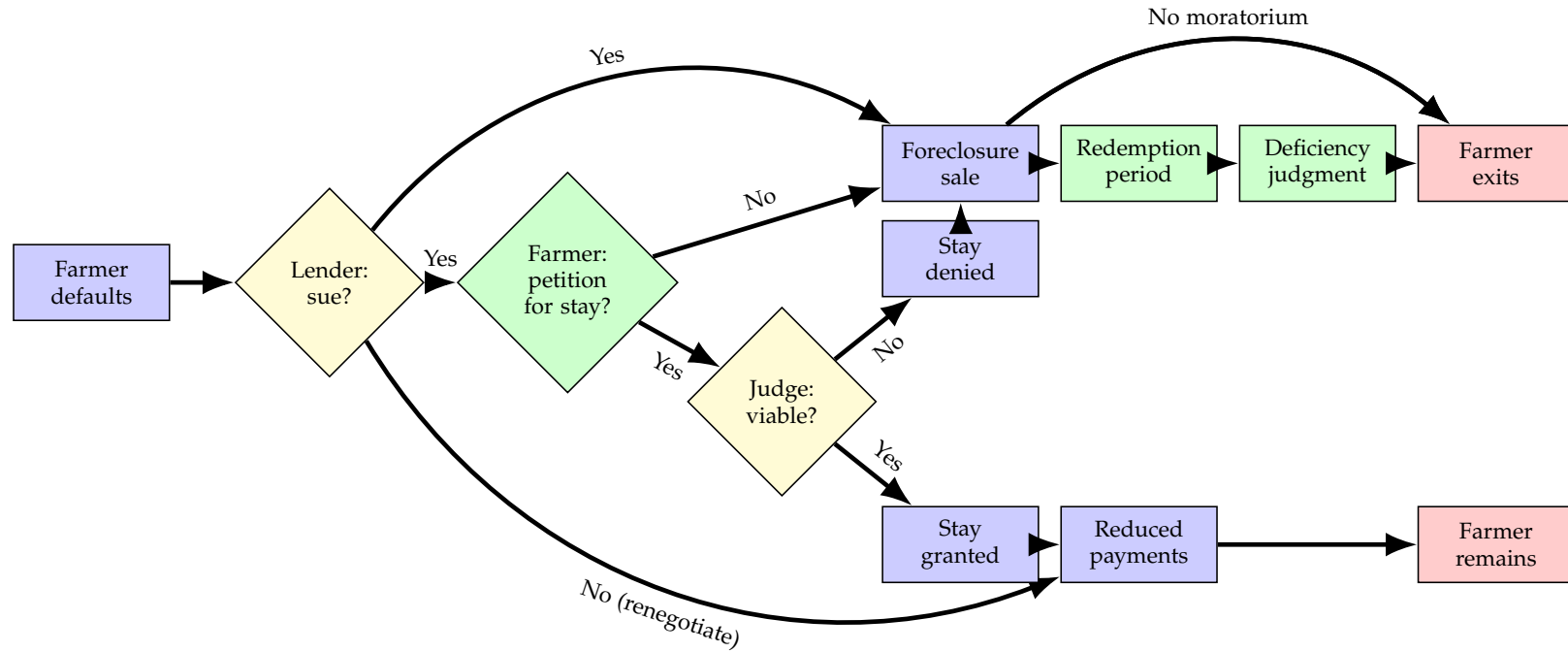
Notes: The upper map indicates states that were treated with foreclosure moratorium (Alston, 1984). The lower map shows the Border Sample: counties that touch a state border over which treatment assignment changes.

Figure 4: Covariate Balance under Moratorium Treatment



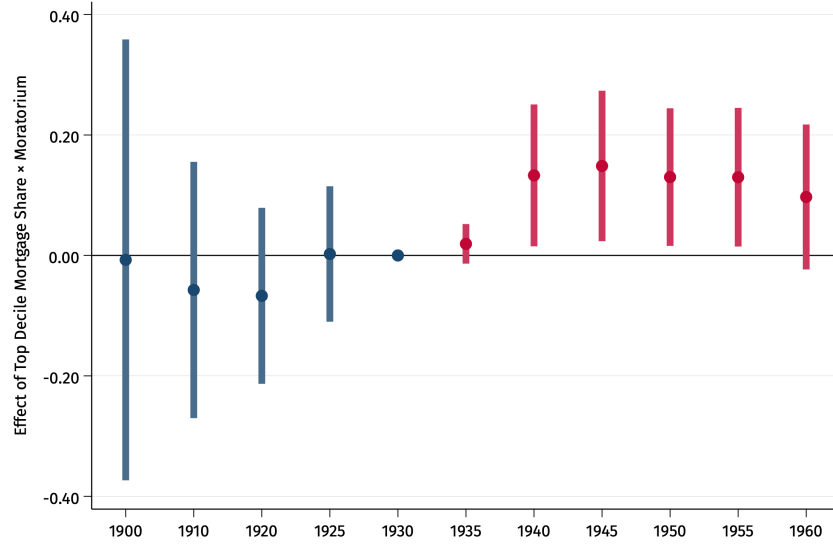
*Notes:* This figure compares baseline covariate differences between counties exposed to the state-level foreclosure moratoria across three samples. The Full Sample reports simple differences in average pre-treatment characteristics between moratorium and non-moratorium counties. Mortgage Decile adds a fixed effect indicating the decile of the 1930 farm mortgage share. The Border Sample is restricted to counties adjacent to a state line over which policy status changes, isolating geographic neighbors with similar agronomic and economic conditions.

Figure 5: The Process of Mortgage Foreclosure and Moratorium

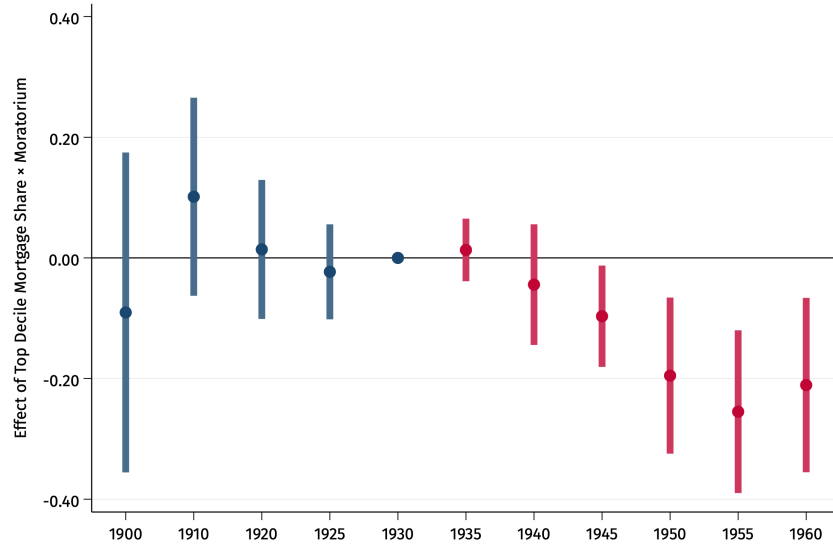


Notes: The diagram shows the process of mortgage foreclosure and the role of the moratoria laws in the foreclosure process. Yellow denotes decision points. Green nodes denote pathways made available under the moratorium laws of certain states. Each green node corresponds to the three categorizations of the laws in Table 2. The information is a summary of the exposition in Section I.C.

Figure 6: Triple Difference Event Studies for Farm Outcomes



(a) Log number of farms

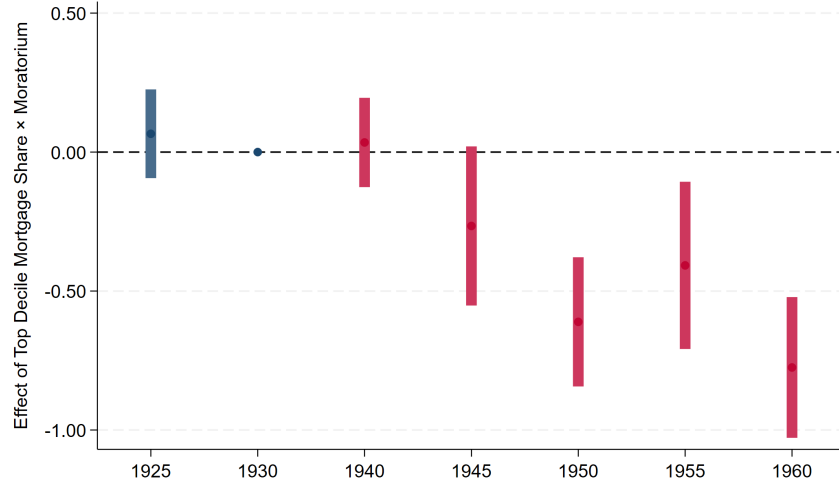


(b) Log average farm value

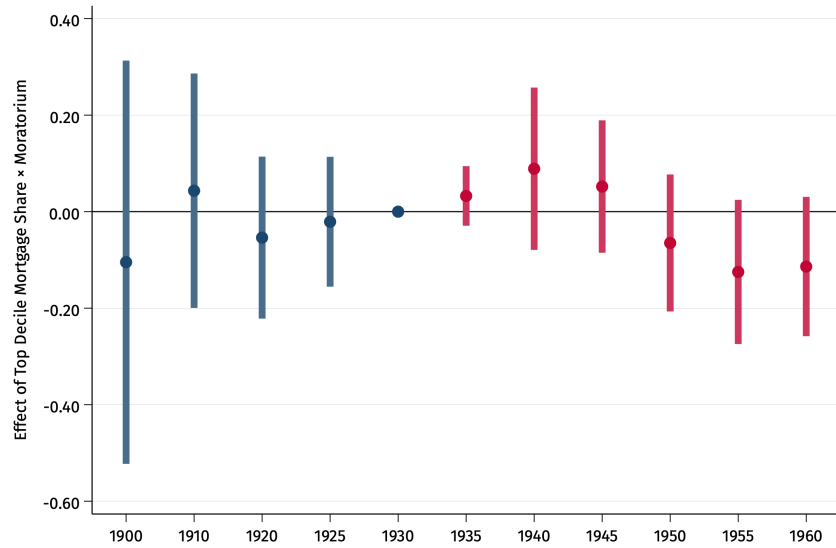
*Notes:* Observations are county-years. The outcome in the upper panel is the average value of farm land and buildings per farm in a county, in log current dollars. The outcome in the lower panel is the log of the number of farms in each county. Data from the Agricultural Censuses 1900-1960. We show the Triple Difference specification, plotting by census year the interaction between the moratoria treatment and an indicator for being in the top decile of share of mortgaged farms in 1930. The control group outcome mean in 1930 is given in parentheses at  $y = 0$ . Standard errors are clustered at the county level. Regressions are weighted by farmland area in 1930.



Figure 7: Triple Difference Event Studies for Farm Outcomes II



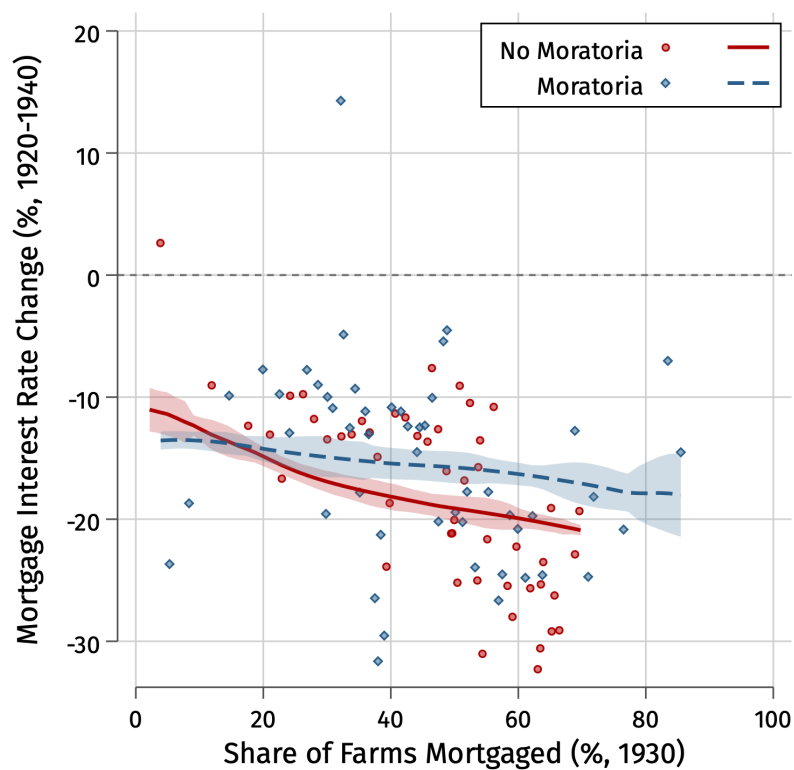
(a) Log crop revenue per acre of cropland



(b) Log total farm value

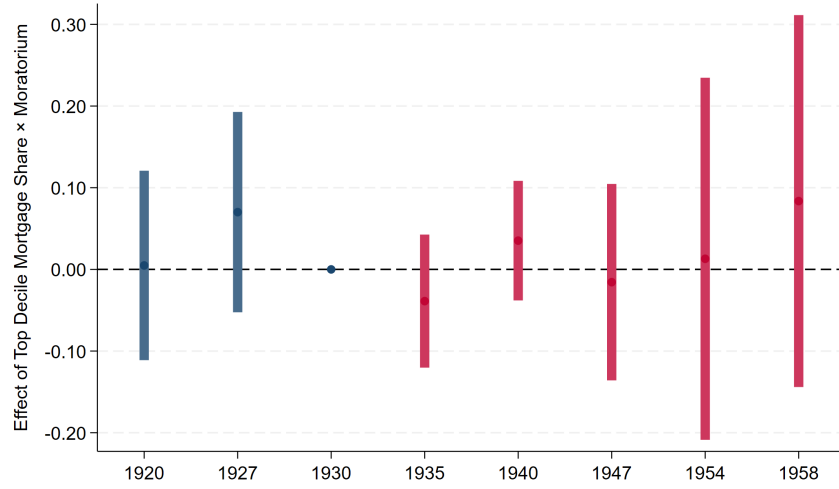
*Notes:* Observations are county-years. The outcome in the upper panel is the average crop revenue per acre of cropland, in logs. The outcome in the lower panel is the log of the total value of farm land and buildings in each county. Data from the Agricultural Censuses 1900-1960. We show the Triple Difference specification, plotting by census year the interaction between the moratoria treatment and an indicator for being in the top decile of share of mortgaged farms in 1930. The control group outcome mean in 1930 is given in parentheses at  $y = 0$ . Standard errors are clustered at the county level. Regressions are weighted by farmland area in 1930.

Figure 8: Moratoria and the Interest Rate

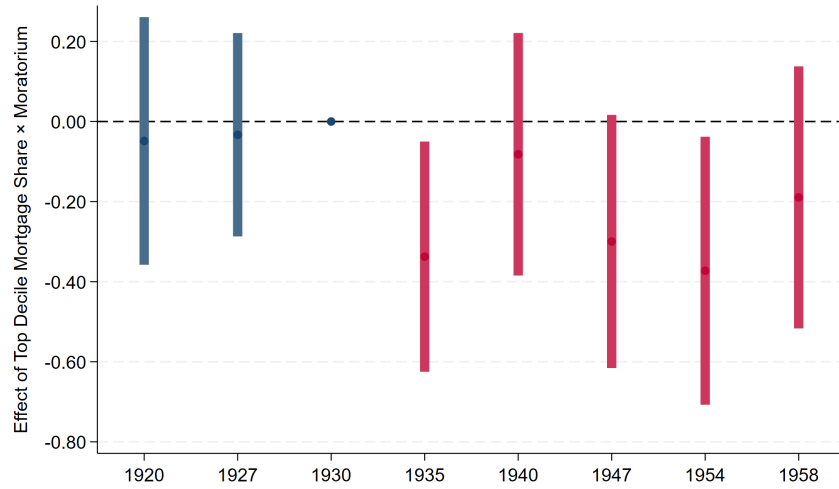


*Notes:* Observations are counties in the Border Pair sample. The  $x$ -variable is the share of farms mortgaged in 1930. The  $y$ -variable represents the percentage change in interest rates on farm mortgages between 1920 and 1940, as reported in the Agricultural Census. Data are grouped into 50 equally-sized bins. Local polynomial estimates are weighted by farmland area in 1930.

Figure 9: Triple Difference Event Studies for Manufacturing Outcomes



(a) Extensive margin index



(b) Intensive margin index

*Notes:* Observations are county-years. The outcome in the upper panel is the average crop revenue per acre of cropland, in logs. The outcome in the lower panel is the log of the total value of farm land and buildings in each county. Data from the Agricultural Censuses 1900-1960. We show the Triple Difference specification, plotting by census year the interaction between the moratoria treatment and an indicator for being in the top decile of share of mortgaged farms in 1930. The control group outcome mean in 1930 is given in parentheses at  $y = 0$ . Standard errors are clustered at the county level. Regressions are weighted by farmland area in 1930.

Table 1: County Summary Statistics in 1930

	N	mean	s.d	min	p50	p90	max
Foreclosure Moratoria	3,085	0.58	0.49	0	1	1	1
Number of Farms (log)	3,085	7.30	0.98	0	7.50	8.24	9.68
Owner-Operated Farms Share	3,082	0.61	0.20	0.03	0.64	0.87	1
Share of Farms Mortgaged	3,083	0.42	0.16	0	0.43	0.63	0.95
Average Farm Size (log)	3,083	5.01	0.97	0.81	4.78	6.44	11.03
Value of Machinery per Acre (log)	3,083	1.03	0.92	-6.34	1.02	2.09	6.55
Value of Land and Buildings (log)	3,083	16.07	1.08	9.39	16.15	17.36	19.99
Number of National Banks	3,085	2.36	3.83	0	1	6.00	61
Mortgage Interest Rate (%)	3,066	6.48	0.69	2.88	6.38	7.39	10
Population (log)	3,085	9.82	1.04	4.38	9.78	11.04	15.20
Farm Population Share	3,045	0.46	0.25	0	0.51	0.77	0.99
Farmer Age	3,085	46.49	1.92	41	46.26	49.12	58.50
Farmer Share White	3,085	0.90	0.18	0.14	0.99	1	1
Ratio Farm Workers to Owners	3,085	0.50	0.54	0.04	0.43	0.74	24
Pr[Stay Farm Owner] (1930-1940)	3,085	0.47	0.12	0	0.49	0.59	0.77
Pr[Stay in Agriculture] (1930-1940)	3,085	0.69	0.13	0	0.72	0.81	0.90
Pr[Transition Ag. to Manuf.] (1930-1940)	3,085	0.06	0.04	0	0.05	0.12	0.50

Notes: All observations are counties in 1930, unless otherwise indicated. Summary statistics are unweighted. Data from [Alston \(1984\)](#), [Haines et al. \(2010\)](#), [Pawel Janas \(2024\)](#), and [Ruggles et al. \(2024, 2025\)](#).

