Loan Prepayment, Securitization, and the Expansion of Productive Credit

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Abstract

For borrowers, prepayment reflects improved financial health and enables better terms. For lenders, it reduces expected returns, creating frictions that restrict credit to prepayment-prone borrowers. Exploiting an exogenous shock to secondary-market pricing in the SBA 7(a) program, which reduced securitization profitability without affecting borrower demand or loan quality, I show that securitization mitigates these frictions by transferring prepayment risk at origination and expanding credit to such borrowers. These borrowers are high quality: those who prepay subsequently obtain lower spreads, larger loans, and support more jobs with their subsequent borrowing. A bunching design exploiting discontinuities in SBA prepayment penalties confirms that borrowers value prepayment flexibility. When securitization contracts following the policy shock, high-securitizing lenders disproportionately cut lending to prepayment-prone borrowers, dampening job creation and growth, revealing an overlooked channel through which securitization improves credit market efficiency.

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Loan securitization is widely understood to expand credit by transferring default risk from lenders to investors (Loutskina and Strahan, 2009; Nadauld and Sherlund, 2013). Yet lenders face another risk – prepayment – that has received comparatively little attention in the literature. Voluntary prepayment reduces lenders' expected interest income, and when lenders cannot offload this risk, they restrict credit to borrowers likely to prepay (Mayer, Piskorski, and Tchistyi, 2013; Eckbo, Su, and Thorburn, 2025). By transferring prepayment risk at origination, securitization resolves this friction and expands credit to such borrowers. This paper provides evidence on this mechanism, showing that lenders' ability to securitize increases credit to prepayment-prone borrowers and that these borrowers are high-quality, generating better subsequent loan terms and greater job creation.

Identifying the causal impact of securitization on credit to prepayment-prone borrowers requires addressing two empirical challenges. First, securitization transfers multiple risks simultaneously, so isolating the prepayment channel requires a setting where alternative risk-transfer motives are limited. Second, lenders' securitization decisions are endogenous. Lenders may systematically securitize loans of borrowers with unobserved characteristics that also predict prepayment, confounding any estimated relationship between securitization and borrower outcomes. I address both challenges using the SBA 7(a) loan program, where lenders can sell only the government-guaranteed portion of loans in a standardized and active secondary market. Because the guaranteed portion carries little credit risk and most traded loans have floating interest rates, securitization in this setting does not meaningfully transfer default or interest-rate risk. These features make prepayment risk particularly salient. For identification, I exploit an exogenous October 2017 policy change that reduced the profitability of securitization without directly affecting borrower demand or underlying loan quality.

Using this setting, I demonstrate that securitization expands credit to borrowers with a high propensity to prepay. When securitization becomes less profitable following the 2017 policy shock, high-securitizing lenders disproportionately cut lending to prepayment-prone borrowers and to industries with historically high prepayment rates. This contraction is meaningful

because affected borrowers are economically important: borrowers that prepay subsequently obtain lower spreads, larger loans, and support more jobs in their subsequent borrowing. To quantify the value borrowers place on prepayment flexibility, I use a bunching design exploiting discontinuities in prepayment penalties, finding that borrowers are highly sensitive to prepayment costs, with a one percent increase in fees reducing prepayment speed by approximately 8.8 percent. Because prepaying borrowers realize improved terms and stronger employment outcomes, this sensitivity implies that barriers to prepayment, whether through fees or reduced securitization, meaningfully reduce credit extended and jobs created. Taken together, these findings reveal an overlooked benefit of securitization: by allowing lenders to offload prepayment risk, it expands credit access to high-quality borrowers who would otherwise face financing constraints, with real consequences for small business growth and employment.

For borrowers, voluntary, opportunity-driven prepayment reflects improved financial health and enables access to better financing terms. This is particularly true for small businesses receiving first external funding, where limited credit histories often result in unfavorable initial terms. For lenders, however, prepayment is costly. Upfront screening and origination costs are recovered over the life of the loan, and early payoff shortens that revenue stream. Additionally, borrowers tend to prepay when conditions favor them rather than the lender, forcing redeployment of capital when lending opportunities may be less attractive (Dunn and Spatt, 1985). When lenders are unable offload these costs, they reduce credit to prepayment-prone borrowers (Mayer, Piskorski, and Tchistyi, 2013; Eckbo, Su, and Thorburn, 2025). In the SBA context, loan contracts are standardized and prepayment penalties are set by regulation, leaving securitization as the primary mechanism through which lenders can transfer this risk. The SBA acknowledges that prepayment imposes real costs on market participants: prior to 2010, policy required lenders to return secondary market premiums if borrowers prepaid within 90 days (SBA, 2010). In my sample, the average prepaid loan forfeits approximately 35% of expected interest income, suggesting these costs are economically meaningful.

In a simple stylized model, I illustrate this intuition. When prepayment is available, lender

expected profit is non-monotonic in borrower quality. As quality increases, default risk falls but prepayment risk rises. Securitization resolves this by allowing lenders to transfer prepayment risk at origination, expanding the set of borrowers lenders are willing to finance.

Empirical analysis shows that securitized loans are more likely to prepay and exhibit faster prepayment speeds. To characterize ex ante prepayment risk, I construct predicted prepayment probabilities using logistic models based on borrower and loan characteristics, and find that loans with higher predicted prepayment risk are more likely to be securitized. While these findings are consistent with lenders sorting loans by expected prepayment risk, they may also reflect borrower selection, lender heterogeneity, or other confounding factors. To isolate the causal effect of securitization on credit supply, I exploit an exogenous shock to lenders' ability to securitize.

Such a shock occurred in October 2017 when the SBA implemented an unexpected policy change in its secondary market. Prior to the reform, the SBA had been retaining excess principal from loan prepayments in a reserve fund and disbursing it gradually to investors, effectively absorbing prepayment timing risk on investors' behalf. The reform ended this practice, requiring that excess principal be passed through to investors immediately. This mechanically increased reported prepayment rates and transferred prepayment risk from the SBA to investors, who responded by demanding higher yields and, in many cases, exiting the market entirely.[1] The resulting decline in secondary-market demand reduced the prices investors were willing to pay for pooled securities and, consequently, the premiums lenders could earn from securitization, lowering the returns to selling loans in the secondary market. Because the reform operated through secondary-market pricing, it provides exogenous variation in lenders' incentive to securitize without directly affecting borrower demand or underlying loan quality.

Importantly, lenders in the SBA program vary substantially in their reliance on securitization. Some SBA-participating lenders have business models that depend heavily on secondary-market activity, while others retain all of their originations. Lenders that historically securitized

[1] As noted by SBA pool assemblers.

a large share of their SBA loans are therefore more exposed to a decline in secondary-market prices than lenders that securitized infrequently. Leveraging this differential exposure, I implement a difference-in-differences design comparing high- and low-securitizing lenders before and after the reform. The identifying assumption is that, absent the policy change, securitization activity for these groups would have followed parallel trends, and that the reform affected lenders only through its impact on securitization profitability rather than borrower demand or underlying loan performance.

Consistent with this assumption, high- and low-securitizing lenders exhibit parallel securitization trends prior to the shock. Following the policy change, high securitizers reduce their securitization rates by 5.9 percentage points relative to low securitizers, consistent with their greater exposure to the decline in secondary market premiums. Because the reform operated through secondary-market pricing rather than loan origination or borrower eligibility, it is unlikely to have directly affected borrower demand or underlying loan quality.

This contraction in securitization had important consequences for both lender behavior and credit availability. Following the shock, loans originated by high securitizers experienced a relative decline in prepayment rates and a slowdown in prepayment speeds. Using predicted prepayment probabilities constructed from borrower and loan characteristics, I find that high securitizers disproportionately reduced lending to borrowers and loan types associated with a high likelihood of prepayment. Cross-industry evidence reinforces this pattern: using lender-industry-group-quarter data, I find that high-securitizers contracted credit most sharply in industries with high pre-shock prepayment rates. Together, these results indicate that when lenders' ability to offload prepaying loans is reduced, they become less willing to extend credit to prepayment-prone borrowers, ultimately restricting credit to these borrowers.

These findings are robust to a range of alternative specifications, including varying the threshold use to classify high securitizers, treating securitization exposure as a continuous measure, placebo tests with fictitious policy dates, a two-stage least squares model that addresses potential endogeneity in securitization decisions, additional fixed effects, and sample splits.

Having established that securitization expands credit access for borrowers with a high propensity to prepay, I next examine the outcomes of these borrowers to assess the economic spillovers from such an expansion. Focusing on borrowers with multiple loans, I compare those who prepay their initial loan to those who repay it as scheduled. I find that prepaying borrowers secure more favorable loan terms and generate greater employment with their subsequent loans, even after controlling for initial loan terms, time, location, and industry. Specifically, their subsequent loans carry spreads that are 16 basis points lower, support 6.5% more jobs than the sample average, and are $63,800 larger than those of borrowers who repay as scheduled. This suggests that borrowers who prepay, either because they are inherently higher-quality or because prepayment signals improved borrower quality over time, go on to realize better economic outcomes. Given the SBA's goal of supporting the creation, growth, and success of small businesses, these findings indicate that prioritizing financing for borrowers with a high propensity to prepay can advance program objectives and encourage economic growth.

To quantify the value borrowers place on the option to prepay, I exploit discontinuities in SBA prepayment penalties using a bunching design. Borrowers face a continuous incentive to prepay their loans, but SBA rules impose discrete increases in the marginal cost of prepayment at specific horizons as loans with maturities of 15 years or more incur tiered prepayment fees during the first three years after disbursement, while loans with maturities under 15 years face no penalties. As in tax and credit settings with kinks or notches, these discontinuities generate predictable distortions in behavior, producing bunching in the timing of prepayment around penalty thresholds (Chetty, Friedman, Olsen, and Pistaferri, 2011; Kleven and Waseem, 2013; Bachas, Kim, and Yannelis, 2021; Cespedes, 2024). I define loans with maturities of 15 to 25 years as the treated group and loans with maturities of 10 to 15 years as the counterfactual. Since SBA loan maturities are determined by loan purpose rather than borrower choice, and the loans in these ranges reflect related long-term business investment purposes, these groups are plausibly comparable. To further assess comparability across loan maturities, I also implement an alternative counterfactual following the approach of Bachas, Kim, and Yannelis (2021).

Under the assumption that, absent prepayment fees, treated loans would exhibit similar prepayment timing to the counterfactual group, I estimate excess and missing mass around each prepayment fee threshold. I find significant bunching immediately after these thresholds, indicating that many borrowers strategically delay prepayment in response to the discrete decreases in prepayment costs. At the same time, a non-trivial share of borrowers continue to prepay despite the penalty, suggesting that for certain borrowers, the benefits of prepayment outweigh the costs. Together, these patterns indicate that borrowers respond to prepayment fees and that the option to prepay carries substantial value.

Utilizing this observed bunching, I estimate borrowers' elasticity of prepayment with respect to prepayment fees. I find that a one-percentage-point increase in prepayment fees reduces prepayment speed by approximately 8.8%. Linking this behavioral response to real outcomes, I show that a one-percentage-point increase in prepayment costs is associated with a 1.25% decline in loan amounts and a 0.45% reduction in job creation. These findings indicate that barriers to prepayment, whether through fees or restricted access to prepayment-prone borrowers, can meaningfully reduce credit availability, dampening economic growth and reducing small-business expansion.

This paper contributes to two key strands of literature. First, it adds to research on securitization and its influence on lender behavior and credit supply. Prior work demonstrates that securitization enhances liquidity and facilitates risk sharing by allowing financial institutions to transform illiquid assets into tradable securities, thereby relaxing funding constraints and expanding the supply of credit (Pennacchi, 1988; Allen and Carletti, 2006; Loutskina and Strahan, 2009; Loutskina, 2011; Nadauld and Weisbach, 2012). Much of the existing literature, however, emphasizes credit expansion toward low-quality or high-default-risk borrowers and highlights moral hazard concerns arising from reduced screening and monitoring incentives (Mian and Sufi, 2009; Keys, Mukherjee, Seru, and Vig, 2010; Purnanandam, 2011; Keys, Seru, and Vig, 2012; Nadauld and Sherlund, 2013; Chemla and Hennessy, 2014; Wang and Xia, 2014).

A separate strand shows that securitization markets are tied to prepayment risk. For ex-

ample, Downing, Jaffee, and Wallace (2009) examine whether investors of mortgage-backed securities price differences in underlying collateral prepayment risk while Fuster and Vickery (2015) show that securitization supports the supply of fixed-rate mortgages by transferring interest-rate and prepayment risk. This paper complements that work by shifting attention from security pricing and contract supply to borrower allocation. I show that the ability to securitize affects which borrowers receive credit. Lenders extend more credit to borrowers with a high propensity to prepay when prepayment risk can be transferred. These borrowers subsequently obtain better financing terms and generate stronger real outcomes, highlighting an overlooked channel through which securitization can improve credit market efficiency.

Second, this paper builds on the literature on loan prepayment and contract flexibility. Existing work in this area primarily studies prepayment in the context of mortgage-backed securities, focusing on option exercise, interest-rate incentives, and valuation (Stanton, 1995; Diep, Eisfeldt, and Richardson, 2021). Other studies examine the use of prepayment penalties to deter early repayment and mitigate prepayment costs borne by lenders (Dunn and Spatt, 1985; Mayer, Piskorski, and Tchistyi, 2013; Eckbo, Su, and Thorburn, 2025). A related literature on contract renegotiation emphasizes frictions arising from asymmetric information and the value of contract flexibility (Roberts and Sufi, 2009; Roberts, 2015; Gao, 2024). Many of these papers document that securitization can constrain renegotiation or prepayment in mortgage markets, limiting borrower flexibility (Piskorski, Seru, and Vig, 2010; Zhang, 2013; Agarwal, Amromin, Ben-David, Chomsisengphet, and Evanoff, 2011). My paper complements that work by showing that borrowers place substantial value on prepayment flexibility and that, when lenders are able to securitize, they are more willing to extend credit to borrowers that are likely to exercise prepayment options. These borrowers subsequently obtain more favorable refinancing terms and contribute more to local job creation, suggesting that securitization can relax renegotiation frictions and improve borrower outcomes.

I Institutional Background

I.A SBA 7(a) Program

The Small Business Administration (SBA) is a federal agency established in 1953 to support the growth and development of small businesses. Its flagship lending initiative is the 7(a) program, which facilitates credit access for small businesses that may lack a strong credit history. Under this program, private lenders originate loans to small businesses, while the SBA guarantees a portion of the loan, thereby reducing lenders' exposure to credit risk. In fiscal year 2023, the SBA approved over 52,000 7(a) loans totaling $24.9 billion, making it one of the largest government-backed small business lending programs.

To qualify, borrowers must meet the SBA's definition of a small business, demonstrate a need for credit, and show that comparable financing is unavailable on reasonable terms elsewhere. Additionally, owners with at least 20% equity in the business must provide a personal guarantee.[2] This market is dominated by new and informationally opaque firms, many of which either fail or succeed within a short time frame, generating elevated rates of both default and prepayment.

Lenders must apply and receive approval from the SBA to participate in the 7(a) program. Once approved, lenders can originate SBA-backed loans by submitting loan applications to the SBA for review. If the SBA approves the application, the loan receives the government guarantee and the lender can proceed with origination. Lenders with a strong track record in evaluating and servicing small business loans may obtain Preferred Lender Program (PLP) status. Preferred lenders are delegated authority to approve SBA 7(a) loans without submitting each loan for SBA review, allowing them to bypass the standard approval process. However, PLP lenders remain responsible for conducting due diligence to ensure borrowers meet SBA eligibility and creditworthiness requirements, and the SBA regularly evaluates these lenders to ensure compliance with program standards.

[2] See https://www.sba.gov/document/sba-form-148-unconditional-guarantee.

Loans issued through the SBA 7(a) program must comply with specific guidelines. While lenders and borrowers negotiate the interest rate, it cannot exceed SBA maximums tied to the Federal Reserve's prime rate. Loan maturity depends on the loan's purpose: up to 25 years for real estate, and up to 10 years for equipment, working capital, or inventory. To receive the SBA guarantee, lenders must pay several program fees, including an upfront guarantee fee and an ongoing servicing fee, many of which may be passed on to the borrower. These fees help fund the SBA's operations, including covering losses from loan defaults and other administrative costs, although the program still receives government support.

Given this paper's focus on prepayment behavior, an important feature of the SBA 7(a) program is its prepayment penalty structure.[3] Prepayment penalties apply only to loans with maturities of 15 years or longer and are triggered when a borrower voluntarily prepays 25% or more of the outstanding balance within the first three years after disbursement. The penalty schedule is as follows:

- **Prepayment in year 1:** 5% of the prepaid amount.
- **Prepayment in year 2:** 3% of the prepaid amount.
- **Prepayment in year 3:** 1% of the prepaid amount.

This tiered structure discourages early prepayment. However, because the penalties apply only to loans with maturities of at least 15 years, many SBA 7(a) loans are not subject to prepayment penalties.

Within the 7(a) program, lenders can originate loans through several subprograms, the primary ones being Standard 7(a), Small 7(a), and SBA Express.[4]

- **Standard 7(a):** Loans between $500,001 and $5 million (previously $350,001 to $5 million before May 2023) with a 75% SBA guarantee.
- **Small 7(a):** Loans up to $500,000 (previously up to $350,000 before May 2023). Loans under $150,000 receive an 85% guarantee, while larger loans receive a 75% guarantee.

[3] See https://www.sba.gov/partners/lenders/7a-loan-program/terms-conditions-eligibility.
[4] See https://www.sba.gov/partners/lenders/7a-loan-program/types-7a-loans.

- **SBA Express:** Loans up to $500,000 (with the limit varying between $350,000 and $1 million over time) with a 50% guarantee. This program allows lenders to use their own documentation and underwriting procedures, simplifying the approval process.

Prior to August 2023, Standard and Small 7(a) loans required similar documentation and compliance procedures, which imposed higher administrative costs than SBA Express loans. Beginning in August 2023, underwriting procedures for Small 7(a) loans were streamlined to align more closely with SBA Express, significantly reducing compliance costs for these loans, while Standard 7(a) requirements remained largely unchanged. In addition to these primary programs, the SBA offers several specialized subprograms designed for specific borrowers or industries, such as loans targeted toward exporters, international trade firms, and veteran-owned businesses.

I.B SBA 7(a) Secondary Market

While many SBA lenders hold their 7(a) loans until maturity, the SBA facilitates a secondary market that allows lenders to sell the guaranteed portion of these loans. This structure distinguishes the SBA market from other small business lending markets, where limited standardization and high risk hinder the development of an organized secondary market (FDIC, 2024). These institutional features make the SBA 7(a) market a rare setting in which securitization is both prevalent and tightly regulated.

The primary purpose of this market is to provide liquidity to lenders, enabling them to recycle capital and extend additional credit to small businesses. When a lender sells a loan in the secondary market, it retains the unguaranteed portion and continues to service the entire loan for the remainder of its term. Borrower payments are remitted to the SBA, which distributes funds to the relevant pools and investors. All SBA loans and securities are administered by the SBA's Fiscal Transfer Agent (FTA), currently Guidehouse, which manages investor payments, lender reporting, and maintains the central registry of SBA loans.

The SBA secondary market operates through authorized pool assemblers. To sell a loan, lenders submit loan details to these assemblers and receive bids for the guaranteed portion. As of February 2024, there are 16 authorized pool assemblers.[5] However, market activity is concentrated among a smaller set of firms, with Raymond James Bank, Brean Capital, Stifel, Nicolaus & Company, and FHN Financial Capital Markets accounting for a large share of pooling activity. Assemblers receive dozens to hundreds of loans per day for potential purchase, with activity typically increasing near the end of financial quarters.

