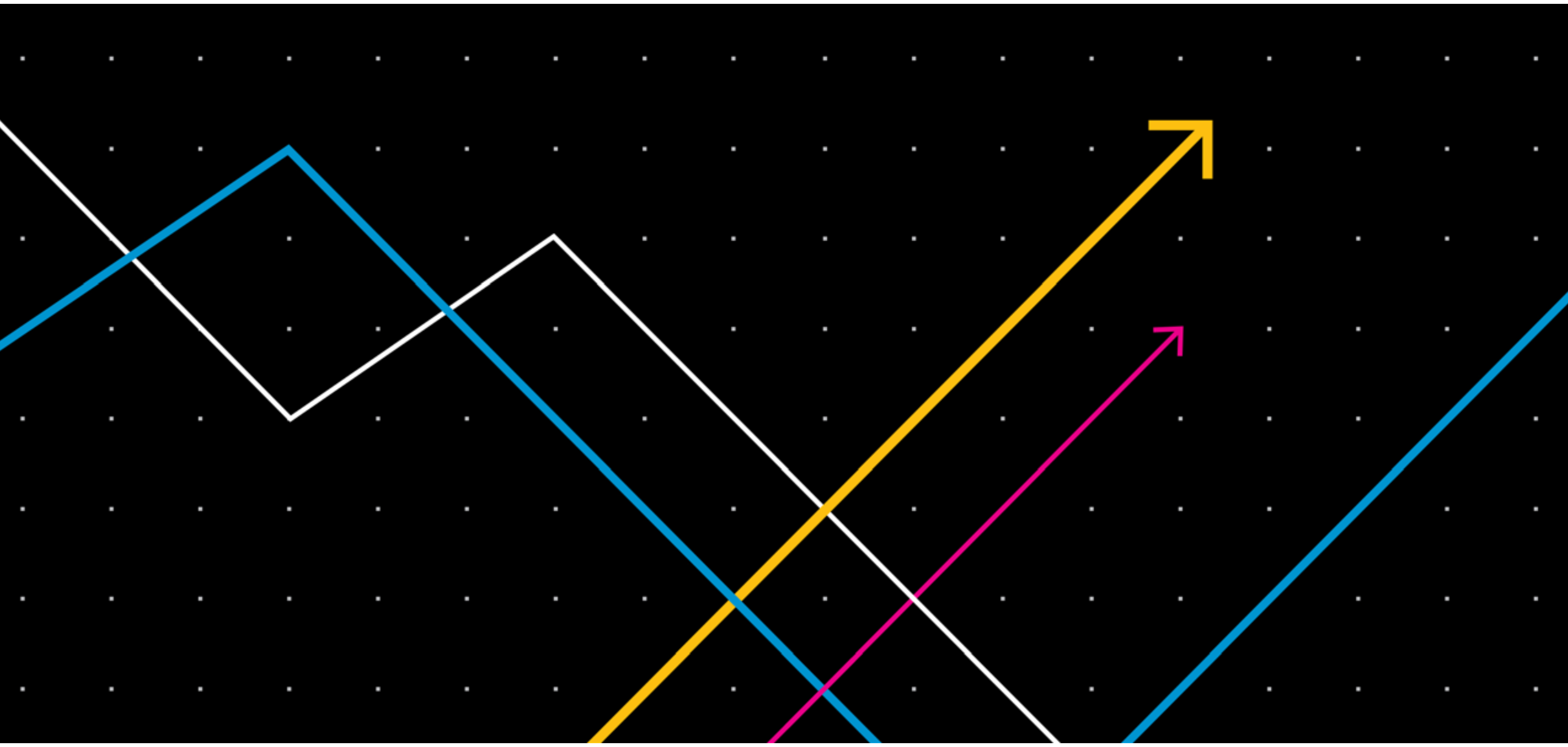

RESEARCH REPORT

The Lasting Impact of Foreclosures and Negative Public Records

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Executive Summary

This research report, the fourth in a series using consumer credit data from a major credit bureau, suggests that the United States has experienced a sluggish recovery from the Great Recession at least in part because of the magnitude of the damage done by the Recession to consumer balance sheets, and the very slow recovery of many of those consumers.