Table 2: State Foreclosure Moratorium Legislation (1933-1934)

State	Year	Length (Months)	Foreclosure Stay	Redemption Extension	Deficiency Regulation
Arizona	1933	24	Yes	No	Yes
California	1933	45	Yes	Yes	Yes
Delaware	1933	14	Yes	No	No
Idaho	1933	48	Yes	Yes	Yes
Iowa	1933	49	Yes	Yes	Yes
Illinois	1933	24	Yes	No	No
Kansas	1933	46	No	Yes	Yes
Louisiana	1934	21	Yes	No	Yes
Michigan	1933	45	Yes	Yes	Yes
Minnesota	1933	46	Yes	Yes	Yes
Mississippi	1934	13	Yes	No	Yes
Montana	1933	24	Yes	Yes	Yes
Nebraska	1933	48	Yes	No	Yes
New Hampshire	1933	48	Yes	Yes	No
New York	1933	46	Yes	No	Yes
North Carolina	1933	24	Yes	No	Yes
North Dakota	1933	52	Yes	Yes	Yes
Ohio	1933	47	Yes	No	No
Oklahoma	1933	24	Yes	No	No
Pennsylvania	1933	46	Yes	No	Yes
South Carolina	1933	53	Yes	No	Yes
South Dakota	1933	48	Yes	Yes	Yes
Texas	1933	18	Yes	No	Yes
Vermont	1933	48	Yes	Yes	No
Wisconsin	1933	49	Yes	Yes	Yes

*Notes:* Table summarizes state foreclosure relief laws. *Year:* Year the law went into effect. *Length:* Approximate duration of the foreclosure stay, including extensions. *Foreclosure Stay:* Laws allowing postponement of foreclosure. *Redemption Extension:* Laws extending the period to reclaim property post-sale. *Deficiency Regulation:* Laws limiting a lender's right to sue for remaining debt after foreclosure.

Table 3: Balance of Treated Counties in 1930

	(1) Full Sample	(2) + Mortgage Decile	(3) + Border Sample	(4) + Border Pair FE
Share of Farms Mortgaged	0.372*** (0.0269)	0.00107 (0.0175)	0.00996 (0.0148)	-0.0000371 (0.0201)
Total Population	0.117*** (0.0376)	0.202*** (0.0412)	-0.163 (0.101)	-0.125 (0.0967)
Number of National Banks	0.304*** (0.0263)	0.259*** (0.0298)	0.0929 (0.0765)	0.0839 (0.0860)
Mortgage Interest Rate	-0.0507*** (0.00366)	-0.0368*** (0.00377)	-0.0323*** (0.00937)	-0.0326*** (0.0104)
Number of Farms	0.195*** (0.0376)	0.169*** (0.0373)	-0.0368 (0.0850)	0.0282 (0.109)
Owner-Operated Farms Share	-0.0561*** (0.0159)	-0.0252 (0.0172)	-0.0455 (0.0430)	-0.0572* (0.0300)
Average Farm Size	0.428*** (0.0339)	0.162*** (0.0356)	0.0829 (0.0865)	-0.00769 (0.0675)
Value of Machinery per Acre	0.347*** (0.0325)	0.222*** (0.0345)	0.0558 (0.0825)	0.0903 (0.0804)
Value of Land and Buildings	0.766*** (0.0376)	0.418*** (0.0339)	0.0683 (0.0745)	0.0815 (0.0954)
Livestock Value per Acre	0.115*** (0.0214)	0.0904*** (0.0223)	-0.0434 (0.0481)	-0.0134 (0.0393)
Crop Value per Acre	0.110** (0.0546)	0.0346 (0.0521)	-0.0942 (0.107)	0.0133 (0.0984)
Proportion Treated	0.58	0.58	0.52	0.52
Obs	3,089	3,089	476	476
Pairs				46

*Notes:* Observations are counties in 1930. Coefficients are from the regression of the indicated variable on a dummy for the county being treated by a state foreclosure moratorium ([Alston, 1984](#)). All outcomes are in logs. Mortgage Decile indicates that the regression includes dummies for each decile of the farm mortgage share in 1930. Border Sample indicates that the sample is restricted to counties that touch a state border over which treatment assignment changes. Border pair control indicates that the regression includes fixed effects to identify each border segment group. Standard errors are robust in columns 1 to 3 and clustered at the border pair level in column 4.

Table 4: Effects of Moratoria on Number of Farms

	<i>Outcome: Log of Number of Farms</i>								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 × Moratoria	0.251*** (0.049)		0.311*** (0.112)	0.417*** (0.117)	0.242*** (0.050)	0.251*** (0.077)	0.133*** (0.031)	0.295*** (0.102)	0.182* (0.098)
Post=1 × Moratoria × % Mortgage	0.230*** (0.060)	0.355*** (0.069)	0.258** (0.100)	0.392*** (0.119)	0.231*** (0.061)	0.264*** (0.060)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State × Year FE		✓							
Border segment × Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959
Adjusted $R^2$	0.88	0.90	0.87	0.89	0.88	0.88	0.85	0.81	0.84
Obs	33,689	33,689	5,677	5,189	33,689	33,689	8,425	1,147	1,039
Counties	3,089	3,089	523	478	3,089	3,089	768	105	95
Outcome mean	2,148	2,148	2,058	2,108	2,148	2,148	1,868	1,708	1,755
Outcome SD	1,561	1,561	1,737	1,799	1,561	1,561	1,589	1,905	2,053

*Notes:* Observations are county-years. The outcome is the number of farms in a county, in logs. Data from the Agricultural Censuses 1900-1960. In the Triple Difference specification, we interact the double difference coefficient with the share of mortgaged farms in 1930. In the Double Difference specification, we restrict to counties in the top quartile of the mortgage share distribution in 1930 (Q4). In columns 3, 4, 8, and 9, we restrict to the border pair sample (*Border*) of counties that touch a state border over which treatment assignment changes. Border Pair FE indicates that the regression includes fixed effects to identify each border segment group. Standard errors are clustered at the county level. Regressions are weighted by farmland area in 1930.



Table 5: Effects of Moratoria on Farm Values

	Outcome: Log of Value per Farm (\$/farm)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 $\times$ Moratoria	-0.232*** (0.046)		-0.223* (0.115)	-0.289*** (0.095)	-0.218*** (0.046)	-0.371*** (0.095)	-0.187*** (0.042)	-0.114 (0.098)	-0.106 (0.085)
Post=1 $\times$ Moratoria $\times$ % Mortgage	-0.167*** (0.038)	-0.107** (0.047)	-0.153 (0.103)	-0.236*** (0.086)	-0.148*** (0.040)	-0.240*** (0.067)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State $\times$ Year FE		✓							
Border segment $\times$ Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959
Adjusted $R^2$	0.93	0.95	0.90	0.93	0.93	0.93	0.87	0.84	0.86
Obs	33,645	33,645	5,677	5,189	33,645	33,645	8,425	1,147	1,039
Counties	3,088	3,088	523	478	3,088	3,088	768	105	95
Outcome mean	12,393	12,393	11,875	12,093	12,393	12,393	16,778	14,949	15,333
Outcome SD	14,313	14,313	14,562	15,248	14,313	14,313	13,519	7,919	8,374

*Notes:* Observations are county-years. The outcome is the number of farms in a county, in logs. Data from the Agricultural Censuses 1900-1960. In the Triple Difference specification, we interact the double difference coefficient with the share of mortgaged farms in 1930. In the Double Difference specification, we restrict to counties in the top quartile of the mortgage share distribution in 1930 (Q4). In columns 3, 4, 8, and 9, we restrict to the border pair sample (*Border*) of counties that touch a state border over which treatment assignment changes. Border Pair FE indicates that the regression includes fixed effects to identify each border segment group. Standard errors are clustered at the county level. Regressions are weighted by farmland area in 1930.

Table 6: Effects of Moratoria on Occupational Transitions, 1930–1940

	Stay in Ag.		Stay Owner		Ag. to Manuf.	
	(1)	(2)	(3)	(4)	(5)	(6)
Moratoria $\times$ % Mortgage	0.040*** (0.011)	0.039** (0.017)	0.005 (0.014)	0.003 (0.019)	-0.007*** (0.003)	-0.005 (0.008)
Moratoria	0.058*** (0.010)	0.040** (0.017)	0.028** (0.013)	0.017 (0.022)	-0.012*** (0.003)	-0.008 (0.007)
% Mortgage	0.037*** (0.008)	0.004 (0.010)	0.039*** (0.010)	0.009 (0.011)	-0.002 (0.002)	-0.010* (0.005)
Demographic Controls	Yes	No	Yes	No	Yes	No
Economic Controls	Yes	No	Yes	No	Yes	No
Outcome Mean	0.71	0.69	0.49	0.47	0.06	0.06
Outcome SD	0.09	0.09	0.10	0.10	0.03	0.03
Sample	All	Border	All	Border	All	Border
Obs	2,333	476	2,333	476	2,333	476
Adjusted $R^2$	0.33	0.02	0.27	0.00	0.42	0.04
p50-p90 effect (%)	3.08	1.70	1.72	0.46	-0.37	-0.58

Notes: Observations are counties. Data from the [Ruggles et al. \(2024, 2025\)](#) and [Haines et al. \(2010\)](#). County-level means are computed from the linked IPUMS full-count samples. The sample restriction is to men who are active in the labor force in 1930 and 1940, and who worked in agriculture in 1930. Demographic controls are age, age squared, and a dummy for White. Economic controls are the logs of the count of farms and the count of manufacturing establishments in 1930. Standard errors are robust. Regressions are weighted by farmland area in 1930.

Table 7: Effects of Moratoria on the Children of Farmers in 1950

	Agriculture		Operate Family Farm		Manufacturing	
	(1)	(2)	(3)	(4)	(5)	(6)
Moratoria $\times$ Farmer's Child $\times$ % Mortgage	0.071*** (0.021)	0.079*** (0.025)	0.034*** (0.010)	0.030** (0.013)	-0.051** (0.026)	-0.014 (0.033)
Moratoria $\times$ % Mortgage	0.027*** (0.009)	-0.005 (0.016)	0.004** (0.002)	-0.002 (0.006)	-0.050** (0.025)	-0.076** (0.033)
Moratoria $\times$ Farmer's Child	0.074*** (0.023)	0.061** (0.025)	0.022* (0.012)	0.008 (0.014)	-0.062** (0.028)	-0.020 (0.037)
Farmer's Child $\times$ % Mortgage	0.054*** (0.014)	0.072*** (0.015)	0.030*** (0.007)	0.043*** (0.008)	-0.029** (0.014)	-0.080*** (0.016)
Moratoria	0.023*** (0.009)	0.009 (0.014)	0.003* (0.002)	0.004 (0.005)	-0.035 (0.027)	-0.074* (0.038)
% Mortgage	-0.001 (0.003)	0.011 (0.010)	-0.001 (0.001)	-0.001 (0.003)	0.043*** (0.012)	0.079*** (0.015)
Farmer's Child	0.390*** (0.017)	0.368*** (0.019)	0.158*** (0.009)	0.166*** (0.011)	-0.130*** (0.018)	-0.136*** (0.022)
Demographic Controls	No	Yes	No	Yes	No	Yes
Economic Controls	No	Yes	No	Yes	No	Yes
Outcome Mean	0.11	0.11	0.03	0.03	0.30	0.30
Outcome SD	0.31	0.31	0.18	0.18	0.46	0.46
Sample	All	All	All	All	All	All
Obs	186,857	161,506	186,857	161,506	186,857	161,506
Adjusted $R^2$	0.23	0.24	0.09	0.10	0.01	0.02
p50-p90 effect (%)	5.52	5.73	2.40	2.55	-3.05	-3.19

Notes: Observations are adult individuals in the 1950 census who have been linked to their parents' 1930 census returns. Data from the [Ruggles et al. \(2024, 2025\)](#) and [Haines et al. \(2010\)](#). Treatment variables are based on the county of residence in 1930, when the individual was a child (mean age 6). The sample is restricted to individuals who do not migrate between 1930 and 1950. Demographic controls are age, age squared, and a dummy for White. Economic controls are the logs of the count of farms and the count of manufacturing establishments in 1930. Standard errors are clustered at the childhood county level.

Table 8: Effects of Moratoria on Land Usage

	(1) % Farm Cropland	(2) % Idle Cropland	(3) % Failed Cropland	(4) % Harvested Cropland
Post=1 $\times$ Moratoria $\times$ % Mortgage	0.303*** (0.077)	0.397*** (0.112)	1.072*** (0.173)	-0.138*** (0.034)
Post=1 $\times$ % Mortgage	-0.033 (0.025)	0.130*** (0.048)	-0.153** (0.066)	0.095*** (0.025)
Post=1 $\times$ Moratoria	0.268*** (0.060)	0.800*** (0.119)	1.391*** (0.162)	-0.124*** (0.032)
County FE	✓	✓	✓	✓
Year FE	✓	✓	✓	✓
Sample Period	All 1925-1959	All 1925-1945	All 1925-1945	All 1925-1959
Adjusted $R^2$	0.94	0.73	0.42	0.34
Obs	24,514	15,288	15,265	24,509
Counties	3,077	3,071	3,073	3,076
Outcome mean	0.42	0.12	0.04	0.84
Outcome SD	0.22	0.10	0.06	0.12

Notes: Observations are county-years. Data from the Agricultural Censuses 1900-1960. Standard errors are clustered at the county level. Regressions are weighted by cropland area in 1930.

Table 9: Effects of Moratoria on Agricultural Outcomes

	(1) Capital/Acre	(2) Capital/Labor	(3) Crop Yield	(4) Animal Yield
Post=1 $\times$ Moratoria $\times$ % Mortgage	-0.338*** (0.064)	-0.209*** (0.048)	-0.234** (0.106)	0.088 (0.072)
Post=1 $\times$ % Mortgage	-0.001 (0.019)	-0.012 (0.034)	0.288*** (0.064)	0.067 (0.051)
Post=1 $\times$ Moratoria	-0.359*** (0.048)	-0.243*** (0.046)	-0.237** (0.096)	0.094 (0.061)
County FE	✓	✓	✓	✓
Year FE	✓	✓	✓	✓
Sample Period	All 1925-1945	All 1930-1945	All 1925-1959	All 1925-1954
Adjusted $R^2$	0.85	0.93	0.60	0.90
Obs	12,268	8,688	21,418	18,382
Counties	3,072	2,925	3,066	3,066
Outcome mean	13	509	20	14
Outcome SD	53	18,151	18	14

Notes: Observations are county-years. The denominator is cropland acres. Data from the Agricultural Censuses 1900-1960. Standard errors are clustered at the county level. Regressions are weighted by farmland area in 1930.

Table 10: Effects of Moratoria on Interest Rates

	<i>Outcome: Mortgage Interest Rate (%)</i>							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post=1 × Moratoria	-0.022 (0.097)	0.606*** (0.153)	0.606*** (0.153)	0.546*** (0.189)	0.701*** (0.178)	0.346 (0.358)	0.318** (0.137)	0.319** (0.147)
Post=1 × Moratoria × % Mortgage	0.012 (0.113)	0.513*** (0.141)	0.513*** (0.141)	0.475** (0.202)	0.613*** (0.173)	0.230 (0.383)		
County FE	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓
Border segment × Post FE				✓				✓
New Deal controls					✓			
Dust Bowl controls						✓		
Border counties		✓	✓	✓	✓	✓	✓	✓
High % mortgage counties							✓	✓
Period	1920-1940	1920-1940	1920-1940	1920-1940	1920-1940	1920-1940	1920-1940	1920-1940
Adjusted $R^2$	0.76	0.67	0.67	0.72	0.67	0.68	0.76	0.72
Obs	9,199	1,560	1,560	1,423	1,560	1,560	314	280
Counties	3,072	521	521	476	521	521	105	95
Outcome mean	6.47	6.57	6.57	6.56	6.57	6.57	6.49	6.45
Outcome SD	0.66	0.70	0.70	0.71	0.70	0.70	0.59	0.59

*Notes:* Observations are county-years. The outcome is the average interest rate paid by farmers on mortgage debt. Data from the Agricultural Censuses in 1920 and 1940. In the Triple Difference specification, we interact the double difference coefficient with the share of mortgaged farms in 1930. In the Double Difference specification, we restrict to counties in the top quartile of the mortgage share distribution in 1930 ( $Q4$ ). In columns 2,3,5, and 6, we restrict to the border pair sample (*Border*) of counties that touch a state border over which treatment assignment changes. Border Pair FE indicates that the regression includes fixed effects to identify each border segment group. For example, all counties along the AZ/NM border are included in one level of the fixed effect. Standard errors are clustered at the county level. Regressions are weighted by farmland area in 1930.

Table 11: Effects of Moratoria on Migration

	Linked Migration (1930-1940)			Migration (1935-1940)		
	(1)	(2)	(3)	(4)	(5)	(6)
Moratoria $\times$ % Mortgage	-0.020 (0.023)	-0.014 (0.009)	0.072* (0.041)	-0.038* (0.022)	-0.041*** (0.013)	0.045 (0.055)
Moratoria	-0.020 (0.018)	-0.032*** (0.010)	0.077** (0.037)	-0.043** (0.019)	-0.062*** (0.012)	0.031 (0.051)
% Mortgage	0.066*** (0.007)	0.061*** (0.004)	0.059*** (0.014)	0.072*** (0.011)	0.063*** (0.007)	0.060** (0.026)
Demographic Controls	No	Yes	No	No	Yes	No
Economic Controls	No	Yes	No	No	Yes	No
Outcome Mean	0.23	0.20	0.23	0.28	0.25	0.29
Outcome SD	0.10	0.08	0.11	0.12	0.11	0.14
Sample	All	All	Border	All	All	Border
Obs	3,083	2,331	474	3,083	2,331	474
Adjusted $R^2$	0.09	0.42	0.20	0.05	0.27	0.08

Notes: Observations are counties. *Linked Migration (1930-1940)* imputes migration rates using the linked sample between the 1930 and 1940 censuses (Ruggles et al. (2025)). *Migration (1935-1940)* uses the 5-year migration question in the 1940 census to record migration (Ruggles et al., 2024). Demographic controls are age, age squared, and a dummy for White. Economic controls are the logs of the count of farms and the count of manufacturing establishments in 1930. Standard errors are robust. Regressions are weighted by farmland area in 1930.