Lenders evaluate bids and choose whether to sell the loan. In most cases lenders select the highest bid, though they may accept a slightly lower bid from a more established assembler to expedite execution or decline bids that do not meet their desired premium. Bids are determined primarily by loan characteristics with assemblers considering how well a loan fits into the pools they are constructing. Loans that are difficult to pool tend to receive lower bids.

After purchasing a loan, the pool assembler may either resell the loan individually or combine it with other loans to form a new security. In practice, most loans are pooled because pooled securities command higher premiums than individual loan sales. Loans that do not fit easily into a pool may instead be sold individually.

There are two primary types of SBA pools: *Standard* pools and *Weighted Average Coupon* (WAC) pools.[6] In Standard pools, the coupon rate equals the lowest interest rate among the loans in the pool. In WAC pools, the coupon is the weighted average of the interest rates of the underlying loans. Standard pools require at least four loans, while WAC pools require at least ten. In practice, pools are substantially larger, the average 7(a) pool contains approximately 32 loans, as investors value diversification. Pool construction is also subject to concentration limits that restrict the share of any single loan within the pool, and assemblers typically diversify pools across industries and geographic regions.

Only term loans are eligible for securitization; revolving lines of credit cannot be sold on the

[5] See https://www.sba.gov/document/support-active-7a-loan-pool-assemblers.

[6] See https://www.sba.gov/document/support–sba-secondary-market-program-securitizations-guide.

secondary market. Because only the guaranteed portion of each loan is sold, loans with higher guarantee rates are generally more attractive for securitization. Certain loan characteristics also affect how easily a loan can be pooled. For example, pools must contain either entirely fixed-rate loans or entirely floating-rate loans. Floating-rate loans historically dominate the secondary market, making them easier to pool. In addition, all loans within a pool must share the same base rate and interest rate reset frequency. These constraints make older loans more difficult to pool, therefore SBA loans are typically securitized shortly after origination rather than held for later sale.

Pools must also satisfy a minimum maturity ratio (MMR), defined as the ratio of the shortest to the longest maturity among loans in the pool. This requirement limits the extent to which loans with different maturities can be combined, making it difficult to pool loans with extremely long or short terms. Over the sample period, the required MMR ranges from approximately 76% to 95%.

Although SBA loans carry relatively high interest rates due to borrower risk, the government guarantee substantially reduces the credit risk borne by investors. If pools were priced solely based on the underlying loan interest rates, they would trade at large premiums above par. To facilitate trading closer to par, assemblers can separate the cash flows from the loan into two securities:

1. **SBA 7(a) bonds** which represent the securitized guaranteed portion of the loan and are sold to investors, commonly regulated depository institutions.
2. **Certificate of Originator Fee (COOF) securities** which are interest-only securities sold privately to institutional investors such as mutual funds and asset managers.

COOF securities are substantially more sensitive to prepayment risk because their cash flows terminate if the underlying loan is prepaid, refinanced, or defaults. As a result, COOF investors bear much of the prepayment risk associated with SBA loan securitization. Because COOF securities are privately placed and not centrally reported, detailed data on these securities are limited.

II Data

The primary dataset consists of loan-level observations from the SBA 7(a) Loan Data Reports covering October 2009 to January 2025. The data include detailed information on loan terms, borrower characteristics, lender identifiers, and loan outcomes such as repayment and securitization status. The raw dataset contains 835,150 loans, including loans approved but canceled prior to disbursement. After removing canceled and duplicate observations, the sample contains 742,290 observations.

Using the lender FDIC certificate number, I merge the SBA loan data with quarterly Call Reports and the FDIC Statistics on Depository Institutions (SDI). This merge provides time-varying lender balance-sheet characteristics use as bank-level controls in the empirical analysis.

Table I reports summary statistics. The median loan has an interest rate of 6.5%, a maturity of 10 years, a loan amount of $150,000. The typical loan has a 75% SBA guarantee. Approximately 19.8% of loans have a fixed interest rate and 29.7% are revolving lines of credit rather than term loans. In terms of borrower type, 90% of the loans are made to corporations, 9% to individuals, and 2% to partnerships. The most common program types are the Standard/Small 7(a) through the Preferred Lenders Program (39%) and the SBA Express (45%).

Regarding the payoff status of the loans in the sample, 4.6% have been charged off, 55% have been paid in full, and the remainder are either not reported or still being repaid. Prepayment is common in the SBA 7(a) program. Among loans that are fully repaid, 83.8% are paid off prior to their contractual maturity. Figure A.1 shows that most prepaid loans make payments for approximately 50 months before payoff. Conditional on prepayment, the median loan is repaid 55 month early than anticipated which represents roughly 58% of the original loan term. I define this ratio of months prepaid to loan term as prepayment speed.

The SBA data includes a variable indicating whether the guaranted portion of the loan has been sold in the secondary market. Based on this variable, I find that 36.5% of loans in the sample are reported as securitized. However, securitization status is only reported for approxi-

mately 75% of loans, with missing values concentrated in more recent years. After 2020, loans are reported only as either securitized or missing, but not explicitly as non-securitized. This pattern suggests that missing observations likely reflect reporting delays rather than true non-securitization. To address this issue, I construct an alternative securitization indicator equal to one if a loan is reported as securitized and zero otherwise. Under this definition, 27.8% of loans in the sample are classified as securitized.

Although the SBA 7(a) data indicates whether a loan has been securitized, it does not provide further details about the loan post-securitization. For this additional information, I refer to the SBA's Fiscal Transfer Agent (FTA). The FTA provides data on securitized SBA loans, including the date the loan was sold on the secondary market, whether it was pooled, and some terms of the pool.

Leveraging Bloomberg's historical pricing tool, I obtain monthly pricing, coupon, and amount outstanding of pools for approximately 4,000 pools, merging it with FTA Payoff data. The median loan in the sample is part of a pool that has a price at issuance of $110, a coupon of 8.8%, and a principal of $14 million.

II.A Variable Construction

To test my hypotheses, I construct predicted probabilities of prepayment and default using observable borrower and loan characteristics. These measures allow me to assess whether lenders can distinguish between borrowers likely to prepay versus default, and whether they securitize loans with characteristics associated with a propensity to prepay.

I generate three prepayment prediction variables: *Pred. Prepay (Borrower)*, based on borrower characteristics; *Pred. Prepay (Loan)*, based on loan characteristics; and *Pred. Prepay (Both)*, combining both characteristics. Each is constructed in two steps: (1) estimate a logistic regression of prepayment on the relevant characteristics, and (2) use the estimated coefficients to compute predicted prepayment probabilities for each loan.

To generate *Pred. Prepay (Borrower)*, I estimate the following logistic regression:

$$\text{Prepaid}_{fcn} = \beta_1 \text{Corporation}_f + \beta_2 \text{Individual}_f + \alpha_{fc} + \tau_{fn} + \varepsilon_{fcn}, \quad (1)$$

where f, c, n, and q represent borrower, county, industry, and quarter respectively. The dependent variable *Prepaid* is an indicator equal to 1 if a loan is prepaid and 0 otherwise. The independent variables represent borrower characteristics, including business type where *Corporation* is an indicator for the borrower being a corporation and *Individual* is an indicator for the borrower being an individual, with *Partnership* serving as the omitted category). I include α_{fc} as indicators for borrower county using the county FIPS code and τ_{fn} as indicators for borrower industry using the 3-digit NAICS code.

Results are shown in Column 1 of Panel A in Table II. Using the estimated coefficients from the regression, I calculate *Pred. Prepay (Borrower)*, representing the loan's expected prepayment probability based on borrower characteristics. The resulting measure has a correlation of 0.14 with realized prepayment. Given that there are limited observable borrower characteristics provided by the SBA, this modest correlation is expected.

To construct *Pred. Prepay (Loan)*, I use the following logistic regression:

$$\begin{aligned}\text{Prepaid}_l = {} & \beta_1 \text{Log Loan Amount}_l + \beta_2 \text{Revolver}_l + \beta_3 \text{Spread}_l + \beta_4 \text{Log Term in Months}_l \\ & + \beta_5 \text{Fixed}_l + \beta_6 \text{Express}_l + \beta_7 \text{Standard 7(a)}_l + \beta_8 \text{Small 7(a)}_l + \varepsilon_l, \quad (2)\end{aligned}$$

where l represents loan. The model includes loan size, structure, term, interest type, and program type and quarter of origination. Results are shown in Column 2 of Panel A of Table II. Using the estimated coefficients from this regression, I calculate *Pred. Prepay (Loan)*, which represents the loan's expected prepayment probability based on loan characteristics. The resulting measure is correlated with realized prepayment at 0.38.

Combining the independent variables from Equation 1 and Equation 2, I estimate *Pred.*

Prepay (Both) as the loan's expected prepayment probability based on both observable borrower and loan characteristics in the following logistic regression:

$$\begin{aligned}\text{Prepaid}_{lfcn} =& \beta_1 \text{Corporation}_f + \beta_2 \text{Individual}_f + \beta_3 \text{Log Loan Amount}_l + \beta_4 \text{Revolver}_l \\ &+ \beta_5 \text{Spread}_l + \beta_6 \text{Log Term in Months}_l + \beta_7 \text{Fixed}_l + \beta_8 \text{Express}_l \\ &+ \beta_9 \text{Standard 7(a)}_l + \beta_{10} \text{Small 7(a)}_l + \alpha_{fc} + \tau_{fn} + \varepsilon_{lfcn}, \end{aligned} \tag{3}$$

Results appear in Column 3 of Panel A of Table II. The resulting variable, *Pred. Prepay (Both)*, has a significant correlation of 0.40 with realized prepayment, slightly improving predictive power of the previous measures.

As a robustness check, I re-estimate each prediction model including indicators for quarter of origination to account for common time variation in prepayment behavior across origination cohorts. The resulting predicted measures are similar to the baseline estimates and subsequent empirical results remain unchanged. I also re-estimate the models using maturity buckets and 2-digit NAICS industry classifications instead of log term in months and 3-digit NAICS codes. The results remain consistent with the baseline findings.

I follow the same procedure to predict probability of default by replacing the dependent variable with *Charged Off*, an indicator equal to one if the loan defaulted. Columns 4–6 of Table II reports the logistic regression results of regressing *Charged Off* on borrower, loan, and both borrower and loan characteristics. The resulting coefficients are then used to generate predicted default probabilities for each loan. The correlations between the realized default outcome, *Charged Off*, and the predicted measures: *Pred. Charge Off (Borrower)*, *Pred. Charge Off (Loan)*, and *Pred. Charge Off (Both)*, are 0.09, 0.36, and 0.39, respectively, all statistically significant at the 1% level.

III A Simple Model: Funding and Securitization Decision

Lending decisions are often framed around two possible borrower outcomes: default or repayment. Under this framework, lender profit increases monotonically with borrower quality because lower default risk raises expected returns. Figure 1a illustrates this relationship: lenders extend credit when expected profits exceeds a lender- and time-specific profitability threshold.

This framework, however, overlooks a third possibility: prepayment. Loan prepayment is pervasive, as most debt contracts are renegotiated or retired well before their original maturity (Roberts and Sufi, 2009). Borrowers prepay for many reasons beyond declines in benchmark interest rates such as improvements in personal creditworthiness (Mayer, Piskorski, and Tchistyi, 2013), resolution of informational frictions (Roberts, 2015), or favorable aggregate credit conditions (Mian and Santos, 2018). The option to prepay enables borrowers to replace existing debt with more attractive financing, improving their financial outcomes (Keys, Pope, and Pope, 2016).

For lenders however, prepayment is costly. When a loan is paid ahead of schedule, the lender forfeits expected interest income, reducing loan profitability (Eckbo, Su, and Thorburn, 2025). It can also complicate asset-liability management and create reinvestment risk as funds may be returned unexpectedly and need to be redeployed at an unfavorable time or into lower-yielding opportunities (Hanson, 2014). As borrower quality increases, the likelihood of default declines but the likelihood of prepayment rises. Consequently, lender profits may increase with borrower quality initially but eventually decline as prepayment risk becomes dominant.

To account for the three potential borrower outcomes, I develop a model that incorporates three key agents: lenders, borrowers, and the government. The model is deliberately stylized and is intended to clarify intuition rather than generate testable predictions. Related to Eckbo, Su, and Thorburn (2025), who show that prepayment risk can generate credit rationing in C&I lending, my model features the ex ante channel through which prepayment risk restricts credit supply, and shows how securitization resolves this friction by allowing lenders to transfer pre-

payment risk at origination. The model focuses on two central decisions that lenders face:

1. **Credit provision:** The lender extends credit if expected profits exceed a lender- and time-specific profitability threshold reflecting the opportunity cost of capital.
2. **Loan retention versus securitization:** The lender will choose whether to hold or securitize the loan, depending on which option yields higher expected profit.

In the setting of the SBA, these two decisions are highly interdependent and are typically made simultaneously, given the program's pooling requirements. The ability to sell loans on the secondary market can increase expected profitability, thus expanding the set of borrowers who meet the lender's threshold. This dynamic shows how securitization can enhance credit access for borrowers who might otherwise be denied financing. To formalize the lending decision, let $E[p]$ represent the loan's expected profit, and let $T_{l,t}$ denote the lender's profitability threshold at time t. A lender will issue the loan if: $E[p] > T_{l,t}$.

Expected profit is driven by borrower outcomes. After receiving financing, a borrower may (i) default, (ii) repay as scheduled, or (iii) prepay early through refinancing or cash payments. Let $\boldsymbol{P}_d$, $\boldsymbol{P}_n$, and $\boldsymbol{P}_p$ denote the probabilities of default, normal repayment, and prepayment. These probabilities are functions of borrower characteristics and macroeconomic conditions. The outcomes are mutually exclusive and exhaustive:

$$\boldsymbol{P}_n + \boldsymbol{P}_d + \boldsymbol{P}_p = 1, \tag{4}$$

The model then analyzes lending behavior across different policy settings. In the SBA loan program, the government guarantees a portion of the loan in case of default and facilitates a secondary market for the guaranteed portion. Subsection III.A first examines lending decisions without government intervention. Subsection III.B then considers the full SBA environment, including both guarantees and the option to securitize.

III.A Absent Government Guarantees or Securitization Option

In the absence of government guarantees and the ability to securitize, a lender's expected profit depends on the borrower's repayment behavior. Let x denote the profit if the borrower repays the loan as scheduled, d the amount charged off in the case of default, and i the interest income lost due to early prepayment or default, where m denotes the number of months the borrower makes payments before exiting the loan.

The lender's profit under each possible borrower outcome is summarized below:

Lender Profit (Absent of Guarantee)	
Default	$x - d - i(m)$
Pay Normally	x
Prepay	$x - i(m)$

Given these outcomes and their respective probabilities, the expected profit from a loan absent guarantees and securitization ($E[p_a]$) becomes the following:

$$E[p_a] = \boldsymbol{P}_d \times (x - d - i(m)) + \boldsymbol{P}_n \times x + \boldsymbol{P}_p \times (x - i(m)), \tag{5}$$

The lender will extend financing if the expected profit exceeds their required threshold: $E[p_a] > T_{l,t}$. Figure 1b illustrates the relationship between expected profit and borrower risk using averages from SBA loan data. An arbitrarily chosen lender-time threshold is shown as a horizontal line, and the range of acceptable borrowers, those for whom expected profit exceeds the threshold, is marked by the dotted vertical lines.

Unlike Figure 1a, introducing prepayment generates a turning point in the profit function. As borrower quality improves, default risk declines but prepayment risk rises, causing expected profits to eventually fall. This creates an upper bound on borrower types that lenders are willing to finance. Because defaults generate larger losses than prepayments, the profit function is asymmetric: lenders are more willing to accept borrowers with moderate prepayment risk than borrowers with comparable default risk.

III.B Adding Government Guarantee and Securitization Option

If the loan is issued through the SBA program, which provides a guarantee on a portion of the loan, the lender's expected profit is as follows, where g represents the share of the loan guaranteed in the event of default.

Lender Profit (With Guarantee)	
Default	$x - d(1-g) - i(m)$
Pay Normally	x
Prepay	$x - i(m)$

Using the probabilities of each borrower outcome, the lender's expected profit with a guarantee while retaining the loan becomes the following:

$$E[p_r] = \boldsymbol{P}_n \times x + \boldsymbol{P}_d \times (x - d(1-g) - i(m)) + \boldsymbol{P}_p \times (x - i(m)), \tag{6}$$

The lender extends financing if the expected profit exceeds the required threshold: $E[p_r] > T_{l,t}$. Figure 1c compares expected profits with and without guarantees. The green curve represents the no-guarantee case (Equation 5); the red curve represents the guaranteed case (Equation 6). The figure shows that guarantees significantly increase expected profits for borrowers with higher default probabilities, while expected profits for likely prepaying borrowers remain unchanged. This widens the set of borrowers who meet the lender's profitability threshold, expanding credit access to higher-risk borrowers.

If the lender also has the option to securitize the guaranteed portion of the loan, an additional decision arises: whether to retain or securitize. The model assumes that lenders who choose to securitize do so for the entire guaranteed portion while retaining the unguaranteed portion. If the loan is retained, expected profit remains $E[p_r]$. If securitized, expected profit is calculated

as:

$$E[p_s] = B_s - C_s + (\boldsymbol{P}_n \times x + \boldsymbol{P}_d \times (x - d(1-g) - i(m)) + \boldsymbol{P}_p \times (x - i(m))) \times (1-g), \quad (7)$$

where B_s is the benefits of securitizing, such as liquidity provision and any premium earned. C_s denotes the associated costs, including administrative and compliance costs of SBA pooling, as well as underwriting and execution costs in the secondary market. These frictions make securitization costly and limit its use to a subset of lenders. This simplifies to:

$$E[p_s] = B_s - C_s + E[p_r] \times (1-g), \quad (8)$$

The lender chooses to securitize if $E[p_s] > E[p_r]$, which simplifies to the condition: $B_s - C_s > E[p_r] \times g$. More generally, the lender extends financing if the greater of the two profit values exceeds the threshold: $\max(E[p_s], E[p_r]) > T_{l,t}$.

Figure 1c adds the blue curve (Equation 8) to represent expected profit under securitization. The lender's expected profit is the maximum of the red and blue curves. Introducing the option to securitize increases expected profits for borrowers at both ends of the risk distribution. This further expands the range of borrowers the lender is willing to fund, suggesting that securitization expands credit supply to borrowers with both high default risk and high prepayment risk. While most of the existing literature highlights the expansion of credit to default-prone borrowers, this paper draws attention to a complementary but underexplored effect: increased financing for borrowers likely to prepay.

III.C Can Lenders Distinguish Between Defaulters and Prepayers?

The simple model suggests that securitization increases lender willingness to finance both borrowers with a high likelihood of default and those with a high likelihood of prepayment. An alternative explanation is that lenders cannot easily distinguish between these two groups. In-

stead, they may treat both as risky due to high uncertainty or limited borrower information. To assess this, I examine constructed measures of predicted default and prepayment based on observable borrower and loan characteristics. While my predictions rely on a limited set of variables, lenders have access to richer information, enabling more accurate assessments of borrower risk.

Panel B of Table II presents pairwise correlations between predicted prepayment and default probabilities. Predicted prepayment measures are positively correlated with each other and negatively correlated with predicted default measures, and vice versa. These correlations are all statistically significant at the 1% level. These results indicate that prepaying and defaulting borrowers differ systematically in observable characteristics, suggesting that lenders can, and do, distinguish between the two risks in their financing decisions.

IV Securitization and Prepayment

I begin by comparing securitized and non-securitized loans to examine whether lenders systematically sell loans with different characteristics. Table III reports these univariate differences. Securitized loans differ substantially from non-securitized loans along several observable dimensions. On average, securitized loans carry a higher guarantee (78.8% versus 61.4%), longer maturities (approximately 14 years versus 9 years), and larger loan amounts ($736,080 versus $300,570). These differences largely reflect program composition: 74% of securitized loans originate from the Standard and Small 7(a) programs, compared to only 1% from the SBA Express program, which typically features smaller loan sizes and lower guarantees. Consistent with these larger loan sizes, securitized loans are slightly more likely to be issued to corporations (92%) than non-securitized loans (89%).