There has been significant attention to the negative impact of foreclosures on the recovery (Brevoort and Cooper 2013), but not enough attention to the longstanding effects of adverse public records on consumers' financial capacity. Our research fills this gap and finds that both foreclosures and adverse public records have had a significant impact on the strength of the recovery from the Great Recession. The black mark of a foreclosure and of many negative public records is kept on a person's credit report for at least seven years. The negative effects of these events continue to plague consumers even well after the events have been wiped from credit reports. Specifically, we find that:

- **Sixteen percent of consumers acquired a blemish on their credit record between 2004 and 2015.** Cumulatively from 2004 through 2015, 7.1 million borrowers experienced a foreclosure filing, and 34.4 million consumers acquired an adverse public record other than foreclosure. Altogether, 41.5 million consumers, or 16 percent of the 264 million US consumers with credit records, experienced one of these adverse events.
- **Civil judgments are the most common type of adverse public record.** Three-and-a-half million consumers who went through a foreclosure also experienced at least one negative entry on their public records; 1.2 million of them had a bankruptcy. The 34.4 million negative public records other than foreclosures include 14.2 million civil judgments, 10 million bankruptcies, 4.5 million tax liens, 2.2 million records with bankruptcies and civil judgments, 1.2 million unpaid government debts, and 1.2 million records with tax liens and civil judgments.
- **The number of new foreclosures and adverse records peaked in 2010.** The highest number of foreclosures in a single quarter, 325,000, occurred in the second quarter (Q2) of 2010; there were 1.1 million foreclosures during all of 2010. Before the crisis, the number of new adverse public records was running about 450,000 per quarter. By 2010, it had increased to close to 1 million per quarter; it now hovers around 700,000 per quarter.
- **The total number of consumers with blemished records peaked in 2015.** Although the incidence of new foreclosure and adverse public records peaked in 2010, the cumulative

number of consumers with adverse events still on their credit record actually peaked around 2015. At that point, 5.7 million consumers had had a foreclosure and 22.1 million consumers had had an adverse public record within the preceding seven years. That 27.8 million consumers had blemished public records as of 2015 partly explains the slow recovery after 2010. By the third quarter of 2016, 26.8 million borrowers still had negative public records.

- **These credit blemishes will persist for many years.** A large number of consumers will retain adverse events on their records for a considerable time, making it hard for many of them to borrow again. At the end of 2018, 22.8 million consumers—almost 9 percent of the adult consumer population—will still have a foreclosure or adverse public record.
- **Most consumers with blemishes on their credit still had low credit scores in 2015.** Of the 7.1 million consumers who experienced a foreclosure between 2004 and 2015, 3.9 million (54 percent) of them still had VantageScore credit scores below 620 as of 2015. Of the 34.4 million consumers with negative public records and no foreclosure, 22.1 million (64 percent) of them still had VantageScore credit scores below 620 in 2015.
- **Delinquent debt often accompanies credit score blemishes.** More than half the consumers with adverse public records also had delinquent debts in 2015. Only 8 percent were able, by 2015, to obtain a new mortgage after their negative event.
- **Middle-aged consumers were hit hardest by these credit blemishes.** Seventy-three percent of consumers (30 million) who experienced foreclosure or other adverse public records were between 29 and 59 years old in 2015, yet this age group accounts for only 53 percent of adult consumers. The middle-aged consumers hit hardest by these adverse credit events have had a profound impact on the homeownership rate because their age group has the strongest preference for homeownership.
- **The concentration of these credit blemishes varies widely by region.** Nevada tops the list for foreclosures: 5.2 percent of its adult consumer population have experienced a foreclosure. Indiana has the highest share of consumers with a foreclosure or negative public record (28.7 percent).
- **Long judicial foreclosures may have extended the negative impact of credit blemishes.** The long judicial foreclosure process in some states might have contributed to the extended impact of negative events on consumers, particularly at the peak of crisis, when a foreclosure surge caused filing bottlenecks.

The lingering effects of foreclosures and adverse public records prevent consumers from obtaining mortgages and pursuing homeownership, hinder the recovery of the housing market, limit a consumer's ability to obtain other credit such as an auto loan, and reduces consumers' ability and willingness to spend. These adverse impacts in turn weaken the recovery, creating a vicious cycle.

Background

Many papers have focused on the effects of foreclosure on the subsequent financial health of consumers. We look more broadly in this paper at both mortgage foreclosures and adverse public records. Adverse public records are generally of three types: bankruptcies, civil judgments, and federal tax liens. Adverse public records also include a small number of other unpaid government debts.