## References

- Acharya, V. V., M. Crosignani, T. Eisert, and S. Steffen (2022, April). Zombie Lending: Theoretical, International and Historical Perspectives.
- Adamopoulos, T. and D. Restuccia (2014, June). The size distribution of farms and international productivity differences. *American Economic Review* 104(6), 1667–97.
- Allegretto, S., A. Dube, M. Reich, and B. Zipperer (2017, May). Credible Research Designs for Minimum Wage Studies: A Response to Neumark, Salas, and Wascher. *ILR Review* 70(3), 559–592.
- Alston, L. (1984). Farm foreclosure moratorium legislation: A lesson from the past. *American Economic Review* 74(3), 445–57.
- Alston, L. J. (1983). Farm foreclosures in the united states during the interwar period. *The Journal of Economic History* 43(4), 885–903.
- Angelova, V. and L. D’Amico (2024). The Making of a National Mortgage Market and Its Effects on American Cities.
- Anonymous (1939). Constitutional law. constitutionality of new york deficiency judgment act. *Columbia Law Review* 39(7), 1227–1232.
- Aragón, F. M., D. Restuccia, and J. P. Rud (2024, October). Assessing misallocation in agriculture: Plots versus farms. *Food Policy* 128, 102678.
- Asher, S., A. Campion, D. Gollin, and P. Novosad (2022, Jun). The long-run development impacts of agricultural productivity gains: Evidence from irrigation canals in india. CEPR Discussion Papers 17414, C.E.P.R. Discussion Papers.
- Bernanke, B. and M. Gertler (1989). Agency Costs, Net Worth, and Business Fluctuations. *The American Economic Review* 79(1), 14–31.
- Bernanke, B. S. (1983). Nonmonetary effects of the financial crisis in the propagation of the great depression. *The American Economic Review* 73(3), 257–276.
- Bernert, E. H. (1944, December). County variation in net migration from the rural-farm population, 1930–40. Technical report, U.S. Department of Agriculture, Bureau of Agricultural Economics, Washington, D.C. December 1944.
- Brorsen, B. W., D. Doye, and K. B. Neal (2015). Agricultural land and the small parcel size premium puzzle. *Land Economics* 91(3), 572–585.

- Caballero, R. J. and M. L. Hammour (1996, 08). On the Timing and Efficiency of Creative Destruction\*. *The Quarterly Journal of Economics* 111(3), 805–852.
- Campbell, J. Y., S. Giglio, and P. Pathak (2011). Forced sales and house prices. *American Economic Review* 101(5), 2108–2131.
- Chen, C., D. Restuccia, and R. Santaeuilàlia-Llopis (2023, April). Land Misallocation and Productivity. *American Economic Journal: Macroeconomics* 15(2), 441–465.
- Chodorow-Reich, G., O. Darmouni, S. Luck, and M. C. Plosser (2020, October). Bank liquidity provision across the firm size distribution. Working Paper 27945, National Bureau of Economic Research.
- Correia, S., S. Luck, and E. Verner (2026, February). Failing banks. *The Quarterly Journal of Economics* 141(1), 147–204.
- Depew, B., P. V. Fishback, and P. W. Rhode (2013, October). New deal or no deal in the Cotton South: The effect of the AAA on the agricultural labor structure. *Explorations in Economic History* 50(4), 466–486.
- Derenoncourt, E. (2022, February). Can You Move to Opportunity? Evidence from the Great Migration. *American Economic Review* 112(2), 369–408.
- Diamond, R., A. Guren, and R. Tan (2020, June). The effect of foreclosures on homeowners, tenants, and landlords. Working Paper 27358, National Bureau of Economic Research.
- Eckert, F., A. Gvirtz, J. Liang, and M. Peters (2020, February). A Method to Construct Geographical Crosswalks with an Application to US Counties since 1790. Technical Report w26770, National Bureau of Economic Research, Cambridge, MA.
- Ellen, I. G., J. Lacoë, and C. A. Sharygin (2013). Do foreclosures cause crime? *Journal of Urban Economics* 74, 59–70.
- Fishback, P. V., W. C. Horrace, and S. Kantor (2005a). Did new deal grant programs stimulate local economies? a study of federal grants and retail sales during the great depression. *The Journal of Economic History* 65(1), 36–71.
- Fishback, P. V., W. C. Horrace, and S. Kantor (2005b). Did new deal grant programs stimulate local economies? a study of federal grants and retail sales during the great depression. *The Journal of Economic History* 65(1), 36–71.
- Gates, P. W. (1942). The role of the land speculator in western development. *The Pennsylvania Magazine of History and Biography* 66(3), 314–333.

- Ghent, A. (2014). How do case law and statute differ? lessons from the evolution of mortgage law. *The Journal of Law & Economics* 57(4), 1085–1122.
- Goodman, L., K. Kaul, and M. Neal (2020, April). The CARES Act Eviction Moratorium Covers All Federally Financed Rentals—That’s One in Four US Rental Units. Technical report, Urban Institute.
- Gruber, J. (1994). The Incidence of Mandated Maternity Benefits. *The American Economic Review* 84(3), 622–641. Publisher: American Economic Association.
- Gupta, A. (2019). Foreclosure contagion and the neighborhood spillover effects of mortgage defaults. *The Journal of Finance* 74(5), 2249–2301.
- Haines, M., P. Fishback, and P. Rhode (2018). United States Agriculture Data, 1840 - 2012. Technical report.
- Haines, M. R., I. university Consortium for Political, and S. Research (2010). Historical, demographic, economic, and social data: The united states, 1790-2002.
- Hansen, M. E. and N. L. Ziebarth (2017, April). Credit relationships and business bankruptcy during the great depression. *American Economic Journal: Macroeconomics* 9(2), 228–55.
- Hausman, J. K., P. W. Rhode, and J. F. Wieland (2019, February). Recovery from the great depression: The farm channel in spring 1933. *American Economic Review* 109(2), 427–72.
- Haws, A., D. R. Just, and J. Price (2023, August). Who (actually) gets the farm? intergenerational farm succession in the united states. Working Paper 31604, National Bureau of Economic Research.
- Haws, A., D. R. Just, and J. Price (2025). Who (actually) gets the farm? intergenerational farm succession in the united states. *American Journal of Agricultural Economics* 107(1), 3–26.
- Hornbeck, R. (2012, June). The enduring impact of the american dust bowl: Short- and long-run adjustments to environmental catastrophe. *American Economic Review* 102(4), 1477–1507.
- Hornbeck, R. (2023, September). Dust Bowl Migrants: Environmental Refugees and Economic Adaptation. *The Journal of Economic History* 83(3), 645–675.
- Hornbeck, R. and P. Keskin (2015, May). Does agriculture generate local economic spillovers? short-run and long-run evidence from the ogallala aquifer. *American Economic Journal: Economic Policy* 7(2), 192–213.
- Horton, D. C., H. C. Larsen, and N. J. Wall (1942). Farm-mortgage credit facilities in the united states. (1485-2022-914), 284.

- Jaremski, M. S. and D. C. Wheelock (2018, Oct). Banking on the boom, tripped by the bust: Banks and the world war i agricultural price shock. NBER Working Papers 25159, National Bureau of Economic Research, Inc.
- Jayaratne, J. and P. E. Strahan (1996). The finance-growth nexus: Evidence from bank branch deregulation. *The Quarterly Journal of Economics* 111(3), 639–670.
- Johnston, B. F. and J. W. Mellor (1961). The role of agriculture in economic development. *The American Economic Review* 51(4), 566–593.
- Jones, L. A. and D. Durand (1954). Location of areas of farm mortgage distress. In L. A. Jones and D. Durand (Eds.), *Mortgage Lending Experience in Agriculture*. Princeton, NJ: Princeton University Press.
- Kislev, Y. and W. Peterson (1982, June). Prices, Technology, and Farm Size. *Journal of Political Economy* 90(3), 578–595. Publisher: The University of Chicago Press.
- Kiyotaki, N. and J. Moore (1997). Credit Cycles. *Journal of Political Economy* 105(2), 211–248. Publisher: The University of Chicago Press.
- Kuznets, S. (1973). Modern economic growth: Findings and reflections. *The American Economic Review* 63(3), 247–258.
- La Porta, R., F. Lopez-de Silanes, A. Shleifer, and R. W. Vishny (1997). Legal determinants of external finance. *The Journal of Finance* 52(3), 1131–1150.
- Lin, P. Z. and G. Peri (2025, June). How the 1942 Japanese Exclusion Impacted U.S. Agriculture.
- Matsuyama, K. (1992). Agricultural productivity, comparative advantage, and economic growth. *Journal of Economic Theory* 58(2), 317–334.
- Messer, T. and K. Rieder (2025). Income Shocks and the Mechanics of Bank Distress: Evidence from the 1920s Commodity Price Bust.
- Mian, A., A. Sufi, and F. Trebbi (2015). Foreclosures, house prices, and the real economy. *The Journal of Finance* 70(6), 2587–2634.
- Mitchener, K. J. and G. Richardson (2024, August). Bank lending and deposit crunches during the great depression. Working Paper 32783, National Bureau of Economic Research.
- Olcott, M. T. and L. O. Bercaw (1934, June). State measures for the relief of agricultural indebtedness in the united states, 1933 and 1934. Technical Report 53, United States Department of Agriculture. 418 pp.

- Olden, A. and J. Møen (2022, September). The triple difference estimator. *The Econometrics Journal* 25(3), 531–553.
- Ortiz-Villavicencio, M. and P. H. C. Sant’Anna (2025, July). Better Understanding Triple Differences Estimators. arXiv:2505.09942 [econ].
- Pawel Janas (2024, July). U.S. County Banking Data, 1924 - 1931.
- Perkins, V. L. (1969). *Crisis in Agriculture: The Agricultural Adjustment Administration and the New Deal, 1933*. Berkeley: University of California Press.
- Poteat, J. D. (1938). State legislative relief for the mortgage debtor during the depression. *Law and Contemporary Problems*. YPFS Resource Library, Documents No. 13089.
- Prosser, W. L. (1934, May). The minnesota mortgage moratorium. *Southern California Law Review* 7(4), 353–371. Accessed via HeinOnline.
- Quincy, S. (2024, December). Loans for the "Little Fellow": Credit, Crisis, and Recovery in the Great Depression. *American Economic Review* 114(12), 3905–3943.
- Rajan, R. and R. Ramcharan (2015a, April). The Anatomy of a Credit Crisis: The Boom and Bust in Farm Land Prices in the United States in the 1920s. *American Economic Review* 105(4), 1439–1477.
- Rajan, R. and R. Ramcharan (2015b, April). The anatomy of a credit crisis: The boom and bust in farm land prices in the united states in the 1920s. *American Economic Review* 105(4), 1439–77.
- Rajan, R. and R. Ramcharan (2016, May). Local financial capacity and asset values: Evidence from bank failures. *Journal of Financial Economics* 120(2), 229–251.
- Rose, J. (2013, April). A primer on farm mortgage debt relief programs during the 1930s. FEDS Working Paper 2013-33, Finance and Economics Discussion Series.
- Rose, J. D. (2011, September). The incredible holc? mortgage relief during the great depression. *Journal of Money, Credit and Banking* 43(6), 1073–1107.
- Ruggles, S., M. A. Nelson, M. Sobek, C. A. Fitch, R. Goeken, J. D. Hacker, E. Roberts, and J. R. Warren (2024). IPUMS Ancestry Full Count Data: Version 4.0.
- Ruggles, S., N. Ozder, C. A. Fitch, M. Sobek, J. A. R. Drew, J. D. Hacker, J. Helgertz, C. Lobonile, M. A. Nelson, E. Roberts, and J. R. Warren (2025). IPUMS Multigenerational Longitudinal Panel: Version 2.0.

- Saloutos, T. and J. D. Hicks (1951). *Agricultural discontent in the Middle West, 1900-1939*. Madison, University of Wisconsin Press, [1951]. <https://www.biodiversitylibrary.org/bibliography/17147>.
- Schroeder, J., D. Van Riper, S. Manson, K. Knowles, T. Kugler, F. Roberts, and S. Ruggles (2025). National Historical Geographic Information System: Version 20.0.
- Sengupta, S. and D. E. Osgood (2003, February). The value of remoteness: a hedonic estimation of ranchette prices. *Ecological Economics* 44(1), 91–103.
- Shleifer, A. and R. W. Vishny (1992). Liquidation Values and Debt Capacity: A Market Equilibrium Approach. *The Journal of Finance* 47(4), 1343–1366. Publisher: [American Finance Association, Wiley].
- Skilton, R. H. (1946). Government and the mortgage debtor 1940-1946. *University of Pennsylvania Law Review* 95(2), 119–143.
- Smith, C. B. (2019). Land concentration and long-run development: Evidence from the frontier united states.
- Stauber, B. R. (1933). The Farm Real Estate Situation, 1932-33. Technical report. Num Pages: 72 Series: Circular No. 309.
- Stiglitz, J. E. and A. Weiss (1981). Credit rationing in markets with imperfect information. *The American Economic Review* 71(3), 393–410.
- Tsoodle, L. J., B. B. Golden, and A. M. Featherstone (2006). Factors influencing kansas agricultural farm land values. *Land Economics* 82(1), 124–139.
- USDA (2021, January). USDA Temporarily Suspends Debt Collections, Foreclosures and Other Activities on Farm Loans for Several Thousand Distressed Borrowers Due to Coronavirus | USDA.
- Wall, N. J. and F. M. Cone (1937, November). Farm mortgage credit, 1930–37. *Survey of Current Business* 17(11).
- Wheelock, D. C. (2008). Changing the rules: state mortgage foreclosure moratoria during the Great Depression. *Review* 90(Nov), 569–584.
- Wickens, D. L. (1936, September). Farmer bankruptcies, 1898–1935. Circular 414, United States Department of Agriculture. 37 pages; Report (English).
- Wilse-Samson, L. and C. D. A. Boone (2021, August). Structural change and internal labor migration: Evidence from the great depression. Working paper, August 2021.

Woodruff, Archibald M., J. (1937). *Farm Mortgage Loans of Insurance Companies*. New Haven: Yale University Press.

Appendix for

**The Economic Consequences of  
Foreclosure Suspensions in the Great Depression**

Pranjal Drall  
Ewan Rawcliffe

For Online Publication



## List of Tables

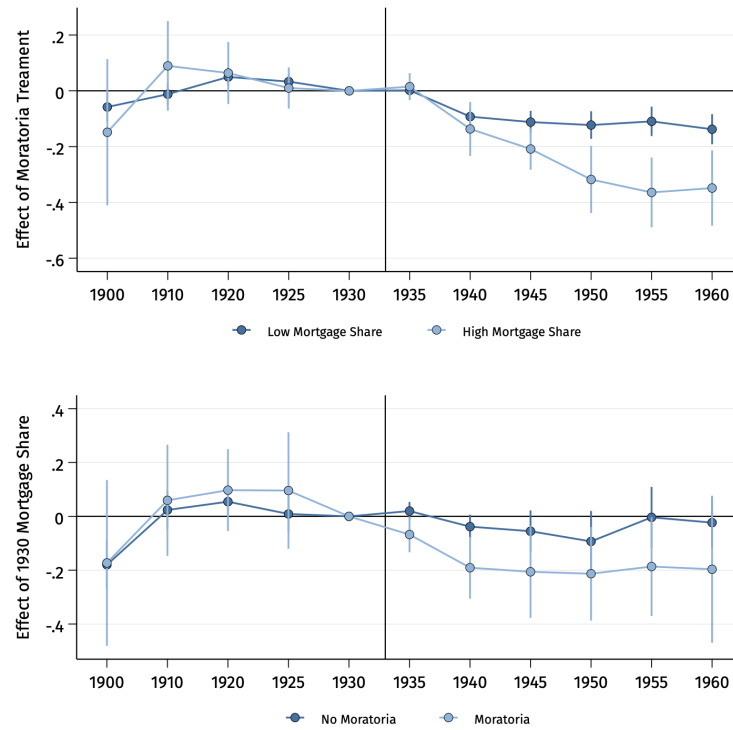
1	County Summary Statistics in 1930 . . . . .	53
2	State Foreclosure Moratorium Legislation (1933-1934) . . . . .	54
3	Balance of Treated Counties in 1930 . . . . .	55
4	Effects of Moratoria on Number of Farms . . . . .	56
5	Effects of Moratoria on Farm Values . . . . .	57
6	Effects of Moratoria on Occupational Transitions, 1930–1940 . . . . .	58
7	Effects of Moratoria on the Children of Farmers in 1950 . . . . .	59
8	Effects of Moratoria on Land Usage . . . . .	60
9	Effects of Moratoria on Agricultural Outcomes . . . . .	61
10	Effects of Moratoria on Interest Rates . . . . .	62
11	Effects of Moratoria on Migration . . . . .	63
A1	Effects of Moratoria on Occupational Transitions, other years . . . . .	A-6
A2	Effects of Moratoria on Farm Ownership Structure . . . . .	A-7
A3	Effects of Moratoria on Agriculture by Leaveout Region . . . . .	A-8
A4	Effects of Moratoria on Farm Size . . . . .	A-9
A5	Effects of Moratoria on Children of Farmers . . . . .	A-10
A6	Effects of Moratoria on Children’s Auxiliary Outcomes . . . . .	A-11
A7	Effects of Moratoria on Farm Size . . . . .	A-12
A8	Effects of Moratoria on Farmland Value . . . . .	A-13
A9	Effects of Moratoria on Manufacturing Index . . . . .	A-14
A10	Effects of Moratoria on Capital/Labor Ratio . . . . .	A-15
A11	Effects of Moratoria on Capital per Cropland Acre . . . . .	A-16
A12	Effects of Moratoria on Cropland Share of Farmland . . . . .	A-17
A13	Effects of Moratoria on Crop Yields . . . . .	A-18
A14	Effects of Moratoria on Harvested Cropland . . . . .	A-19
A15	Effects of Moratoria on Share of Farms with Tractors . . . . .	A-20
A16	Effects of Moratoria on Average Wage . . . . .	A-21
A17	Effects of Moratoria on Workers per Manufacturing Establishment . . . . .	A-22
A18	Effects of Moratoria on Manufacturing Value Added per Establishment . . . . .	A-23
A19	Effects of Moratoria on Total Wages per Establishment . . . . .	A-24
A20	Effects of Moratoria on Materials Cost per Establishment . . . . .	A-25
A21	Effects of Moratoria on Extensive Margin . . . . .	A-26
A22	Effects of Moratoria on Intensive Margin . . . . .	A-27
A23	Effects of Moratoria on Intensive Margin (1920-1947) . . . . .	A-28