All securitized loans are term loans rather than revolving lines of credit, and 97% carry floating interest rates rather than fixed rates. In comparison, 41% of non-securitized loans are structured as revolving lines of credit, and 74% have floating rates. Loan outcomes also differ

across the two groups. Only 47% of securitized loans are paid in full compared to 58% of non-securitized loans, reflecting the fact that securitized loans are disproportionately originated in the later years of the sample and therefore have had less time to mature. Securitized loans exhibit slightly higher default rates and higher charge-off amounts, consistent with the model's prediction that securitization allows lenders to originate loans with greater downside risk.

Turning to prepayment behavior, securitized loans exhibit both higher prepayment rates and faster prepayment speeds. Among loans that are paid in full, 94% of securitized loans prepay before maturity compared to 81% of non-securitized loans. Securitized loans are also repaid substantially earlier. On average, securitized loans are paid off 132 months before their scheduled maturity, compared to 60 months for non-securitized loans. Scaling by loan term, securitized loans have an average prepayment speed of 0.66, compared to 0.50 for non-securitized loans indicating that securitized loans not only prepay more often, but do so earlier in their life.

Figure 2 illustrates this difference by plotting the distribution of payment-to-term ratios, defined as the proportion of the loan's contractual term completed before payoff. Lower values indicate earlier prepayment. The distribution for securitized loans is shifted left relative to non-securitized loans, indicating faster repayment.

While realized prepayment rates suggest that securitized loans prepay more frequently and more quickly, these patterns alone do not indicate whether lenders intentionally select loans with a higher propensity to prepay for securitization. To address this, I examine predicted prepayment probabilities derived from borrower and loan characteristics. Applying these measures to the univariate comparison in Table III, securitized loans exhibit higher expected prepayment probabilities across all specifications.

On average, securitized loans have a *Pred. Prepay (Borrower)* of 0.86, a *Pred. Prepay (Loan)* of 0.93, and a *Pred. Prepay (Both)* of 0.93. In contrast, non-securitized loans have averages of 0.83, 0.82, and 0.82, respectively. This suggests that lenders tend to sell loans with characteristics associated with a higher likelihood of prepayment, consistent with lenders securitizing loans with characteristics associated with higher prepayment risk.

Univariate comparisons cannot determine whether securitization itself drives these differences. To examine this relationship more formally, I estimate the following regression:

$$\begin{aligned}\text{Prepayment Variable}_{lbcnt} =& \beta_1 \text{Securitization Variable}_l + \beta_2 \text{Loan Controls}_l \\ &+ \beta_3 \text{Borrower Controls}_l + \lambda_b + \alpha_{ct} + \tau_{nt} + \varepsilon_{lbcnt}, \end{aligned} \tag{9}$$

where l, b, c, n, and t represent loan, lender, county, industry, and quarter respectively. The dependent variable is one of several measures of prepayment behavior, including predicted prepayment probabilities based on borrower characteristics, loan characteristics, or both; an indicator for whether the loan is prepaid; and the fraction of the loan term remaining at payoff. The key explanatory variable is an indicator for whether the loan is securitized. Control variables include loan characteristics (loan amount, revolver status, spread, maturity, interest type, and program type) and borrower business type. The specification includes lender fixed effects, county-by-quarter fixed effects, and industry-by-quarter fixed effects. Standard errors are double clustered at the lender and borrower levels.

Table IV reports the results. Consistent with the univariate evidence, securitized loans exhibit higher predicted prepayment probabilities and faster realized prepayment. Columns (1)–(3) show that securitized loans have predicted prepayment probabilities that are 0.4, 7.1, and 9.4 percentage points higher when using borrower characteristics, loan characteristics, and both sets of characteristics, respectively. Column (4) shows that securitized loans are 1.2 percentage points more likely to prepay, while column (5) shows that they prepay 2.6 percentage points earlier relative to the loan term. All estimates are statistically significant at the 1% level.

I next examine default outcomes by replacing the prepayment measures with default indicators. Column (6) shows that securitized loans are 1.5 percentage points more likely to be charged off and exhibit a 0.9 percentage point higher charge-off-to-loan ratio. These results are consistent with prior work documenting that securitization is associated with increased credit risk.

Although these results reveal a strong correlation between securitization and prepayment behavior, they do not establish causality. Endogeneity concerns remain, as unobserved factors may simultaneously influence both borrower behavior and lenders' securitization decisions. For example, macroeconomic conditions may affect both refinancing incentives and secondary market activity, while some lenders may specialize in borrowers more likely to prepay. To address these concerns, the next section exploits an exogenous shock to securitization in the SBA secondary market.

IV.A Shock to Securitization: Excess Amortization is Released

IV.A.1 Description of Shock

One potential exogenous shock arises from a policy change to the SBA secondary market implemented on October 1, 2017 (Bickmore, MacKinlay, and Tellez, 2025). This reform altered how excess principal accumulated in SBA polls was remitted to investors, mechanically increasing reported prepayment rates and reducing prices investors were willing to pay for pooled securities. As a result, the returns lenders could earn from securitizing SBA loans declined, lowering the incentive to sell loans in the secondary market. Notably, this change did not directly affect loan-level prepayment or borrowers' incentives to prepay, except through its effect on lenders' securitization decisions.

To understand the shock, it is useful to note that pooled securities face two key frictions that complicate cash-flow remittance. First, the terms of the pool differ from those of the underlying loans. Second, individual loans within a pool may prepay, refinance, or default prior to the pool maturity. Together, these frictions generate excess amortization at the pool level.

Prior to the policy change, the SBA managed this excess amortization by depositing all borrower payments on the guaranteed portion of pooled loans, as well as SBA guarantee payments on defaulted loans, into a fund called the Master Reserve Fund (MRF). Excess funds accumulated in the MRF were disbursed gradually through scheduled pool payments rather than

passed through to investors immediately. This practice artificially suppressed constant prepayment rates (CPR), a key performance metric for SBA investors, because prepayments were not immediately transmitted to investors (Clark, 2018, 2019).

The MRF arrangement created a problem: because the interest earned on funds held in the MRF was lower than the rate ultimately owed to investors, the program generated a long-run cost. To bring the program into compliance with the Federal Credit Reform Act of 1990 and ensure it remained self-funding without taxpayer assistance, the SBA announced in 2004 that it would change how prepayments and partial prepayments were remitted, passing them through to investors promptly rather than retaining them in the MRF (SBA, 2004).

However, an audit of SBA's FY 2017 financial statements found that the fiscal transfer agent (FTA) responsible for executing these payments had not implemented the 2004 rule changes (SBA Office of Inspector General, 2017, 2019). Specifically, partial prepayments were still being held in the MRF and distributed over the remaining life of the pool rather than passed through on the next scheduled payment date. As a result, excess principal continued to accumulate in the MRF in a manner inconsistent with the announced policy.

In response to the OIG finding, the SBA revised its remittance policy to release previously retained excess amortization. For pools formed between October 2004 and September 2017, remaining excess balances were immediately reallocated on a pro-rata basis across outstanding loans within each pool. For pools created after September 2017, excess funds would be remitted to investors on a pro-rata basis as collected.

This policy change led to a sharp mechanical increase in reported pool CPRs as previously suppressed excess principal was released (Clark, 2018, 2019). Pools that had been considered stable suddenly exhibited increased prepayment rates, generating uncertainty about the future cash-flow performance of SBA securities. Although the change improved long-run transparency and aligned the program with its stated rules, it eliminated the smoothing that investors had come to rely on.

Beyond the mechanical CPR increase, the policy change removed an implicit stabilization

of investor cash flows. Going forward, investors would bear prepayment risk more directly, without the buffer previously provided by the MRF's gradual disbursement schedule. The sudden spike in CPRs and the increase in prepayment risk reduced investor confidence, prompting some large investors to exit the SBA secondary market entirely.[7]

As secondary-market demand declined, pool prices fell and remaining investors demanded higher yields. These pricing changes reduced the premiums that SBA pool assemblers were willing to offer lenders for guaranteed loan portions, lowering the returns to securitization. Figure 3 plots initial pool prices using Bloomberg pricing data, illustrating the decline in prices following the shock.

While pool CPRs increased mechanically following the policy change, the prepayment rates of the underlying loans, and SBA loans more broadly, would not be expected to change as a direct result of the shock. The policy altered how prepayments were remitted to investors, not the economic incentives facing borrowers. Accordingly, the key identifying assumption is that borrower-level prepayment behavior should remain unaffected by changes to pool remittance policy, except as shifts in secondary-market demand alter lender origination and securitization decisions.

Figure 4 provides visual support for this assumption. The figure plots the average pool CPR, as reported by the SBA's fiscal transfer agent (FTA), alongside the average loan prepayment hazard, defined as the share of outstanding securitized loans that prepay in a given fiscal year, conditional on survival to the start of that year. Pool CPRs exhibit a sharp increase in fiscal year 2018, coinciding with the October 2017 policy change. This is consistent with the mechanical release of previously retained excess principal. In contrast, loan-level prepayment hazards follow a smooth upward trend over the sample period, consistent with the well-documented tendency of loans to prepay at higher rates as they near maturity. The divergence between pool- and loan-level prepayment patterns supports the interpretation that the policy change affected secondary-market pricing rather than the underlying prepayment behavior of borrowers.

[7] As noted by SBA pool assemblers.

Securitization is available to all lenders in the SBA 7(a) program, but participation varies substantially accross institutions. Some lenders heavily depend on securitization, selling most of their loans in the secondary market, while others retain all originations. Due to these differences in business models, lenders with greater exposure to securitization are expected to be more sensitive to fluctuations in the SBA secondary market and, consequently, more affected by the policy change. This identification strategy relies on the assumption that, absent the SBA policy change, trends in loan prepayment behavior and borrower composition would have evolved similarly for high and low securitizers. Therefore, I assume that any differential change in prepayment rates or borrower selection after October 2017 can be attributed to the change in securitization incentives, rather than to other time-varying factors.

To leverage the shock in a difference-in-differences framework, I classify lenders into two groups: high securitizers and low securitizers. High securitizers are defined as those who securitized more than 60% of their SBA loans in the pre-event period, while low securitizers securitized less than 60%. The 60% threshold was selected based on dividing lenders into securitization level buckets. The sample includes 267 high securitizers and 1,789 low securitizers, and results are robust to alternative cutoffs.

Figure 5 presents the monthly securitization rates for both groups from January 2016 to December 2019, normalized to January 2016 levels. Prior to October 2017, securitization trends are parallel across groups. Following the shock, securitization rates decline sharply for high securitizers while continuing to rise for low securitizers. This suggests that the policy change, by reducing the potential returns from securitization, impacted high securitizers' propensity to sell loans on the secondary market.

Consistent with the visual evidence, Column 1 of Table V shows that the probability a high securitizer sells a loan in the secondary market falls by 5.9 pp in the post-event period, a decline that is statistically significant at the 1% level. Appendix Figure A.2 complements these results by plotting aggregate SBA 7(a) loan originations and securitization volumes over time. The figure shows a modest decline in overall originations and securitization activity around fiscal

year 2018, coinciding with the secondary-market policy change.

IV.A.2 Main Difference-in-Differences Results

Applying this framework to borrower selection and prepayment outcomes, I estimate the following regression:

$$\begin{aligned}\text{Prepayment Variable}_{lbcnt} =& \beta_1 \text{High Securitizer}_b \times \text{Post}_t + \beta_2 \text{Loan Controls}_l \\ &+ \beta_3 \text{Borrower Controls}_l + \lambda_b + \alpha_{ct} + \tau_{nt} + \varepsilon_{lbcnt}, \end{aligned} \tag{10}$$

where l, b, c, n, and t denote loan, lender, county, industry, and quarter, respectively. The dependent variable includes various measures of prepayment including *Pred. Prepay (Borrower)*, *Pred. Prepay (Loan)*, *Pred. Prepay (Both)*, *Prepaid*, and *Prepayment Speed*. The key independent variable is the interaction between *High Securitizer*, an indicator equal to 1 if the lender securitizes over 60% of their loans and 0 otherwise, and *Post*, an indicator equal to 1 if the loan is made in the post-event period. I include loan and borrower controls along with lender, county-quarter, and industry-quarter fixed effects. When predicted prepayment is used as a dependent variable, certain controls and fixed effects are not included as they are used in the prediction estimation. Standard errors are clustered at both the firm and lender level.

Table V shows that following the decline in securitization returns, high securitizers reduce lending to borrowers and loans with characteristics associated with a high likelihood of prepayment. Expected prepayment probabilities fall by 0.2 pp when based on borrower characteristics, 2.2 pp when based on loan characteristics, and 2.8 pp when incorporating both borrower and loan characteristics.Realized prepayment rates decline by 3.8 pp and prepayment speeds slow, with the fraction of the loan term prepaid declining by 0.044 following the shock.

Figure 6 presents the corresponding event-study estimates, which show declines following the policy change. Together, these findings suggest that when the returns to securitization decline, lenders reduce lending to prepayment-prone borrowers. This implies that restricting a

lender's ability to securitize limits credit access to certain borrowers.

IV.A.3 Robustness

To ensure results are not driven by the definition of high securitizers, I vary the classification threshold from 40% to 80% of loans securitized prior to the shock. Appendix Figure A.3 shows that results are stable across specifications. Results are also robust to treating securitization exposure as a continuous variable. Appendix Table A.4 shows that interacting lenders' pre-period securitization shares with the post-policy indicator yields qualitatively similar estimates. Placebo tests using fictitious policy dates prior to October 2017 yield no economically meaningful effects for securitization or predicted prepayment measures and smaller, unstable estimates for realized prepayment outcomes, with magnitudes sensitive to the selected window and often losing statistical significance. For example Appendix Table A.5 uses October 2015 as a placebo policy date.

Some concerns with the difference-in-differences framework may arise if changes in borrower composition or prepayment behavior are correlated with lender securitization intensity for reasons unrelated to the policy change, or if securitization decisions respond endogenously to unobserved loan characteristics. To address these concerns, I complement the difference-in-differences analysis with a two-stage least squares (2SLS) approach that isolates plausibly exogenous variation in loan securitization induced by the October 2017 SBA secondary-market policy change.

The instrumental variables strategy exploits two sources of variation. First, loans originated by lenders whose business models rely heavily on securitization are more likely to be securitized. Second, the policy change led to a decline in securitization incentives, particularly among these high-securitizing lenders. I therefore instrument for whether a loan is securitized using an indicator for high securitizers, an indicator for the post-policy period, and their interaction. The identifying assumption is that these instruments affect borrower prepayment outcomes only

through their impact on the likelihood that a loan is securitized.

The first stage relates a loan's securitization status to the high-securitizer indicator and its interaction with the post-policy period:

$$\textbf{First Stage: } \text{Securitized}_{lbcnt} = \beta_1 \text{High Securitizer}_b + \beta_2 \text{High Securitizer}_b \times \text{Post}_t + \gamma \text{Controls}_{lb} + \alpha_{ct} + \tau_{nt} + \varepsilon_{lbcnt}, \quad (11)$$

The second stage regresses prepayment outcomes on the predicted securitization probability from the first stage:

$$\textbf{Second Stage: } \text{Prepayment Variable}_{lbcnt} = \delta \hat{\text{Securitized}}_l + \eta \text{Controls}_{lb} + \alpha_{ct} + \tau_{nt} + \varepsilon_{lbcnt}, \quad (12)$$

where l, b, c, n, and t denote loan, lender, county, industry, and quarter, respectively. Both stages include borrower, loan, and lender characteristics as controls, as well as county-by-quarter and industry-by-quarter fixed effects where feasible. The main effect of the post-policy indicator is absorbed by time fixed effects and therefore not separately identified.

Results are reported in Appendix Table A.6. Column 1 shows that the instruments strongly predict loan securitization and is statistically significant at the 1% level. Loans originated by high securitizers are substantially more likely to be securitized, but this likelihood declines by 6.3 pp following the policy change. The corresponding first-stage F-statistics range from 63 to 284 across specifications, well above conventional thresholds for weak instruments.

Columns 2 through 6 report the second-stage estimates. Consistent with the difference-in-differences results, securitization increases prepayment rates and speeds and expands credit access to borrowers with a high propensity to prepay. These findings reinforce the interpretation that the main results reflect changes in securitization incentives rather than unobserved borrower or loan characteristics.

In addition to changing the treatment of excess amortization, the SBA simultaneously modified pooling rules by tightening the minimum maturity ratio (MMR) requirement on pooled securities. The MMR is defined as the ratio of the shortest remaining maturity loan in a pool to the longest remaining maturity loan in that pool.[8] A higher MMR restricts the allowable dispersion in maturities within a pool, making it easier to pool loans at focal maturities (such as 7, 10, and 25 year terms) and harder to pool loans with uncommon maturities.

The MMR requirements changed multiple times over the sample period for both weighted average coupon (WAC) and Standard pools, as shown in Table A.7. The most substantial tightening occurred in October 2017, contemporaneously with the change in the treatment of excess amortization.

The tightening of the MMR could independently affect the distribution of loan maturities by encouraging lenders to originate loans at focal maturities that are easier to pool in the secondary market. Given that SBA borrowers in this setting typically prepay within the first three to four years of the loan, modest changes in contractual maturity are unlikely to materially alter borrowers' underlying propensity to prepay. Nevertheless, because the 2017 policy change coincided with a substantial tightening of the MMR, I implement several robustness tests to ensure that the main results are not driven by changes in maturity bunching or pooling feasibility.

First, I include maturity-group-by-quarter fixed effects to absorb changes in lending behavior associated with specific maturities over time. I generate maturity bins for loans with maturities of 5, 7, 10, 15, 20, and 25 years, as these represent the common maturities in the SBA market and create a separate category for loans whose maturities do not correspond to one of these focal terms. This absorbs time-varying changes in lending behavior associated with maturity bunching around standard poolable terms.

Appendix Table A.8 reports the results with this additional fixed effect included. The coefficients on *High Securitizer* $\times$ *Post* remain negative and statistically significant for *Securitized* as

[8] See https://www.federalregister.gov/documents/2025/08/28/2025-16446/information-on-sba-secondary-market-program Federal Register notice.

well as for all measures of prepayment risk. In fact, the coefficient on *Pred. Prepay (Borrower)* becomes significant at the 1% level, whereas it was previously significant at the 10% level. This suggests that the main findings are not driven by changes in maturity bunching induced by tighter MMR requirements.

Second, I re-estimate the main specifications separately for loans with focal and nonfocal maturities so that identification comes from comparisons among loans with similar contractual terms. Appendix Table A.9 reports these results. Panel A restricts the sample to loans with focal maturities of 5, 7, 10, 15, 20, and 25 years, while Panel B restricts the sample to all remaining nonfocal maturities.

I find that the decline in securitization among high securitizers following the October 2017 policy change is nearly identical across the two groups. Measures of realized and predicted prepayment are directionally consistent across both groups. The one exception is the Prepayment Speed outcome in Panel B, where the coefficient attenuates substantially. This likely reflects both the considerably smaller sample of non-focal maturity loans with observed prepayment timing and the fact that securitization was less prevalent among these loans even prior to the shock.

These results suggest that the main findings are not driven by changes in the ability to pool loans at standard focal maturities following the tightening of the MMR. Rather, the parallel declines across both maturity groups are more consistent with the broader reduction in securitization profitability stemming from the excess amortization policy change.

