NBER WORKING PAPER SERIES

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Working Paper 34277
http://www.nber.org/papers/w34277

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
September 2025

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NBER Working Paper No. 34277
September 2025
JEL No. G01, G21, G28, N12, N22

ABSTRACT

We examine the effects of changes in an interest rate cap on small loan brokers in New Jersey during the Great Depression. Using newly constructed data on brokers and banks, we find that small loans declined sharply when the cap was lowered, and despite worsening economic conditions, they rebounded when the cap was raised back up. Consumers could not obtain alternative credit from banks, effectively shutting them out of the market. The cap had a permanent impact on the small loan market due to the large number of broker closures, thereby further reducing the availability of small loans and increasing market concentration. Our findings highlight the fundamental trade-off faced by policymakers: strict rate caps may protect borrowers from predatory lending but can eliminate necessary credit options for vulnerable populations.

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1. Introduction

An interest rate ceiling is a widely used policy tool in many developing and developed countries to lower the overall cost of credit or protect consumers, yet the policy remains controversial. Advocates argue that caps are necessary to shield vulnerable consumers from predatory lending and excessive interest rates, especially in markets with significant bank market power. Critics contend that caps force lenders to reduce credit availability, thereby harming lower-income households who rely on these credit options. In the US alone, there have been many recent instances of such legislation. For instance, in 2020, California, Illinois and New York sued the OCC to enforce state usury rates on loans made by out-of-state banks but then sold to within-state banks. Other legislatures have opined about the proliferation and high interest rates of pay day lenders. Most recently, the U.S. introduced bipartisan legislation to cap credit card interest rates at a maximum of 10 percent—about half the current average of roughly 21.5 percent—for five years. This type of legislation aims to dramatically lower borrowing costs, addressing concerns over the high interest rates that lead to prolonged debt burdens on consumers.[1]

The question surrounding the effectiveness of interest rate caps revolves around their impact on bank lending. After the caps are introduced, overall bank lending may decline. Whether interest rate caps are effective depends on whether this contraction results from a reduced supply of loans or decreased loan demand. If caps are binding, then lenders would reduce the supply of credit, thereby disproportionately harming those most in need of credit. However, even if caps are not binding, a simultaneous decline in loan demand could still lower loans, potentially leading the cap change to protect consumers from excessively high borrowing costs. Examining the effectiveness of interest rate caps relies on their effect on loan supply after controlling for loan demand.

Recent studies attempt to overcome these identification issues by using granular data and quasi-experimental research designs that exploit variation in interest rates across countries (or US states) and over time (e.g., Benmelech and Moskowitz, 2010; Bodenhorn, 2007; Bolen at al, 2023; Fekrazad, 2020; Rigbi, 2013; Zinman, 2010). These studies leverage differences in policy exposure to compare outcome variables before and after policy changes between treated and

[1] "10 Percent Credit Card Interest Rate Cap Act." H.R. 1944, 119th Congress, 2025, www.congress.gov/bill/119th-congress/house-bill/1944.

control locations. However, they face empirical challenges because they cannot adequately control for other location-level factors that may affect loan demand and correlate with policy changes. Often times interest rate caps are responding to endogeneous factors at a particular location. Additionally, these studies typically examine individual institutions that provide a range of lending services. It is thus impossible without internal data to examine the loans affected by the cap separate from a bank's other lending. Finally, the lack of loan-level and bank-level data unaffected by interest rate cap changes makes it difficult for researchers to isolate the impact of these caps on loan supply while controlling for loan demand. A recent working paper by Burga, et al., (2024) attempts to overcome this problem by comparing loans of different sizes at the bank after the introduction of interest rate caps on small loans. While this approach controls for loan demand differences due to local economic conditions, it does not control for differences in loan demand across loan sizes, where demand for small loans versus large loans may vary.

In this paper, we study the effectiveness of interest rate caps by examining the relationship between a cap, credit supply, and the survival of New Jersey small loan companies during the Great Depression. Growing concerned that small loan companies were earning excessive profits through high interest rates, New Jersey's legislature responded in 1929 by cutting the interest rate ceiling for these companies from 3% to 1.5% per month (42.58% and 19.56% per year respectively). However, just two years later, lawmakers reversed course and raised the ceiling to 2.5% (34.49% a year). To study the changes in response to the cap, we collect annual individual-level data on all small loan brokers from the *Annual Report of the Commissioner of Banking and Insurance* for the State of New Jersey and on all commercial banks from the *Rand McNally Bankers' Directory*.

We compare the outcomes of brokers to commercial banks using a difference-in-differences approach. We start by measuring the impact of the changes in interest rate caps on small loan brokers relative to commercial banks that were not subject to the change. Both small loan brokers and commercial banks provided small loans, but only small loan brokers were subject to the cap change. By using the exogenous factor of changing caps, we are able to control for omitted time-varying factors, such as changes in loan demand and macroeconomic conditions. These factors should have influenced the behavior of both small loan companies and commercial banks in the same manner. The use of the difference-in-difference estimators alleviates econometric concerns by controlling for loan demand and profitable investment opportunities.

In addition, the fragmented nature of the banking system helps us control for loan demand due to local economic conditions. During the period, branching was strictly limited and customers did not travel far distances to bank. Numerous banks existed, with over 500 unique banks and brokers operating in 1929 in New Jersey alone. Using balance sheet data at the bank-level mitigates biases arising from tests using aggregated, institutional level data because these were unit banks that operated locally. We, therefore, know exactly where demand for loans originated for each bank and where loans were received. We thus can add town-fixed effects to control for heterogeneous loan demand across these locations.

The fact that the period involves both lowering and raising the cap allows us to better isolate whether the cap was in fact binding. We find that the cap played an important role in the ability of small loan brokers to provide credit. Small loan brokers reduced bank lending compared to commercial banks after the cap was lowered to 1.5% per month. In addition, small loan brokers saw much larger increases when the cap was raised to 2.5% per month. Therefore, even though commercial banks displayed a downturn in lending throughout the Great Depression, brokers' lending declined much more sharply during 1930 and 1931 and rebounded in 1932 and 1933 even before the Depression had ended. Importantly, we next show that commercial banks did not increase their loans in response to a decline in lending by nearby brokers. These results suggest that borrowers of small loan brokers were not able to obtain credit from banks and were shut out of the market.

Finally, we examine how the cap affected the survival of small loan brokers. To prove that the interest rate cap was responsible for the collapse of small loan brokers (and their lending), we make use of broker-level information on interest rates charged in 1929. Even after controlling for the broker's balance sheet position, we see that those brokers that charged higher interest rates in 1929 were more likely to close by the end of 1930. Among those brokers that survived, those with higher interest rates before the change experienced the largest decline in lending.

To summarize, our study shows that the interest rate cap changes affected the amount of credit supplied by small loan brokers controlling for loan demand. We find that small loan brokers reduced credit when the cap was lowered and increased credit when the cap was raised. Because closing brokers did not reopen, the caps permanently changed the degree of competition in the market. Importantly, the cap may have left some consumers without access to credit because they were not able to obtain loans from local banks.

Our research exposes the difficult balance confronting policymakers: comprehensive rate caps offer protection from predatory lending while potentially restricting credit access for populations with limited alternatives. While achieving widespread access to financial services is important, doing so through price controls requires careful consideration. Although interest rate caps are often implemented with good intentions, they can inadvertently harm consumers with lower credit scores or riskier credit profiles by restricting credit availability if the interest rate ceilings are set below market-clearing levels. Such caps hinder lenders' ability to adjust rates based on borrower risk and operational costs. When lenders cannot adequately price for risk, they may stop offering loans to high-risk individuals altogether, effectively shutting them out of the legal credit market. Consequently, the caps may disproportionately impact the very groups that rate caps are intended to protect.