## List of Figures

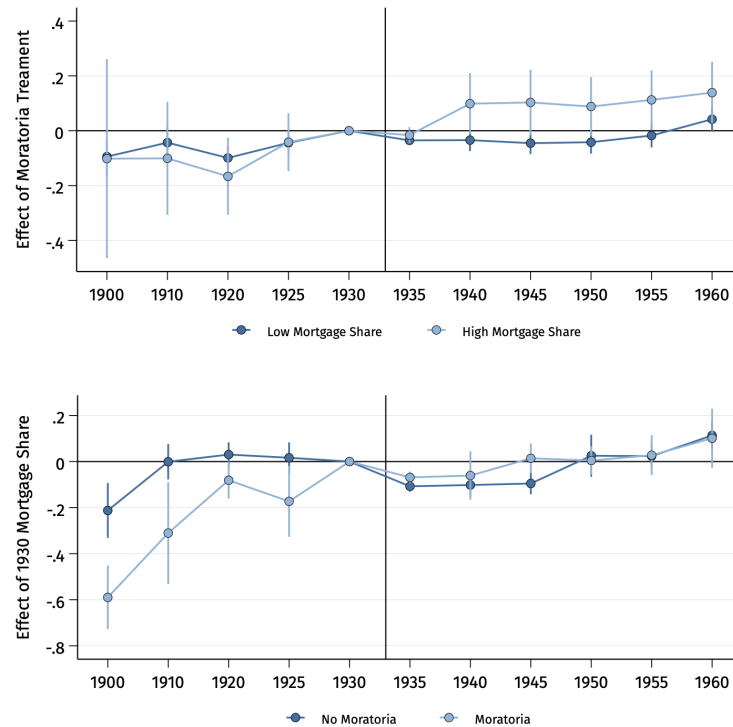
1	Geography of the Foreclosure Crisis . . . . .	44
2	Timeline of the Foreclosure Crisis . . . . .	45
3	Geography of the Foreclosure Moratoria . . . . .	46
4	Covariate Balance under Moratorium Treatment . . . . .	47
5	The Process of Mortgage Foreclosure and Moratorium . . . . .	48
6	Triple Difference Event Studies for Farm Outcomes . . . . .	49
7	Triple Difference Event Studies for Farm Outcomes II . . . . .	50

8	Moratoria and the Interest Rate . . . . .	51
9	Triple Difference Event Studies for Manufacturing Outcomes . . . . .	52
A1	Pre-trends in Triple Difference Estimation . . . . .	A-3
A2	Variation in Farm Mortgage Interest Rates (1930-1940) . . . . .	A-4
A3	Bank Failure Rates . . . . .	A-5

Figure A1: Pre-trends in Triple Difference Estimation



(a) Log Average Farm Value

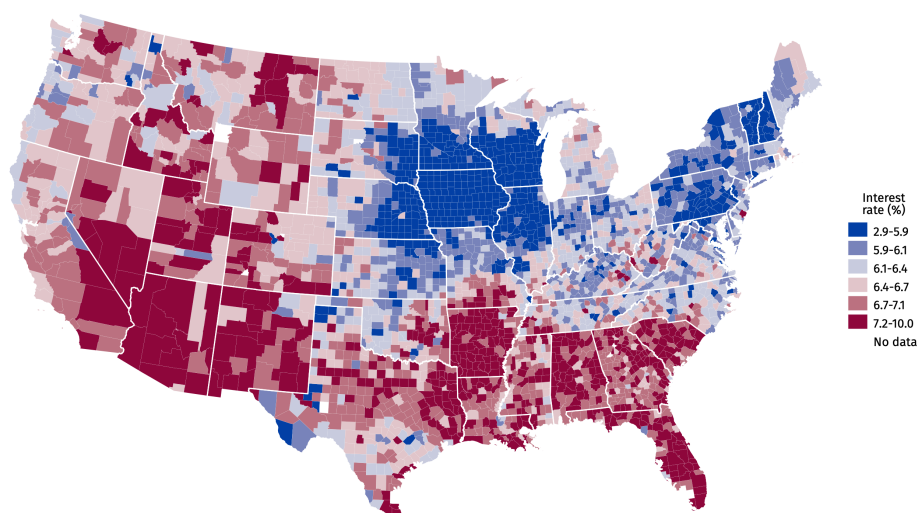


A-3

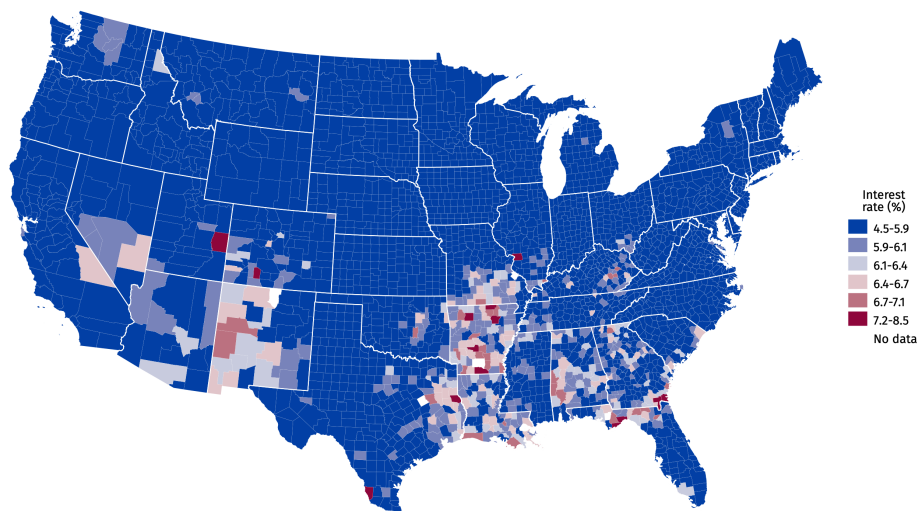
(b) Log Number of Farms

Notes:

Figure A2: Variation in Farm Mortgage Interest Rates (1930-1940)



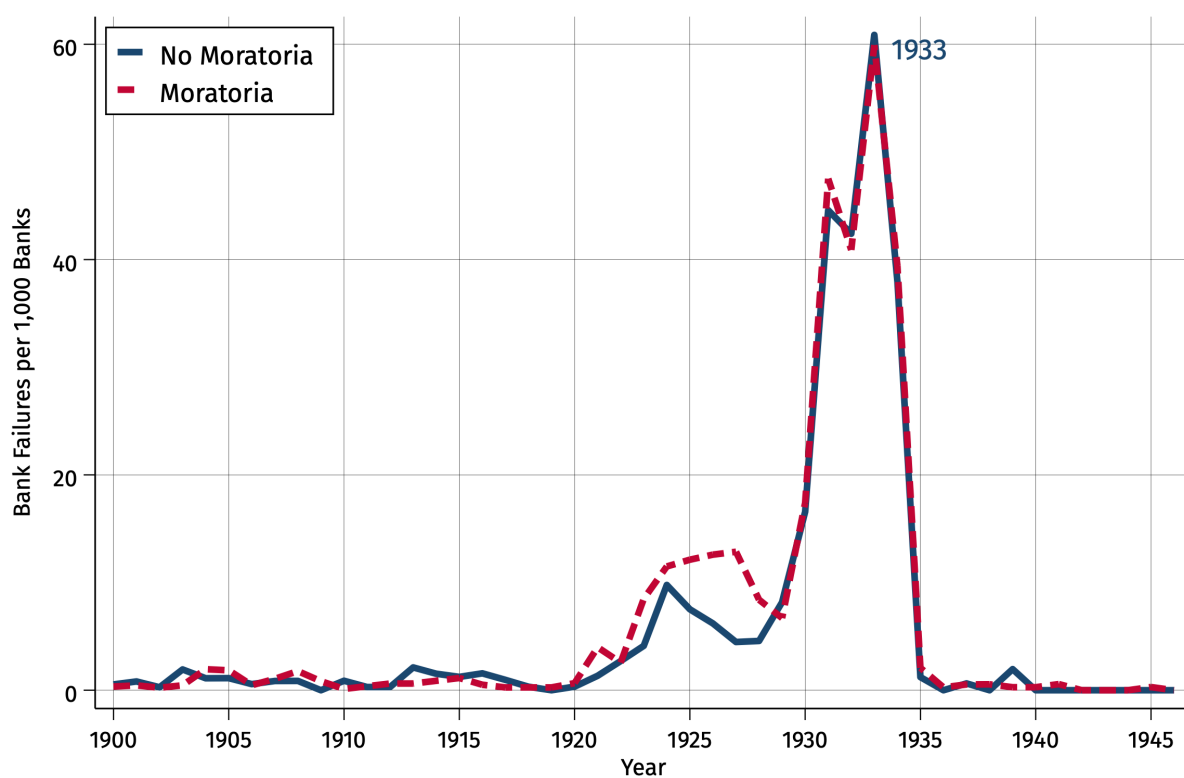
(a) Farm Mortgage Interest Rates in 1930



(b) Farm Mortgage Interest Rates in 1940

Notes: The scale in 1940 is the exact same in 1930 which highlights very significant interest rate convergence over the decade.

Figure A3: Bank Failure Rates



Notes: The graph simply plots bank failure rates across moratoria and non-moratoria rates.

Table A1: Effects of Moratoria on Occupational Transitions, other years

	Stay in Ag.		Stay Owner		Ag. to Manuf.	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Linked Censuses: 1930 to 1950</i>						
Moratoria $\times$ % Mortgage	0.058*** (0.010)	0.036* (0.018)	0.014 (0.010)	0.015 (0.016)	-0.018*** (0.005)	-0.013 (0.016)
Moratoria	0.061*** (0.010)	0.034* (0.019)	0.019* (0.010)	0.028 (0.019)	-0.022*** (0.005)	-0.011 (0.014)
% Mortgage	0.025*** (0.007)	-0.004 (0.009)	0.027*** (0.007)	0.004 (0.010)	-0.006** (0.003)	-0.017* (0.010)
Outcome Mean	0.56	0.54	0.36	0.35	0.10	0.10
Outcome SD	0.09	0.09	0.09	0.09	0.05	0.06
Sample	All	Border	All	Border	All	Border
Obs	2,333	476	2,333	476	2,333	476
Adjusted $R^2$	0.29	0.01	0.32	0.01	0.45	0.04
<i>Linked Censuses: 1920 to 1930</i>						
Moratoria $\times$ % Mortgage	0.003 (0.006)	0.016 (0.020)	-0.007 (0.008)	0.014 (0.030)	0.002 (0.002)	0.004 (0.007)
Moratoria	0.025** (0.010)	0.020 (0.028)	0.012 (0.013)	0.034 (0.043)	-0.006* (0.003)	0.004 (0.011)
% Mortgage	-0.013** (0.005)	-0.034*** (0.010)	-0.020*** (0.008)	-0.030** (0.015)	-0.004** (0.002)	-0.009** (0.004)
Demographic Controls	Yes	No	Yes	No	Yes	No
Economic Controls	Yes	No	Yes	No	Yes	No
Outcome Mean	0.70	0.68	0.50	0.49	0.06	0.07
Outcome SD	0.08	0.09	0.10	0.11	0.03	0.03
Sample	All	Border	All	Border	All	Border
Obs	2,763	472	2,763	472	2,763	472
Adjusted $R^2$	0.35	0.05	0.25	0.02	0.40	0.02

Notes: Observations are counties. Data from the [Ruggles et al. \(2024\)](#), [Ruggles et al. \(2025\)](#) and [Haines et al. \(2010\)](#). County-level means are computed from the linked IPUMS full-count samples. The sample restriction is to men who are active in the labor force in both the baseline and endline years, and who worked in agriculture in the baseline year. Demographic controls are age, age squared, and a dummy for White. Economic controls are the logs of the count of farms and the count of manufacturing establishments in the baseline year. Standard errors are robust. Regressions are weighted by farmland area in the baseline year.

Table A2: Effects of Moratoria on Farm Ownership Structure

	Triple Difference			Double Difference		
	(1)	(2)	(3)	(4)	(5)	(6)
Post=1 $\times$ Moratoria $\times$ % Mortgage	-0.036 (0.030)	0.063 (0.051)	0.087 (0.064)			
Post=1 $\times$ % Mortgage	-0.044*** (0.013)	-0.074*** (0.027)	0.014 (0.025)			
Moratoria	-0.105*** (0.006)			-0.014** (0.006)		
Post=1 $\times$ Moratoria	-0.039 (0.025)	0.075 (0.060)	0.085 (0.070)	0.013 (0.013)	0.076 (0.057)	0.040 (0.042)
County FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Border Pair $\times$ Post FE	No	No	Yes	No	No	Yes
Sample	All	Border	Border	Q4	Q4+Border	Q4+Border
Period	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959
Adjusted $R^2$	0.69	0.61	0.62	0.52	0.42	0.40
Obs	33,646	5,675	5,187	8,432	1,144	1,036
Counties	3,088	523	478	769	105	95

Notes: Observations are county-years. The outcome is the share of farms operated by owners in a county, in logs. Data from the Agricultural Censuses 1900-1960. In the Triple Difference specification, we interact the double difference coefficient with the share of mortgaged farms in 1930. In the Double Difference specification, we restrict to counties in the top quartile of the mortgage share distribution in 1930 (Q4). In columns 2,3,5, and 6, we restrict to the border pair sample (*Border*) of counties that touch a state border over which treatment assignment changes. Border Pair FE indicates that the regression includes fixed effects to identify each border segment group. For example, all counties along the AZ/NM border are included in one level of the fixed effect. Standard errors are clustered at the county level. Regressions are weighted by farmland area in 1930.

Table A3: Effects of Moratoria on Agriculture by Leaveout Region

	(1) Value	(2) Farms	(3) Farm Size	(4) Owner Share	(5) Tractors	(6) Capital/Labor	(7) Crop Prod.	(8) Animal Prod.
<b>Baseline: All Regions</b>								
Post=1 × Moratoria × % Mortgage	-0.167*** (0.038)	0.230*** (0.060)	-0.323*** (0.081)	-0.036 (0.030)	0.000 (0.001)	-0.209*** (0.048)	0.057 (0.100)	0.044 (0.078)
Adjusted R <sup>2</sup>	0.93	0.88	0.93	0.69	0.75	0.93	0.82	0.73
Obs	33,648	33,692	33,650	33,646	18,402	8,686	27,598	27,496
Counties	3,088	3,089	3,088	3,088	3,076	2,924	3,086	3,085
<b>Excluded Region: Northeast</b>								
Post=1 × Moratoria × % Mortgage	-0.184*** (0.038)	0.227*** (0.063)	-0.347*** (0.080)	-0.036 (0.031)	0.001 (0.001)	-0.237*** (0.050)	0.053 (0.105)	0.075 (0.079)
Adjusted R <sup>2</sup>	0.93	0.88	0.93	0.68	0.75	0.93	0.82	0.72
Obs	31,275	31,316	31,274	31,271	17,106	8,108	25,654	25,552
Counties	2,872	2,873	2,872	2,872	2,860	2,709	2,870	2,869
<b>Excluded Region: Midwest</b>								
Post=1 × Moratoria × % Mortgage	-0.165*** (0.053)	0.250*** (0.069)	-0.424*** (0.082)	0.018 (0.028)	0.001* (0.001)	-0.107* (0.063)	0.231** (0.104)	0.099 (0.085)
Adjusted R <sup>2</sup>	0.94	0.87	0.93	0.67	0.75	0.92	0.83	0.64
Obs	22,050	22,094	22,052	22,048	12,070	5,560	18,102	18,011
Counties	2,031	2,032	2,031	2,031	2,020	1,882	2,030	2,029
<b>Excluded Region: South Atlantic</b>								
Post=1 × Moratoria × % Mortgage	-0.112*** (0.039)	0.234*** (0.062)	-0.314*** (0.079)	-0.021 (0.033)	0.000 (0.000)	-0.166*** (0.053)	0.121 (0.105)	0.022 (0.084)
Adjusted R <sup>2</sup>	0.92	0.88	0.93	0.68	0.77	0.93	0.82	0.74
Obs	29,253	29,257	29,257	29,252	16,037	7,591	24,010	23,908
Counties	2,675	2,675	2,675	2,675	2,674	2,559	2,674	2,674
<b>Excluded Region: South</b>								
Post=1 × Moratoria × % Mortgage	-0.139** (0.059)	0.120*** (0.039)	-0.073 (0.101)	-0.089*** (0.020)	-0.002*** (0.001)	-0.250*** (0.058)	-0.236 (0.150)	-0.005 (0.148)
Adjusted R <sup>2</sup>	0.90	0.88	0.93	0.84	0.77	0.94	0.81	0.71
Obs	22,771	22,815	22,773	22,773	12,444	5,827	18,661	18,605
Counties	2,095	2,096	2,095	2,095	2,083	1,971	2,093	2,092
<b>Excluded Region: West</b>								
Post=1 × Moratoria × % Mortgage	-0.115*** (0.035)	0.284*** (0.057)	-0.295*** (0.084)	-0.098*** (0.035)	0.000 (0.001)	-0.335*** (0.039)	0.014 (0.108)	-0.098 (0.063)
County FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R <sup>2</sup>	0.93	0.89	0.94	0.67	0.75	0.94	0.81	0.82
Obs	29,250	29,293	29,251	29,247	15,954	7,661	23,970	23,914
Counties	2,680	2,681	2,680	2,680	2,668	2,576	2,678	2,677

*Notes:* Observations are county-years. Each panel runs the regression *excluding* the given US Census Bureau Region. All outcomes are in logs. Data from the Agricultural Censuses in 1920 and 1940. The specification is our baseline Triple Difference specification with lower-order interactions included but not presented. Standard errors are clustered at the county level. Regressions are weighted by farmland area in 1930.