Bankruptcy is a major type of adverse public record; our data includes all types of personal bankruptcies, including bankruptcies under Chapters 7, 12, and 13 of the Bankruptcy Code. A civil judgment is a ruling against an individual in a court of law pertaining to noncriminal matters that requires a payment. These matters include defaulted student loans and auto loans, unpaid child/family support, and other miscellaneous debts. Foreclosures are also considered civil judgments, but for our analysis, we treat them separately.

The third type of adverse public records is a tax lien, which is a legal claim to an individual's property as security for an unpaid tax or fee obligation. The lien can be attached to real estate, personal property, or financial assets. If an individual neglects or refuses to fully pay a tax or fee obligation on time, the Internal Revenue Service (in the case of a federal tax lien) or the state or municipal tax authority will assess liability, send a notice and demand for payment, and alert creditors that the government has the legal right to a person's property. Once the debt is paid, the tax authority will release the debt.[1]

Foreclosures and negative public records have a large effect on credit scores. For example, having a foreclosure on a credit report lowers a consumer's FICO score by 85 to 160 points,[2] making it difficult to obtain future loans. FICO estimates that a foreclosure will decrease a 680 credit score to about 575—a serious problem given the minimum credit score needed to obtain a mortgage loan is 580. In the case of adverse public records, filing for bankruptcy lowers a credit score by 130 to 150 points,[3] while tax liens lower a credit score by around 100 points.[4] Civil judgments can also affect credit scores, as can the nonpayment of a specific debt (student loan debt, auto debt).[5]

Not only do these events have a large impact on credit scores, the event itself sends a negative signal to the market. Foreclosures and civil judgments stay on a consumer's credit record for seven years, as do Chapter 13 bankruptcies. Chapter 7 bankruptcies remain on the consumer's credit report for 10 years.[6] Paid tax liens (federal, state and local) remain on a credit report for 7 years after the payment is made and the lien is released.[7] Under federal law, unpaid tax liens can remain on a credit report indefinitely; however as a matter of practice, the credit bureaus remove these liens after 10 to 15 years.[8]

Waiting Periods

The Federal Housing Administration (FHA), Fannie Mae, and Freddie Mac each set a minimum time that must elapse before a borrower who experienced a foreclosure or a bankruptcy or other adverse event is eligible for a new loan. For foreclosures, Fannie Mae and Freddie Mac set a seven-year waiting period, measured from the completion date of the foreclosure action. This period can be reduced to three years if extenuating circumstances are present (Freddie Mac 2016).[9] The FHA used to have a three-year waiting period. However, as a result of the housing market recession, it adopted the Back to Work-Extenuating Circumstances program (effective from August 15, 2013, to September 30, 2016), which reduced the waiting period following foreclosure to a year if a borrower could prove the foreclosure stemmed from an external economic event such as loss of employment.[10]

Consumers who have gone through a bankruptcy also face a waiting period before lending is permitted. Fannie Mae and Freddie Mac require four years for a chapter 7 or 11 bankruptcy, and two years after the discharge date (or four years from the last dismissal date) for a chapter 13 bankruptcy. Those who have multiple filings (more than one over the preceding seven years) have a five-year waiting period. With extenuating circumstances, the waiting period after a bankruptcy can be reduced to two years.[11] The FHA also has a two-year waiting period, which can be reduced to one year if extenuating circumstances are present.[12]

The good news is that the FHA, Fannie Mae, and Freddie Mac have all taken steps to reduce waiting periods for borrowers on the path to mending their credit reports. But the much larger issue keeping consumers who have experienced a foreclosure or adverse public record from borrowing again is the drop in credit scores that occurs because of these events and the long time required to build those scores back up.

Long Path to Recovery, Large Impact on Mortgage Origination

It takes a long time for a consumer’s credit score to recover from the impact of a foreclosure—far longer than the seven years the foreclosure remains on the credit report. Using data from Q1 1999 to Q4 2010, Brevoort and Cooper (2013) looked at 350,000 borrowers before and after their mortgage foreclosures and documented a larger initial credit score decrease than those estimated by FICO. Brevoort and Cooper also examined the length of time it takes individuals to bring their credit scores back to the predelinquency level. For prime borrows, recovery is slow, if it all; one-third of prime borrowers failed to recover after a decade. Brevoort and Cooper also show persistently high levels of delinquency remaining on the records in the years following foreclosure. And borrowers who went through foreclosures between 2007 and 2009 are recovering more slowly than earlier cohorts.