This paper is closely related to the literature on the effects of lending caps. Some studies find that interest rate caps typically lead to reduced access to credit. These studies find that caps have resulted in fewer loans, higher overall borrowing costs, and limited consumer choice (Zinman, 2010; Maimbo and Gallegos, 2014; Lukongo et al., 2022). Other studies find that rate caps focus on the relationship between rate caps and credit reallocation. They find that after rate caps banks reallocate credit away from risky firms towards safe borrowers. As a result, the cap may contribute to financial stability, but harm those that have limited access to credit (Burga, et al, 2022; Bolen, et al., 2023). Lastly, Fekrazad (2020) shows that interest caps can harm low-income households by inducing bad behavior because excessive borrowing, coupled with a rise in sequential defaults—which impose both financial and non-financial costs on borrowers—can significantly reduce, or even reverse, the net welfare gains.

Our study connects to research on usury laws and their impact on credit. Benmelech and Moskowitz (2010) show 19th-century usury laws often constrained credit and curtailed economic development. Glaeser and Scheinkman (1998) argue these laws serve as a social safety net, balancing borrower protection with reduced credit access, rather than being arbitrary limits. Other studies, however, suggest usury laws don't always reduce credit availability and highlight the trade-off between consumer protection and access. They show stricter caps can exclude riskier borrowers without improving repayment. For instance, Bodenhorn (2007) found that 19th-century New York usury laws didn't reduce bank lending because lenders and borrowers formed long-term relationships and bypassed legal ceilings when enforcement was weak.

Similarly, Rigbi (2013) found that higher interest rate caps in the online loan market significantly increased loan funding, especially for riskier borrowers. Importantly, this didn't lead to borrowers requesting larger amounts or an increase in defaults, challenging concerns about higher rates causing financial distress.

In addition, our paper is related to the instability in the financial system during the Great Depression. Most studies focus on identifying the underlying factors that led to the severity of commercial bank failures (e.g., Calomiris and Mason, 2003a, 2003b; Mitchener and Richardson, 2019; Calomiris et al., 2021; Correia et al., 2025). Few studies (e.g., Sprick Schuster, et al., 2020 study postal savings banks, and Fletius, et al., 2020 study Building and Loan Associations) examine the behavior of financial institutions other than commercial banks during this period. Our study adds to this literature by examining small loan companies, a type of financial intermediary that has not been studied before.

The remainder of the paper is organized as follows. Section 2 describes data. Section 3 gives a historical background. We describe small loan companies and legislation that changed interest rate caps during the Great Depression. Section 4 introduces the data and provides summary statistics. Section 5 describes empirical specifications and presents results. Section 6 concludes.

2. Data

We construct datasets from two sources. First, data on small loan brokers come from the *Annual Report of the Commissioner of Banking and Insurance of New Jersey*. We collect balance sheets of small loan brokers from 1928 to 1935. Between 1915 and 1927, the state banking department provided a list of all licensed small loan brokers in the annual report. Starting in 1928, the report began publishing detailed information on small loan brokers. It included balance sheets as well as other data related to business profitability, such as the receipts from interest on loans, operating expenses, dividends paid to stockholders of incorporated licenses, and profits. Second, data on commercial banks come from the *Rand McNally Bankers' Directory*. Rand McNally collected and disseminated information about all banks in the United States. From this data source, we have consistent measures of banks' liabilities and assets. For liabilities, we focus on deposits and surplus capital and for assets we focus on loans, bonds, cash, and other assets.

We digitized the balance sheets of all state and national banks operating in the state of New Jersey for each December.

3. Historical Background

During the historical period, most commercial banks issued large loans on substantial collateral, and only a few provided small loans to their customers. The most successful commercial banks in the "small loan" sector typically offered installment loans ranging between $2,000 and $5,000 (relatively large amounts for most households). Even these rare banks limited small loans to established customers, property owners, or borrowers who could pledge liquid collateral like stocks and bonds. Personal promissory notes required endorsement from creditworthy property owners, and banks generally declined unsecured personal loans except for borrowers with extensive banking relationships and demonstrated reliability. As a result, many consumers without property or banking relationships found it difficult to secure small loans through the commercial banking sector (King, 1929).

Small loan companies stepped in to fill the vital role as financial intermediaries for those individuals who lacked traditional collateral or influential connections. They operated quite differently from commercial banks. Their loans were typically capped at $300 and often offered longer repayment periods than those provided by commercial banks, resulting in smaller, more manageable payments for borrowers. To manage risk, they conducted personal interviews with borrowers in their homes and consulted amongst each other to prevent borrowers from taking on excessive debt. Nevertheless, borrowers tended to carry higher credit risks and as a result were charged higher interest rates.

In this way, the small loan market displayed a distinct segmentation pattern. Although commercial banks offered small loans alongside specialized small loan companies, these institutions catered to different customer bases. Bank borrowers typically possessed superior credit profiles compared to small loan company clients. Consequently, bank customers obtained loans at rates capped at 6% per year—substantially lower than small loan company allowed monthly rates which were often over 40% a year, even accounting for advance interest deductions. Small loan brokers throughout the country were able to charge much higher interest rates for relatively small loans, thus serving those households who lacked financial means and connections. This has implications for our study. Given that the customers of small loan brokers

had worse credit history, it would be difficult for them to borrow from commercial banks when they could not obtain credit from small loan brokers. Certainly, all borrowers would prefer getting a loan from a commercial bank at 6% a year than a broker at 45%.

In New Jersey, Chapter 49 of the laws of 1914 (known as the Egan Law) was introduced to regulate small loan companies, addressing widespread issues with illegal lending and expanding access to credit for those that lacked commercial bank credit. The act permitted lenders to charge interest on loans at a rate of 3% per month, calculated on the unpaid balance, and strictly prohibited any additional fees or the collection of interest in advance. At any given time, one in every eight families in the state was borrowing from a small loan company—an indication that these lenders were meeting a significant need within the financial system (King, 1929).

Examining the records of several brokers in New Jersey, King (1929) shows that the average small loan issued was approximately $170, with an average repayment period of 284 days. The typical interest charge was $29.01, amounting to about 17% of the principal. The top panel of Table 1 shows that most of the borrowers were not employers or self-employed but rather were among the working class (21.0% to 79.0% of borrowers). For instance, the biggest category of borrowers was manual workers (47.3% of borrowers) and even servants made up more borrowers than professionals (7.6% vs. 1.1% of borrowers). The bottom panel then shows that small loans were generally issued to cover things like current expenses (30.0% of loans), to consolidate and repay existing debts (29.9% of loans), or unexpected emergencies (8.8% of loans). Other accounts of small brokers during the period suggest these patterns were similar in other states as well (Townsend 1932).

Policymakers were concerned that small loan companies were charging excessive rates and harming consumers. In 1929, the New Jersey Legislature amended the law governing small loan companies to reduce the legal rate on small loans from 3% to 1.5% a month starting in February 1930. Because most small loans given out by the brokers were near 3%, they were severely affected by the lower interest rate ceiling. The legislature reversed course and raised the rate to 2.5% a month in April 1932.