Table A4: Effects of Moratoria on Farm Size

	Outcome: Log of Average Farm Size								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 × Moratoria	-0.375*** (0.073)		-0.485*** (0.159)	-0.385*** (0.106)	-0.367*** (0.075)	-0.448*** (0.132)	-0.245*** (0.038)	-0.311*** (0.104)	-0.253*** (0.087)
Post=1 × Moratoria × % Mortgage	-0.323*** (0.081)	-0.244*** (0.067)	-0.417** (0.164)	-0.312*** (0.102)	-0.307*** (0.085)	-0.481*** (0.102)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State × Year FE		✓							
Border segment × Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959
Adjusted $R^2$	0.93	0.96	0.93	0.94	0.94	0.94	0.90	0.87	0.88
Obs	33,647	33,647	5,677	5,189	33,647	33,647	8,425	1,147	1,039
Counties	3,088	3,088	523	478	3,088	3,088	768	105	95
Outcome mean	783	783	1,236	1,296	783	783	783	934	929
Outcome SD	2,949	2,949	4,645	4,895	2,949	2,949	1,487	1,314	1,415

*Notes:* Observations are county-years. The outcome is the average farm size in a county, in logs. Data from the Agricultural Censuses 1900-1960. In the Triple Difference specification, we interact the double difference coefficient with the share of mortgaged farms in 1930. In the Double Difference specification, we restrict to counties in the top quartile of the mortgage share distribution in 1930 ( $Q4$ ). In columns 3, 4, 8, and 9, we restrict to the border pair sample (*Border*) of counties that touch a state border over which treatment assignment changes. Border Pair FE indicates that the regression includes fixed effects to identify each border segment group. For example, all counties along the AZ/NM border are included in one level of the fixed effect. Standard errors are clustered at the county level. Regressions are weighted by farmland area in 1930.

Table A5: Effects of Moratoria on Children of Farmers

	Non-Farmer Children			Farmer Children		
	Ag	Fam Farm	Manuf	Ag	Fam Farm	Manuf
	(1)	(2)	(3)	(4)	(5)	(6)
Moratoria $\times$ % Mortgage	0.006 (0.008)	0.002 (0.002)	-0.080** (0.032)	0.045** (0.018)	0.012 (0.010)	-0.062*** (0.018)
Moratoria	0.011 (0.008)	0.003* (0.002)	-0.075** (0.037)	0.073*** (0.020)	0.014 (0.012)	-0.077*** (0.019)
% Mortgage	0.005 (0.005)	-0.002* (0.001)	0.077*** (0.016)	0.113*** (0.012)	0.058*** (0.007)	-0.016 (0.011)
Demographic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Economic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Outcome Mean	0.03	0.00	0.33	0.37	0.13	0.22
Outcome SD	0.16	0.07	0.47	0.48	0.33	0.41
Obs	122,882	122,882	122,882	38,624	38,624	38,624
Adjusted $R^2$	0.03	0.01	0.01	0.06	0.04	0.03

Notes: Observations are adult individuals in the 1950 census who have been linked to their parents' 1930 census returns. Data from the [Ruggles et al. \(2024, 2025\)](#) and [Haines et al. \(2010\)](#). Treatment variables are based on the county of residence in 1930, when the individual was a child (mean age 6). Demographic controls are age, age squared, and a dummy for White. Economic controls are the logs of the count of farms and the count of manufacturing establishments in 1930. Standard errors are clustered at the childhood county level.

Table A6: Effects of Moratoria on Children's Auxiliary Outcomes

	Migrate		Urban		High School		College	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Moratoria $\times$ Farmer's Child $\times$ % Mortgage	-0.035 (0.035)	-0.021 (0.029)	0.011 (0.046)	0.026 (0.019)	-0.007 (0.005)	-0.005 (0.005)	-0.001 (0.001)	-0.001 (0.001)
Moratoria $\times$ % Mortgage	0.134*** (0.035)	0.048* (0.028)	-0.037 (0.046)	-0.014 (0.017)	0.007 (0.004)	0.004 (0.004)	0.000 (0.001)	0.000 (0.001)
Moratoria $\times$ Farmer's Child	-0.032 (0.032)	-0.024 (0.031)	-0.057 (0.042)	-0.021 (0.022)	-0.009* (0.005)	-0.004 (0.005)	-0.001 (0.001)	-0.001 (0.001)
Farmer's Child $\times$ % Mortgage	0.058*** (0.012)	0.044*** (0.014)	0.093*** (0.015)	0.021 (0.013)	0.006*** (0.002)	0.000 (0.003)	0.001** (0.000)	0.000 (0.000)
Moratoria	0.094*** (0.033)	0.022 (0.031)	0.018 (0.041)	0.000 (0.019)	0.009** (0.004)	0.003 (0.004)	0.000 (0.001)	-0.000 (0.001)
% Mortgage	-0.017* (0.009)	0.035*** (0.012)	0.008 (0.013)	0.066*** (0.012)	0.001 (0.001)	0.005** (0.002)	0.000 (0.000)	0.001 (0.000)
Farmer's Child	0.133*** (0.015)	0.015 (0.019)	-0.281*** (0.018)	-0.267*** (0.016)	-0.014*** (0.003)	-0.018*** (0.003)	-0.001 (0.001)	-0.001* (0.001)
Demographic Controls	No	Yes	No	Yes	No	Yes	No	Yes
Economic Controls	No	Yes	No	Yes	No	Yes	No	Yes
Outcome Mean	0.34	0.33	0.63	0.63	0.03	0.03	0.00	0.00
Outcome SD	0.47	0.47	0.48	0.48	0.18	0.18	0.05	0.05
Sample	All	All	All	All	All	All	All	All
Obs	319,937	274,741	319,937	274,741	319,823	274,651	319,823	274,651
Adjusted $R^2$	0.01	0.05	0.14	0.18	0.00	0.00	0.00	0.00

Notes: Observations are adult individuals in the 1950 census who have been linked to their parents' 1930 census returns. Data from the [Ruggles et al. \(2024, 2025\)](#) and [Haines et al. \(2010\)](#). Treatment variables are based on the county of residence in 1930, when the individual was a child (mean age 6). Demographic controls are age, age squared, and a dummy for White. Economic controls are the logs of the count of farms and the count of manufacturing establishments in 1930. Standard errors are clustered at the childhood county level.

Table A7: Effects of Moratoria on Farm Size

	Outcome: Log of Average Farm Size								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 $\times$ Moratoria	-0.375*** (0.073)		-0.485*** (0.159)	-0.385*** (0.106)	-0.367*** (0.075)	-0.448*** (0.132)	-0.245*** (0.038)	-0.311*** (0.104)	-0.253*** (0.087)
Post=1 $\times$ Moratoria $\times$ % Mortgage	-0.323*** (0.081)	-0.244*** (0.067)	-0.417** (0.164)	-0.312*** (0.102)	-0.307*** (0.085)	-0.481*** (0.102)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State $\times$ Year FE		✓							
Border segment $\times$ Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959
Adjusted $R^2$	0.93	0.96	0.93	0.94	0.94	0.94	0.90	0.87	0.88
Obs	33,647	33,647	5,677	5,189	33,647	33,647	8,425	1,147	1,039
Counties	3,088	3,088	523	478	3,088	3,088	768	105	95
Outcome mean	783	783	1,236	1,296	783	783	783	934	929
Outcome SD	2,949	2,949	4,645	4,895	2,949	2,949	1,487	1,314	1,415

Notes:

Table A8: Effects of Moratoria on Farmland Value

	Outcome: Log of Value per Farmland Acre (\$/acre)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 $\times$ Moratoria	0.143** (0.056)		0.263*** (0.099)	0.096 (0.067)	0.149** (0.058)	0.077 (0.083)	0.058 (0.037)	0.197** (0.080)	0.148*** (0.051)
Post=1 $\times$ Moratoria $\times$ % Mortgage	0.156** (0.063)	0.137** (0.057)	0.264** (0.104)	0.076 (0.070)	0.159** (0.066)	0.241*** (0.086)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State $\times$ Year FE		✓							
Border segment $\times$ Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959	1900-1959
Adjusted $R^2$	0.92	0.95	0.93	0.94	0.92	0.92	0.91	0.91	0.92
Obs	33,643	33,643	5,677	5,189	33,643	33,643	8,425	1,147	1,039
Counties	3,088	3,088	523	478	3,088	3,088	768	105	95
Outcome mean	49	49	43	44	49	49	50	39	42
Outcome SD	53	53	52	53	53	53	61	54	57

Notes:

Table A9: Effects of Moratoria on Manufacturing Index

	Outcome: Manufacturing Index (z-score)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 $\times$ Moratoria	-0.237*** (0.065)		0.017 (0.142)	-0.046 (0.177)	-0.234*** (0.067)	-0.148 (0.113)	-0.112 (0.069)	0.012 (0.147)	-0.099 (0.181)
Post=1 $\times$ Moratoria $\times$ % Mortgage	-0.199*** (0.060)	-0.115 (0.104)	-0.006 (0.111)	-0.004 (0.152)	-0.197*** (0.063)	-0.207* (0.110)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State $\times$ Year FE		✓							
Border segment $\times$ Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959
Adjusted $R^2$	0.97	0.97	0.96	0.96	0.97	0.97	0.97	0.97	0.97
Obs	19,443	19,443	3,268	2,996	19,443	19,443	4,261	542	492
Counties	2,901	2,901	486	442	2,901	2,901	663	86	77
Outcome mean	0.00	0.00	0.18	0.21	0.00	0.00	-0.27	-0.27	-0.19
Outcome SD	1.00	1.00	1.03	1.00	1.00	1.00	0.93	0.97	0.93

Notes:

Table A10: Effects of Moratoria on Capital/Labor Ratio

	<i>Outcome: Log of Capital/Labor Ratio (\$/worker)</i>								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 $\times$ Moratoria	-0.243*** (0.046)		-0.187 (0.142)	-0.133 (0.201)	-0.244*** (0.049)	-0.320*** (0.085)	-0.141*** (0.034)	-0.113 (0.150)	-0.141 (0.157)
Post=1 $\times$ Moratoria $\times$ % Mortgage	-0.209*** (0.048)	-0.129* (0.069)	-0.193 (0.119)	-0.135 (0.186)	-0.202*** (0.052)	-0.214*** (0.075)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State $\times$ Year FE		✓							
Border segment $\times$ Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1930-1945	1930-1945	1930-1945	1930-1945	1930-1945	1930-1945	1930-1945	1930-1945	1930-1945
Adjusted $R^2$	0.93	0.95	0.88	0.87	0.93	0.93	0.80	0.62	0.52
Obs	8,688	8,688	1,466	1,333	8,688	8,688	2,153	293	262
Counties	2,925	2,925	496	452	2,925	2,925	725	99	90
Outcome mean	509	509	2,253	2,508	509	509	1,154	6,563	8,016
Outcome SD	18,151	18,151	44,924	47,585	18,151	18,151	29,423	78,034	86,570

Notes:

Table A11: Effects of Moratoria on Capital per Cropland Acre

	Outcome: Log of Value of Machinery per Cropland Acre (\$/acre)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 $\times$ Moratoria	-0.360*** (0.048)		-0.143* (0.078)	-0.270*** (0.078)	-0.363*** (0.049)	-0.439*** (0.063)	-0.172*** (0.030)	-0.143* (0.072)	-0.165*** (0.058)
Post=1 $\times$ Moratoria $\times$ % Mortgage	-0.339*** (0.064)	-0.339*** (0.088)	-0.134* (0.074)	-0.278*** (0.081)	-0.347*** (0.065)	-0.392*** (0.055)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State $\times$ Year FE		✓							
Border segment $\times$ Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1925-1945	1925-1945	1925-1945	1925-1945	1925-1945	1925-1945	1925-1945	1925-1945	1925-1945
Adjusted $R^2$	0.85	0.87	0.91	0.93	0.85	0.85	0.88	0.81	0.86
Obs	12,272	12,272	2,078	1,898	12,272	12,272	3,067	416	376
Counties	3,073	3,073	520	475	3,073	3,073	767	104	94
Outcome mean	12.88	12.88	17.70	18.74	12.88	12.88	14.39	7.01	7.37
Outcome SD	53.36	53.36	79.33	83.66	53.36	53.36	63.92	4.91	5.23

Notes:



Table A12: Effects of Moratoria on Cropland Share of Farmland

	Outcome: % of Farm in Cropland								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 $\times$ Moratoria	0.267*** (0.085)		0.332*** (0.086)	0.047 (0.100)	0.276*** (0.089)	0.388** (0.148)	0.111** (0.051)	0.192** (0.085)	0.093** (0.044)
Post=1 $\times$ Moratoria $\times$ % Mortgage	0.302*** (0.092)	0.252*** (0.059)	0.277*** (0.085)	-0.044 (0.152)	0.316*** (0.097)	0.423*** (0.106)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State $\times$ Year FE		✓							
Border segment $\times$ Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959
Adjusted $R^2$	0.94	0.94	0.91	0.91	0.94	0.94	0.97	0.93	0.93
Obs	24,522	24,522	4,153	3,793	24,522	24,522	6,139	836	756
Counties	48	48	523	478	48	48	36	105	95
Outcome mean	0.42	0.42	0.36	0.37	0.42	0.42	0.48	0.38	0.39
Outcome SD	0.22	0.22	0.23	0.23	0.22	0.22	0.23	0.22	0.23

Notes:

Table A13: Effects of Moratoria on Crop Yields

	Outcome: Log of Crop Value per Cropland Acre (\$/acre)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 × Moratoria	-0.238** (0.096)		0.218* (0.128)	-0.077 (0.160)	-0.224** (0.100)	-0.424** (0.174)	-0.306*** (0.071)	0.243** (0.099)	0.254*** (0.093)
Post=1 × Moratoria × % Mortgage	-0.235** (0.106)	-0.122 (0.166)	-0.021 (0.128)	-0.357* (0.186)	-0.204* (0.113)	-0.351** (0.160)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State × Year FE		✓							
Border segment × Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959
Adjusted $R^2$	0.60	0.71	0.68	0.72	0.60	0.61	0.65	0.73	0.72
Obs	21,425	21,425	3,627	3,312	21,425	21,425	5,370	732	662
Counties	3,067	3,067	521	476	3,067	3,067	768	105	95
Outcome mean	20.12	20.12	20.89	21.46	20.12	20.12	17.11	17.82	19.25
Outcome SD	17.85	17.85	16.60	17.10	17.85	17.85	21.39	21.65	23.26

Notes:

Table A14: Effects of Moratoria on Harvested Cropland

	Outcome: % Harvested Cropland								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 $\times$ Moratoria	-0.124* (0.068)		-0.020 (0.065)	-0.121 (0.076)	-0.124* (0.068)	-0.148* (0.082)	-0.042 (0.089)	0.039 (0.051)	0.061 (0.044)
Post=1 $\times$ Moratoria $\times$ % Mortgage	-0.138** (0.052)	-0.070** (0.028)	-0.098 (0.065)	-0.227** (0.098)	-0.140** (0.053)	-0.166*** (0.062)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State $\times$ Year FE		✓							
Border segment $\times$ Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959
Adjusted $R^2$	0.34	0.57	0.31	0.34	0.33	0.34	0.33	0.37	0.38
Obs	24,517	24,517	4,151	3,791	24,517	24,517	6,138	835	755
Counties	48	48	523	478	48	48	36	105	95
Outcome mean	0.84	0.84	0.81	0.81	0.84	0.84	0.87	0.83	0.84
Outcome SD	0.12	0.12	0.13	0.13	0.12	0.12	0.13	0.10	0.10

Notes:

Table A15: Effects of Moratoria on Share of Farms with Tractors

	Outcome: Share of Farms with Tractors								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 $\times$ Moratoria	-0.013 (0.024)		-0.073** (0.032)	-0.054* (0.029)	-0.018 (0.025)	-0.064*** (0.024)	-0.006 (0.011)	-0.068*** (0.025)	-0.049* (0.027)
Post=1 $\times$ Moratoria $\times$ % Mortgage	-0.066** (0.029)	-0.065*** (0.019)	-0.071** (0.033)	-0.053* (0.027)	-0.068** (0.030)	-0.110*** (0.027)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State $\times$ Year FE		✓							
Border segment $\times$ Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959	1925-1959
Adjusted $R^2$	0.91	0.94	0.90	0.92	0.91	0.91	0.90	0.89	0.89
Obs	21,459	21,459	3,635	3,320	21,459	21,459	5,369	735	665
Counties	3,075	3,075	521	476	3,075	3,075	767	105	95
Outcome mean	0.20	0.20	0.17	0.17	0.20	0.20	0.31	0.28	0.28
Outcome SD	0.17	0.17	0.15	0.15	0.17	0.17	0.18	0.18	0.18

Notes:

Table A16: Effects of Moratoria on Average Wage

	<i>Outcome: Average Wage</i>								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 × Moratoria	-0.145*** (0.045)		0.091 (0.110)	-0.043 (0.097)	-0.145*** (0.044)	-0.153*** (0.054)	-0.088*** (0.024)	-0.060 (0.053)	-0.077 (0.057)
Post=1 × Moratoria × % Mortgage	-0.124** (0.058)	-0.033 (0.060)	0.063 (0.128)	-0.093 (0.116)	-0.134** (0.057)	-0.192*** (0.071)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State × Year FE		✓							
Border segment × Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959
Adjusted $R^2$	0.85	0.87	0.83	0.86	0.85	0.85	0.84	0.80	0.87
Obs	19,448	19,448	3,268	2,996	19,448	19,448	4,262	542	492
Counties	2,902	2,902	486	442	2,902	2,902	663	86	77
Outcome mean	6.96	6.96	6.97	6.96	6.96	6.96	7.09	7.08	7.09
Outcome SD	0.33	0.33	0.33	0.33	0.33	0.33	0.22	0.23	0.24

Table A17: Effects of Moratoria on Workers per Manufacturing Establishment

	<i>Outcome: Workers per Establishment</i>								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 $\times$ Moratoria	-0.194* (0.109)		-0.080 (0.270)	-0.239 (0.237)	-0.190* (0.113)	0.055 (0.178)	-0.066 (0.114)	-0.013 (0.228)	-0.173 (0.229)
Post=1 $\times$ Moratoria $\times$ % Mortgage	-0.129 (0.107)	-0.251* (0.151)	-0.115 (0.260)	-0.145 (0.209)	-0.109 (0.113)	0.010 (0.162)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State $\times$ Year FE		✓							
Border segment $\times$ Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959
Adjusted $R^2$	0.76	0.78	0.73	0.74	0.76	0.76	0.75	0.73	0.73
Obs	20,677	20,677	3,465	3,172	20,677	20,677	4,647	578	527
Counties	2,964	2,964	493	449	2,964	2,964	694	88	79
Outcome mean	2.61	2.61	2.90	2.95	2.61	2.61	2.13	2.31	2.39
Outcome SD	1.08	1.08	1.10	1.08	1.08	1.08	1.02	1.09	1.04