Third, I examine subsequent changes in the MMR as placebo shocks to lender securitization activity. If the main results are driven primarily by changes in pooling requirements rather than by changes in lenders' ability to offload prepayment risk, responses should also appear around later MMR adjustments. To test this possibility, I repeat the securitization analysis around two MMR changes in SBA fiscal year 2021 and 2022 that did not alter the treatment of excess amortization.

For each placebo test, I restrict the sample to the one-year period before and after the corre-

sponding MMR change. I classify lenders as *High Securitizer* if they securitize more than 60% of SBA loans in the pre-event period, while *Post* is an indicator equal to one for loans originated in the year following the change. Appendix Table A.10 reports the results.

The October 2017 policy change generates a large and statistically significant decline in securitization activity among high securitizers. However, the later MMR changes do not generate effects consistent with the direction predicted by changes in pooling stringency. Column (1) examines the FY 2021 adjustment which relaxed the MMR from 94% to 89%. This change should have made pooling easier and increased securitization activity. Instead, the estimated coefficient remains negative but statistically insignificant. Column (2) examines the FY 2022 adjustment which tightened the MMR from 89% to 93%. This change would be predicted to make pooling more difficult and reduced securitization activity but again, the estimated coefficient remains insignificant.

Taken together, these findings suggest that the main results are unlikely to be driven by changes in MMR requirements and are instead more consistent with changes in the profitability of offloading prepayment risk.

IV.A.4 Cross-Industry Evidence

Next, I examine whether the decline in lenders' ability to offload prepayment risk affects the allocation of credit across industries. If securitization allows lenders to manage prepayment risk, then a reduction in securitization profitability should disproportionately reduce lending to industries where prepayment risk is historically highest. I calculate pre-shock industry prepayment rates using loan-level data aggregated to the 3-digit NAICS subsector level. Industries with pre-shock prepayment rates above the 75th (below the 25th) percentile are classified as high-prepayment (low-prepayment) industries.

The industries with the highest prepayment rates tend to be sectors where firms may have greater opportunities to refinance or obtain alternative sources of financing, while low-prepayment

industries are concentrated in retail sectors with thinner margins and more volatile cash flows. Appendix Table A.11 reports the ten industries with the highest and lowest pre-shock prepayment rates.

High-prepayment industries include real estate, accommodation, warehousing, and gasoline stations. These are sectors where firms hold assets that may appreciate over time, increasing opportunities to refinance or access alternative credit. Other high-prepayment industries, including financial services, consist of borrowers who may actively manage their balance sheets and are more likely to refinance when conditions are favorable. In contrast, low-prepayment industries such as clothing retailers, general merchandise stores, and furniture retailers operate with thinner margins and more volatile cash flows which limits their ability to prepay opportunistically. While these patterns are descriptive, they support the interpretation that prepayment propensity reflects systematic industry characteristics.

I collapse the data to the lender-by-industry group-by-quarter level, where industry groups are defined by whether an industry falls in the top quartile of pre-shock prepayment rates at the 3-digit NAICS level. I restrict the sample to lender-industry pairs in which the lender originated at least one loan in that industry group prior to the shock. To examine whether high-securitizing lenders reduce lending disproportionately to high-prepayment industries following the shock, I estimate the following difference-in-differences specificiation:

$$\text{Lending}_{bjt} = \beta_1 \text{High Securitizer}_b \times \text{High Prepay Ind.} \times \text{Post}_t + \lambda_{bt} + \tau_{jt} + \alpha_{bj} + \varepsilon_{bjt}, \quad (13)$$

where b, j, and t denote lender, industry group, and quarter, respectively. The fixed effects absorb lender-by-quarter, industry group-by-quarter, and lender-by-industry group variation. Identification therefore comes from within-lender changes in lending to high-prepayment industries relative to other industries after the shock.

Table **??** reports the results. Following the shock, high-securitizing lenders reduce lending to high-prepayment industries relative to low-prepayment industries and relative to low-

securitizing lenders. They become 4.4 percentage points less likely to originate any loan to a high-prepayment industry in a given quarter. They also reduce both the dollar volume and number of loans originated to high-prepayment industries. The estimates imply declines of approximately 48%[9] in total loan volume and 9%[10] in the number of loans. Together, these results indicate that the contraction in lending reflects both fewer lender-industry relationships and lower overall lending to high-prepayment industries. They are consistent with securitization expanding credit to prepayment-prone borrowers by allowing lenders to transfer prepayment risk to investors, and with this channel weakening when securitization becomes less profitable. More broadly, the findings suggest that securitization influences not only the overall supply of credit but also its allocation across industries with different exposure to prepayment risk.

V Benefits of Prepayment

The previous sections show that securitization is associated with greater lending to borrowers with a high propensity to prepay. I next examine whether these borrowers are economically valuable and whether restricting prepayment would impose real costs. The central idea is that voluntary, opportunity-driven prepayment may signal improving borrower quality even though it lowers lenders' expected returns ex ante. If so, securitization can relax credit friction by allowing lenders to fund borrowers who are likely to prepay but also likely to generate stronger subsequent outcomes.

Table A.3 provides initial evidence by comparing loans that prepay with loans that amortize as scheduled. Prepaid loans are larger, have longer maturities, lower spreads over the base rate, and higher guarantee rates. They also support more jobs: on average, prepaid loans are associated with two additional jobs relative to loans repaid as scheduled. This difference is statistically significant at the 1% level and economically meaningful given that the median loan

[9]The calculation is $e^{-0.654} - 1 = -0.480$.
[10]The calculation is $e^{-0.093} - 1 = -0.089$.

in the sample supports five jobs.

These patterns suggest that prepaying borrowers are not marginally weaker borrowers cycling out early; instead, they appear to be stronger and more economically productive. This finding is particularly relevant because a large literature documents that SBA credit has real effects on firm outcomes. Brown and Earle (2017) show that access to SBA loans increases employment and business growth. Therefore, any friction that limits credit to borrowers likely to prepay may also reduce economically valuable investment and job creation.

V.A Terms of Subsequent Loans

I next examine whether borrowers who voluntarily prepay their initial SBA loan receive better terms on subsequent borrowing. If prepayment reflects improving borrower quality, these borrowers should obtain more favorable financing later on and support stronger real outcomes.

To study this question, I restrict the sample to borrowers that receive at least two SBA loans during the sample period and construct changes in loan terms between the first and second loan. The resulting sample includes 31,022 borrowers who prepay their first loan and 26,846 borrowers who repay according to schedule.

This design necessarily excludes borrowers who leave the SBA program after their first loan, including firms that transition to private credit markets. Because SBA borrowers must certify that they cannot obtain comparable conventional financing, the borrowers observed taking multiple SBA loans are likely those that continue to face some financing frictions. Given that the strongest prepaying borrowers likely exit the SBA program altogether, the estimates below should be interpreted as conservative.

Panel A of Table VII reports univariate comparisons. On average, borrowers who prepay their first loan receive subsequent SBA loans with spreads that are 21 basis points lower, loan amounts that are $92,310 larger, and support 0.51 more jobs than borrowers who repay according to schedule. These differences are statistically significant and economically meaningful.

To account for differences across location, industry, and time, I estimate:

$$\text{Difference in Term}_{fcnt} = \beta_1 \text{Prepaid Prior Loan}_f + \beta_2 \text{Months Between Loans}_f + \alpha_{ct} + \tau_{nt} + \varepsilon_{fcnt}, \quad (14)$$

where f, c, n, and t denote firm, county, industry, and quarter, respectively. The dependent variable measures the change between the borrower's first and second SBA loan in either the spread over the base rate, the number of jobs supported, or the loan amount. I control for the number of months between the two loans and include county-by-quarter and industry-by-quarter fixed effects based on the timing of the first loan.

Panel B of Table VII reports the results. Relative to borrowers who repay as scheduled, borrowers who prepay their first loan receive a spread on their second loan that is 16 basis points lower, support 0.70 more jobs, and obtain loan amounts that are \$63,814 larger. The spread and loan amount effects are statistically significant at the 1% level, while the jobs supported effect is significant at the 5% level.

Taken together, these results suggest that voluntary prepayment is associated with stronger subsequent borrower performance. Prepaying borrowers appear to be viewed by lenders as lower risk or higher quality, whether because they were strong ex ante or because prepayment itself reveals improved creditworthiness. Either way, the evidence is consistent with the paper's central premise: borrowers with high prepayment propensity can be economically valuable even though they are less profitable for lenders to hold on balance sheet.

These estimates are likely conservative. Because my analysis is limited to borrowers who obtain multiple SBA loans, it does not capture firms that exit the SBA program entirely by refinancing into private market loans or repaying loans without replacement. To the extent that the most successful prepaying borrowers are those that transition out of SBA financing, the observed improvements in subsequent loan terms represent a lower bound on the benefits associated with prepayment.

V.B Bunching Around Prepayment Penalties

I next examine how much borrowers value the option to prepay. If prepayment flexibility is important, borrowers should adjust the timing of repayment in order to avoid prepayment penalties. This is especially relevant in contexts like SBA lending, where borrowers often obtain their first external financing under relatively unfavorable conditions. In such cases, the option to prepay can offer substantial benefits.

In the SBA 7(a) program, loans with maturities of 15 years or more are subject to prepayment penalties if the borrower voluntarily prepays more than 25% of the outstanding balance within the first three years after disbursement. The penalty equals 5% of the prepaid amount in year 1, 3% in year 2, and 1% in year 3.[11] Loans with maturities below 15 years are exempt. Because loans with maturities between 10 and 25 years are often used for similar purposes, I use loans with maturities from 15 to 25 years as the treated group and loans with maturities between 10 and 15 years as the control group. The full sample contains 37,808 treated loans and 29,752 control loans.

Because I only observe the date on which a borrower prepays in full rather than interim payment flows, I define prepayment as full loan payoff within the first three years (excluding partial prepayments that may also trigger penalties). To focus on timing behavior around the penalty thresholds, I further restrict the sample to loans fully prepaid within six years of disbursement. This leaves 11,756 treated loans and 8,527 control loans.

Figure 7 shows the distribution of the number of months to full prepayment and clear bunching in repayment timing is evident. Relative to the control group, treated loans exhibit visible notches just before the 12-, 24-, and 36-month thresholds and excess mass immediately afterward. Figure 8 shows that 64%, 69%, and 77% of prepayments in the relevant windows occur after the 12-, 24-, and 36-month thresholds, respectively. These patterns indicate that borrowers strategically delay repayment to avoid penalties. At the same time, a nontrivial share of borrow-

[11] See https://www.sba.gov/partners/lenders/7a-loan-program/terms-conditions-eligibility.

ers still prepays before the thresholds, implying that the gains from early repayment are large enough for some borrowers to outweigh the penalty.

I quantify these behavioral responses using a bunching framework following Chetty, Friedman, Olsen, and Pistaferri (2011); Kleven and Waseem (2013); Bachas, Kim, and Yannelis (2021); Cespedes (2024). I first use the untreated shorter-maturity loans as an empirical counterfactual for how treated borrowers would have prepaid absent penalties. For each threshold, I compute excess mass after the fee drop and missing mass before it, and define the behavioral response, ΔB, as the delay in repayment needed to equate the two.

Figure 9 plots the monthly percentage differences in prepayment rates between the treated and control groups for each of the threshold windows. In each case, there is clear evidence of missing mass in the months leading up to and at the penalty threshold, followed by excess mass just after it. These patterns indicate that borrowers facing penalties often choose to delay prepayment to avoid fees.

Figure A.4 extends this comparison across the full six-year window following loan disbursement. It shows consistent missing mass in the months prior to the final (36-month) penalty threshold, and excess mass thereafter. This pattern suggests that borrowers may delay prepayment until all prepayment penalties have expired.

Leveraging the differences between the treated and counterfactual groups, I generate an elasticity estimate as the percentage change in months of payment in response to one-percentage-point change in the prepayment fee, following Chetty, Friedman, Olsen, and Pistaferri (2011); Cespedes (2024):

$$\varepsilon_{B,\Gamma} = \frac{\Delta B}{B^T} \times \frac{(1+r)}{\Delta \Gamma} \tag{15}$$

where ΔB represents the behavioral response to the prepayment fee which is calculated as the average delay in months of prepayment induced by the fee drop. Specifically, this is the point where excess mass equals missing mass. B^T is the threshold in months, r is the average interest

rate at the threshold, and $\Delta\Gamma$ is the change in the prepayment fee at the threshold. I estimate standard errors and model parameters using a bootstrap procedure with 1,000 repetitions, re-sampling loans at the borrower level.

Excess mass ($\hat{E}$) is defined as the cumulative difference in the share of treated versus counterfactual loans, given by $\hat{E} = \sum_{j>B^T}^{b_u}(N_j - \hat{N}_j)$ where N_j is the percentage of treated loans in month bin j, $\hat{N}_j$ is the percentage of counterfactual loans in month bin j, and b_u is the upper bound, ranging from 2 to 3 months beyond the threshold, identified visually based on the location of the excess mass. Missing mass ($\hat{M}$) is similarly defined as $\hat{M} = \sum_{j=b_l}^{B^T}(\hat{N}_j - N_j)$ where the lower limit is $b_l = B^T - \Delta B$ where ΔB is the point where $\hat{E} = \hat{M}$.

Table VIII, Panel A reports elasticity estimates ($\varepsilon_{B,\Gamma}$) for the three prepayment thresholds. The estimated delay in prepayment (ΔB) ranges from 2 to 4 months across thresholds, indicating that borrowers, on average, postpone prepayment by 2 to 4 months in response to the drop in prepayment fees. The resulting elasticity estimates range from 8.817 to 8.829, indicating that borrowers are highly responsive to prepayment fees: a one-percentage-point increase in the prepayment fee is associated with an approximately 8.8% delay in prepayment timing.

A potential concern is that shorter-maturity control loans may differ systematically from treated loans for reasons unrelated to the penalty schedule. It could also be possible that lenders may influence loan terms, steering borrowers toward certain maturities based on characteristics. To address this concern, I follow Bachas, Kim, and Yannelis (2021) and estimate a counterfactual treated-loan distribution directly using a polynomial fit that excludes the bunching region:

$$N_j = \sum_{k=0}^{2} \beta_k (b_j)^k + \sum_{i=b_l}^{b_u} \delta_{ij} \mathbf{1}(b_j = i) + \delta_{6m} \mathbf{1}(b_j = 6m) + \eta_j, \tag{16}$$

where N_j is the number of loans in bin j, b_j is distance between the midpoint of the payment interval in bin j and the threshold, $\{b_l, b_u\}$ defines the excluded region, δ_{ij} are dummies for bins in the excluded region, and δ_{6m} are dummies for multiples of 6 months of payment.

Using the fitted coefficients from Equation 16, I estimate the counterfactual distribution, $\hat{N}_j$,

as follows:

$$\hat{N}_j = \sum_{k=0}^{2} \hat{\beta}_k (b_j)^k + \hat{\delta}_{6m} \mathbf{1}(b_j = 6m) \tag{17}$$

As before, excess mass is defined as $\hat{E} = \sum_{j>B^T}^{b_u} (N_j - \hat{N}_j)$ and missing mass is defined as $\hat{M} = \sum_{j=b_l}^{B^T} (N_j - \hat{N}_j)$. The upper limit, b_u, is visually selected around the notch point and ranges from 2 to 3 months depending on best fit.

Figure A.5 shows that the estimated-counterfactual approach yields the same qualitative pattern of missing mass before each threshold and excess mass afterward. Table VIII, Panel B reports elasticities ranging from 8.8 to 13.2. Across both approaches, the conclusion is the same: borrowers place substantial value on the ability to prepay.

V.C Economic Benefits of Prepayment

Section V.A established that borrowers who voluntarily prepay appear to be stronger and more productive, as reflected in lower subsequent spreads, larger subsequent loans, and greater job support. Section V.B demonstrated that borrowers respond strongly to prepayment penalties, indicating that prepayment flexibility is economically important. I now combine these results to quantify the real consequences of restricting prepayment. If higher prepayment costs discourage borrowers from refinancing or otherwise reduce the benefits of prepayment, then barriers to prepayment should translate into weaker credit and employment outcomes.

I quantify this effect using the following back-of-the-envelope calculation. I estimate the decline in economic outcomes, ΔX, as the percentage reduction in an economic variable X due to prepayment barriers as follows:

$$\Delta X = \alpha \times \varepsilon_{B,\Gamma} \times \beta(X) \tag{18}$$

where α is the share of prepaying borrowers, $\varepsilon_{B,\Gamma}$ is the percentage reduction in prepayment

speed from a one-percentage-point increase in prepayment fees, and $\beta(X)$ is the effect of prepayment on the economic outcome X.

Among the 423,000 completed loans in the sample, excluding ongoing loans, 77.23% were prepaid. Applying the bunching elasticity and the subsequent-loan estimates, I find that a one-percentage-point increase in prepayment fees reduces the average loan amount by \$4,337[12] per loan. This translates into an aggregate credit contraction of \$1.83 billion[13] across the completed loans in the sample. In terms of employment, prepayment restrictions result in 0.048[14] fewer jobs per loan, corresponding to 20,200[15] fewer jobs in aggregate.

These magnitudes are economically meaningful. Relative to the sample averages, a one-percentage-point increase in prepayment fees implies a 1.25%[16] decline in total credit extended and a 0.45%[17] decline in jobs supported. Although these calculations are necessarily stylized, they indicate that prepayment frictions can considerably dampen real economic activity. Borrowers with high prepayment propensity are not merely less profitable loans for lenders to retain, but a set of borrowers whose access to credit has meaningful implications for investment and employment.

VI Conclusion

This paper studies how securitization influences credit allocation to prepaying borrowers. While voluntary prepayment often reflects improving borrower quality, it reduces lenders' expected interest income and can therefore discourage lending to borrowers with a high propensity to prepay. I show that securitization mitigates this friction by allowing lenders to transfer prepayment risk at origination. As a result, lenders originate and sell loans that are likely to prepay,

[12] 77.23% × 8.8% × \$63,814 = \$4,336.95
[13] \$4,336.95 × 422,801 = \$1,833,667,894
[14] 77.23% × 8.8% × 0.703 = 0.0478
[15] 0.0478 × 422,801 = 20,200
[16] 4,336.95 / 348263.7 = 1.245%
[17] 0.048 / 10.6529 = 0.448%

expanding credit access to prepayment-prone borrowers.

To identify causal effects, I exploit a 2017 regulatory change in the SBA secondary market that released previously retained excess amortization, transferring prepayment risk from the SBA to investors and reducing the premiums lenders could earn from securitization. Lenders more reliant on securitization experienced a sharper contraction in loan sales following the policy change. This contraction led to declines in prepayment rates and speeds, a reduction in credit to borrowers with a high propensity to prepay, and a disproportionate pullback from industries with historically high prepayment rates. These results indicate that securitization facilitates credit provision to borrowers whose behavior would otherwise reduce lender returns and that this channel has meaningful consequences for the allocation of credit across borrowers and industries.

I then examine the economic implications of this reallocation. Borrowers who voluntarily prepay subsequently obtain more favorable loan terms and support greater job creation, consistent with prepayment reflecting improving fundamentals. Using variation in prepayment penalties, I document that borrowers are sensitive to these costs, implying that this option carries substantial value. Combining these estimates, I show that barriers to prepayment, whether through fees or reduced securitization, translate into meaningful reducetions in credit extended and jobs created, implying an aggregate credit contration of approximately $1.8 million and 20,200 fewer jobs across the completed loans in the sample.

Overall, these findings broaden the understanding of securitization beyond its role in transferring default risk. By enabling lenders to offload prepayment risk, securitization expands credit to high-quality borrowers who would otherwise face financing constraints, with real consequences for small business growth and employment. These results highlight an underappreciated channel through which secondary markets influence credit allocation and real outcomes.