Panels A and B of Figure 1 plot the volume of loans provided by small loan brokers and commercial banks and the number of these two types of institutions. Between 1929 and 1935, lending activities by small loan brokers and commercial banks went down by 50% and 60%,

respectively. However, the trends of lending activities over the years differed. Lending by small loan brokers declined by almost 75% between 1929 and 1931, but it rebounded by almost 20% between 1931 and 1935. In contrast, lending by banks saw a steady decline throughout the entire period.[2] While both types of institutions saw a large decline in the number of institutions, the magnitude of the decline is larger for small loan brokers. The number of small loan brokers shrank by 80%, declining from 419 in 1929 to 117 in 1931. Even though the caps were raised in 1932, the number of small loan brokers shrank further down to 80 in that year and remained at that level until 1935. Alternatively, the number of banks declined by 25%, from 535 in 1929 to 399 in 1935. These findings suggest that the introduction of the cap had a drastic impact on the small loan businesses, permanently changing the degree of competition.

While New Jersey commercial banks provide an immediate geographic comparison point for brokers, small loan brokers in other states did not see a drop in lending over the Great Depression. For instance, New York brokers (whose cap did not change) saw their loans increase over 300% between 1929 and 1931, and 1600% between 1929 and 1935. Even the New York City brokers who were just over the river from New Jersey saw substantial loan increases. Given that many borrowers were shut out of commercial banks at the time, it is unlikely that the decline in New Jersey brokers' loans was driven by a decline in loan demand or a broader problem with the small loan market.

Panel C of Figure 1 plots the changes in the distribution of broker's loans. Even after the cap was introduced in 1930, brokers were allowed to roll over previously existing loans at their original interest rate.[3] At the end of 1930, for instance, 3% loans still made up nearly half of all outstanding loans even though their value dropped by 80% from 1929. The share of 3% loans declined further in 1931. After the cap was raised to 2.5%, the total outstanding amount of loans increased as more loans were made at 2.5%. Few loans issued at 1.5% were rolled over or issued. It is thus clear from the aggregate evidence that the interest rate cap was binding.

Table 2 provides summary statistics for small loan companies across three periods with different interest rate caps. The data shows that equity as a share of total liabilities increased over time from 73.79% in 1928-1929 to 95.6% in 1932-1935, indicating that companies reduced their

[2] Even those brokers that survived the entire period saw their loans decline more than surviving commercial banks between 1929 and 1930.

[3] While New Jersey only separates loans by interest rate starting in 1930, anecdotal evidence as well as the individual balance sheet evidence suggests that most loans were made at 3% in 1929.

leverage. Moreover, the share of loans to assets also declined from 82.56% in 1928-29 to 75.35% in 1932-1935. Together, these patterns suggest that companies reduced their solvency risk. Looking at performance, ROE shows that lowering the cap reduced profitability, while raising it restored profitability. Higher ROEs before 1930 reveal that brokers used more debt than equity. After experiencing negative ROEs during the 1.5% cap period, brokers restored positive ROEs. However, ROEs during the 2.5% cap were lower than during the 3% cap (i.e., 21.48% in 1928-1929 to 3.22% in 1932-1935) due to both reduced leverage and lower profitability.

The market's segmentation likely continued to hold through the Great Depression. Small loan company customers typically lacked access to commercial bank credit, despite banks offering lower interest rates, because they could not satisfy banks' stringent lending criteria. Therefore, eliminating small loan companies would not drive most of their customers to commercial banks. Figure 2 shows that the decline in brokers led to a much more concentrated small loan market in the various counties. While most had low HHI before 1929, nearly every county either lost all their brokers or lost enough of them that HHI reached very high levels. Even by 1935, most counties had no brokers or all the loans were made by either one or two brokers. The few countries that avoid this pattern were clustered around New York City, but even they saw dramatic increases of HHI between 1929 and 1935. In other words, a reduction in credit supply by small loan brokers would likely harm the most vulnerable customers because they would not be able to obtain credit from banks.

4. Empirical Analysis

The narrative analysis and aggregate statistics suggest that the change in the interest rate cap corresponded to a substantial decline in small broker loans. This section empirically tests whether the interest rate cap was responsible for the decline in credit and the closures of small loan brokers as well as the rebound in lending.

4.1. Lending Behavior of Small Loan Brokers

We examine whether the changes in caps affect credit availability by comparing the lending behavior of small loan brokers to that of commercial banks. If the decline in loans was driven by lower interest rate caps, then we would expect to see a significantly larger decline in brokers' loans after the change compared to commercial banks. However, if the decline reflected the

broader deterioration of all financial institutions during the Great Depression, then we would expect that brokers' lending patterns would not differ significantly from those of commercial banks. Similarly, we would expect loans at brokers to rise after the interest rate cap was raised back up compared to commercial banks. To do this, we make use of the wide variation in small loan brokers across New Jersey. Seen in Figure 3, small loan brokers were not present in every county and the decline and return in loans varied greatly across the state. Commercial banks thus give a local control for loan demand and other economic conditions.

We, therefore, interact an indicator for whether the institution was a small loan broker with year fixed effects. We include institution fixed effects to pick up the average level of loans at each institution and a set of lagged balance sheet controls from equation (1) to capture institutional health. We account for each institution's size using the logarithm of assets, its liquidity position using the ratio of cash to assets, and its leverage using the ratio of equity to liabilities. The model is:

$$\begin{aligned} LnLoans_{i,t} = \; & a + \beta_1 Broker_i * t_t \\ & + \beta_2 LnAssets_{i,t-1} + \beta_3 Cash/Assets_{i,t-1} + \beta_4 Equity/Liab_{i,t-1} \\ & + u_i + t_t + e_{i,t} \quad (1) \end{aligned}$$

where $Broker_i$ is an indicator for whether the financial institution is a small loan broker, $LnAssets_i$ is the logarithm of assets of broker *i* in the previous year, $Cash/Assets_i$ is the ratio of cash to assets of broker *i* in the previous year, $Equity/Liab_i$ is the ratio of equity to liabilities of broker *i* in the previous year, u_i is a vector of institution fixed effects, t_t is a vector of year fixed effects, and $e_{i,t}$ is the standard error clustered by institution.

Column (1) of Table 3 present the estimates for equation (1). When the interest rate cap was lowered, brokers lost substantially more loans than commercial banks. Moreover, they provided more loans than commercial banks when the interest rate cap was raised again. Therefore, while commercial banks' loans declined during the Great Depression, the results in Figure 1 are not driven by general business conditions, and instead are tied to the interest rate cap changes. Compared to commercial banks in the same locations, brokers lost more loans when the interest rate was lowered and gained more loans when it was increased despite the continuation of the Depression.

The question though is whether the decline in brokers' loans was made up by commercial banks. While the narrative evidence indicates that most commercial banks did not want to make

the small loans that brokers did, it is still possible that they helped fill in the gap during the Great Depression. We test this by looking at commercial bank loans in locations that saw larger losses of brokers' loans, using either the logarithm change in brokers' loans over the previous year or the logarithm value of brokers loans in the current year. The former captures the exact timing of the decline in loans whereas the later allows commercial banks to potentially respond with a lag.

Similar to equation (1), the model is:

$$LnCBLoans_{i,t} = a + \beta_1 LnBrokerLoans_{i,t} + \beta_2 LnAssets_{i,t-1} + \beta_3 Cash/Assets_{i,t-1} + \beta_4 Equity/Liab_{i,t-1} + u_i + t_t + e_{i,t} \quad (2)$$

where $LnCBLoans_{i,t}$ is the logarithm of a commercial bank's loans in year t, $LnBrokerLoans_{i,t}$ is either the change in the logarithm of brokers' loans in the town over the previous year or the contemporaneous logarithm of brokers loans in the town, and the rest of the variables retain their previous definitions.

The results of equation (2) are presented in Columns (2) - (5) of Table 3. We start at the commercial bank level to see if on average commercial bank loans were negatively associated with small loan brokers. We then aggregate to the town-level to see if on average towns remained similar in terms of loans.[4] Regardless of aggregation, the estimated coefficients yield similar results. The loans of commercial banks were significantly correlated with the loans of brokers. Not only are the coefficients statistically insignificant but they are also economically small. In other words, we do not find evidence that the consumers that lost access to the loans provided by small loan brokers were able to obtain credit from commercial banks.