Table A18: Effects of Moratoria on Manufacturing Value Added per Establishment

	Outcome: Value Add per Establishment								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 $\times$ Moratoria	-0.278*** (0.094)		0.031 (0.207)	-0.148 (0.221)	-0.278*** (0.097)	0.026 (0.174)	-0.150 (0.094)	-0.091 (0.186)	-0.182 (0.211)
Post=1 $\times$ Moratoria $\times$ % Mortgage	-0.209** (0.091)	-0.231 (0.148)	-0.004 (0.178)	-0.128 (0.196)	-0.207** (0.096)	-0.088 (0.170)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State $\times$ Year FE		✓							
Border segment $\times$ Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959
Adjusted $R^2$	0.81	0.83	0.78	0.78	0.81	0.81	0.82	0.79	0.80
Obs	19,443	19,443	3,268	2,996	19,443	19,443	4,261	542	492
Counties	2,901	2,901	486	442	2,901	2,901	663	86	77
Outcome mean	10.56	10.56	10.77	10.81	10.56	10.56	10.30	10.36	10.44
Outcome SD	1.06	1.06	1.10	1.09	1.06	1.06	0.97	0.97	0.93

Table A19: Effects of Moratoria on Total Wages per Establishment

	<i>Outcome: Wage Bill per Establishment</i>								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 × Moratoria	-0.330*** (0.115)		0.002 (0.264)	-0.287 (0.274)	-0.326*** (0.119)	0.018 (0.191)	-0.131 (0.117)	-0.091 (0.237)	-0.246 (0.254)
Post=1 × Moratoria × % Mortgage	-0.275** (0.110)	-0.303* (0.160)	-0.086 (0.228)	-0.276 (0.242)	-0.266** (0.117)	-0.136 (0.182)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
State × Year FE		✓							
Border segment × Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959	1920-1959
Adjusted $R^2$	0.81	0.83	0.77	0.78	0.81	0.81	0.81	0.77	0.78
Obs	19,448	19,448	3,268	2,996	19,448	19,448	4,262	542	492
Counties	2,902	2,902	486	442	2,902	2,902	663	86	77
Outcome mean	9.57	9.57	9.87	9.91	9.57	9.57	9.22	9.39	9.48
Outcome SD	1.14	1.14	1.20	1.19	1.14	1.14	1.07	1.18	1.13



Table A20: Effects of Moratoria on Materials Cost per Establishment

[illegible]

Table A21: Effects of Moratoria on Extensive Margin

	<i>Outcome: Manufacturing Index Extensive Margin (z-score)</i>								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post=1 $\times$ Moratoria	0.019 (0.071)		-0.014 (0.039)	0.018 (0.065)			0.048 (0.105)	-0.000 (0.033)	0.045 (0.032)
Post=1 $\times$ Moratoria $\times$ % Mortgage	-0.041 (0.036)	0.028 (0.042)	-0.014 (0.040)	0.048 (0.094)	0.146* (0.079)	-0.073 (0.048)			
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓		✓	✓			✓	✓	✓
State $\times$ Year FE		✓			✓	✓			
Border segment $\times$ Post FE				✓					✓
New Deal controls					✓				
Dust Bowl controls						✓			
Border counties			✓	✓				✓	✓
High % mortgage counties							✓	✓	✓
Period	1920-1958	1920-1958	1920-1958	1920-1958	1920-1958	1920-1958	1920-1958	1920-1958	1920-1958
Adjusted $R^2$	0.60	0.61	0.90	0.90	0.69	0.61	0.49	0.93	0.93
Obs	24,597	24,597	4,163	3,803	24,597	24,597	6,135	840	760
Counties	3,088	3,088	523	478	3,088	3,088	767	105	95
Outcome mean	0	0	0	0	0	0	-0	-0	-0
Outcome SD	1	1	2	2	1	1	1	1	1

Table A22: Effects of Moratoria on Intensive Margin

[illegible]

Table A23: Effects of Moratoria on Intensive Margin (1920-1947)

[illegible]

## Foreclosure Laws Appendix

### Alabama

**Law Limiting Right to Deficiency Judgment** Legal actions, pending or instituted before October 1, 1939, for recovery of debts secured by any mortgage or lien on real estate, must be stayed until mortgage or lien is foreclosed. Debtor may set off fair market value of the security. (Laws of 1935, H.B. 422, effective June 24, 1935.)

Constitutionality upheld in *Mutual Building & Loan Assn. v. Moore*, Adm'r. (Ala. Sup. Ct., June 11, 1935.)

### Arizona

**Laws Prohibiting Foreclosures** In pending or future real estate mortgage foreclosure suits, the court may order a two-year continuance unless good cause to the contrary is shown. (Chapter 29, Laws of 1933. Approved and Effective March 4, 1933).

**Laws Limiting Right to Deficiency Judgment** No deficiency judgment may be given plaintiff in foreclosure suit unless it is proved that, at the time the note and mortgage were executed, the value of the property was in excess of the amount remaining due on the note. (Chapter 88, Laws of 1933. Approved March 18, Effective June 13, 1933).

### Arkansas

**Laws Postponing Defendant's Answer in Foreclosure Proceedings** Answers in suits to foreclose mortgages, deeds of trust, or pledges, executed prior to January 1, 1933, shall not be due until three months after service of summons on defendant or by warning order. In fixing date of sale and confirming sale, court shall consider the condition of debtor, economic conditions, and the fair price of the property. Provisions of Act do not apply to mortgages, deeds of trust, or other liens executed subsequent to January, 1933. (Act No. 21, Laws of 1933, Approved and effective, February 9, 1933, as amended by Act No. 49, Laws of 1935. Approved and Effective February 16, 1935).

**Laws Abolishing Deficiency Judgments** Deficiency judgments abolished by requiring mortgagee to bid amount of loan plus interest and cost (or fair value of the property if the value was more than the loan) in foreclosure proceedings. (Act No. 57, Laws of 1935, effective February 25, 1935).

This Act held unconstitutional, as violation of United States Constitution, article I - section 10, and Constitution of Arkansas, Article 2 - section 17, in *Adams v. Spillyard*, 83 S.W. (2d) 686.

### California

**Laws Postponing Foreclosures** Until January 1, 1934, sales under a power of sale in a mortgage or deed of trust or decree of foreclosure of real property, improved with a single family

dwelling, in cases where default in payment of principal only exists, are prohibited. (Chapter 263, Laws of 1933, Effective May 9, 1933, Chapter 1057, Laws of 1933, Effective August 29, 1933).

Until February 1, 1935, sales under certain mortgages and deeds of trust, except mining property and the foreclosure of vendee's interest under certain contracts of purchase, for default in payment of principal only, are prohibited. The statute of limitation on such obligations is extended. Permits avoidance of sale or foreclosure and postpones sales for default of installment payments until after effective date, February 1, 1935, and prevents actions against guarantor's obligations and the enforcement of security which is affected by the act. (Chapter 3, Session Laws of 1934, Approved September 15, 1934).

This Act was construed in *Tsempton and Company (C.T.) v. Superior Court, County of Los Angeles, California*, 80 Cal. App. Div. 951.

Until September 1, 1935, in the foreclosure of a mortgage or deed of trust, the court may provide that the sale of the property shall not be held until on or after a date which court considers just and equitable, but in no event later than September 1, 1935. Statute of limitation extended. (Assembly Bill No. 23, Laws of 1935, Approved and Effective about February 1, 1935).

**Petition for Postponement of Sale** Mortgagor or trustor under certain deeds of trust may, within 90 days after notice of default, or within 30 days after July 21, 1935, but not later than January 1, 1937, petition for postponement of sale. Court may postpone sale not later than February 1, 1937. Redemption period may be extended to February 1, 1937. (Chap. 348, Laws of 1935, Effective June 21, 1935, Repeals Chap. 1, Laws of 1934, Effective September 15, 1934, and Chap. 7, Laws of 1935, Effective January 31, 1935.)

In *re Favier* (Superior Court, Los Angeles County, California, July 31, 1935) held unconstitutional Chap. 348 insofar as it applied to a postponement of sale under chattel mortgage, but upheld the provisions relating to real property.

*Bank of America v Pierson* (Superior Court, Los Angeles County, Calif., 1935) upheld constitutionality of c. 348, Laws of 1935.

**Laws Limiting Right to Deficiency Judgment** Deficiency Judgments after foreclosures limited to the amount by which the debt exceeds the fair market value of the property. No deficiency judgment when the mortgage or deed of trust was given as security for all or portion of the purchase price of the property to which such mortgage or deed of trust applies. Until thirty days after Approval and Effective date of this Act, no sale or decree of foreclosure. There period of redemption has not expired, same may be extended until September 1, 1935. This Act does not apply to mortgages executed subsequent to the effective date of the act. (Chapter 793, Laws of 1933, Approved and Effective August 21, 1933).

This act held unconstitutional in *Bennett v. Superior Court of Los Angeles County, et al*, on February 27, 1935, 40 Pacific Reporter, 2d Series 80 - Advance Sheet, as impairing obligation of contracts.

## **Colorado**

There is no mortgage moratorium law in this State.

## **Connecticut**

No mortgage moratorium laws were passed during the emergency period in this State, probably because foreclosure provisions of the statute of the State provide that the court has the right to set the time within which the defendant must pay or be barred. Such provisions, of course, give the court the discretion to extend the period of redemption, which is provided for by the current legislation in other States.

## **Delaware**

**Law Extending Time for Execution Process** Execution process may be stayed for six months when application has been made to the Home Owners' Loan Corporation for refunding of the mortgage. (Chapter 28, Second Special Session, 1933, Approved December 18, 1933, Expired March 1, 1935).

## **District of Columbia**

No emergency mortgage moratorium legislation has been enacted in the District.

## **Florida**

No emergency legislation in aid of mortgage debtors has been passed by this State.

The Supreme Court of this State has held, in a recent case: "In the absence of mortgage moratorium statute, courts are without authority to extend redemption period in foreclosure proceedings and to stay such proceedings during periods of economic depression." – *Morris v. White*, 160 So. 516.

## **Georgia**

As foreclosure laws are lenient on mortgagor, providing for a long period in which mortgagor may pay before decree given and as mortgagor may redeem at any time within ten years from last recognition by mortgagee of right of redemption, the Legislature of this State evidently determined that no emergency mortgage moratorium legislation was necessary.

## **Idaho**

**Law Suspending Real Estate Mortgage Foreclosures** Until December 31, 1934, the Governor was authorized to declare legal holidays limited to certain businesses and activities for one or more

periods not to exceed more than sixty days each. (Chapter 104, Session Laws of 1933, Approved March 2, 1933.)

On July 18, 1934, the Governor of the State issued proclamation effective midnight of that date until September 15, 1934, declaring a legal holiday with respect to foreclosure of mortgages upon real estate and foreclosure or cancellation of contracts for the sale of real estate. The District Courts and judges were empowered and authorized to suspend any or all proceedings of the above nature upon application of any defendant in any such action. This proclamation of the Governor suspending real estate mortgage foreclosures was held unconstitutional in *Alliance Trust Company v Hall*, 5 F. Supp. 285.

Court may extend action for foreclosure of a mortgage on real estate until March 1, 1937. Execution of deed to property already sold at sheriff's sale may be prevented until March 1, 1937. This act not applicable to mortgages pledged to secure payment of public debt or deposit of public funds. (Chapter 36, Laws of 1935, Approved and Effective February 20, 1935.)

**Law Extending Redemption Period** Court empowered to extend time for redemption from sales under execution until March 1, 1937. (Chapter 36, more specifically cited above.)

**Law Limiting Right to Deficiency Judgment** No deficiency judgment may be entered in any amount greater than the difference between the mortgage indebtedness, plus the cost of foreclosure and sale and the reasonable value of the property. (Chapter 150, Laws of 1933, Approved and Effective March 15, 1933.)

## Illinois

**From 1936 Report** Moratorium period provided by legislation in this State has now expired.

**Law Postponing Foreclosure Proceedings** In actions to foreclose mortgages executed prior to June 15, 1933, the court could stay proceedings or postpone sale upon a showing that proceeding would be unjust or inequitable in light of the economic emergency. (Laws of 1933, H.B. 507, p. 649; expired June 30, 1935.)

**Executive Stay Authority** The Governor or the Commissioner of Insurance was authorized to stay foreclosures or extend time for payment for institutions under their supervision. (Smith-Hurd Rev. Stat. 1933, ch. 73, §582.)

## Indiana

Evidently no emergency mortgage moratorium legislation has been enacted in this State. However, present foreclosure laws are rather liberal to mortgagor.

Unless a mortgage contains an express covenant for payment of the money secured, or there is a separate bond, or note, or other agreement to pay the sum due, the remedy of the mortgagee is limited to the property mortgaged.



## Iowa

**Laws Continuing Foreclosure Suits** Actions for the foreclosure of mortgages and deeds of trust on real estate may be continued until March 1, 1935 upon application of the owner, unless at a hearing good cause is shown to the contrary. (Chapter 182, Session Laws of 1933, Approved and Effective February 9, 1933, Expires March 1, 1935).

This Act held constitutional in *Craig v. Waggoner*, 256 N.W. 285; construed in *Reed v. Snow*, 254 N.W. 800; *McDonald v. Ferring*, 256 N.W. 719.

Court may order continuance until March 1, 1937, in pending or future suits for the foreclosure of real estate mortgages or deeds of trust, unless good cause to the contrary is shown. All applications made with court under Act of 1933, Chapter 182, are considered refiled under this Act. This Act does not apply to mortgages on real estate the real estate has acquired subsequent to such date, unless a continuance has been granted under Acts of 1933, Chapter 182. (H.F. No. 34, Session Laws of 1935, Approved February 4, 1935, Effective February 8, 1935).

*First Trust Joint Stock Land Bank of Chicago v. Loizeaux et al.*, Iowa Dist. Ct., Dubuque County, November, 1935, held this Law unconstitutional, the economic emergency no longer existing, and the continuance of actions being a violation of the Constitutional provision prohibiting impairment of contracts.

Any actions on land contracts executed prior to January 1, 1934, wherein the vendor has retained legal title, may be suspended until March 1, 1937, unless good cause to the contrary be shown. Within thirty days after service of notice of forfeiture, a suspension of proceedings may be obtained against the vendor until March 1, 1937, unless good cause to the contrary be shown. (S.B. No. 59, Laws of 1935, Approved and Effective February 20, 1935, Expires March 1, 1937).

**Law Extending Redemption Period** In foreclosure suits where the redemption period has not expired, the court may order, unless good cause is shown to the contrary, that no sheriff's deed shall be issued until March 1, 1935. In the meantime the owners may redeem the property and are entitled to the possession thereof. (Chapter 179, Laws of 1933, Approved and Effective March 18, 1933, Expired March 1, 1935).

This Act held constitutional in *Des Moines Joint Stock Land Bank v. Nordham*, 217 Iowa 1319, 253 N.W. 701, on the ground that the state has a right to legislate for the welfare of its people in times of economic emergency. Decided on basis of *Home Building and Loan Association v. Blaisdell*, 290 U. S. 398, 54 S. Ct. 231, January 8, 1933. Also held constitutional in *Connecticut Chain Life Insurance Company v. Roth*, 254 N.W. 913. Construed in *Hawkeye Life Insurance Company v. Ogg*, 254 N.W. 847, *Equitable Life Assurance Society v. Kramer*, 253 N.W. 809; *Futah v. Connecticut Mutual*, *Fagin*, *Illinois State Bank of Quincy, Ill. for use and benefit of Emerson v. Emerson*, 255 N.W. 283.

In any action for the foreclosure of a real estate mortgage or a deed of trust commenced prior to March 1, 1935, and in which a decree has been or may hereafter be entered, but the redemption period has not expired, the court may order that no sheriff's deed shall be issued until March 1, 1937, in the meantime the owner or owners may redeem such property and are entitled to possession thereof. The provisions of this Act apply only to mortgages or deeds

of trust executed prior to March 1, 1934, except in cases where the period of redemption has been extended by court order. (H.F. No. 84, Session Laws of 1935, Approved February 6, 1935, Effective February 8, 1935).

None of the provisions of Chapters 179 and 182, Laws of 1933, shall apply to mortgages made on or after January 1, 1934. (S.B. 357, First Special Session Laws of 1933, Approved and Effective March 12, 1934).

**Laws Relating to Judgments** Judgments rendered hereafter on promissory obligations secured by mortgage or deed of trust, but without foreclosure, are non-renewable, and are void after 2 years - except for purposes of set-off. Judgments rendered heretofore or pending are not without effect after 2 years from passage of this act, except as a set-off. (Laws of 1933, S.S. 176, approved April 28, 1933, effective on publication).

**Law Prohibiting Mortgage Foreclosures** In mortgage foreclosure proceedings, courts of equity are declared to have power to refuse confirmation where bid is inadequate or the sale is in any way unfair. Court may fix price at which property is to be bid in a sale is to be confirmed. (Chapter 218, Laws of 1933, Effective March 7, 1933).

This Act held unconstitutional by United States District Court in Phoenix Joint Stock Land Bank of Kansas City v. Dewey, 8 F. Supp. 678, and construed in Prudential Insurance Company v. Bieber 140 Kansas 579.

## **Kansas**

**Law Extending the Period of Redemption** By joint resolution No. 18, a moratorium was declared on all periods of redemptions from judicial sales for six months after March 4, 1933. The Governor was given power to extend moratorium for six more months if he deemed it necessary for the preservation of the public peace, safety, etc. (Chapter 232, Laws of 1933, Approved March 20, 1933, Effective March 21, 1933).

This act was held unconstitutional in Lingervolt v. Hievonums, District Court, Labette County, July 29, 1933, Oakland State Bank v. Bollin, 40 P. (2d) 437. Construed in Phoenix Joint Stock Land Bank v. Dewey, 8 F. Supp. 678. The moratorium as extended by the Governor for an additional six months was also held unconstitutional by the Wyandotte District Court in McDonouell v. Canavan on October 20, 1933.

The period for redemption on real estate may be extended for such additional time as the court shall deem it just and equitable, but in no event beyond March 1, 1935. (Chapter 3, Second Special Session, 1934. Approved March 2, 1934, effective March 3, 1934.)

The period of redemption, as extended under Chapter 3, Special Session Laws of 1934, may be further extended until January 15, 1937. Provisions of this Act do not apply to a purchase price mortgage where less than one third of the purchase price has been paid, nor to any real estate where the same is not occupied in good faith. Nor in cases where the court has found that the premises have been abandoned by the owner. Nor to an owner who has acquired title since March 4, 1933. (H.B. 299, Laws of 1935, Approved February 28, 1935, Effective March 1, 1935).