While home prices have increased steadily since the 2012 trough, the most important impediment to pursuing homeownership after experiencing a foreclosure has been a tightening of the rules, regulations, and practices surrounding approval for mortgage loans. The tighter credit box has made it exceedingly difficult for individuals to recover from their past financial misdeeds and has contributed to the slow nationwide recovery.[13]

The Urban Institute's Housing Credit Availability Index (Li and Goodman 2014), which measures the ex-ante probability of default of mortgages made in a given origination quarter, shows that the mortgage market is currently taking less than half the risk it was taking in 2001, a period of normal lending activity.[14] Bing, Goodman, and Zhu (2016) show that the credit score dimension is particularly tight. In 2001, 31 percent of total originations went to borrowers with credit scores below 660. By 2014 (the latest Home Mortgage Disclosure Act data available), that number had dropped to 10 percent. Loans to borrowers with credit scores above 700 fell 7.5 percent, loans to those with credit scores of 660–700 fell 30 percent, and loans to borrowers with credit score of below 660 fell a shocking 77 percent.[15]

The slow recovery of the credit scores of borrowers who have experienced a foreclosure, combined with a dramatic tightening in lender credit requirements, has been a major hurdle for former homeowners who are otherwise ready to buy a home again.[16]

Different Impact in Judicial and Nonjudicial States

Foreclosure timelines—the length of time between the initial mortgage delinquency and the completion of a foreclosure—have lengthened for several reasons, including the imposition of formal timelines that give borrowers a chance to obtain and perform on a modification and bottlenecks in the system. The extension of the foreclosure timelines is especially evident in states that employ a judicial foreclosure process (Cordell et al. 2015). Nonetheless, foreclosure processes vary considerably from state to state. Not all states with judicial processes have long timelines, and not all states with nonjudicial processes have short timelines, but the correlation is strong.

Whether the longer timelines actually improve the outcomes for the borrower is a topic of debate. Geradi, Lambie-Hanson, and Willen (2011) and Cordell and Lambie-Hanson (2015) show they do not and that longer timelines simply lead to a buildup in persistently delinquent borrowers. White and Reid (2013) show a small advantage in modification success. Calem, Jatiani, and Lang (2014) note an additional benefit of the long timelines: consumers are better able to pay off their credit card and other debts since they are not paying their mortgages.

Cordell and Lambie-Hanson (2015) show that extended timelines, especially in states that require judicial foreclosure proceedings, can make for a slower recovery along certain dimensions: the housing price recovery is slower, the value of neighboring homes can be affected because the borrowers who are delinquent on their mortgage do not maintain their property, and there is less “boomerang borrowing”—consumers borrowing to buy homes after a foreclosure on a previous home. Longer foreclosure timelines tend to slow a consumer’s ability to acquire a future mortgage and return to homeownership.

Data and Methodology

Data

Our data consist of six years of depersonalized data from a major credit bureau constituting a 2 percent random sample of consumers with credit records, or about 5.3 million consumers in any given archive year. This process created a total of 6.8 million unique consumers over the six years. The same information for each consumer was collected for each August from 2010 through 2015, creating panel data with six snapshots. If a consumer dropped out of the sample (for example, because he or she passed away), a new consumer was added in a manner that retained randomness in the sample. All records were stripped of personally identifiable information, and no data on race/ethnicity, gender, or income are included. The data include zip code, age, VantageScore credit score, information on debt in collections, public records, and balance and payment information for each of the following trade types: auto loan, credit card, student loan, home equity line of credit, first mortgage, second mortgage, and other installment and revolving debts. For more information about the credit bureau data, see Li and Goodman (2015, 2016a and 2016b)