Taken together, the results thus indicate that the decrease of the brokers' loans due to the lowering of the interest rate cap led to a significant reduction in the amount of credit going to borrowers, particularly small borrowers. Even after the cap was allowed to rise, the number of brokers' loans remained half of its 1929 value.

4.2 Closure of Small Loan Brokers

Previous sections show that the changes in the cap affected the brokers' loan supply. More importantly, the number of small loan brokers declined by 71% between 1929 and 1931 following the lowering of the cap to 1.5% in 1929. These closures were especially important to

[4] When aggregating, we adjust the fixed effects, lagged balance sheet controls, and standard error clustering.

the decline in loans. For instance, in Panel A Figure 4, we calculate the proportion of loans made by banks that continued to exist versus banks that went out of business in the following year. The banks that survived in 1930 held 48% of total loans in 1929 which means that 52% of loans in 1929 were made by brokers that went out of business in 1930. The banks surviving in 1931 held 26 percent of loans in 1930, those surviving in 1932 held 20% in 1931, and surviving banks in all other years held less than 10%. These patterns suggest that the closures of small loan brokers were a major contributor to the collapse in the small loan market, and that they were concentrated around the lowering of the interest rate cap.

In addition, the closure of small loan brokers permanently changed the trends in competition and concentration in the loan market. In Panel B of Figure 4, we examine the Herfindahl-Hirschman Index (HHI) measures of the loan market calculated at the county level. Before the increase in the interest rate cap in 1929, local loan markets were highly competitive. On average, the HHI of loans made by brokers and that of loans made by banks was 888 and 802, respectively. The HHI measures for both markets were below 1800, which represented highly competitive conditions. However, after the increase in the interest rate cap, the HHI for the loan market provided by brokers jumped to 1570 in 1930, then to above 2400 in 1931, and remained at that level for the rest of the period. In contrast, while the HHI for the bank loan market also increased, it stayed below 1800 during the 1930s, indicating that this market remained highly competitive despite numerous bank failures. These patterns suggest that broker closures permanently reduced the degree of competition.

Given that the closures of small loan brokers contributed to the size and concentration of the small loan market, we examine whether the closures of brokers in 1930 was a direct result of the interest rate cap. In Figure 5, we present bin scatter plots of a bank's average monthly interest rate (calculated as the ratio of income from loans to total loans divided by 12) in 1929 relative whether it exited by the end of 1930. The data show a clear positive relationship. Brokers with average interest rates below 1.5% were much less likely to close, and the probability started to rise as interest rates increased.

While Figure 5 provides strong evidence that the lower interest rate cap was responsible for the closure of brokers, it is possible that other fundamentals were at play. We thus estimate a regression model that predicts the probability that each broker present in 1929 would close by 1930 based on a variety of characteristics. At the institution-level, we include the balance sheet

controls from the previous sections as well as each broker's profit buffer using the ratio of net profit to assets and its average monthly interest rate received on loans during the year. We also account for competition using the logarithms of the number of brokers and the number of commercial banks at the town-level.

We estimate the following model using ordinary least squares:

$$Closure_i = a + \beta_1 LnAssets_i + \beta_2 Cash/Assets_i + \beta_3 Equity/Liab_i + \beta_4 Profit_i + \beta_5 InterestRate_i + \beta_6 Competition_i + e_i \quad (3)$$

where $Closure_i$ is an indicator variable for whether broker *i* that was present in 1929 closed by 1930, $Profit_i$ is the net profit to asset ratio of broker *i* in 1929, $InterestRate_i$ is the average monthly interest rate received on loans of broker *i* in 1929, $Competition_i$ is the logarithms of the number of brokers and the number of commercial banks in the town in 1929, e_i is the White robust standard error term, and the rest of the variables retain their previous definitions.

The estimated coefficients of equation (3) are reported in Columns (1) - (4) of Table 4. The results show that lowering the interest rate ceiling drove out brokers that were small, had more leverage, or had higher average interest rates. Interestingly, profit levels have no significant effect on the decision to remain in the market, but the amount received in interest does. This seeming paradox is driven by high interest rate banks having higher profits but also being more likely to exit due to the lowered interest rate ceiling.

Next we narrow the comparison group by focusing on towns with more than 5 brokers and including town-fixed effects. This narrow comparison is helpful to account for potential differences in economic activity and the effect of the Great Depression. For instance, the prevailing interest rate in some areas might be higher than in others. While the inclusion of town-fixed effects subsumes the town-level competition measures, the rest of the variables provide similar results to the original model.

Taken together, the results strongly suggest that the lower interest rate ceiling was responsible for driving out many brokers. We unpack this result further by examining information for surviving brokers in 1930 in Columns (5) - (8) of Table 4. Specifically, we test whether those brokers with higher average interest rates in 1929 saw larger reductions in lending between 1929 and 1930 and continued to hold more 3% interest loans using a model similar to the equation (1). The coefficients seen in Table 4 show that those surviving banks with higher

average interest rates did see significantly larger declines in loans over that year and kept a higher proportion of 3% loans.

5. Conclusion

A Senate bill proposing to cap the all-in annual percentage rate (APR) for credit cards at 10%—significantly below the current average of 22–24%—has prompted widespread discussion about its effects on both consumers and the broader credit market. Proponents argue that the measure would reduce borrowing costs and mitigate debt burdens, particularly for households with outstanding balances. Opponents, however, warn that such a restrictive cap could undermine the profitability of lending to certain customer segments, potentially prompting issuers to adopt stricter credit standards, adjust fees, or modify card features. The policy debate centers on balancing protection from high interest rates with maintaining broad credit access, while also considering possible unintended outcomes like diminished credit availability or increased reliance on alternative lending channels.

This study investigates how interest rate caps influenced the supply of credit and the survival of small loan companies in New Jersey during the Great Depression. Alarmed by reports of excessive profits among small loan firms charging high rates, legislators in 1929 reduced the interest ceiling from 3% to 1.5% per month, only to raise it again to 2.5% just two years later. Comparing lending activity between small loan brokers and commercial banks, we find that broker loans plummeted after the cap was lowered, but recovered when the ceiling increased—even as wider economic conditions deteriorated. Moreover, there is no evidence indicating that affected borrowers were able to turn to commercial banks for credit, suggesting the cap may have effectively excluded these consumers from the market. Many small loan companies closed due to reduced profitability and did not return, resulting in greater market concentration.

Our analysis offers valuable insights for ongoing policy debates around interest rate limits, including recent legislative proposals for credit card APRs. While such measures often originate from legitimate concerns about excessive lending costs and consumer welfare, historical evidence reveals that rate caps set below market-clearing levels can make lending to high-risk populations unviable, leading to market exits and fewer credit options for those most in need. This may inadvertently drive vulnerable consumers toward unregulated alternatives or leave them without access to credit. Therefore, policymakers should carefully consider these

potential unintended consequences when weighing the benefits of consumer protection against the risks of diminished credit access.