**Postponement of Right to Deficiency Judgment** Until March 1, 1935, no deficiency judgment shall be enforced unless a period of redemption as allowed by existing law or as extended under the provisions of this Act, has expired. (Chapter 3, Second Special Session 1934, Approved March 2, 1934, Effective March 3, 1934).

Prior to January 15, 1937, no deficiency judgment shall be enforced until the period of redemption as allowed by existing law or as extended by this Act, has expired. (H.B. 299, more specifically cited above).

## **Kentucky**

No emergency moratorium laws have been passed by this State.

## **Louisiana**

**Law Postponing Foreclosure Proceedings** District court is given authority to postpone foreclosure sales on petition of the mortgagor or owner in possession until the second Monday in May, 1936. Mortgagor may be directed to pay rental or income value of land for the payment of taxes, insurance, interest, etc. This act applies only to mortgages made prior to passage of this Act. (Act No. 159, Laws of 1934, Approved July 13, 1934, Effective August 1, 1934).

This Act was construed in *Newman v. Reems*, 158 So. 13; *Metropolitan Casualty Insurance Company of New York v. Borden*, 159 So. 394. In *Metropolitan Life Insurance Company v. Morris*, 159 So. 388, it was held that this moratorium statute was not "an unreasonable exercise of the State's police power in view of the economic emergency –."

**Law Providing for the Abolition of Deficiency Judgments** Right to deficiency judgments is abolished where creditor avails himself of the remedy of appraisal. This act applies only to obligations arising after this Act becomes effective. (Act No. 28, Laws of 1934, Approved July 12, 1934, Effective August 1, 1934).

**General Moratorium on All Debts** The Debt Moratorium Commissioner (State Bank Commissioner) has authority under such rules and regulations as she may prescribe, to suspend all laws relative to the enforcement of all debt, public or private, except debts owed to the state and to the United States, and to suspend all laws authorized for the reduction of such debt to judgment and the enforcement thereof or any period of time as curing same. No extension shall be granted for any period after the adjournment of the regular session of the Legislature of the State for three months, but creditor may apply with the Commissioner for hearing to determine whether payment of debt should be suspended. The Commissioner may approve any composition to which the creditor and debtor agree. (H.B. No. 2, Laws of 1934, Approved November 21, 1934, Effective December 6, 1934).

The above law, H.B. No. 2 - 1934, authorizing Debt Moratorium Commissioner to suspend certain debtors' obligations, on application, until expiration date of act, was continued. (Laws of 1936, H.B. No. 300, approved June 22, 1936, expires 20 days after 1938 regular session adjourns).

## Maine

No emergency mortgage moratorium legislation has been passed by this State.

## Maryland

**Laws Restricting Power of Sale and Foreclosure Proceedings** In all cases submitted to either the Circuit Courts or Baltimore City Courts for the passage of a decree as provided in Section 720 of the Code of Public General Laws of Maryland (1924), no decree shall hereafter be passed during the period of emergency unless an application has been answered in by the record holders of not less than 25% of the entire mortgage debt. (Chap. 56, Session Laws of 1933, Approved December 15, 1933, Expired June 1, 1935.)

This Act declared unconstitutional in *U. S. Mortgage Company v. Matthews*, 173 A. 903, July 6, 1934 but reversed in 55 S. Ct. (Md.) 168, December 3, 1934.

In all mortgages of real estate and/or leasehold property, wherein there is inserted a clause authorizing the mortgagee or any other person to be named therein to sell the mortgaged premises, such power of sale shall not be exercised during the period of the emergency except by and with the consent of the record holders of not less than 25% of the entire unpaid principal debt secured by the mortgage sought to be foreclosed.

(Chapter 57, Session Laws of 1933, Approved and Effective December 15, 1933, Expired June 1, 1934.)

## Massachusetts

No emergency mortgage moratorium legislation was enacted by the Legislature of this State. This was probably due to the liberal redemption provisions made for mortgagors under the present legislation, i.e., a mortgagor may after breach of condition, redeem the land mortgaged, unless the mortgagee or person claiming or holding under him has obtained possession of the land and has continued that possession for three years, or unless the land had been sold pursuant to the power of sale contained in the mortgage.

## Michigan

**Law Postponing Foreclosure of a Mortgage** Pending or future actions for the foreclosure of real estate mortgages or deeds of trust or for the specific performance of land contracts may be continued until not later than March 1, 1937, upon good cause shown. Foreclosure by advertisement may be continued where equity of redemption has not expired. Foreclosure by advertisement may be brought into Court for continuance. (No. 98, Acts of 1933, Approved and Effective June 2, 1933, Expired March 1, 1935, as amended by No. 20, Acts of 1934, Approved and Effective March 28, 1934; No. 3, Acts of 1935, Approved and Effective February 26, 1935; Expires March 1, 1937; and as further amended by No. 152, Acts of 1935 and No. 158, Acts of 1935, Effective June 4, 1935.)

This act hold constitutional and not one impairing the obligation of contracts in Russell v. Battle Creek Lumber Company, Michigan S. Ct., January 30, 1934, 252 N.W. 561, 265 Michigan 649. The court decided the case on the authority of Home Building and Loan Association v Blaisdell, 290 U.S. 398, 54 S.Ct. 231. This act was construed in Youngs v Union Joint Stock Land Bank of Detroit, (1934) 265 N.W. 481, 265 Michigan 631; Daugherty v Reading, 254 N.W. 913, 264 Michigan 214; Undine v Van Ommen, 252 N.W. 482, 265 Michigan 673; Backer v Detroit Savings Bank, 257 N.W. 823; Virginia Joint Stock Land Bank v Hudson, 254 N.W. 234; Michigan Trust Co. v Rose, 259 N.W. 878.

**Law Extending Redemption Period** The redemption period may be extended in mortgages already foreclosed. (This is a part of Acts more specifically set forth above.)

In all actions now pending for the forfeiture, foreclosure, or specific performance of an executory contract for the purchase of real estate in which a writ of restitution has not been issued as to all actions hereinafter commenced by a court of chancery, the court may extend the time in which the right of redemption may be exercised until March 1, 1937. (Act No. 5, Laws of 1935, Approved and Effective February 25, 1935, Expires March 1, 1937.)

**Law Limiting Right to Deficiency Judgments** No deficiency judgments entered after January 1, 1933, may be enforced until March 1, 1937. The court may determine fair rental terms. (This provision is a part of Acts more specifically set forth above.)

**Law Giving Court Right to Set Price at Which Land is Sold at Foreclosure** The court may fix and determine the minimum price at which the real property may be sold under foreclosure proceedings. (No. 229, Acts of 1933, Approved and Effective July 5, 1933.)

## Minnesota

**Law Postponing Foreclosure Proceedings** Court may postpone actions heretofore commenced for foreclosure of a mortgage on real estate. In case mortgage has been foreclosed, the court may order a resale if the sale price is unreasonable and inadequate. The court may postpone the enforcement of judgment by execution sale. No extension or postponement may be granted under this act until March 1, 1937. This act does not apply to any mortgage held by the United States or any of its agencies, nor to any mortgage pledged to secure a public debt or to secure payment of deposits of public money. (H.F. No. 431, Session Laws of 1935, Approved and Effective March 17, 1935.)

Provisions of the above act extended until March 1, 1937 (Chap. 47, Laws of 1935, Approved and Effective March 15, 1935).

**Law Extending Period of Redemption** Where real estate has been foreclosed or where sale is ordered in real estate proceedings instituted prior to two years after this Act, the period of redemption may be extended for such additional time as the court may deem just and equitable, but in no event beyond May 1, 1935. Court may order the mortgagor to pay all or part of the income where sale price appears unreasonably low. (Chapter 339, Session Laws of 1933, Approved and Effective April 18, 1933, Expires May 1, 1935).

This act was held constitutional in Blaisdell, et al., v. Home Building and Loan Association (Minn., July 7, 1933), 249 N.W. 334. The decision of the Minnesota Supreme Court was upheld

in the Supreme Court of the United States in a decision handed down January 8, 1933, 54 S. Ct. 231, 290 U.S. 398. The decisions in both courts were rested upon the following argument: While it was conceded that the statute impaired the obligations of the mortgage contract, the existence of the economic emergency justified the Legislature's use of its police power to relieve the people from the devastating effects of that emergency.

In *Grace v. Lichtscheidl* (Minn., July 7, 1933), 249 N.W. 672, it was held that, if the law is valid so as to permit extension of period of redemption from mortgage foreclosure sales of homesteads, it should also be valid to permit extension of period of redemption from mortgage foreclosure sales of property not homestead of mortgagor. This Act was further construed in *Anderson v. Hill* (April 20, 1934), 254 N.W. 585; *Young v. Cross Lake Land Company*, 255 N.W. 812; *Young v. Penn Mutual Life Insurance Company*, 256 N.W. 906; *Mosse v. Mutual Benefit Life Insurance Company*, 259 N.W. 19.

The provisions of the above act were extended to March 1, 1937 (Chapter 47, Laws of 1935, Approved and Effective March 15, 1935).

**Laws Limiting Right to Deficiency Judgment** Prior to May 1, 1935, no action shall be maintained on a deficiency judgment until the period of redemption as allowed by existing law or as extended under this act, has expired. (Chapter 339, more specifically set forth above.)

Prior to March 1, 1937, no action may be maintained for a deficiency judgment until the period of redemption as allowed by existing law or as extended under the provisions of this act, has expired. (H.F. No. 431, more specifically set forth above.)

Actions on deficiency judgments are barred to not later than March 1, 1937. (Chapter 47, Laws of 1935. Approved and Effective March 15, 1935.)

## Mississippi

**Law Postponing Foreclosure of Mortgage** Mortgagor may enjoin proceeding to foreclose mortgage, provided he shows that he has sought to refinance his mortgage through some Federal agency. In suits to foreclose mortgages and deeds of trust executed after March 4, 1933, the court shall fix an "upset" price and shall direct the mortgagor to pay all or a portion of the rental value of the premises to the mortgagee during the one to two years after which the property may be sold. (H.B. 270, Laws of 1934, Approved and Effective April 4, 1934, Expired May 1, 1935.)

Held constitutional in *Wilson Banking Co. et al. v. Colvard*, Miss. Sup. Ct., April 22, 1935. Held inapplicable to Federal Land Bank on Federal agency theory, *Federal Land Bank of New Orleans v. Tatum, et al.*, Miss. Sup. Ct., November 25, 1935.

Foreclosure procedure for mortgages executed before March 4, 1933, established. (S.B. 84, Laws of 1935.)

**Law Limiting Right to Deficiency Judgment** Prior to May 1, 1935, no action may be maintained for a deficiency judgment until the period of time extension allowed in any proceeding begun under this act shall have expired. (Chapter 274, Laws of 1934, Approved and Effective April 4, 1934, Expired May 1, 1935).

Deficiency judgment suits prohibited before March 1, 1936. (S.B. 84, Laws of 1936, Effective May 1, 1936, Expires May 1, 1938.)

## Missouri

No emergency mortgage moratorium legislation has been passed in this State. Probably this is due to the fact that the provisions for foreclosure and redemption of property in this State are rather lenient to the mortgagor.

## Montana

**Law to Postpone Foreclosure Proceedings** Mortgage-owner may make application with court for an order staying all proceedings in pending or future mortgage foreclosure actions. Court given authority to stay such proceedings for a period not to extend beyond March 1, 1935. (Chapter 116, Laws of 1933, Approved and Effective March 14, 1933.)

**Law Extending Period of Redemption** Court may extend period of redemption for such additional time as it may deem just and equitable but in no event beyond March 1, 1937. This Act applies only to mortgages upon real property and in which the period of redemption has not yet expired and in pending and future proceedings. This act does not apply to mortgages made after the approval of the Act. Nor do provisions of the Act apply to any mortgage which is held by the United States or an agency or instrument thereof or securing a public debt or the deposit of public funds. (Chapter 122, Laws of 1935, Approved and Effective March 13, 1935).

**Law Limiting Right to Deficiency Judgment** Deficiency judgments are abolished in all actions for foreclosure of mortgages for balance of purchase price of real property. (H.B. 16, Laws of 1935, Approved and Effective February 6, 1935.)

## Nebraska

**Law Prohibiting and Postponing Foreclosure** Courts may stay foreclosure proceedings of mortgages on real estate, unless good cause is shown to the contrary, until the first day of March 1935, or so long as the act is in effect. (Chapter 65, Laws of 1933, Approved and Effective March 2, 1933, Expires March 1, 1935). This law was construed in *Gaster v Tugegy*, 243 N.W. 506.

The provisions of the above Act were extended until March 1, 1937. In addition, tax sale foreclosures and actions on notes secured by real estate were also stayed, within the discretion of the court, until March 1, 1937. Provisions of the Act do not apply to any mortgage, deed of trust, land sale contract, or secured note to be issued subsequent to March 1, 1934. (H.B. 1, Laws of 1935, Approved and Effective February 27, 1935, Amending and Repealing Sections 20-21, 159 and 20-21, 161, C. S. Supp. 1933; Expires midnight March 1, 1937).

**Law Abolishing Deficiency Judgments** Deficiency judgments are abolished in mortgage foreclosure actions. (Chapter 41, Session Laws of 1933, Approved and Effective April 26, 1933. Also, cited as H.B. 10 and as Sec. 20-2141, C.S. Supp. Nebraska.)

## **Nevada**

No emergency mortgage moratorium legislation has been enacted in this State probably because there is a one-year redemption period for property sold under foreclosure of mortgage in this State.

## **New Hampshire**

**Law Postponing Foreclosure Proceedings** The court may suspend an action to foreclose a mortgage on real estate or it may suspend for a reasonable period sales in foreclosure action. (Chapter 161, Laws of 1933, Approved and Effective June 15, 1933. Expires within four years unless the Governor proclaims the emergency ended; as amended by H.B. No. 56, Laws of 1935, Approved and Effective February 7, 1935.)

**Law Extending Period of Redemption** The court may extend the redemption period in proceedings to foreclose a mortgage on real estate for a reasonable time. (See Statute citations above.)

## **New Jersey**

**Law Providing for Sale at Fair Market Value of Property** Fair market value in sale on property in mortgage foreclosure actions required. Mortgagor, when sued on a deficiency judgment, may raise issue of the fair market value. (Chapter 82, Laws of 1933, Approved and effective March 29, 1933.)

This statute was declared unconstitutional by the Supreme Court of this State in *Vanderbilt v. Brunton Plane Company* (N. J. November 20, 1933) 111 V.L.J. 596, on the ground that the statutory setting of a fair market value, "standing alone, is a self-contradiction, restrictive of free auction of an otherwise collectible debt, was such a restriction and limitation upon the mortgagee's right of recovery on a bond as to be an impairment of pre-existing contract and therefore in conflict with article 1, Section 10, Subdivision 1, Federal Constitution and Article 4, Section 7, Paragraph 3, New Jersey Constitution, prohibiting passage of law impairing obligation of contracts, or depriving a party of any remedy for enforcing a contract which existed when contract was made.

## **New Mexico**

No emergency mortgage moratorium legislation has been enacted in this State. However, by the laws of 1931, Chapter 149, Page 250, Senate Bill 83, junior lien holders and the mortgagor are given a right of redemption, but this right has existed in New Mexico prior to 1931.

## **New York**

**Law Prohibiting Foreclosure Proceedings** No action for the foreclosure of a mortgage on real estate solely on account of default in payment of principal and no action on any bond secured



by such mortgage shall be brought before July 1, 1937. This Act applies to participation mortgages and mortgage bonds. All pending actions are dismissed. (Chapter 793, Laws of 1933, Approved and Effective August 26, 1933, as extended by Chapter 278 (Act No. 263), Laws of 1934, Approved and Effective April 23, 1934, by Chapter 1, Laws of 1935, Approved and Effective January 18, 1935, and as further extended by Chapter 86, Laws of 1936, Effective March 6, 1936.)

This act was held constitutional as not impairing obligation of contract in *McCarty et al v. Prudence Bonds Corporation*. (N. Y. S. Ct., Special Term, September 20, 1933), 266 N. Y. S. 629-C 733. This act was also construed in *Cole v. Miller* (1934) 268 N. Y. S. 443; 150 Misc. 32; *Bank of Babylon v. F. E. Summers Coal and Lumber Company*, 268 N. Y. S. 46, 149 Misc. 617; *Laporte v. Nevins Company*, 268 N. Y. S. 91, *Joseph E. Marx Company v. Hatton*, 269 N. Y. S. 210; *Sherwin v. Jonas*, 269 N.Y.S. 101, 150 Misc. 242, Rev. (City Court) 267 N. Y. S. 759, 149 Misc. 481; *Manufacturers' National Bank of Troy v. Toole*, 274 N. Y. S. 158; *Klinke v. Samuels*, 150 M. 24, 264 Rev. N. Y. 244, Rev. 268 N. Y. S. 551, 240 App. Div. 1008, *Resettled* 269 N. Y. S. 912; *Ersee v. Central Trust Co. of Rochester*, 158 Misc. 397; *Westchester Trust Company v. Fox* 276 N. Y. S. 335.

Where the principal of mortgages shall become due, prior to July 1, 1934, it shall become payable six months after the expiration of the emergency period. The principal of mortgages becoming due between July 1, 1934, and July 1, 1935, becomes payable one year after the expiration of the emergency period. Actions for the principal of mortgage bonds are likewise suspended. (Chapter 357, Laws of 1934, Approved and Effective May 7, 1934.)

**Laws Limiting Right to Deficiency Judgments** Deficiency Judgments after foreclosure shall be granted only on motion, and if no motion is made within ninety days after confirmation of the sale, such sale shall be in full satisfaction of the debt. Deficiency judgments shall be based upon the fair and reasonable market value of the said mortgaged premises at highest of the mortgaged premises during period of emergency, which extends to July 1, 1935. (Chapter 794, Laws of 1933, Approved and Effective August 28, 1933, as extended by Act No. 270, Laws of 1934, Approved and Effective April 23, 1934, as extended by Chapter 2, Laws of 1935, Approved January 18, 1935, as amended by Chapter 268, Laws of 1935, Effective April 1, 1935, and as further extended by Chapter 87, Laws of 1936, Effective March 6, 1936.)

The period of emergency provided for by the above legislation was extended until July 1, 1938, by Chapter 277, Laws of 1934 and further extended to July 1, 1936, by Chapter 8, Laws of 1935.