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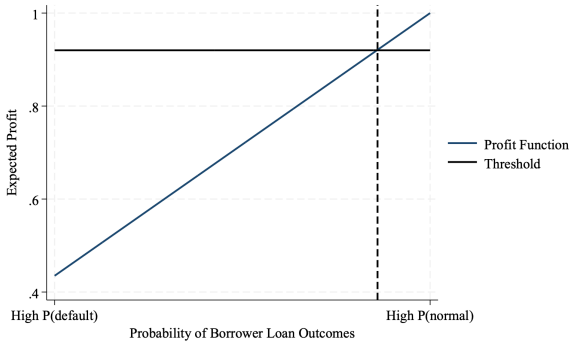
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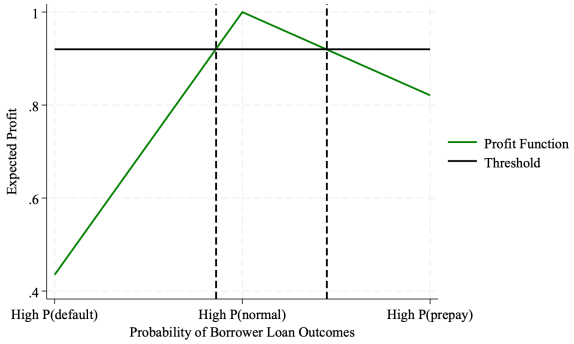
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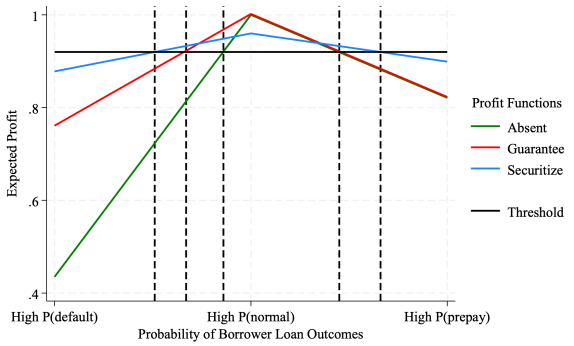
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(a) Absent Prepayment Risk



(b) Absent Guarantee and Securitization



(c) With and Without Guarantee and Securitization

Figure 1: Expected Profit Given Borrower Outcomes

This figure illustrates expected lender profit under different borrower outcome probabilities. Panel (a) considers only two possible loan outcomes: default or regular repayment. Lenders provide financing to borrowers whose expected profit exceeds the lender- and time-specific threshold. Panel (b) introduces prepayment as a third potential loan outcome. Lenders extend financing only to borrowers whose expected profit falls between the intersections of the threshold and the profit function. Panel (c) includes elements of the SBA setting: guarantees and the ability to securitize the guaranteed portion of the loan. The expected profit function with guarantees is shown in red, while the function incorporating the option to securitize is in blue. Lenders' total expected profit is the maximum between these two functions, and financing is extended to borrowers whose expected profit surpasses the threshold.

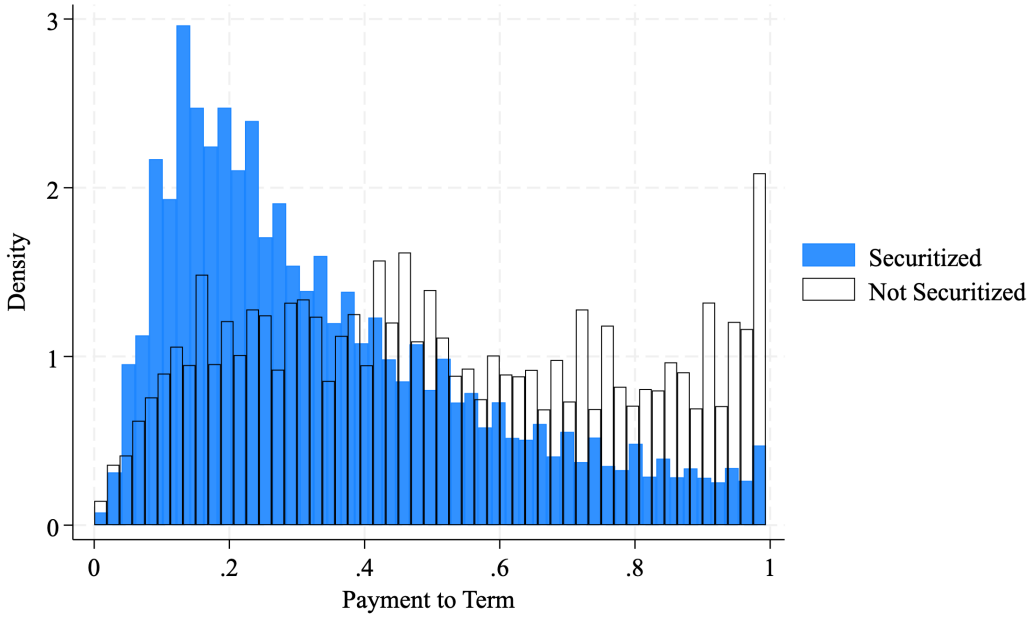


Figure 2: Payment to Term for Securitized and Not Securitized Loans

The graph features the density distribution of the speed of payment to loan term for two groups of prepaying loans: securitized loans and non-securitized loans. The payment to term represents the number of months in which the borrower prepays the loan divided by the loan term in months where a lower value represents a faster prepayment.

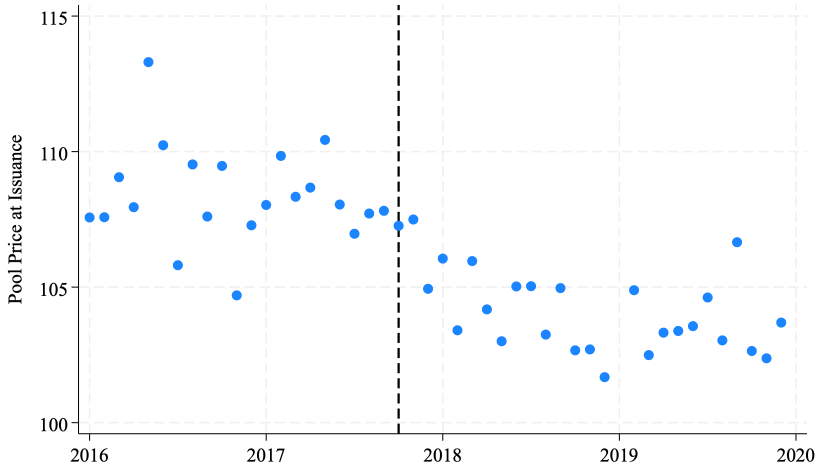


Figure 3: Pool Price at Issuance Over Time

This figure plots the average SBA pool prices for newly issued pools each month over the period from 2016 to 2020 using Bloomberg historic pricing data. The vertical line highlights the October 2017 SBA regulatory change related to the release of excess amortization.

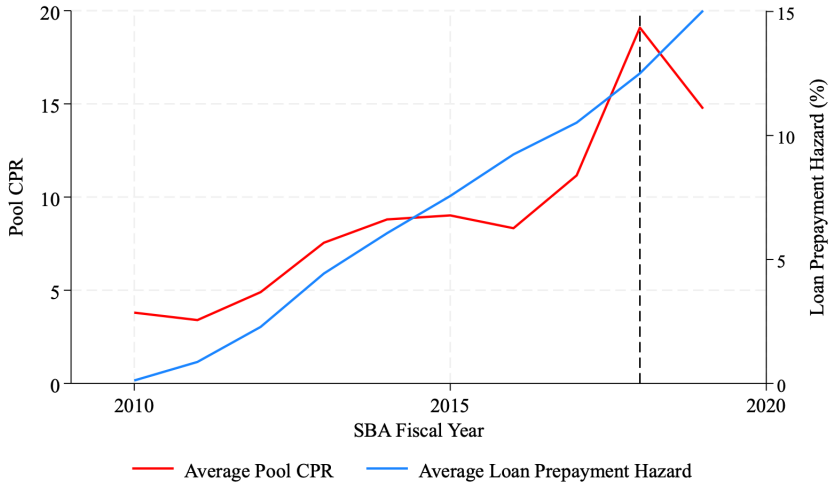


Figure 4: Pool Versus Loan Prepayment Over Time

This figure displays average prepayment behavior for SBA pools and securitized SBA loans over the period from 2010 to 2019. The vertical line highlights the October 2017 (SBA fiscal year 2018) regulatory change related to the release of excess amortization. At the pool level, prepayment is measured using the average of pool Constant Prepayment Rates (CPR), a metric provided by the SBA's Fiscal Transfer Agent (FTA). At the loan level, prepayment is measured using an annual loan prepayment hazard, defined as the share of outstanding securitized loans that prepay in a given fiscal year, conditional on remaining outstanding at the start of the year.

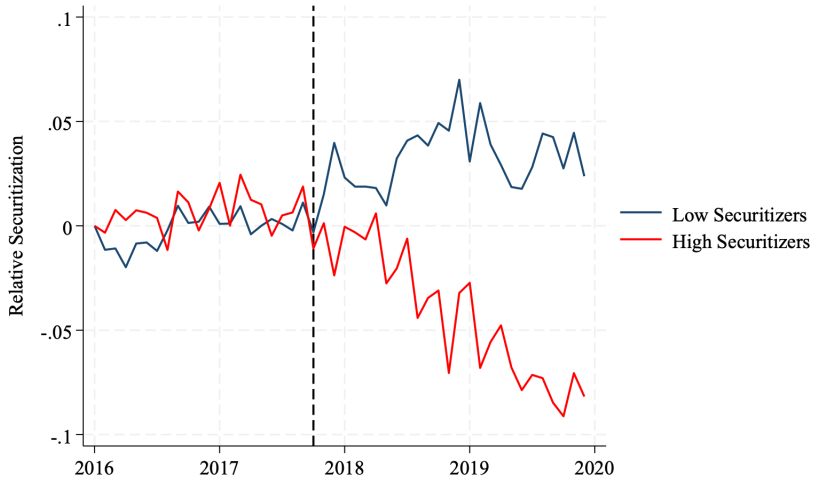
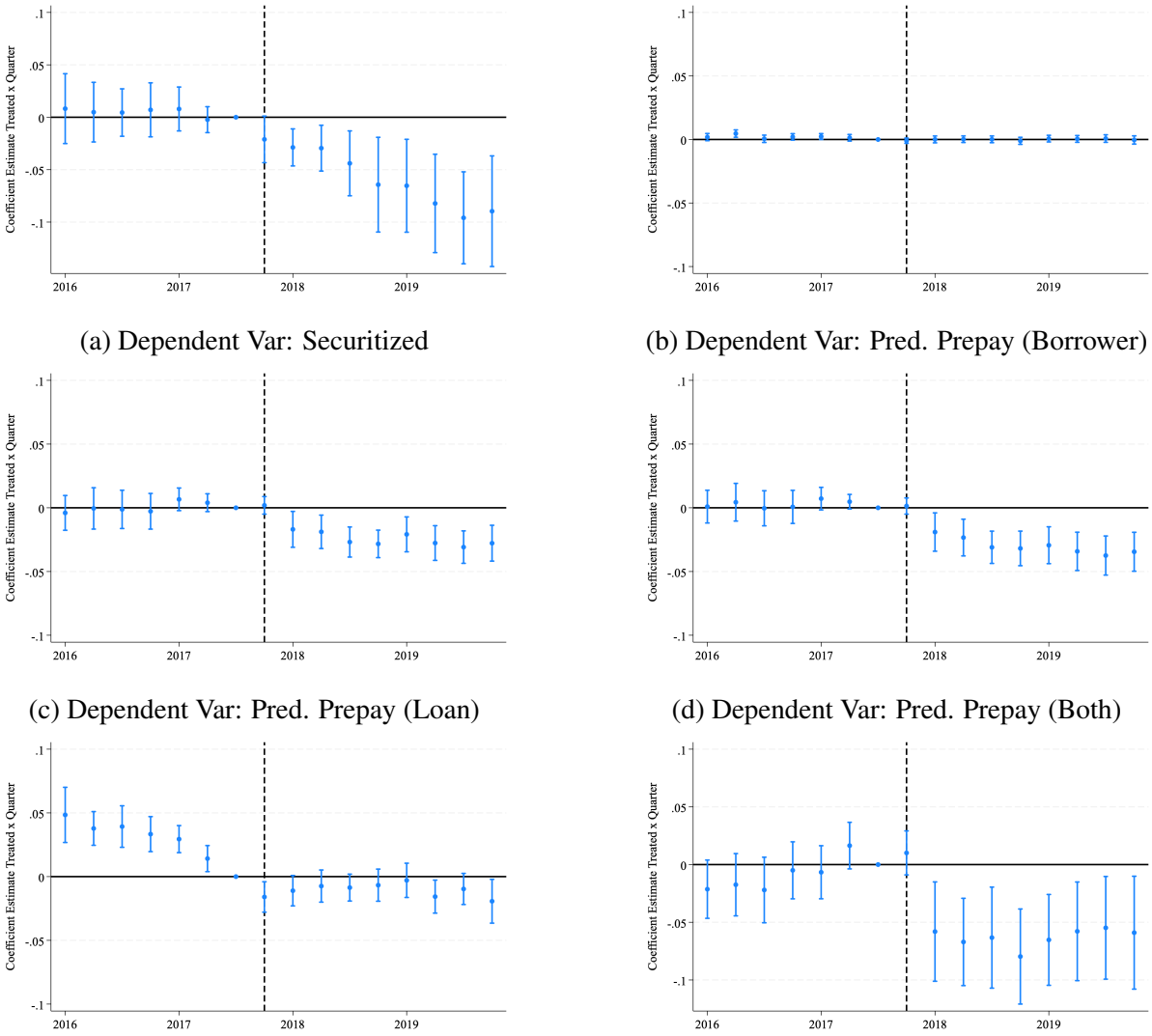


Figure 5: Securitization Rates for Lender Groups

This figure depicts securitization rates, normalized to the initial period, for high and low securitizing lenders from 2016 to 2020. High securitizing lenders are defined as those that securitized at least 60% of their originated loans during the pre-regulatory period, while low securitizing lenders are those that securitized less than 60% of their originated loans in the same period. The vertical line highlights the October 2017 SBA regulatory change related to the release of excess amortization.



(a) Dependent Var: Securitized

(b) Dependent Var: Pred. Prepay (Borrower)

(c) Dependent Var: Pred. Prepay (Loan)

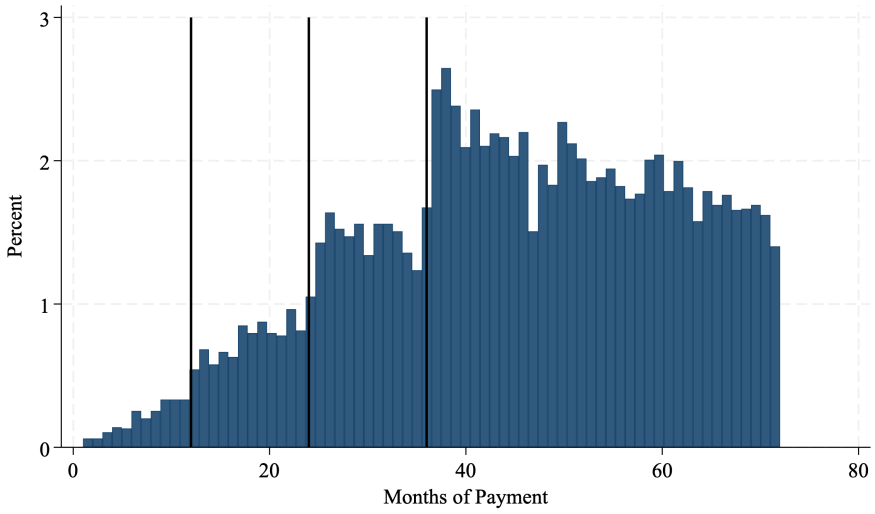
(d) Dependent Var: Pred. Prepay (Both)

(e) Dependent Var: Prepaid

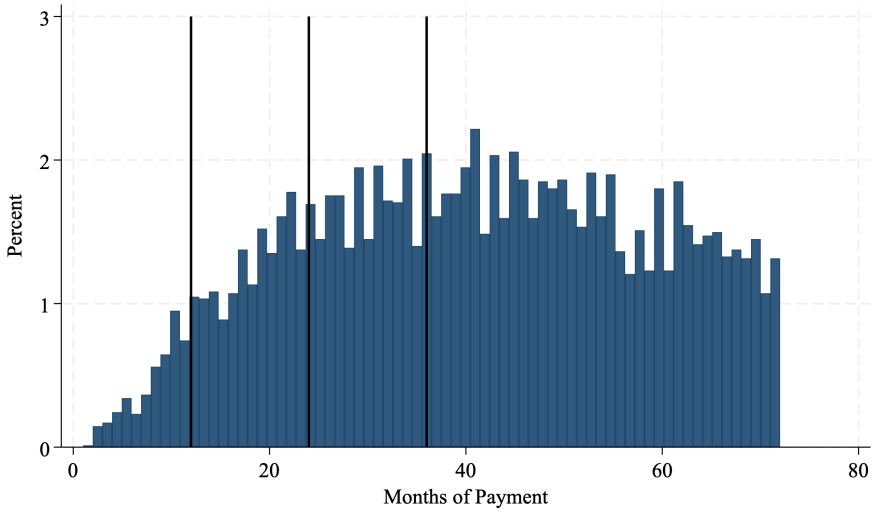
(f) Dependent Var: Prepayment Speed

Figure 6: Difference-in-Differences Regression: Prepayment Following Shock

This figure presents the estimated coefficients and 95% confidence intervals for the interaction term *High Securitizer* × *Quarter*. Each subfigure corresponds to a different dependent variable: (a) securitized: an indicator for whether the loan was sold on the secondary market, (b) predicted prepayment (borrower): expected prepayment based on borrower characteristics, (c) predicted prepayment (loan): expected prepayment based on loan characteristics, (d) predicted prepayment (both): expected prepayment incorporating both borrower and loan characteristics, (e) prepaid: a binary indicator equal to 1 if the loan is prepaid and 0 otherwise, and (f) prepayment speed: the number of months the loan is prepaid before its scheduled maturity, scaled by the loan term. The vertical line marks the pre-regulatory period (Q1 2016 – Q3 2017) to the post-regulatory period (Q4 2017 – Q4 2019). High securitizers are defined as lenders that securitized at least 60% of originated loan volume prior to the policy change. The 60% threshold provides a natural separation between lenders with high and low reliance on securitization, and the results are robust to alternative cutoffs between 40% and 80% (see Appendix Figure A.3).