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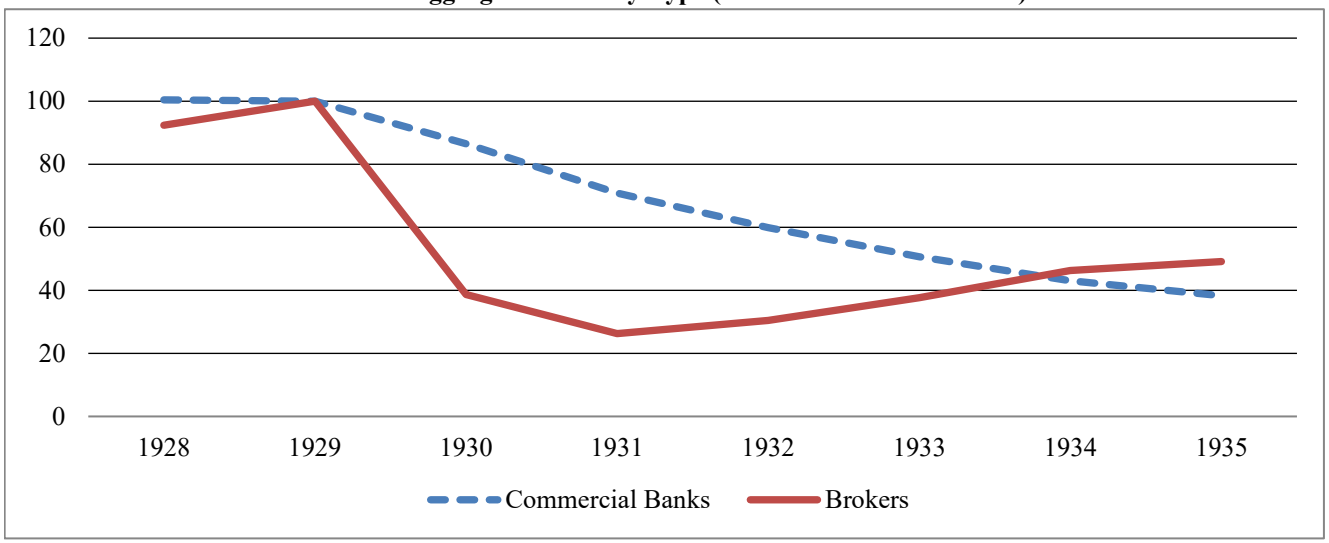
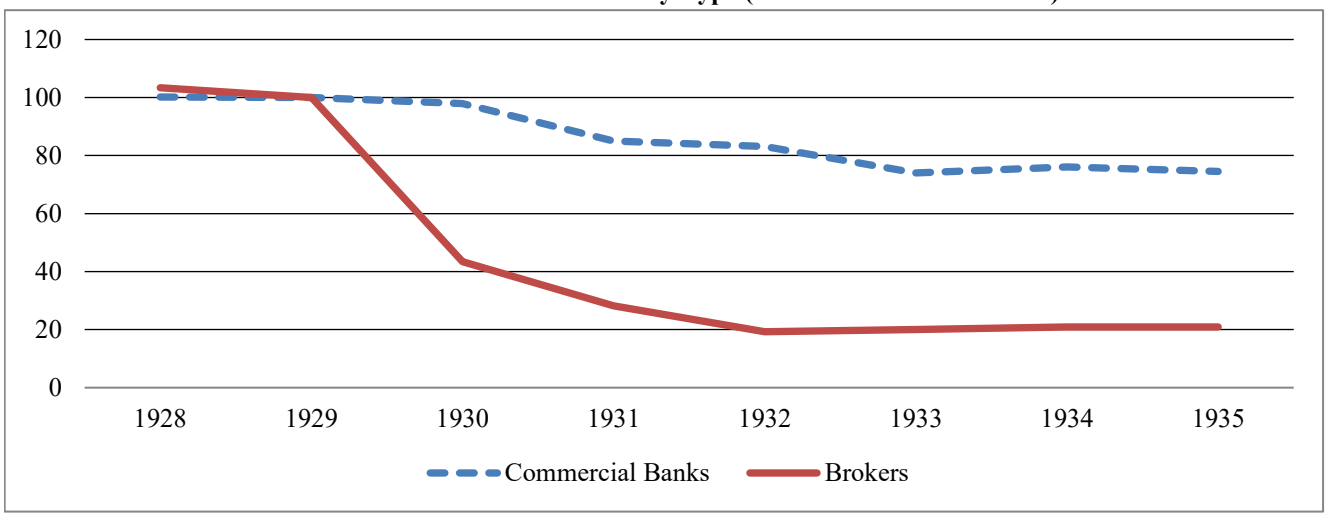
Figure 1: New Jersey Banking Statistics (1928-1935)

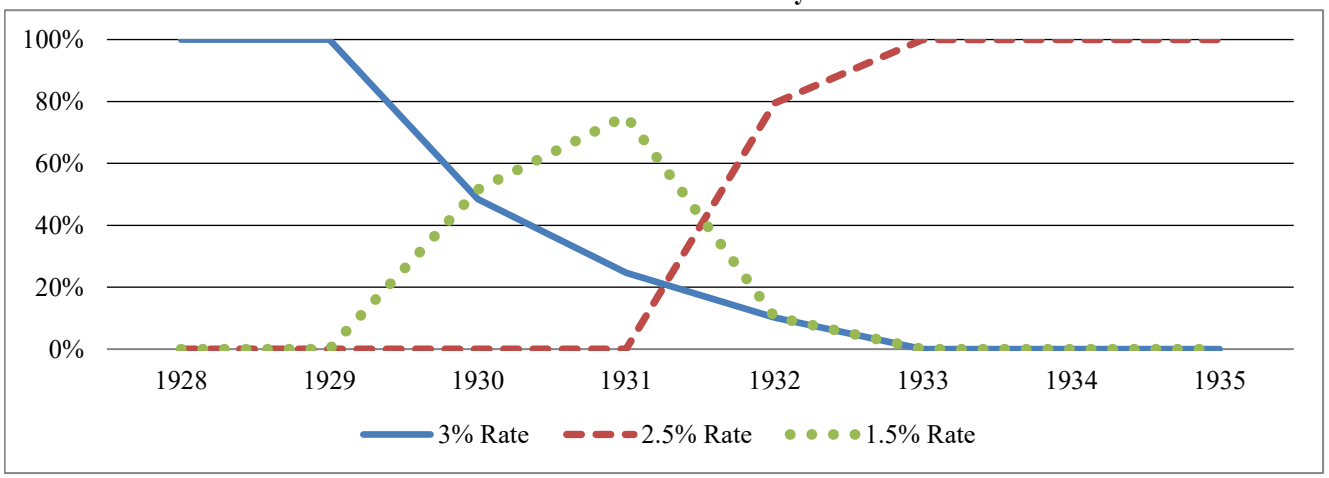
Panel A: Aggregate Loans By Type (Normalized to 100 in 1929)



Panel B: Number of Institutions By Type (Normalized to 100 in 1929)