Identifying Consumers with Foreclosures and Negative Public Records

Since we have credit information for each consumer for each August from 2010 through 2015, and since foreclosures and negative public records such as bankruptcy and tax liens are kept on a consumer's credit report for at least seven years, we were able to identify a foreclosure filing or a negative entry on the consumer's public record if it appeared as early as 2003. In other words, we were able to identify whether and when each consumer had one of the negative financial events as long as these events first appeared on the consumer's credit report between 2003 and 2015. For consumers with multiple foreclosures, only the first incidence was used, to avoid double counting. The same algorithm applies to consumers with multiple incidents of negative public records. Negative public records include any of the following entries on a consumer's public record: (1) bankruptcy, (2) tax lien, (3) civil judgment, or (4) other unpaid government debt. To study foreclosure and negative public records separately, we identified consumers with a foreclosure and either with or without a negative public record as one category. We identified consumers without a foreclosure but with a negative public record as another category. For the former, the timing of the negative event is the first time the foreclosure filing appeared on the consumer's credit report.

Measurements

To examine a consumer's recovery from a negative financial event such as a foreclosure or negative public record, we first grouped consumers into quarterly cohorts, according to the quarter the negative event first appeared on their credit report. For each quarterly cohort, we measured

- the share and number that had a VantageScore credit score below 620 in 2015,[17]
- the share and number that had any delinquent debts in 2015, and
- the share and number that had obtained a new mortgage after the negative event by 2015.

To compare the recovery rate of foreclosed borrowers across states with judicial and nonjudicial foreclosure processes, we calculated the above three percentages separately for judicial and nonjudicial foreclosure states. We want to test the **hypothesis** that the judicial foreclosure process slows the credit score recovery of consumers who experience foreclosure.

To determine how many foreclosed consumers from judicial states would have had VantageScore credit scores below 620 in 2015 had they been in nonjudicial states, we multiply the total foreclosed consumers in judicial states by the percentage of foreclosed consumers that have VantageScore credit scores below 620 in 2015 for the nonjudicial states. This is our "simulated" number against which we can compare the actual number from the judicial states. We repeat this analysis in all the nonjudicial states and for all three measures listed above.

If the hypothesis is true, we would expect that in judicial states,

- the simulated number of foreclosed consumers that have VantageScore credit scores below 620 in 2015 would be smaller than the actual number,
- the simulated number of foreclosed consumers that have any delinquent debt in 2015 would be smaller than the actual number, and
- the simulated number of foreclosed consumers that had new mortgages after foreclosure by 2015 would be bigger than the actual number.

Similarly, if the hypothesis is true, we would expect the opposite outcome of the above comparisons between simulated and actual numbers for nonjudicial states.[18]

Another important contribution of this study is to differentiate the incidence of new foreclosure filings or new negative public records from the cumulative number of consumers that still have the negative event on their credit record at any given time. The former measures the momentum of the crisis; the latter measures the length of the negative impact of the crisis.

Given that a negative event such as a foreclosure, bankruptcy, or tax lien is on a consumer's record for at least seven years, we measure the continuing negative impact of the crisis by applying a backward-moving sum function with a moving window of seven years—We look at each quarter from 2004 to 2015 and add up any consumers who have a newly appearing negative event on their credit report in the past 7 years from that quarter. To show the effect of different window periods, we also calculated a backward-moving sum with a moving window of five years. This choice was intended to capture the fact that consumers are usually able to obtain a mortgage three years after a foreclosure is completed, a process that usually takes about two years.

Since we are only able to observe negative events that first appeared on a consumer's report as early as 2003, to calculate a seven-year backward-moving sum for the first quarter of 2004, we have to assume that, before 2003, the quarterly incidence of new foreclosure filings or new negative public record is the same as the average quarterly incidence of the period between 2003 and 2004.

Similarly, we are unable to observe negative events that will appear on a consumer's report after 2015. To calculate a seven-year backward-moving sum for the first quarter of 2016 and quarters thereafter, we have to assume a projected quarterly incidence of new foreclosure filings or new negative public records for any quarter after 2015. These projections are calculated by applying a quarterly rate of reduction on the incidence of the negative events. To calculate the rate, we first calculate the difference between the average quarterly incidence of a negative event in 2010 and the average quarterly incidence of the negative event in 2014 and 2015; then we divide the difference by the number of quarters between 2010 and 2014. The rate of reduction is applied to the average of the last four observable quarterly incidents of a negative event to create a starting point for projections. We apply this drop until the quarterly incidence of the negative event hits the 2004–07 average.