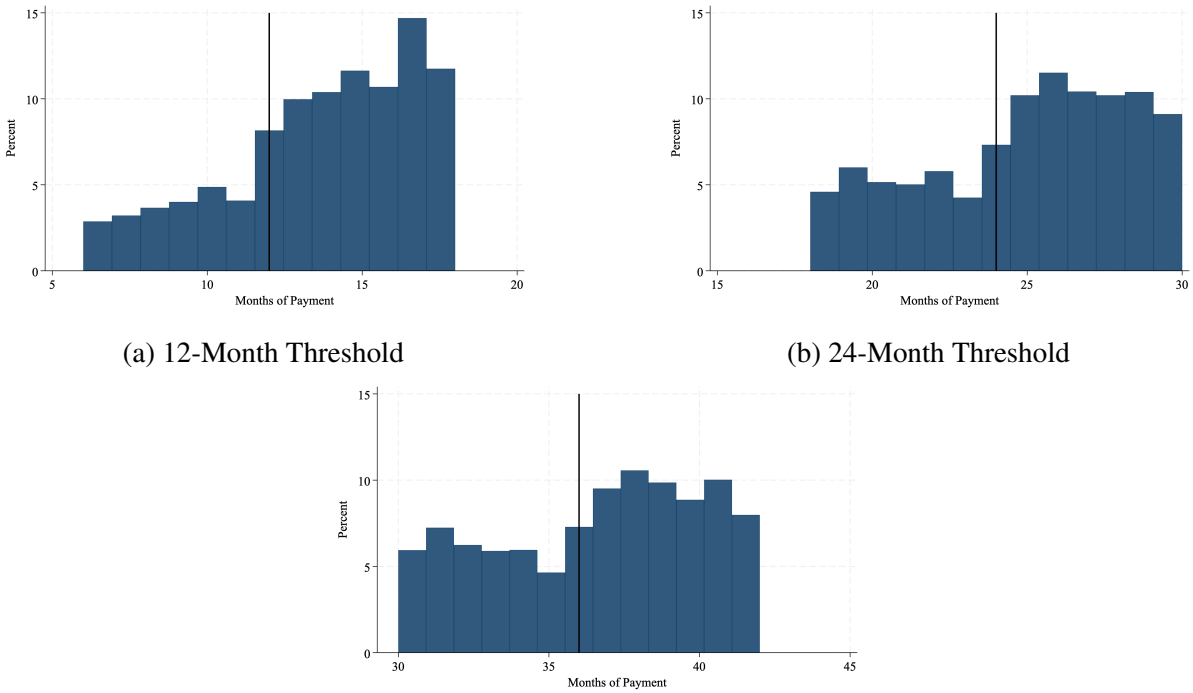
(a) Treated Loans



(b) Control Loans

Figure 7: Months of Payment for Treated and Control Loans

This figure features the density distribution of months of payment for loans prepaid loan in the first 6 years following disbursement for (a) treated loans and (b) control loans. Treated loans are subject to prepayment penalties, defined as those with maturities of 15 to 20 years. Control loans are not subject to prepayment penalties, defined as those with maturities greater than 10 years but less than 15 years. The vertical lines indicate the thresholds for prepayment fees: 5% fee applies if a treated loan is prepaid within the first 12 months of disbursement, 3% fee applies if a treated loan is prepaid within 24 months of disbursement, and 1% fee applies if a treated loan is prepaid within 36 months of disbursement.



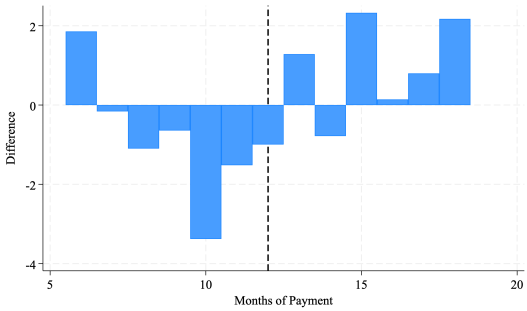
(a) 12-Month Threshold

(b) 24-Month Threshold

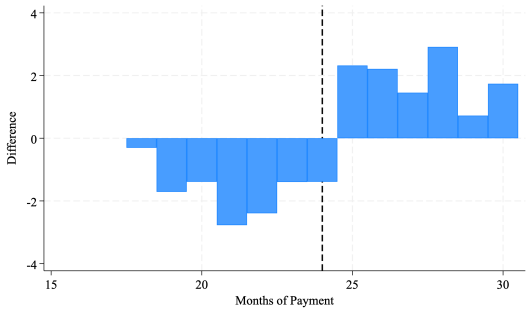
(c) 36-Month Threshold

Figure 8: Months of Payment for Treated Loans

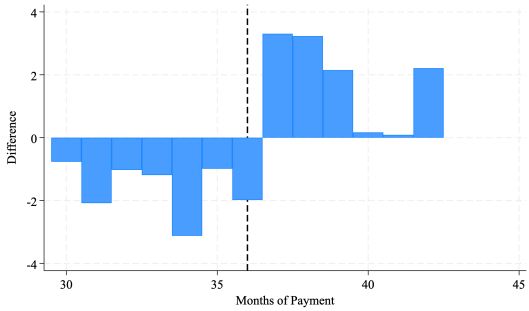
This figure presents the density distribution of months of payment for prepaid loans that pay within 6 years after disbursement that are subject to prepayment fees, categorized by prepayment timing: (a) 6 to 18 months, (b) 18 to 30 months, and (c) 30 to 42 months. The vertical lines represent the corresponding prepayment fee thresholds of (a) 5% at 12 months, (b) 3% at 24 months, and (c) 1% at 36 months.



(a) 12-Month Threshold



(b) 24-Month Threshold



(c) 36-Month Threshold

Figure 9: Differences Between Treated and Actual Counterfactual

This figure plots the differences in the density distribution of months of payment between treated loans (subject to prepayment fees) and control loans (not subject to prepayment fees) for prepaid loans. The figures are categorized by prepayment timing: (a) 6 to 18 months, (b) 18 to 30 months, and (c) 30 to 42 months. The vertical lines represent the corresponding prepayment fee thresholds of (a) 5% at 12 months, (b) 3% at 24 months, and (c) 1% at 36 months.

Table I: Summary Statistics

This table reports summary statistics of the main analysis variables. Our sample is from 2010–2024. The columns report the mean, standard deviation, 25th percentile, median, 75th percentile, and number of observations, respectively. *SBA 7(a) Loan Level Variables* consist of SBA 7(a) loan observations, excluding loans with a canceled status and those missing primary variables. *Pool-Level Variables* consist of SBA 7(a) pools using FTA Payoff data merged with data from Bloomberg. For variable descriptions, see Appendix Table A.1.

	Mean	Std Dev	25th Pctile	Median	75th Pctile	# Obs.
SBA 7(a) Loans						
Securitized	.278	.45	0	0	1	742,290
SBA Guarantee (%)	66.2	15	50	75	75	742,290
Interest Rate (%)	7.24	2.3	5.5	6.5	8.5	742,290
Spread over Base Rate (%)	2.73	1.5	1.9	2.6	3.1	742,290
Loan Amount ($ thousands)	421	710	50	150	433	742,290
Term in Months	128	77	84	120	120	742,290
Number of Jobs Supported	10.7	20	2	5	12	742,290
Fixed Rate	.198	.4	0	0	0	742,290
Revolver Status	.297	.46	0	0	1	742,290
Paid in Full[a]	.55	.5	0	1	1	742,248
Charged Off	.0459	.21	0	0	0	742,248
Charge Off Amount ($)	3,676	21,745	0	0	0	742,290
Charge Off to Loan	.0334	.16	0	0	0	742,290
Business is Corporation	.897	.3	1	1	1	742,290
Business is Individual	.0871	.28	0	0	0	742,290
Business is Partnership	.0159	.13	0	0	0	742,290
Standard/Small 7(a)	.391	.49	0	0	1	742,290
SBA Express	.452	.5	0	0	1	742,290
Prepaid	.838	.37	1	1	1	407,001
Predicted Prepayment (Borrower)	.843	.047	.81	.84	.87	598,158
Predicted Prepayment (Loan)	.859	.15	.82	.9	.94	742,084
Predicted Prepayment (Both)	.854	.16	.82	.89	.95	597,962
Months Prepaid	78.7	76	25	55	94	340,940
Prepayment Speed	.54	.27	.32	.58	.77	340,940

[a] Indicator equal to one if the SBA loan status is "Paid in Full" and zero otherwise, including ongoing and charged-off loans.

Table I: Summary Statistics - *Continued*

	Mean	Std Dev	25th Pctile	Median	75th Pctile	# Obs.
Pool-Level Variables						
Initial Price	107	6	101	108	112.2	2,764
Initial Coupon	7.64	1.7	6	8.1	9.10	3,930
Principal in Pool ($ millions)	11.7	12	2.8	8.1	16.6	3,930
Number of Loans in Pool	46	57	17	31	53	3,930
Standard Pool	.705	.46	0	1	1	3,930
Fixed Rate	.0249	.16	0	0	0	3,930

Table II: Predicted Prepayment and Default

This table features the construction and analysis of predicted prepayment and default probabilities based on borrower and loan characteristics. Panel A presents results from logistic regressions of two loan outcomes: *Prepaid*, an indicator equal to 1 if the borrower prepays, and *Charge Off*, an indicator equal to 1 if the borrower defaults, on sets of borrower and loan characteristics. The estimated coefficients from these models are then used to generate predicted probabilities. Specifically, the regressions yield six predicted variables: (1) *Pred. Prepay (Borrower)*, (2) *Pred. Prepay (Loan)*, (3) *Pred. Prepay (Both)*, (4) *Pred. Charge Off (Borrower)*, (5) *Pred. Charge Off (Loan)*, and (6) *Pred. Charge Off (Both)*. Panel B reports the pairwise correlation coefficients among these predicted measures.

Panel A: Prediction Regressions

Dependent Variable	Prepaid			Charged Off		
Variable Being Predicted	Pred. Prepay (Borrower)	Pred. Prepay (Loan)	Pred. Prepay (Both)	Pred. Charge Off (Borrower)	Pred. Charge Off (Loan)	Pred. Charge Off (Both)
	(1)	(2)	(3)	(4)	(5)	(6)
Business is Corporation	1.053		1.187***	1.743***		1.691***
	(0.036)		(0.044)	(0.101)		(0.107)
Business is Individual	0.814***		1.057	1.947***		1.739***
	(0.029)		(0.042)	(0.117)		(0.115)
Log Loan Amount		1.091***	1.079***		1.002	1.028***
		(0.006)	(0.006)		(0.007)	(0.008)
Revolver Status		1.179***	1.191**		0.403***	0.396***
		(0.016)	(0.017)		(0.007)	(0.008)
Spread Over Base Rate		0.985***	1.002		1.575***	1.587***
		(0.003)	(0.004)		(0.009)	(0.009)
Log Term in Months		6.059***	6.213***		0.186***	0.167***
		(0.065)	(0.070)		(0.002)	(0.002)
Fixed Rate		1.366***	1.299***		0.313***	0.303***
		(0.018)	(0.018)		(0.006)	(0.006)
SBA Express		1.369***	1.322***		0.465***	0.466***
		(0.022)	(0.022)		(0.010)	(0.010)
Standard 7(a)		2.079***	2.025***		1.482***	1.446***
		(0.050)	(0.051)		(0.040)	(0.041)
Small 7(a)		1.744***	1.713***		1.621***	1.622***
		(0.033)	(0.034)		(0.034)	(0.036)
Industry FE	Yes	No	Yes	Yes	No	Yes
County FE	Yes	No	Yes	Yes	No	Yes
Observations	391,088	406,964	391,051	425,009	442,340	424,826
Pseudo R^2	0.021	0.161	0.167	0.018	0.201	0.219

Panel B: Correlation Matrix

	Pred. Prepay (Borrower)	Pred. Prepay (Loan)	Pred. Prepay (Both)	Pred. Charge Off (Borrower)	Pred. Charge Off (Loan)	Pred. Charge Off (Both)
Pred. Prepay (Borrower)	1.00					
Pred. Prepay (Loan)	0.208***	1.00				
Pred. Prepay (Both)	0.286***	0.986***	1.00			
Pred. Charge Off (Borrower)	-0.195***	-0.081***	-0.077***	1.00		
Pred. Charge Off (Loan)	-0.085***	-0.698***	-0.716***	0.077***	1.00	
Pred. Charge Off (Both)	-0.044***	-0.708***	-0.692***	0.233***	0.964***	1.00

Standard errors in parentheses. * p<.10, ** p<.05, *** p<.01

Table III: Securitized Versus Not Securitized

This table reports univariate differences between securitized loans and not securitized loans at the loan level from 2010–2024. The columns report the mean of securitized loans, mean of not securitized loans, difference between the means, and number of observations, respectively.

	Securitized (1)	Not Securitized (2)	Securitized - Not Securitized (1-2)	
	Mean	Mean	Diff.	Obs.
Loan Characteristics				
SBA Guarantee (%)	78.84	61.37	17.48***	740,763
Interest Rate (%)	7.16	7.27	-0.12***	740,763
Spread over Base Rate (%)	2.61	2.78	-0.16***	740,763
Loan Amount ($ thousands)	736.08	300.57	435.51***	740,763
Term in Months	168.35	112.49	55.86***	740,763
Number of Jobs Supported	13.13	9.72	3.41***	740,763
Fixed Rate	0.03	0.26	-0.24***	740,763
Revolver Status	0.00	0.41	-0.41***	740,763
Paid in Full	0.47	0.58	-0.12***	740,763
Charged Off	0.05	0.04	0.01***	740,763
Charge Off to Loan	0.04	0.03	0.01***	740,763
Standard/Small 7(a)	0.74	0.26	0.49***	740,763
SBA Express	0.01	0.62	-0.61***	740,763
Borrower Characteristics				
Business is Corporation	0.92	0.89	0.03***	740,763
Business is Individual	0.06	0.10	-0.03***	740,763
Business is Partnership	0.02	0.02	-0.00	740,763
Prepayment Variables				
Prepaid	0.94	0.81	0.12***	391,088
Months Prepaid	132.40	59.61	72.79***	340,940
Prepayment Speed	0.66	0.50	0.16***	340,940
Pred. Prepayment (Borrower)	0.86	0.83	0.03***	507,404
Pred. Prepayment (Loan)	0.93	0.82	0.10***	507,404
Pred. Prepayment (Both)	0.93	0.82	0.11***	507,404

* p<.10, ** p<.05, *** p<.01

Table IV: Securitization and Prepayment

The table uses loan-level data from 2010–2024. The dependent variables measure prepayment: (1) *Pred. Prepay (Borrower)*, the expected probability based on borrower traits; (2) *Pred. Prepay (Loan)*, the expected probability based on loan traits; (3) *Pred. Prepay (Both)*, the expected probability based on borrower and loan traits; (4) *Prepaid*, an indicator that a loan is prepaid; and (5) *Prepayment Speed*, the months prepaid before term, scaled to term. The key independent variable, *Securitized*, is an indicator for whether the loan's guaranteed portion is sold on the secondary market. Controls include loan characteristics, borrower characteristics, and program types. I include combinations of lender, quarter, county-quarter and industry-quarter fixed effects. Standard errors are clustered at the lender and borrower levels.

	Pred. Prepay (Borrower)	Pred. Prepay (Loan)	Pred. Prepay (Both)	Prepaid	Prepayment Speed
	(1)	(2)	(3)	(4)	(5)
Securitized	0.004***	0.071***	0.094***	0.012**	0.026***
	(0.001)	(0.007)	(0.007)	(0.005)	(0.008)
Log Loan Amount	0.002***			-0.001	0.030***
	(0.000)			(0.003)	(0.002)
Revolver Status	-0.006***			-0.014	0.028**
	(0.001)			(0.010)	(0.012)
Spread Over Base Rate	0.000**			0.009***	0.003
	(0.000)			(0.002)	(0.003)
Log Term in Months	0.008***			0.106***	
	(0.001)			(0.005)	
Fixed Rate	-0.001			-0.015**	-0.010
	(0.001)			(0.007)	(0.013)
Business is Corporation		-0.016***		0.006	-0.002
		(0.005)		(0.004)	(0.007)
Business is Individual		-0.031***		-0.001	-0.002
		(0.007)		(0.005)	(0.008)
SBA Express	0.005***			-0.010	-0.027**
	(0.001)			(0.012)	(0.012)
Standard 7(a)	0.006***			0.006	0.076***
	(0.001)			(0.006)	(0.006)
Small 7(a)	0.003***			0.010	0.028***
	(0.001)			(0.006)	(0.005)
Paid in Full				0.899***	
				(0.006)	
Lender FE	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes	No	Yes	No	No
County × Quarter FE	No	Yes	No	Yes	Yes
Industry × Quarter FE	No	Yes	No	Yes	Yes
Observations	570,591	708,264	570,591	708,264	314,867
Adjusted R^2	0.223	0.257	0.213	0.740	0.257

Standard errors in parentheses. * p<.10, ** p<.05, *** p<.01

Table V: Credit Supply Effects of the Excess Amortization Policy Change

The table reports difference-in-differences estimates using loan-level data from 2016–2019. The dependent variables measure securitization and prepayment: (1) *Securitized*, an indicator for whether the loan's guaranteed portion is sold on the secondary market; (2) *Pred. Prepay (Borrower)*, the expected probability based on borrower traits; (3) *Pred. Prepay (Loan)*, the expected probability based on loan traits; (4) *Pred. Prepay (Both)*, the expected probability based on borrower and loan traits; (5) *Prepaid*, an indicator that a loan is prepaid; and (6) *Prepayment Speed*, the months prepaid before term, scaled to term. The key independent variable is the interaction between *High Securitizer* which is an indicator for lenders that securitized at least 60% of loans in the pre-event period and *Post* which is an indicator for the post-regulatory period, beginning in Q4 2017. Controls include loan characteristics, borrower characteristics, and program types. I include combinations of lender, quarter, county-quarter and industry-quarter fixed effects. Standard errors are clustered at the lender and borrower levels.

	Securitized	Pred. Prepay (Borrower)	Pred. Prepay (Loan)	Pred. Prepay (Both)	Prepaid	Prepayment Speed
	(1)	(2)	(3)	(4)	(5)	(6)
High Securitizer × Post	-0.059***	-0.002*	-0.022***	-0.028***	-0.038***	-0.044***
	(0.017)	(0.001)	(0.007)	(0.006)	(0.007)	(0.015)
Log Loan Amount	0.017**	0.002***			-0.004	0.028***
	(0.008)	(0.000)			(0.004)	(0.003)
Revolver Status	-0.148***	-0.006***			-0.007	0.013
	(0.028)	(0.001)			(0.011)	(0.020)
Spread Over Base Rate	0.043***	0.000*			0.009***	0.001
	(0.010)	(0.000)			(0.002)	(0.004)
Log Term in Months	0.017**	0.008***			0.101***	
	(0.009)	(0.001)			(0.005)	
Fixed Rate	-0.170***	-0.002			-0.031***	-0.029*
	(0.026)	(0.001)			(0.007)	(0.015)
Business is Corporation	0.010**		-0.016***		0.011**	-0.002
	(0.004)		(0.004)		(0.004)	(0.007)
Business is Individual	0.012**		-0.032***		0.002	-0.012
	(0.005)		(0.007)		(0.006)	(0.008)
SBA Express	-0.174***	0.005**			-0.024**	-0.055***
	(0.037)	(0.002)			(0.010)	(0.017)
Standard 7(a)	0.044***	0.007***			-0.006	0.078***
	(0.017)	(0.001)			(0.007)	(0.008)
Small 7(a)	0.025**	0.004***			0.001	0.025***
	(0.012)	(0.001)			(0.007)	(0.008)
Paid in Full					0.936***	
					(0.006)	
Lender FE	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	No	Yes	No	Yes	No	No
County × Quarter FE	Yes	No	Yes	No	Yes	Yes
Industry × Quarter FE	Yes	No	Yes	No	Yes	Yes
Observations	199,524	199,524	199,524	199,524	199,524	112,706
Adjusted R^2	0.763	0.230	0.227	0.199	0.799	0.280

Standard errors in parentheses. * p<.10, ** p<.05, *** p<.01

Table VI: Prepayment Risk and Credit Reallocation Across Industries

The table reports difference-in-differences estimates using a balanced lender-industry group-quarter panel from 2016–2019, restricted to lender-industry group pairs in which the lender originated at least one loan prior to the shock. Column (1) examines whether a lender originated any loan to an industry group in a given quarter. Columns (2) and (3) examine the total amount and total number of loans originated by a lender in an industry group-quarter. *High Prepay Industry* is an indicator equal to one for 3-digit NAICS subsectors whose share of loans prepaid during the pre-shock period exceeds the 75th percentile of the cross-subsector distribution of prepayment rates. *High Securitizer* is an indicator equal to one for lenders that securitized at least 60% of originated loan volume during the pre-event period, and *Post* is an indicator for the post-regulatory period beginning in Q4 2017. All specifications include lender-by-quarter, lender-by-high-prepayment-industry, and high-prepayment-industry-by-quarter fixed effects. Standard errors are clustered at the lender level.