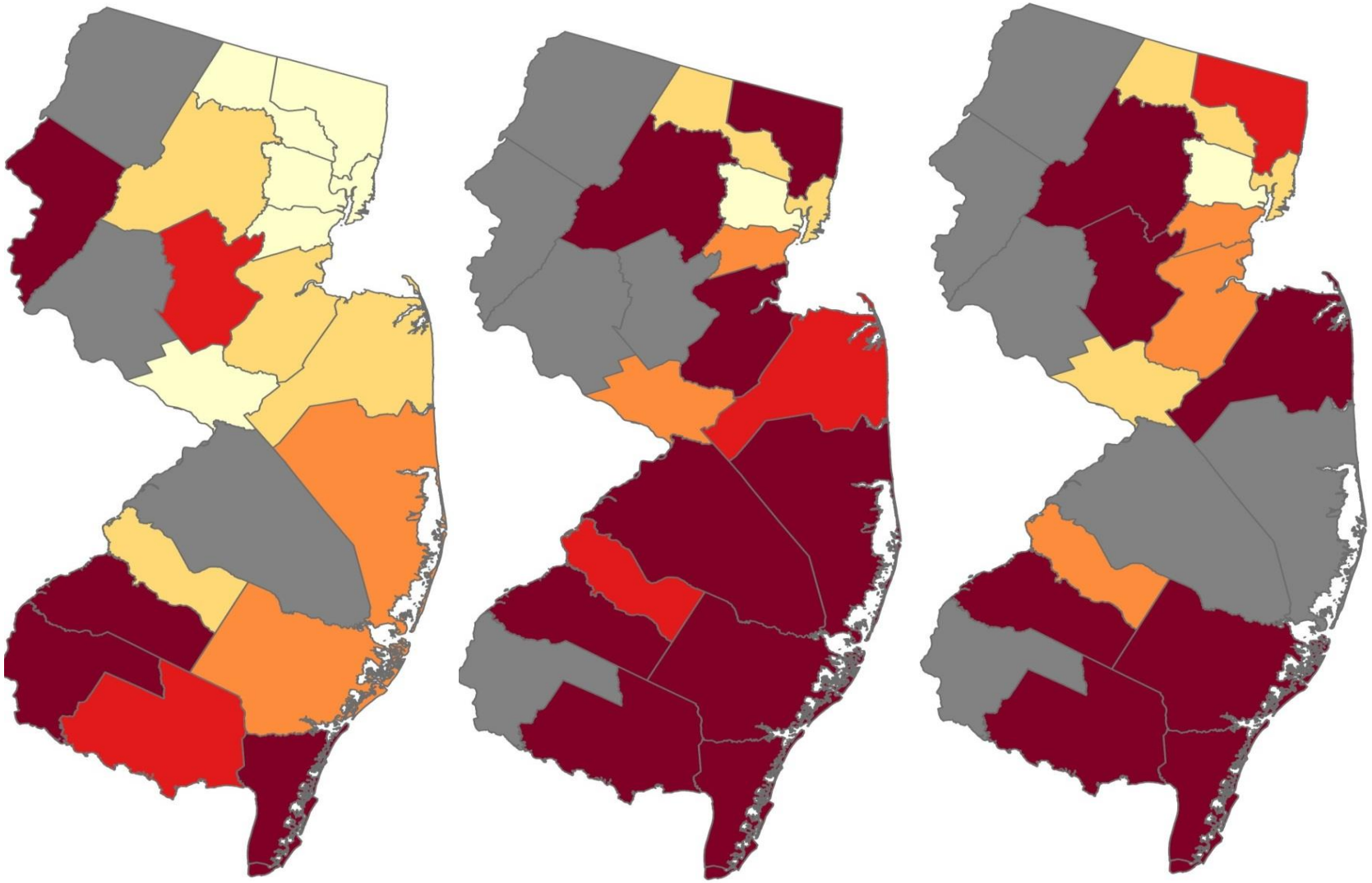
Panel C: Broker Loans Breakdown By Interest Rate



Notes: Panel A reports the total value of loans from commercial banks or small loan brokers in New Jersey in each year. The values are normalized to 100 in 1929. Panel B reports the number of commercial banks or small loan brokers in New Jersey in each year. The values are normalized to 100 in 1929. Panel C reports the fraction of total loans made by small loan brokers of each category in New Jersey in each year.

Figure 2: Geographic Dispersion of Broker Loan Concentration in New Jersey (1929-1935)

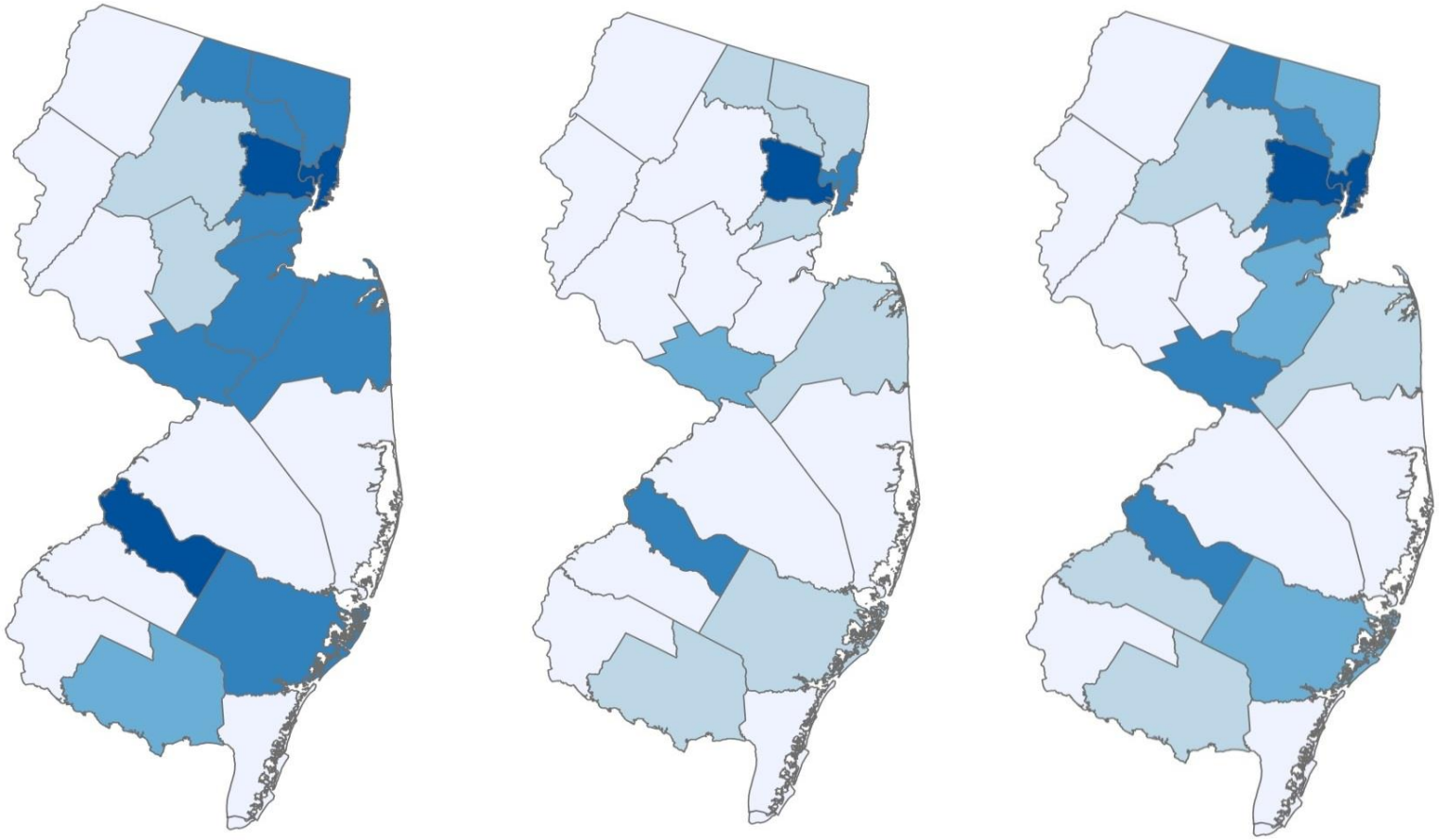
Broker Loan Concentration in 1929 **Broker Loan Concentration in 1931** **Broker Loan Concentration in 1935**



Notes: Maps report the Herfindahl-Hirschman Index (HHI) measures of the loan market for brokers calculated at the county level in each year. Darker shades denote higher HHI values, and the range of shades corresponds to the same values in each map. Grey counties contain no brokers in the specified year.