This act was interpreted in *Railroad Co-op. Building and Loan Association v. Boston Building, Inc., et al* (N.Y. Supm. Ct., Special Term, Nov. 3, 1933), 267 N.Y.S. 204, in which it was held that retro-active law which bonds to take away or impair rights vested under existing laws or valid contracts or which creates new obligation or attaches new disability to transactions already passed, is invalid as to sales made prior to Act, but not during period of act.

This act was also construed in *Weisel v. Hagdahl Realty Company*, 271 N.Y.S. 629; *Russell v. Wolf*, 271 N.Y.S. 639; *Monaghan v. May*, 273, N.Y.S. 476; *New York Life Insurance Company v. H. & J. Gutttag Corporation*, 192 N.E. 481, 265 N.Y. 232, Rev. 272, N.Y.S. 724, 242 app.

Div. 620; Metropolitan Life Insurance Company v. Rosenfield, 274 N.Y.S. 531; Farmers' and Mechanics' Savings Bank of City of Lockport v. Eagle Building Company, 276 N.Y.S. 246; Kramer v. Relgny Realty Company, 276, N.Y.S. 641.

## **North Carolina**

**Law Continuing Foreclosure Actions** Court may continue foreclosure actions on mortgages and deeds of trust for one year. This power exists only for two years and only in specified counties of the State. (H.B. No. 1438, Laws of 1933, Approved and Effective May 13, 1933, S.B. No. 135, Laws of 1933, Approved and Effective February 28, 1933, act for two years; H.B. 1297, Laws of 1933, Approved and Effective April 28, 1933, and H.B. 1199, Laws of 1933, Approved and Effective May 12, 1933.)

**Law Abolishing or Limiting Right to Deficiency Judgments** Deficiency judgments abolished in foreclosures and sales under power of sale in purchase money mortgages and deeds of trust. (Chapter 36, Laws of 1933; Approved and Effective February 6, 1933.)

Ordinary deficiency judgments are to be determined by the reasonable value of the real estate and the mortgagee may prove such reasonable value by way of defense. (Chapter 275, Laws of 1933, Approved and Effective April 18, 1933.)

**Law Guaranteeing Sale of Property at Fair Price in Foreclosure Proceedings** The court may order a resale before confirmation in an action to foreclose a mortgage on real estate. (Chapter 275, Laws of 1933, Approved and Effective April 18, 1933.)

This Act was construed in *Hopkins v. Swain*, 174 S.E. 409, 206 North Carolina 439; *Whitner v. Chase*, 174 S.E. 223, 206 North Carolina 336.

## **North Dakota**

**Laws Prohibiting or Postponing Foreclosure Actions** On March 20, 1934, the Governor issued a proclamation making it unlawful to oust an owner from his farm home lest mortgage foreclosure might cut all the owner on an opportunity to secure the benefits of Federal legislation. (Provided for by Chapter 157, Laws of 1933, Approved and Effective February 21, 1933, Expires at end of two years.)

On April 3, 1935, the acting Governor of the State issued the following proclamation, to be effective until revoked: "Until this Proclamation is revoked or modified, no judicial, executive, or administrative officer of this State, or of any of its subdivisions, shall maintain or begin any proceeding or sign any order or other document of any kind which has for its purpose, or which tends to promote, the transfer of change of ownership, title to, equities in, or possession of real or personal property, contrary to the wishes and needs of the owner or possessor of such property or of rights or equities therein. Providing, that such proceeding may be entertained or order or other document signed upon satisfactory showing first made to such office, that such owner or possessor has the legal right and has been given reasonable opportunity to avail himself of the remedies provided under the terms of Senate Bill No. 32, known as the legal moratorium, as recently approved, or under the terms of the Frazier-Lemke Amendment to the Bankruptcy Act, and has freely and voluntarily waived

the benefits of such remedies, or has unreasonably refused to avail himself thereof. Any person injured or feeling aggrieved by the operations or provisions of this Proclamation is authorized to file his petition for relief at the Governor's office."

**Foreclosure by Advertisement Abolished** Foreclosure of real estate mortgages by advertisement are abolished except on mortgages held by the State or by the University. (Chapter 158, Laws of 1933, Approved and Effective March 4, 1933)

Hearings are required prior to the confirmation of sales in foreclosure proceedings, and courts given power to extend terms of the mortgage and postpone foreclosure proceedings. (S.B. 23, Laws of 1935, Approved and Effective March 9, 1935.)

**Laws Extending Redemption Period** The period within which a mortgagor or judgment debtor may redeem from a mortgage foreclosure or execution sale of real estate, but for which a deed has not been issued, is extended for a period of two years from February 21, 1933. (Chapter 157, Laws of 1933, Approved and Effective February 21, 1933)

Redemption period is extended to not later than July 1, 1937. (S.B. 23, Laws of 1935, Approved and Effective March 9, 1935). In *State ex rel. Cleveringa v. Klein* (N.D. Sup. Ct., June 12, 1933), 249 N.W. 118, it was held that the statute (Chapter 157, Laws of 1933) extending period of redemption from real estate mortgage foreclosure sale is "impairment of obligation of contract" as to mortgages existing at time of enactment of statute. Also deprives holder of mortgage executed prior to passage of statute of property without due process. (Constitution, U.S., Section 10) Statute extending period of redemption from real estate mortgage foreclosure sale, which statute by its own terms expires in two years, is held valid governing mortgage executed and foreclosed during period of its operation.

**Laws Limiting Right to Deficiency Judgment** In actions for the foreclosure of mortgages, the court shall have no power to render a deficiency judgment. (Chapter 155, Laws of 1933, Approved and Effective March 7, 1933, Expires at the end of two years. Repealed by S.B. 23, Session Laws of 1935, Approved March 9, 1935)

## Ohio

**Law Postponing Foreclosure Proceedings** Proceedings to foreclose a mortgage or enforce a specific lien may be postponed not later than April 1, 1937. This Act applies only to mortgages executed prior to May 18, 1933. (H.B. 23, Enacted October, 1935, Effective February 4, 1935, Amending Section 11588 of the General Code as amended by H.B. 144, December 12, 1934; and repealing; Sections 11, 388 of the General Code as amended by S.B. 219, May 15, 1935, and H.B. 144, December 12, 1934.)

## Oklahoma

**Laws Postponing Foreclosure Proceedings** In pending or future actions for foreclosure of mortgages or other liens upon real estate, defendant shall not be required to answer until the expiration of nine months from service of summons or if answer has been filed, no trial shall be held for nine months. (Chapter 16, S. B. No. 76, Laws of 1933, Approved and Effective March 7, 1933, Expires at end of two years.)

This Act was held unconstitutional as it affects actions pending at its effective date *State ex rel. Osage County Savings and Loan Association v. Worten*, 29 P. (2d) 1.

For two years after the approval of this Act, the court is vested with discretion of granting a continuance in all actions to foreclose mortgages or deeds of trust. (Same Statutory citations given above.)

This provision of the Act was held constitutional as it allows judicial discretion in the granting of continuances; but it is unconstitutional in an arbitrary and capricious extension of time for nine months in all cases. *State ex rel. Roth v. Waterfield*, 29 P. (2d) 24, rehearing denied, 29 P. (2d) 24.

## **Oregon**

**Law Postponing Foreclosure Decree** The Legislature, by a joint resolution, advised courts of equity not to decree foreclosure where the mortgagor is making a bona fide effort to pay. (H.J. Res. 18, Regular Session, 1933, Effective March 2, 1933.)

## **Pennsylvania**

**Law Postponing Foreclosure Proceedings** The Court of Common Pleas is vested with power to stay Writs of Execution for the sales of dwellings or farms to prevent serious inequity. Provision of this Act not applicable to mortgages under Title II of the National Housing Act. (P.L. 707, Act of May 18, 1933, Effective May 18, 1933, extended by H.B. 200, Laws of 1935, Effective March 28, 1935, to continue in force until March 31, 1937.)

**Law Insuring Sale of Property at Fair Value in Foreclosure Proceedings** Procedure is provided for courts to determine fair value of property to be sold at foreclosure sales. (Act No. 59, Laws of 1933, Effective January 17, 1934, to continue in force until July 1, 1935.) Construed in *Market Street National Bank, et al., v. Huff, et al.*, Pa. Sup. Ct., E. D., June 29, 1935; and *Evans v. Provident Trust Co. of Philadelphia*, Pa. Sup. Ct., E. D., June 29, 1935. Deficiency Judgment Act of 1933 is constitutional as a reasonable remedial act. – *Ridge Allen Building & Loan Association v. Leshefko*, 24 D. & C. 702.

## **Rhode Island**

No emergency mortgage moratorium legislation has been enacted in this state.

## **South Carolina**

**Law Postponing Foreclosure** Courts of the State are empowered to stay foreclosure suits. Boards of Conciliation appointed to effect settlements in mortgage cases. (Act No. 923, Laws of 1934, Effective March 2, 1934, Expires after two years; extended 18 months from April 10, 1936, by Act No. 300, H.B. 611, Act of 1936, Effective April 10, 1936.)

**Laws Limiting Right to Deficiency Judgment** When a personal judgment is asked, any defendant may, within 90 days after sale of mortgaged property, apply for an order of appraisal of true value. If the value is in excess of the deficiency, after application of the net proceeds of sale, the judgment is extinguished. If of the returned value, after deduction of the sale price, is less than the deficiency, the deficiency is deemed paid, pro-tanto, and is enforceable for only the remainder. (Act 264, Laws of 1933, Approved and Effective May 2, 1933.)

## **South Dakota**

**Law Suspending Foreclosure Actions** Foreclosures by advertisement may be suspended by court when so requested by mortgagor. (Chapter 138, Laws of 1933, Approved and Effective March 11, 1933.)

This Act held valid in *State ex rel. N.W. Mutual Life Insurance Co. v. Circuit Court* (S.D., S. Ct., July 7, 1933.), 249 N.W. 603, since there remains sufficient remedy on contract which secures all substantial rights or parties. The Act simply restricts the conditions under which the power of foreclosure by sale might be exercised. Statute held to cover mortgages in existence at the time of its passage.

**Laws Extending Redemption Period** Redemption period may be extended for an additional year in mortgage foreclosure proceedings if mortgagor pays: (1) all taxes due, (2) interest on mortgage to that date, (3) 6

This law does not apply to mortgage held by joint stock land bank organized under Federal Farm Loan Act. *Ellingson, et al., v. Iowa Joint Stock Land Bank*, S. Dak. Sup. Ct., January 10, 1936.

The mortgagor may file a petition with the Circuit court prior to the expiration of the normal redemption period, and secure an extension of such period to not later than March 1, 1937. The Act does not apply to mortgages held by the State, the United States, or agency, to obligations guaranteed by the United States, or to mortgages held as security for a public debt or deposit. (H.B. 20, Laws of 1935, Approved and Effective March 2, 1935.)

**Law Abolishing Deficiency Judgments** Deficiency judgments abolished. (Chapter 138, Laws of 1933, Effective May 28, 1933, as amended by H.B. 103, Laws of 1935, Effective February 27, 1935.)

**Law Affecting Mortgage Contract in General** All contracts between mortgagors and mortgagees are unenforceable and unrecordable if containing: (1) pledge or assignment of right to possession of homestead, etc., property prior to expiration of redemption period; (2) agreement for mortgagor to pay taxes; (3) waiver of exemptions; (4) consent to receivers' appointment; however, these provisions are not applicable to any mortgage executed to the United States or any instrumentality thereof. (H.B. 27, Laws of 1935, Approved and Effective March 10, 1935.)

## **Tennessee**

No emergency mortgage moratorium legislation has been enacted in this State, as liberal provisions for redemption is provided by present legislation.

## Texas

**Laws Postponing Foreclosure Proceedings** Courts empowered to grant stays of proceedings in suits for the recovery of real property or foreclosure of liens or mortgages on real property, file within 180 days from the effective date of the Act or pending when the Act becomes effective; the extension shall not exceed 180 days, but the Court may, upon further application at the end of the first extension period, but not after 200 days from the effective date of the Act, grant further extensions, but not beyond May 1, 1934. (Chapter 102, Laws of 1933, Effective May 1, 1933. Expires after 200 days.)

The Act is unconstitutional in that it impairs the obligation of contracts executed before its effective date. *Life Insurance Company of Virginia v. Sanders*, Texas Circuit Court of Civil Appeals, El Paso Division, 62 S. W. (2d) 348.

The Act is constitutional and is "the lawful exercise of legitimate governmental powers in the interest of public welfare in extending the time for the sale of land under a deed of trust. *Lingo Lumber Company v. Haynes*, 64 S. W. (2d) 835. This Act was also construed in *South Texas Bank and Trust Company v. Ochoa*, 72 S. W. 657; *Knox v. Morrison*, 66 S. W. (2d) 384; *Mountain Townsite Company v. Cooper*, 63 S. W. (2d) 1050.

The entire Act was held unconstitutional in *Murphy v. Phillips*, 63 S. W. (2d) 404. Rehearing in this case was denied October 4, 1933; However, a contrary decision was reached in *Beaumont Petroleum Syndicate v. Broussard*, Texas Court of Civil Appeals, 9th District, November 2, 1933.

Court may grant continuances and stays of execution until February 1, 1935, where neither the indebtedness nor the lien securing same has been renewed or created since May 1, 1933. (S. B. No. 3, Second Special Session, 1934, Approved and Effective February 28, 1934, Expires February 1, 1935.)

This "Moratorium Act" violates Section 16 of Article I of the Constitution of Texas, which prohibits the enactment of laws impairing the obligation of contracts – *Travelers Insurance Company et al v. Marshall et al*, 76 S. W. (2d) 1007. This Act also construed in *Lumm v. Jones*, 76 S. W. (2d) 1072; *Glenn v. Hollums*, 76 S. W. (2d) 1038; *Dallas Joint Stock Land Bank v. Ballard et al*, 76 S. W. (2d) 297; *Oppenheimer v. Haley*, 76 S. W. (2d) 411; *Williams v. Holmes*, 74 S. W. (2d) 1040; *Brown v. Bellfork Development Corporation*, 76 S. W. (2d) 913.

**Law Limiting Right to Deficiency Judgment** In suits to collect deficiency judgments rendered after foreclosure proceedings, defendant allowed to plead as a defense that the property was sold for less than its actual value. The actual value may be shown and the defendant is entitled to a credit of any difference between its actual value and the sale price of the property. Any action to enforce deficiency judgment must be begun within six months from the date of sale. (Chapter 92, Laws of 1933, Effective April 21, 1933.)

This anti-deficiency judgment law violates Section 16, Article I, of the Constitution, which prohibits legislation, impairing the obligation of contracts. *Langever v. Miller*, 76 S. W. (2d) 1025.

## Utah

No emergency mortgage moratorium legislation has been enacted in this State. However, Code of State provides that Court, in its discretion, may grant stay of execution on judgment.

## Vermont

**Law Postponing Execution or Foreclosure Sales** Court empowered to stay execution or foreclosure sales for three months. (No. 30, Laws of 1933, Effective March 24, 1933; Expired March 1, 1935, unless by joint resolution or proclamation of the Governor the emergency is considered terminated before said date; as amended by Laws of 1935, H.B. No. 108, Effective February 28, 1935, extending moratorium until March 1, 1937.)

**Law Extending Period of Redemption** Court within its discretion and for the benefit of the parties concerned may extend the period of redemption. (Same Statutory citations as above.)

## Virginia

No emergency mortgage moratorium legislation has been enacted in this State. However, the Court in its discretion may fix an equitable redemption period as justified by all the surrounding circumstances of case.

## Washington

No emergency mortgage moratorium legislation has been enacted in this State. However, redemption provisions of present foreclosure laws are rather lenient.

## West Virginia

No emergency mortgage moratorium legislation has been enacted in this State.

## Wisconsin

**Law Postponing Foreclosures** Sales in foreclosure action on any farm or homestead commenced prior to March 1, 1935, may, within the discretion of the court, be prohibited for a reasonable period not to exceed two years beyond the usual one year period, but not beyond March 1, 1937. At all times, motion for confirmation of sale shall be made only on notice given by plaintiff to mortgagor. (Chap. 11, Laws of 1933, Approved and Effective February 17, 1933; Chap. 125, Laws of 1933, Approved May 15, Effective May 17, 1933; Chap. 474, Laws of 1933, Approved and Effective July 29, 1933, as amended and repealed in part by Laws of 1935, Chap. 319, Effective August 2, 1935, Expires April 1, 1937, and Chap. 482, Effective September 19, 1935.)

Construed in *Foelish v Stockhausen*, 254 N.W. 340; *First National Bank v R. J. Durham Lumber Co.*, 256 N.W. 753.

**Law Extending Redemption Period** Period of redemption may be extended not later than April 1, 1938, where mortgage foreclosed and redemption period has not expired, or where sale occurs after August 2, 1935, in such foreclosure action, now pending, or begun before April 1, 1937, or on sale where redemption period has not expired, or where such sale occurs after August 2, 1935, and before April 1, 1937. (Laws of 1935, Chap. 319, Effective August 2, 1935. Expires April 1, 1937, as amended by Laws of 1935, Chap. 547, Effective October 2, 1935.)

Constitutionality upheld in *Mutual Building & Savings Assn. v Willing, et al.*, Wis. Sup. Ct., June 2, 1936.

Local county mediation boards are established to effect compromises between mortgage debtors and creditors. (See part of above cited Acts.)

In actions for foreclosure or performance of land contracts where judgment is entered before April 1, 1937, the court may extend redemption period three years, the defendant paying current interest or taxes or both. (Laws of 1935, Chap. 301, Effective June 28, 1935, as amended by S. B. 35. 311, Laws of 1935, Chap. 302, Effective August 14, 1935.)

No extension of redemption period permitted unless court directs mortgagor, owner or judgment debtor to pay taxes and interest. In any ejection or unlawful detainer action brought prior to April 1, 1937, against a lessee on a lease of ten years or more, where the lessee has constructed improvements of more than one-half the land's value, except leases mentioned in Sec. 234.19 court may allow redemption period of one to three years. (Laws of 1935, Chap. 482, Effective September 20, 1935.)

**Law Limiting Right to Deficiency Judgment** Before sale in foreclosure action, in which judgment is rendered prior to January 1, 1938, court must exercise its equitable powers and fix the value of the mortgaged premises. (Chap. 15, Laws of 1933, Approved February 23, 1933, Effective February 28, 1933.)

## Wyoming

No emergency mortgage moratorium legislation has been enacted in this State. However, execution on judgment is within the discretion of the Court.