	Any Lending	Log(Total Amount + 1)	Log(# of Loans + 1)
	(1)	(2)	(3)
High Securitizer × High Prepay Ind. × Post	-0.044**	-0.654**	-0.093***
	(0.020)	(0.271)	(0.030)
Lender × Quarter FE	Yes	Yes	Yes
Lender × High Prepay Ind. FE	Yes	Yes	Yes
High Prepay Ind. × Quarter FE	Yes	Yes	Yes
Observations	51,136	51,136	51,136
Adjusted R^2	0.535	0.602	0.844

Standard errors in parentheses. * p<.10, ** p<.05, *** p<.01

Table VII: Loan Terms and Prepayment Effects

This table compares firms that prepaid their prior loan to those that did not. The sample includes borrowers with multiple loans from 2010-2024. The key variables measure differences in loan terms between the first and second loans. Panel A reports univariate differences, showing: the mean term difference following prepaid loans, the mean term difference following non-prepaid loans, the difference between these means, and the number of observations, respectively. Panel B presents regression estimates, with dependent variables: *Difference in Spread*, the second loan spread minus first loan spread; *Difference in Jobs Supported*, the jobs supported by the second loan minus the first; and *Difference in Size (thousands $)*, the loan amount of the second loan minus the first. The key independent variable, *Prepaid Prior Loan*, indicates whether the first loan was prepaid. Controls include *Months Between Loans*, with fixed effects for county-quarter of the first loan and industry-quarter of the first loan. Standard errors are clustered at the borrower level.

Panel A: Univariate Results

	Prepaid Prior (1)	Not Prepaid Prior (2)	Prepaid - Not Prepaid (1-2)	Obs.
	Mean	Mean	Diff.	Obs.
Difference in Spread	-0.24	-0.00	-0.24***	53,293
Difference in Jobs Supported	0.69	0.05	0.63***	53,293
Difference in Size (thousands $)	-71.89	-169.26	97.38***	53,293

Panel B: Regression Results

	Difference in Spread	Difference in Jobs Supported	Difference in Size (thousands $)
	(1)	(2)	(3)
Prepaid Prior Loan	-0.159***	0.703**	63.814***
	(0.019)	(0.307)	(9.053)
Months Between Loans	-0.006***	0.025***	3.347***
	(0.000)	(0.006)	(0.195)
Log Loan Amount	-0.133***	-0.602***	-195.345***
	(0.008)	(0.163)	(5.302)
Revolver Status	-0.268***	0.888***	56.858***
	(0.023)	(0.340)	(10.010)
Spread Over Base Rate	-0.616***	-0.224*	-47.807***
	(0.010)	(0.116)	(3.842)
Log Term in Months	0.003	-0.078	-97.214***
	(0.016)	(0.272)	(8.908)
County × Quarter FE	Yes	Yes	Yes
Industry × Quarter FE	Yes	Yes	Yes
Observations	30,093	30,093	30,093
Adjusted R^2	0.299	0.005	0.260

Standard errors in parentheses. * p<.10, ** p<.05, *** p<.01

Table VIII: Prepayment Penalties: Elasticity Estimates

This table presents excess mass and elasticity estimates around the three prepayment penalty thresholds (12, 24, and 36 months) using loan-level data from 2010 to 2024. Panel A treats loans with maturities of 15 to 25 years as the affected group and loans with maturities of 10 to 15 years as the counterfactual. Panel B uses loans with maturities of 15 to 25 years as the treated group and estimates the counterfactual with a second-degree polynomial, incorporating a dummy for multiples of 6-month payment periods. Excess mass is the difference between actual and expected loan prepayments beyond the threshold, ΔB is the point where excess mass equals missing mass in months of payment, $\Delta\Gamma$ is the change in the penalty at the threshold, elasticity is borrower sensitivity of prepayment timing to changes in prepayment penalties, and calculation is the method used to estimate elasticity. Standard errors are calculated using an empirical bootstrap with 1,000 repetitions, resampling the distribution of loans at the borrower level.

Panel A: Using Actual Counterfactual					
	Excess Mass	ΔB	ΔΓ	Elasticity	Observations
12 Month Threshold	24.86	2	0.02	8.817	1,693
	(25.176)	(1.019)		(4.492)	
24 Month Threshold	84.22	4	0.02	8.821	3,487
	(36.156)	(1.062)		(2.342)	
36 Month Threshold	152.95	3	0.01	8.829	4,859
	(54.832)	(0.844)		(2.482)	
Panel B: Using Estimated Counterfactual (2-degree polynomial)					
	Excess Mass	ΔB	ΔΓ	Elasticity	Observations
12 Month Threshold	14.28	3	0.02	13.170	756
	(29.259)	(1.029)		(4.535)	
24 Month Threshold	55.59	4	0.02	8.819	1,767
	(44.149)	(1.094)		(2.412)	
36 Month Threshold	138.00	3	0.01	8.824	2,880
	(55.353)	(1.004)		(2.953)	

Standard errors in parentheses.

A Appendix

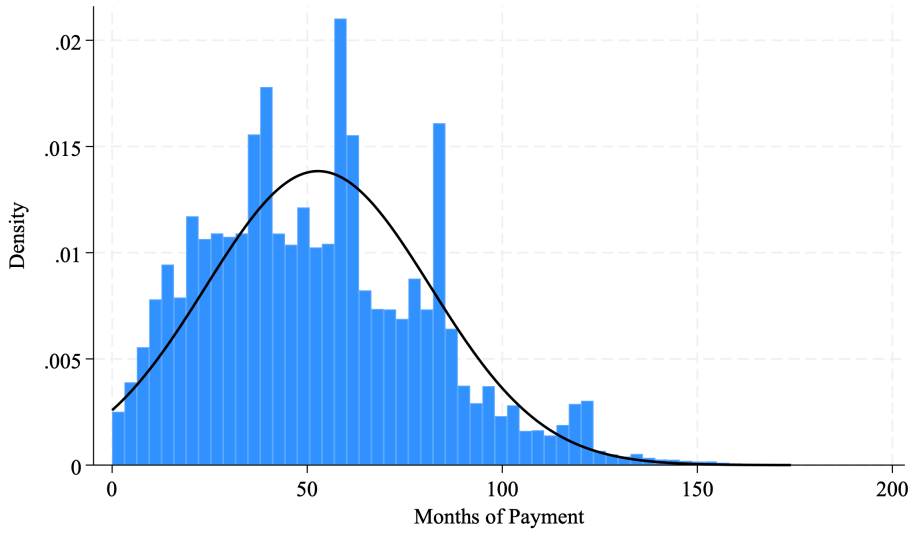


Figure A.1: Payment in Months for Prepaid Loans

This figure plots the density distribution of the number of months of payment for all prepaid SBA loans.

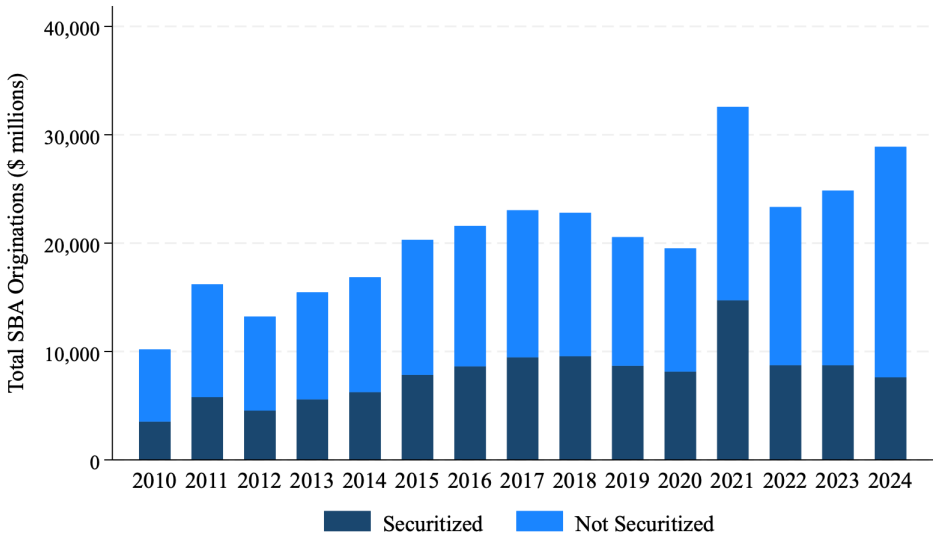
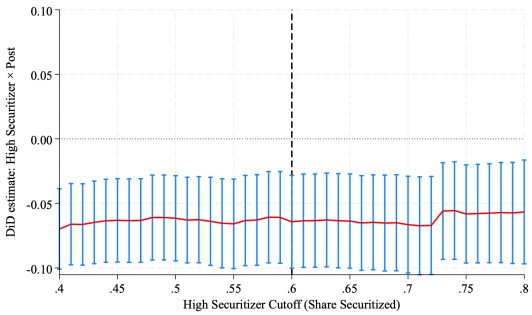
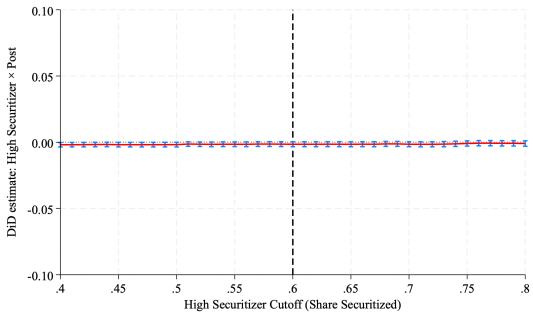


Figure A.2: SBA Gross Approvals and Securitization Over Time

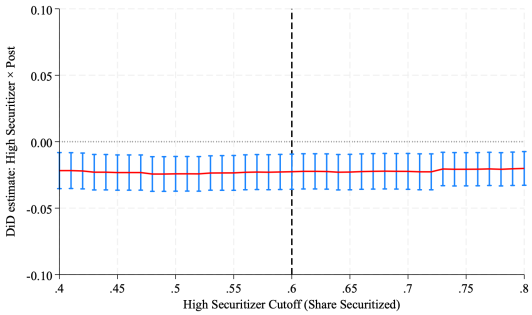
This figure displays total SBA 7(a) loan originations by year, measured as the sum of gross approvals for all non-canceled loans, with the securitized portion highlighted. Each bar represents total annual SBA loan volume, with the navy segment corresponding to securitized loans and the blue segment corresponding to non-securitized loans. Amounts are expressed in millions of dollars.



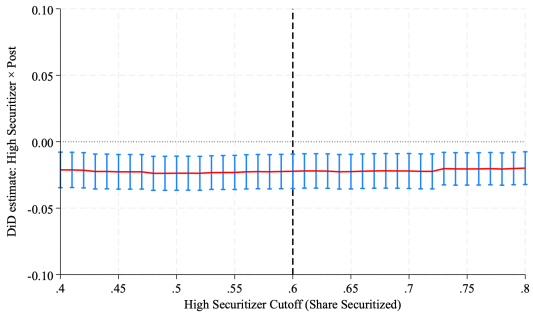
(a) Dependent Var: Securitized



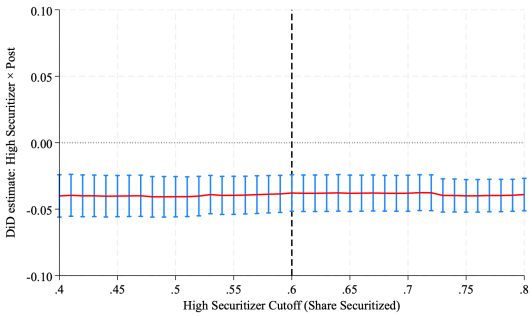
(b) Dependent Var: Pred. Prepay (Borrower)



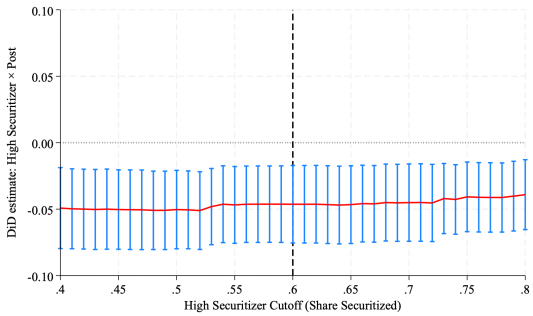
(c) Dependent Var: Pred. Prepay (Loan)



(d) Dependent Var: Pred. Prepay (Both)



(e) Dependent Var: Prepaid



(f) Dependent Var: Prepayment Speed

Figure A.3: Specification Curves: Altering High Securitizer Cutoff

This figure presents specification curves for the difference-in-differences estimates obtained by varying the cutoff used to classify lenders as high securitizers. Each point plots the estimated coefficient on the interaction term *High Securitizer* × *Post*, with vertical bars denoting 95% confidence intervals, as the high-securitizer threshold is varied from 40% to 80% of loans securitized. Each subfigure corresponds to a different dependent variable: (a) securitized, a binary variable equal to one if the loan is securitized; (b) predicted prepayment (borrower), defined as expected prepayment based on borrower characteristics; (c) predicted prepayment (loan), defined as expected prepayment based on loan characteristics; (d) predicted prepayment (both), incorporating both borrower and loan characteristics; (e) prepaid, a binary indicator equal to one if the loan prepays; and (f) prepayment speed, measuring the number of months a loan prepays prior to its scheduled maturity, scaled by loan term. The vertical dashed line marks the baseline cutoff of 60% used in the main analysis.

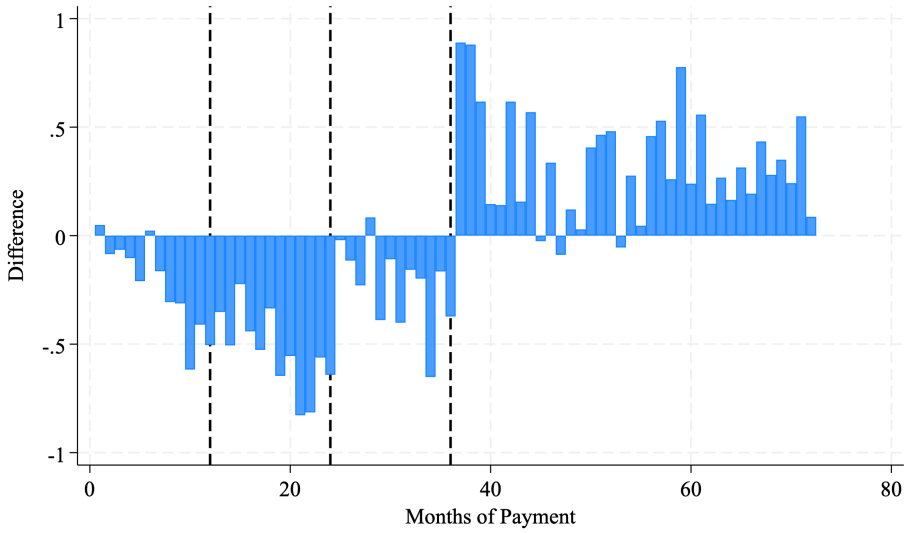
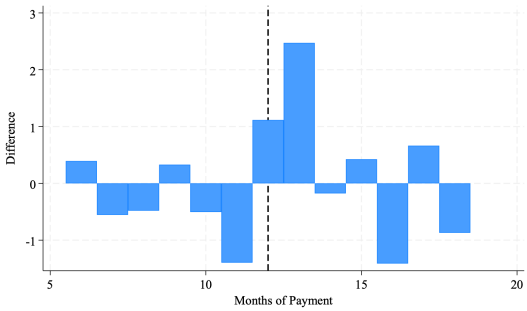
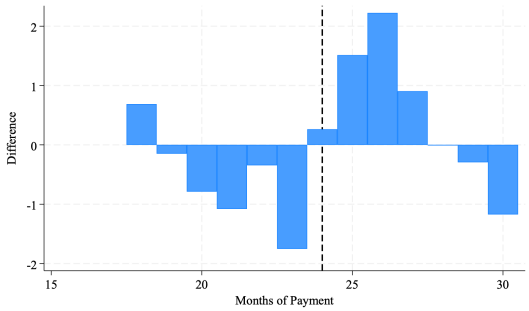


Figure A.4: Differences Between Treated and Actual Counterfactual

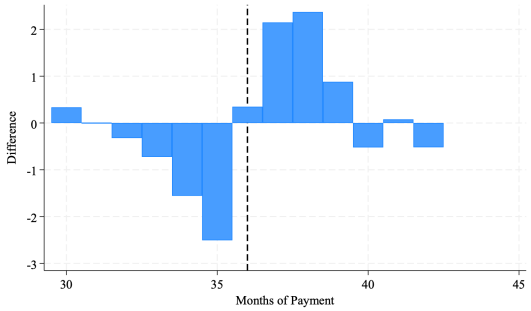
This figure plots the differences in the density distribution of months of payment between treated loans (subject to prepayment fees) and control loans (not subject to prepayment fees) for prepaid loans paid within the first 6 years following disbursement. The vertical lines indicate the thresholds for prepayment fees: 5% fee applies if a treated loan is prepaid within the first 12 months of disbursement, 3% fee applies if a treated loan is prepaid within 24 months of disbursement, and 1% fee applies if a treated loan is prepaid within 36 months of disbursement.



(a) 12-Month Threshold



(b) 24-Month Threshold



(c) 36-Month Threshold

Figure A.5: Differences Between Treated and Estimated Counterfactual

This figure depicts the differences in the density distribution of months of payment between prepaid treated loans (subject to prepayment fees) and their estimated counterfactual (what the distribution would be if those loans were not subject to prepayment fees). The figures are categorized by prepayment timing: (a) 6 to 18 months, (b) 18 to 30 months, and (c) 30 to 42 months. The vertical lines represent the corresponding prepayment fee thresholds of (a) 5% at 12 months, (b) 3% at 24 months, and (c) 1% at 36 months.

Table A.1: Variable Definitions

Variable	Description
Business is Corporation	Indicator equal to one if the borrower is classified as a corporation and zero otherwise.
Business is Individual	Indicator equal to one if the borrower is classified as an individual proprietor and zero otherwise.
Business is Partnership	Indicator equal to one if the borrower is classified as a partnership and zero otherwise.
Charged Off	Indicator equal to one if the loan is deemed uncollectible and zero otherwise.
Charge Off Amount ($)	Dollar amount deemed as uncollectible by the lender.
Charge Off to Loan	Dollar amount deemed as uncollectible divided by the original loan amount.
Constant Prepayment Rate (CPR)	Annualized percentage of the outstanding principal balance in an SBA 7(a) loan pool that prepays before contractual maturity, measuring the pool's prepayment speed.
Fixed Rate	Indicator equal to one if the loan has a fixed interest rate and zero if it has a variable rate.
High Prepay Industry	Indicator equal to one if the borrower's 3-digit NAICS industry has a pre-shock prepayment rate above the 75th percentile.
High Securitizer	Indicator equal to one if the lender securitized at least 60% of SBA 7(a) loan originations before October 2017.
Initial Pool Price	Initial secondary-market price of an SBA 7(a) loan pool, expressed as a percentage of par.
Interest Rate (%)	Interest rate charged on the SBA 7(a) loan at origination.
Loan Amount ($ thousands)	Original loan amount, measured in thousands of dollars.
Months Prepaid	Number of months by which a prepaid loan is paid off before its contractual maturity.
Number of Jobs Supported	Number of jobs the borrower reports will be supported by the loan.
Paid in Full	Indicator equal to one if the loan is reported as paid in full.
Post	Indicator equal to one for observations after October 1, 2017, and zero otherwise.
Prepaid	Indicator equal to one if a paid-in-full loan was paid before maturity and zero otherwise.
Prepayment Speed	Ratio of months prepaid to the original contractual loan term, measuring the share of the loan term remaining at prepayment.
Predicted Prepayment (Borrower)	Fitted probability of prepayment from a logit model using borrower characteristics only.