Figure 3: Geographic Dispersion of Broker Loans in New Jersey (1929-1935)

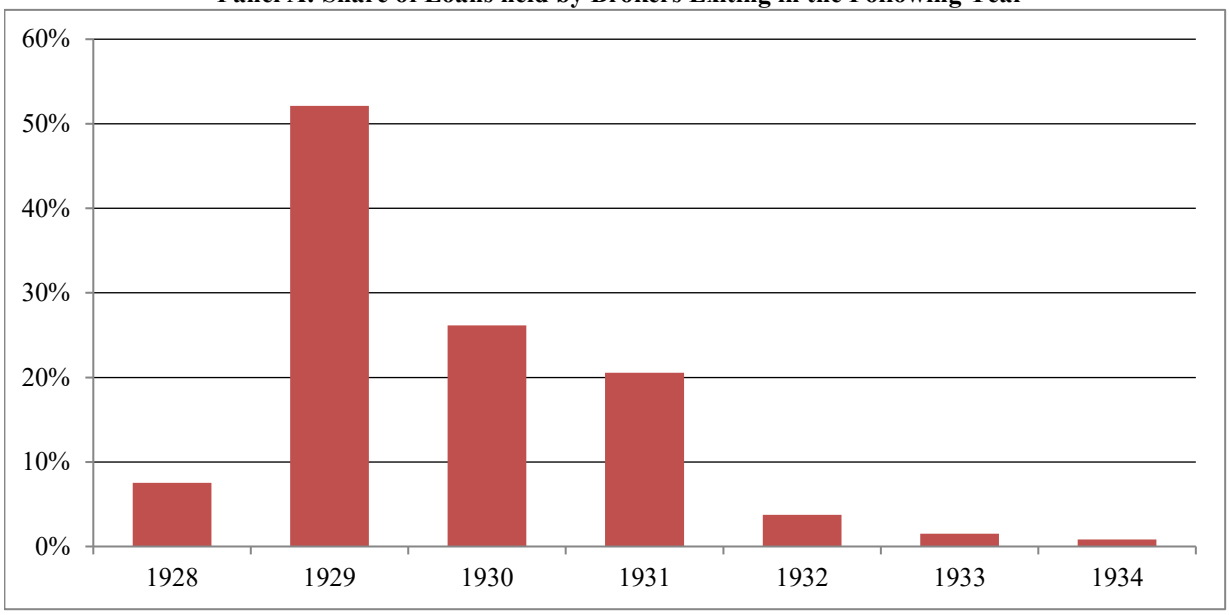
Broker Loans in 1929 **Broker Loans in 1931** **Broker Loans in 1935**



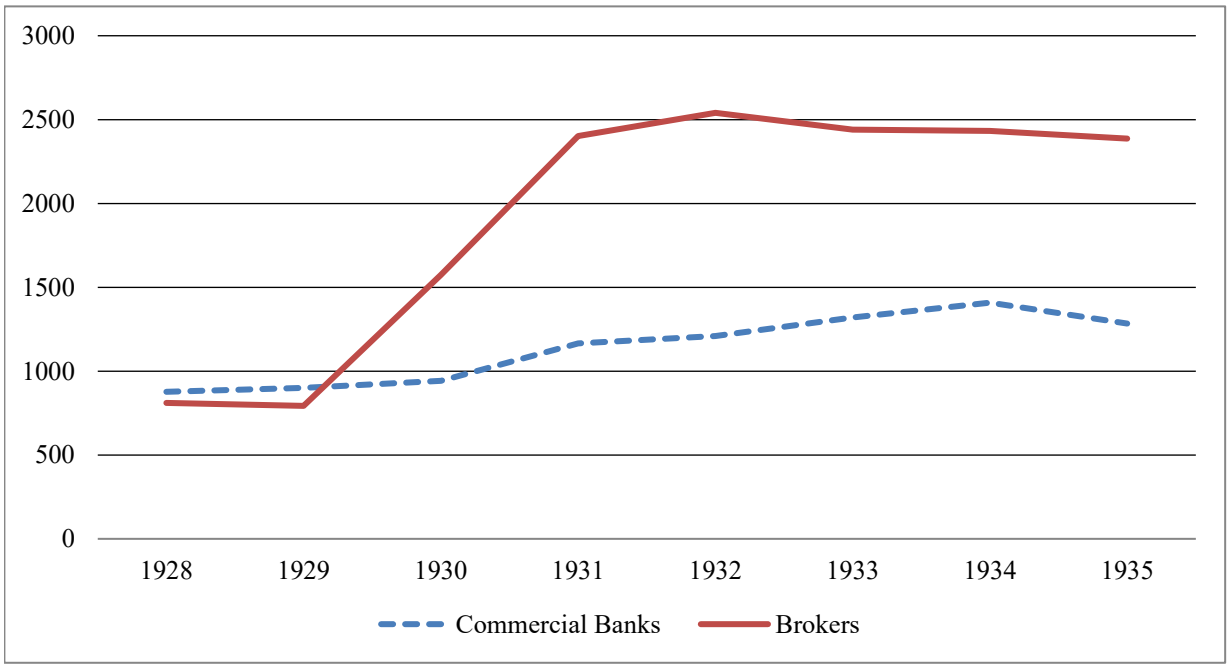
Notes: Maps report value of loans made by brokers in New Jersey in each year. Darker shades denote higher values, and the range of shades corresponds to the same values in each map. White counties contain no brokers in the specified year.

Figure 4: New Jersey Banking Statistics

Panel A: Share of Loans held by Brokers Exiting in the Following Year

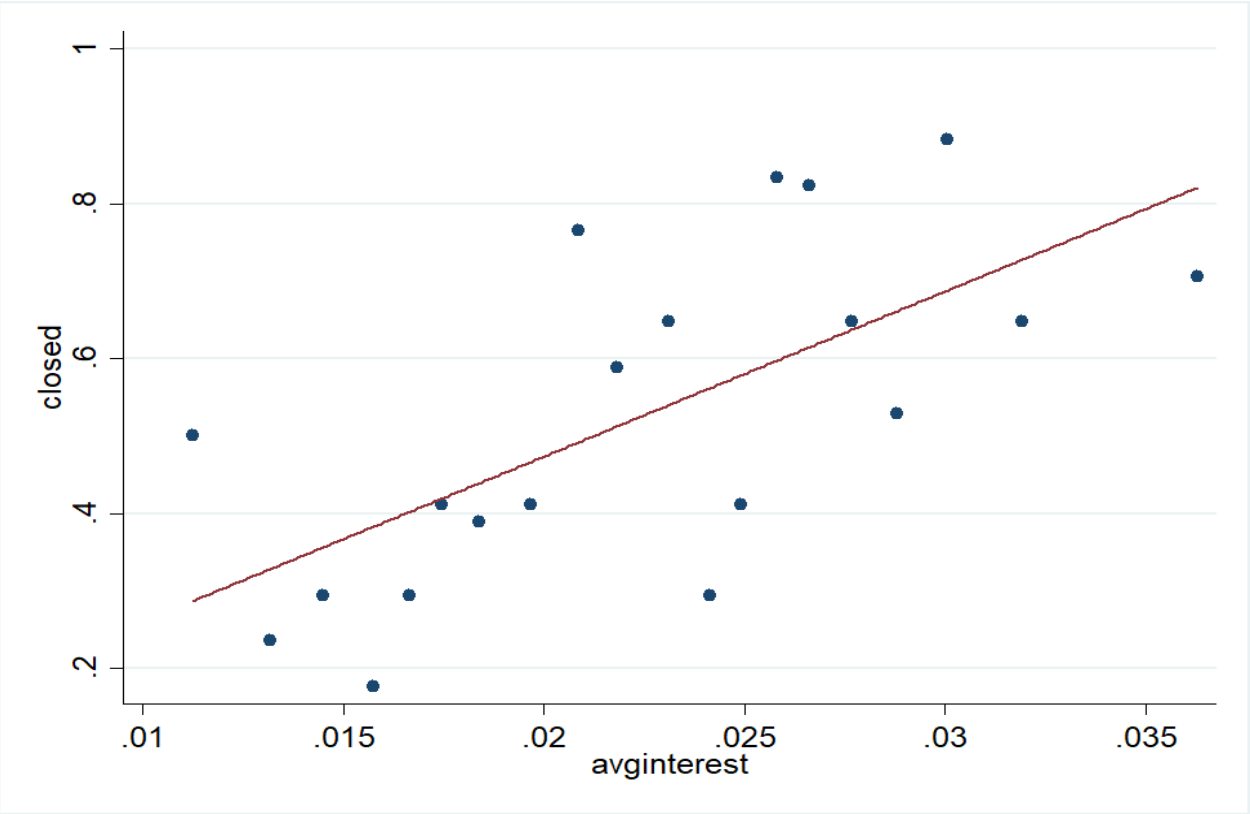


Panel B: Average County-Level HHI By Bank Type



Notes: Panel A presents the proportion of loans made by banks that continued to exist versus banks that went out of business in the following year. Panel B presents the Herfindahl-Hirschman Index (HHI) measures of the loan market calculated at the county level for each institution type in each year.

Figure 5: Bin Scatter Plots of Avg. Monthly Broker Interest Rate in 1929 and Exit in 1930



Notes: The figure presents a bin scatter plot of the average interest rate in 1929 and whether a broker exited in 1930. The figure drops the few outliers with interest rates below 1% or above 5%

Table 1: Statistics on Small Loan Broker Loans in New Jersey

Panel A: Number of Borrowers By Occupational Classes

	Number of Borrowers	Average Sum Borrowed
Employers or Self Employed		
Non-Professional	4,709	200.68
Professional	256	216.66
Employees		
Professional	838	210.32
Managerial	1,350	191.56
Agents, Solicitors and Commercial Travellers	1,132	202.78
Salespeople	341	162.3
Clerical Employees	1,385	171.47
Guardians of Public Safety	682	168.95
Manual Workers	11,229	151.83
Servants	1,794	138.98
Total	23,716	169.81

Panel B: Number of Borrowers Assigning Specified Reason for Making of Loan

	Number of Borrowers
Expenses Arising from Illness or Death	2,130
Liquidation or Consolidation of Other Debts	8,591
Business Expenses	2,090
To Assist Friends or Relatives	294
Current Expenses	7,257
Combination of Purposes	1,502
Miscellaneous	112
Reasons Unknown	2,278
Total	24,254

Notes: Table reports data on New Jersey small loan brokers obtained from King (1929). The top panel comes from Table 1 on pages 24-26, and the bottom panel comes from Table XIIIa on pages 100-102.

Table 2: New Jersey Small Loan Brokers Summary Statistics (1928-1935)

	1928-1929	1930-1931	1932-1935	All Years
Equity to liabilities	73.79	84.46	95.62	81.13
	(30.43)	(21.66)	(13.21)	(27.13)
Loans to assets	82.56	73.38	75.35	78.97
	(20.16)	(26.07)	(21.08)	(22.09)
3% loans to total loans	100.0	60.93	2.563	69.02
	(0)	(33.52)	(10.05)	(42.95)
2.5% loans to total loans	-	-	94.87	22.31
	-	-	(15.55)	(40.95)
1.5% loans to total loans	-	39.07	2.571	8.674
	-	(33.52)	(8.944)	(22.18)
Return on Equity	21.48	-3.966	3.223	11.93
	(208.8)	(34.76)	(16.22)	(157.3)

Notes: Table presents the mean and standard deviation of each variable for small loan brokers in New Jersey by year.

Table 3: Determinents of Loans in New Jersey (1928-1935)

	Ln(Total Loans)				
	Bank-Level	Bank-Level - Dropping Brokers		Town-Level - Combining State and National Banks	
	(1)	(2)	(3)	(4)	(5)
Broker x Yr=1930	-0.214***				
	[0.048]				
Broker x Yr=1931	-0.283***				
	[0.068]				
Broker x Yr=1932	0.194**				
	[0.076]				
Broker x Yr=1933	0.317***				
	[0.081]				
Broker x Yr=1934	0.522***				
	[0.102]				
Broker x Yr=1935	0.576***				
	[0.094]				
D.Ln(Brokers Loans+1)		0.008		-0.010	
		[0.009]		[0.013]	
Ln(Brokers Loans+1)			-0.010		0.007
			[0.009]		[0.014]
Fixed Effects?	Bank	Bank	Bank	Town	Town
Lagged Balance Sheet Controls	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	3928	2991	2991	1614	1614
R-squared	0.423	0.467	0.467	0.553	0.553

Notes: Table presents the estimated coefficients from the bank-level panel regressions in equation (1) and (2). Column (1) contains both small loan brokers and commercial banks. Columns (2) and (3) only contain commercial banks. Columns (4) and (5) aggregate individual commercial banks to the town-level. Lagged balance sheet controls include each institution's size using the logarithm of assets, its liquidity position using the ratio of cash to assets, and its leverage using the ratio of equity to liabilities. The standard errors are clustered at the institution level in columns (1) through (3) and at the town-level in columns (4) and (5).

Table 4: Determinents of New Jersey Broker Exits and Loans (1929-1930)

	Whether Closed 1929-1930				Change in Ln(Total Loans) 1929-1930		3% Loans/Total Loans in 1930	
	All Towns		5+ Brokers in 1929		All Towns	5+ Brokers in 1929	All Towns	5+ Brokers in 1929
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ln(Assets) in 1929	-0.061**	-0.078***	-0.066**	-0.085***	-0.096**	-0.080	-0.059**	-0.060*
	[0.027]	[0.025]	[0.031]	[0.029]	[0.047]	[0.056]	[0.024]	[0.031]
Cash/Assets in 1929	-0.003	-0.095	-0.388	-0.451	1.297**	1.337**	-0.679***	-0.669**
	[0.394]	[0.400]	[0.430]	[0.439]	[0.501]	[0.600]	[0.238]	[0.265]
Capital/Liab in 1929	-0.313***	-0.302***	-0.261***	-0.255***	-0.379***	-0.335**	0.176*	0.247**
	[0.068]	[0.063]	[0.081]	[0.075]	[0.130]	[0.139]	[0.098]	[0.102]
Ln(Brokers in Town) in 1929	0.032	0.017			0.147*		0.017	
	[0.049]	[0.047]			[0.081]		[0.041]	
Ln(Banks in Town) in 1929	-0.152	-0.088			-0.270		-0.010	
	[0.103]	[0.098]			[0.166]		[0.086]	
Net Profit/Assets in Initial Year	-0.143		-0.199					
	[0.189]		[0.214]					
Average Interest Rate in 1929		10.477***		10.016***	-21.120***	-22.015***	5.743*	8.593**
		[2.150]		[2.717]	[5.917]	[6.605]	[3.080]	[3.727]
Location Fixed Effects	None	None	Town	Town	None	Town	None	Town
Observations	396	394	317	316	175	139	171	135
R-squared	0.077	0.121	0.100	0.133	0.228	0.311	0.125	0.237

Notes: Table presents the estimated coefficients from the bank-level regressions in equation (3). The outcome variables are listed in the column headings. Columns (1), (2), (5), and (7) contain brokers in all towns, whereas Columns (3), (4), (6), and (8) drop brokers in locations that have less than 5 small loan brokers in 1929. The standard errors are the White robust standard error term.