Variable	Description
Predicted Prepayment (Both)	Fitted probability of prepayment from a logit model using both borrower and loan characteristics.
Predicted Prepayment (Loan)	Fitted probability of prepayment from a logit model using loan characteristics only.
Revolver Status	Indicator equal to one if the loan is structured as a revolving line of credit and zero otherwise.
SBA Express	Indicator equal to one if the loan is originated under the SBA Express program and zero otherwise.
SBA Guarantee (%)	Percentage of the original loan amount guaranteed by the SBA.
Securitized	Indicator equal to one if the loan is sold into the SBA secondary market and zero otherwise.
Spread over Base Rate (%)	Interest rate spread over the contractual base rate at origination.
Standard/Small 7(a)	Indicator equal to one if the loan is originated under the Standard or Small 7(a) program and zero otherwise.
Term in Months	Contractual maturity of the loan in months.

Table A.3: Prepaid Versus Not Prepaid

This table reports univariate differences between prepaid loans and not prepaid loans at the loan level from 2010 to 2024. The sample includes all SBA loans that are paid in full over the period. The columns report the mean of prepaid loans, mean of not prepaid loans, difference between the means, and number of observations, respectively.

	Prepaid (1)	Not Prepaid (2)	Prepaid - Not Prepaid (1-2)	
	Mean	Mean	Diff.	Obs.
SBA Guarantee (%)	65.56	59.83	5.73***	342,888
Interest Rate (%)	6.51	6.44	0.07***	342,888
Spread over Base Rate (%)	2.79	3.04	-0.26***	342,888
Loan Amount ($ thousands)	426.20	152.47	273.73***	342,888
Term in Months	133.17	72.83	60.33***	342,888
Number of Jobs Supported	10.99	9.10	1.89***	342,888
Fixed Rate	0.20	0.26	-0.05***	342,888
Revolver Status	0.29	0.43	-0.15***	342,888
Standard/Small 7(a)	0.35	0.12	0.23***	342,888
SBA Express	0.46	0.69	-0.24***	342,888
Business is Corporation	0.88	0.85	0.03***	342,888
Business is Individual	0.10	0.13	-0.03***	342,888
Business is Partnership	0.02	0.02	0.00**	342,888

* p<.10, ** p<.05, *** p<.01

Table A.4: Credit Supply Effects: Continuous Treatment

The table reports difference-in-differences estimates using loan-level data from 2015-2020. The dependent variables measure securitization, predicted prepayment, realized prepayment, and default outcomes, defined as in the main analysis. The key independent variable is the interaction between *Lender Share Securitized* which is the share of loans that the lender securitized in the pre-event period and *Post* which is an indicator for the post-regulatory period, beginning in Q4 2017. Controls include loan characteristics, borrower characteristics, and program types. I include combinations of lender, quarter, county-quarter and industry-quarter fixed effects. Standard errors are clustered at the lender and borrower levels.

	Securitized	Pred. Prepay (Borrower)	Pred. Prepay (Loan)	Pred. Prepay (Both)	Prepaid	Prepayment Speed
	(1)	(2)	(3)	(4)	(5)	(6)
Lender Share Securitized × Post	-0.075***	-0.002*	-0.026***	-0.034***	-0.049***	-0.057***
	(0.018)	(0.001)	(0.009)	(0.008)	(0.011)	(0.020)
Log Loan Amount	0.017**	0.002***			-0.004	0.028***
	(0.008)	(0.000)			(0.004)	(0.003)
Revolver Status	-0.148***	-0.006***			-0.007	0.013
	(0.028)	(0.001)			(0.011)	(0.020)
Spread Over Base Rate	0.043***	0.000*			0.009***	0.001
	(0.010)	(0.000)			(0.002)	(0.004)
Log Term in Months	0.017*	0.008***			0.101***	
	(0.009)	(0.001)			(0.005)	
Fixed Rate	-0.170***	-0.002			-0.031***	-0.029*
	(0.026)	(0.001)			(0.007)	(0.015)
Business is Corporation	0.010**		-0.016***		0.011**	-0.002
	(0.004)		(0.004)		(0.004)	(0.008)
Business is Individual	0.012**		-0.032***		0.002	-0.012
	(0.005)		(0.007)		(0.006)	(0.008)
SBA Express	-0.173***	0.005**			-0.024**	-0.054***
	(0.037)	(0.002)			(0.011)	(0.017)
Standard 7(a)	0.045***	0.007***			-0.006	0.079***
	(0.017)	(0.001)			(0.007)	(0.008)
Small 7(a)	0.026**	0.004***			0.002	0.026***
	(0.012)	(0.001)			(0.007)	(0.008)
Paid in Full					0.936***	
					(0.006)	
Lender FE	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	No	Yes	No	Yes	No	No
County × Quarter FE	Yes	No	Yes	No	Yes	Yes
Industry × Quarter FE	Yes	No	Yes	No	Yes	Yes
Observations	199,524	199,524	199,524	199,524	199,524	112,706
Adjusted R^2	0.763	0.230	0.227	0.200	0.800	0.280

Standard errors in parentheses. * p<.10, ** p<.05, *** p<.01

Table A.5: Placebo Test: Pre-Period Policy Date

This table presents placebo difference-in-differences estimates using loan-level data from January 2015 to June 2016, with a fictitious policy date of October 2015. The dependent variables measure securitization, predicted prepayment, realized prepayment, and default outcomes, defined as in the main analysis. The key independent variable is the interaction between *High Securitizer* which is an indicator for lenders that securitized at least 60% of loans in the pre-event period and *Post (Placebo)* which is an indicator equal to one for loans originated after the placebo policy date. Controls include loan characteristics, borrower characteristics, and program types. I include combinations of lender, quarter, county-quarter and industry-quarter fixed effects. Standard errors are clustered at the lender and borrower levels.

	Securitized	Pred. Prepay (Borrower)	Pred. Prepay (Loan)	Pred. Prepay (Both)	Prepaid	Prepayment Speed
	(1)	(2)	(3)	(4)	(5)	(6)
High Securitizer × Post (Placebo)	-0.012	0.002*	0.001	0.002	-0.028*	0.013
	(0.009)	(0.001)	(0.004)	(0.004)	(0.016)	(0.009)
Log Loan Amount	0.014**	0.002***			-0.002	0.028***
	(0.006)	(0.000)			(0.008)	(0.002)
Revolver Status	-0.088***	-0.006***			-0.029*	0.005
	(0.018)	(0.001)			(0.017)	(0.020)
Spread Over Base Rate	0.035***	0.001***			0.018***	-0.000
	(0.006)	(0.000)			(0.004)	(0.005)
Log Term in Months	0.032***	0.006***			0.115***	
	(0.008)	(0.001)			(0.005)	
Fixed Rate	-0.132***	-0.002*			-0.039***	0.002
	(0.023)	(0.001)			(0.011)	(0.013)
Business is Corporation	0.009		-0.029***		0.028***	0.016
	(0.009)		(0.009)		(0.010)	(0.014)
Business is Individual	0.011		-0.046***		0.018	0.017
	(0.009)		(0.013)		(0.013)	(0.015)
SBA Express	-0.155***	0.001			-0.059***	-0.050***
	(0.037)	(0.002)			(0.018)	(0.015)
Standard 7(a)	0.038**	0.005***			0.005	0.075***
	(0.016)	(0.001)			(0.010)	(0.006)
Small 7(a)	-0.003	0.003***			0.017**	0.016**
	(0.013)	(0.001)			(0.007)	(0.007)
Paid in Full					0.865***	
					(0.011)	
Lender FE	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	No	Yes	No	Yes	No	No
County × Quarter FE	Yes	No	Yes	No	Yes	Yes
Industry × Quarter FE	Yes	No	Yes	No	Yes	Yes
Observations	75,171	75,171	75,171	75,171	75,171	49,369
Adjusted R^2	0.765	0.235	0.182	0.155	0.562	0.214

Standard errors in parentheses. * p<.10, ** p<.05, *** p<.01

Table A.6: Credit Supply Effects: IV Estimates

The table reports results from a two-stage least squares (2SLS) estimation using loan-level data from 2015–2020. The first stage (Column (1)) instruments for *Securitized*, using *High Securitizer* its interaction with *Post*. Columns (2) through (6) present the second-stage results, where *Securitized* is instrumented using the first-stage variables to estimate its effect on various measures of prepayment. Controls include loan characteristics, borrower characteristics, lender characteristics, and program types. Fixed effects include combinations of quarter, county-quarter, and industry-quarter. Standard errors are clustered at the lender and borrower levels.

	1st stage	2nd stage estimates				
	Securitized	Pred. Prepay (Borrower)	Pred. Prepay (Loan)	Pred. Prepay (Both)	Prepaid	Prepayment Speed
	(1)	(2)	(3)	(4)	(5)	(6)
High Securitizer	0.421***					
	(0.033)					
High Securitizer × Post	-0.063***					
	(0.022)					
Securitized		0.037***	0.091***	0.126***	0.031***	0.112***
		(0.007)	(0.016)	(0.014)	(0.012)	(0.025)
Log Loan Amount	0.019***	0.002*			-0.006*	0.029***
	(0.007)	(0.001)			(0.003)	(0.003)
Revolver Status	-0.185***	-0.001			0.001	0.032*
	(0.031)	(0.003)			(0.011)	(0.018)
Spread Over Base Rate	0.043***	-0.002**			0.008***	-0.003
	(0.006)	(0.001)			(0.002)	(0.004)
Log Term in Months	0.020**	0.009***			0.105***	
	(0.010)	(0.001)			(0.006)	
Fixed Rate	-0.232***	0.003			-0.019***	-0.010
	(0.028)	(0.003)			(0.007)	(0.016)
Business is Corporation	0.019***		-0.017***		0.011**	-0.003
	(0.006)		(0.005)		(0.005)	(0.008)
Business is Individual	0.026***		-0.037***		0.002	-0.012
	(0.006)		(0.008)		(0.006)	(0.010)
SBA Express	-0.195***	0.012***			-0.020*	-0.041***
	(0.032)	(0.003)			(0.011)	(0.016)
Standard 7(a)	0.041**	0.010***			-0.007	0.073***
	(0.020)	(0.003)			(0.008)	(0.010)
Small 7(a)	0.044**	0.002			0.002	0.020**
	(0.018)	(0.002)			(0.008)	(0.009)
Paid in Full					0.934***	
					(0.006)	
Lender Controls	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	No	Yes	No	Yes	No	No
County × Quarter FE	Yes	No	Yes	No	Yes	Yes
Industry × Quarter FE	Yes	No	Yes	No	Yes	Yes
Observations	186,481	186,481	186,481	186,481	186,481	105,748
Adjusted R^2	0.670	0.088	-0.014	0.098	0.765	0.036

Standard errors in parentheses. * p<.10, ** p<.05, *** p<.01

Table A.7: Minimum Maturity Ratio Requirements by Pool Type

This table reports the minimum maturity ratio (MMR) requirements for SBA 7(a) secondary market pools over time. The MMR is defined as the ratio of the shortest maturity to the longest maturity among the loans within a pool.

SBA Fiscal Year	WAC Pools	Standard Pools
2010 – 2017	76%	80%
2018	94%	94%
2019	95%	95%
2020	94%	94%
2021	89%	89%
2022	93%	93%
2023	92%	92%
2025 – Present	89%	89%

Table A.8: Robustness: Controlling for Maturity Bunching

The table reports difference-in-differences estimates using loan-level data from 2015–2019 with the inclusion of maturity-group-by-quarter fixed effects. In addition to the baseline controls and fixed effects, all specifications include maturity-group-by-quarter fixed effects, where maturity groups correspond to loans with maturities of 5, 7, 10, 15, 20, and 25 years, with a separate category for all remaining maturities. Standard errors are clustered at the lender and borrower levels.

	Securitized	Pred. Prepay (Borrower)	Pred. Prepay (Loan)	Pred. Prepay (Both)	Prepaid	Prepayment Speed
	(1)	(2)	(3)	(4)	(5)	(6)
High Securitizer × Post	-0.059***	-0.002***	-0.017***	-0.019***	-0.023***	-0.022***
	(0.019)	(0.001)	(0.006)	(0.006)	(0.005)	(0.008)
Log Loan Amount	0.018**	0.002***			-0.006	0.016***
	(0.008)	(0.001)			(0.004)	(0.002)
Revolver Status	-0.156***	-0.006***			-0.029***	-0.000
	(0.027)	(0.001)			(0.007)	(0.017)
Spread Over Base Rate	0.043***	0.001***			0.006***	0.003
	(0.010)	(0.000)			(0.002)	(0.003)
Log Term in Months	-0.001	0.006***			0.101***	
	(0.011)	(0.001)			(0.007)	
Fixed Rate	-0.173***	-0.002*			-0.015***	-0.008
	(0.025)	(0.001)			(0.005)	(0.012)
Business is Corporation	0.010**		-0.007***		0.010**	0.003
	(0.004)		(0.002)		(0.004)	(0.006)
Business is Individual	0.013**		-0.020***		0.005	-0.013**
	(0.005)		(0.003)		(0.006)	(0.006)
SBA Express	-0.159***	0.004**			0.005	-0.017
	(0.034)	(0.002)			(0.010)	(0.011)
Standard 7(a)	0.047***	0.005***			0.020***	0.037***
	(0.016)	(0.001)			(0.007)	(0.006)
Small 7(a)	0.030**	0.004***			0.012**	0.014**
	(0.012)	(0.001)			(0.006)	(0.006)
Paid in Full					0.934***	
					(0.005)	
Lender FE	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	No	Yes	No	Yes	No	No
County × Quarter FE	Yes	No	Yes	No	Yes	Yes
Industry × Quarter FE	Yes	No	Yes	No	Yes	Yes
Maturity Group × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	199,524	199,524	199,524	199,524	199,524	112,706
Adjusted R^2	0.765	0.234	0.410	0.386	0.805	0.347

Standard errors in parentheses. * p<.10, ** p<.05, *** p<.01

Table A.9: Robustness: Focal and Nonfocal Maturities

The table reports difference-in-differences estimates separately for loans with focal and nonfocal maturities using loan-level data from 2015–2019. Panel A restricts the sample to loans with maturities of 5, 7, 10, 15, 20, or 25 years, which represent the most common focal maturities in the SBA market. Panel B restricts the sample to loans with all remaining nonfocal maturities. Controls include loan characteristics, borrower characteristics, and program types. Specifications include lender, quarter, county-quarter, and industry-quarter fixed effects. Standard errors are clustered at the lender and borrower levels.

Panel A: Focal Maturities Only						
	Securitized	Pred. Prepay (Borrower)	Pred. Prepay (Loan)	Pred. Prepay (Both)	Prepaid	Prepayment Speed
	(1)	(2)	(3)	(4)	(5)	(6)
High Securitizer × Post	-0.059***	-0.001	-0.019***	-0.025***	-0.038***	-0.049***
	(0.017)	(0.001)	(0.005)	(0.005)	(0.007)	(0.016)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Lender FE	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	No	Yes	No	Yes	No	No
County × Quarter FE	Yes	No	Yes	No	Yes	Yes
Industry × Quarter FE	Yes	No	Yes	No	Yes	Yes
Observations	147,170	149,218	147,170	149,218	147,170	92,201
Adjusted R^2	0.783	0.237	0.409	0.356	0.825	0.281
Panel B: Nonfocal Maturities Only						
	Securitized	Pred. Prepay (Borrower)	Pred. Prepay (Loan)	Pred. Prepay (Both)	Prepaid	Prepayment Speed
	(1)	(2)	(3)	(4)	(5)	(6)
High Securitizer × Post	-0.059***	-0.002	-0.027**	-0.035***	-0.040***	-0.002
	(0.017)	(0.001)	(0.011)	(0.010)	(0.006)	(0.010)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Lender FE	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	No	Yes	No	Yes	No	No
County × Quarter FE	Yes	No	Yes	No	Yes	Yes
Industry × Quarter FE	Yes	No	Yes	No	Yes	Yes
Observations	199,524	49,977	45,744	49,977	45,744	15,400
Adjusted R^2	0.763	0.225	0.301	0.257	0.722	0.345

Standard errors in parentheses. * p<.10, ** p<.05, *** p<.01

Table A.10: Placebo Test: MMR Policy Changes

The table reports difference-in-differences estimates examining subsequent changes to the SBA minimum maturity ratio (MMR) requirements. Each column estimates the effect of a separate MMR adjustment using a one-year window before and after the corresponding policy change. The dependent variable is *Securitized*, an indicator for whether the guaranteed portion of the loan is sold on the secondary market. The key independent variable is the interaction between *High Securitizer*, an indicator for lenders that securitized at least 60% of SBA loans in the pre-event period, and *Post*, an indicator for the one-year period following the corresponding MMR adjustment. Standard errors are clustered at the lender and borrower levels.

	Securitized	
	FY 2021	FY 2022
MMR Change	94% $\rightarrow$ 89%	89% $\rightarrow$ 93%
	(1)	(2)
High Securitizer $\times$ Post	-0.010	-0.013
	(0.017)	(0.015)
Log Loan Amount	0.015*	0.014**
	(0.008)	(0.007)
Revolver Status	-0.183***	-0.146***
	(0.032)	(0.041)
Spread Over Base Rate	0.042***	0.035***
	(0.008)	(0.006)
Log Term in Months	0.007	0.000
	(0.013)	(0.016)
Fixed Rate	-0.171***	-0.173***
	(0.024)	(0.026)
Business is Corporation	0.001	0.001
	(0.009)	(0.009)
Business is Individual	-0.005	-0.005
	(0.012)	(0.011)
SBA Express	-0.119**	-0.104**
	(0.050)	(0.048)
Standard 7(a)	0.097**	0.107***
	(0.044)	(0.041)
Small 7(a)	0.087*	0.094**
	(0.047)	(0.042)
Lender FE	Yes	Yes
County $\times$ Quarter FE	Yes	Yes
Industry $\times$ Quarter FE	Yes	Yes
Observations	76,637	81,225
Adjusted R^2	0.722	0.706

Standard errors in parentheses. * p<.10, ** p<.05, *** p<.01

Table A.11: Industry Prepayment Rates: High and Low Prepayment Groups

The table reports pre-shock prepayment rates by 3-digit NAICS subsector. Prepayment rates are computed as the share of loans prepaid during the pre-shock period. High (low) prepayment industries are those above the 75th (below the 25th) percentile of the pre-shock industry prepayment rate distribution.

NAICS	Industry	Loans	Prepayment Rate
High Prepayment Industries			
487	Scenic and Sightseeing Transportation	472	78.2%
493	Warehousing and Storage	718	75.7%
721	Accommodation	13,719	75.5%
523	Securities, Commodity Contracts, and Other Financial Investments	3,801	75.2%
531	Real Estate	12,618	74.9%
483	Water Transportation	165	74.4%
447	Gasoline Stations	7,216	74.3%
112	Animal Production	6,130	74.3%
525	Funds, Trusts, and Other Financial Vehicles	117	72.7%
623	Nursing and Residential Care Facilities	4,224	71.2%
Low Prepayment Industries			
449	Furniture, Home Furnishings, Electronics, and Appliance Retailers	1,193	0.0%
513	Publishing Industries	260	0.0%
516	Internet Publishing and Broadcasting	96	0.0%
486	Pipeline Transportation	53	37.0%
922	Justice, Public Order, and Safety Activities	76	57.7%
316	Leather and Allied Product Manufacturing	242	58.3%
515	Broadcasting (except Internet)	333	58.7%
448	Clothing and Clothing Accessories Stores	7,653	61.3%
452	General Merchandise Stores	1,091	61.5%
443	Electronics and Appliance Stores	1,715	61.7%