Findings

41.5 Million Consumers Have Credit Blemishes

To calculate the rate of recovery of consumers from the crisis, we must first document the magnitude of the crisis. To do so, we look first at how many consumers experienced either a foreclosure or a negative entry on their public records.

Using our 2 percent random sample of all US adult consumers, 264 million unique adult consumers had a credit record between 2004 and 2015 (table 1). And 41.5 million (16 percent) of them experienced either a foreclosure or at least one negative entry on their public records or both, based on each consumer's credit history from 2004 to 2015. Sixty-nine point three million (26 percent) consumers who have had mortgages had no foreclosures or other negative entries on their public records. Another 153 million (58 percent) who have never had a mortgage had no foreclosures or other negative public records.

TABLE 1

Distribution of All US Adult Consumers with Credit Histories between 2004 and 2015, by Type

	Negative Public Record, No Foreclosure		**No Negative Public Record, No Foreclosure**		
Foreclosures	Have had a mortgage	Never had a mortgage	Have had a mortgage	Never had a mortgage	**Total**
7,069,220 (3%)	12,317,536 (5%)	22,034,937 (8%)	69,294,119 (26%)	153,323,626 (58%)	264,039,438 (100%)

Source: Authors' calculations using credit bureau data.

Of the 41 million who experienced a foreclosure or negative public record over the 12-year period, 17 percent experienced just a foreclosure or a foreclosure and negative public records; and 83 percent experienced just a negative public record. This number does not include borrowers for whom there was no foreclosure filing because they agreed to an alternative such as a short sale or deed-in-lieu before a filing.

Because we looked separately at foreclosures, the 34.4 million consumers with only a negative public record might more properly be called consumers "with negative public records without foreclosures." Most consumers in this group (64 percent) were, not surprisingly, renters. Interestingly, 12.3 million (or 36 percent) of this group have had a mortgage at some point, although just 15 percent had a mortgage at the time their record was examined.

Foreclosures and negative public records can appear simultaneously on a consumer's credit report. Table 2 shows the distribution of consumers with foreclosure or negative public record by type of public records. It shows that 3.5 million of consumers experienced a foreclosure but had no negative public record on their credit history. Another 3.5 million of consumers experienced a foreclosure and at least one negative entry on their public records: in addition to the foreclosure, 1.2 million (17 percent of all foreclosures) of them had bankruptcy; 1.1 million (15 percent of all foreclosures) of them had civil judgment; 0.44 million (6 percent of all foreclosures) of them had both bankruptcy and civil judgment; 0.3 million (4 percent of all foreclosures) of them had tax liens; 0.21 million (3 percent of all foreclosures) of them had both tax liens and civil judgment, etc.

Of the 12.3 million consumers who had negative public records without foreclosures and who have ever had a mortgage, 5.8 million (47 percent) of them had bankruptcy; 3.2 million (26 percent) of them had civil judgment; 1.1 million (8.6 percent) of them had tax liens; almost 1 million (8 percent) of them had both bankruptcy and civil judgment; more than half million (3.7 percent) of them had unpaid government debts, etc.

Of the 22 million consumers who had negative public records without foreclosures and who have never had a mortgage, 11 million (50 percent) of them had civil judgment; 4.3 million (19 percent) of them had bankruptcy; 3.4 million (15.5 percent) of them had tax liens; 1.2 million (5.5 percent) of them had both bankruptcy and civil judgment; 0.84 million (3.8 percent) of them had both tax liens and civil judgment; 0.74 (3.4 percent) of them had unpaid government debts, etc.

TABLE 2

Distribution of Consumers with Foreclosures or Negative Public Records, by Negative Public Record Type

		Negative Public Record, No Foreclosure		
	Foreclosures	Have had a mortgage	Never had a mortgage	Total
No negative record	3,542,966 (50.1%)	0 (0.0%)	0 (0.0%)	3,542,966 (8.6%)
Bankruptcy	1,203,761 (17.0%)	5,763,601 (46.8%)	4,253,261 (19.3%)	11,220,623 (27.1%)
Bankruptcy and tax lien	127,351 (1.8%)	340,815 (2.8%)	325,650 (1.5%)	793,816 (1.9%)
Bankruptcy and civil judgment	437,837 (6.2%)	969,330 (7.9%)	1,218,036 (5.5%)	2,625,203 (6.3%)
Bankruptcy, civil judgment, and tax lien	97,950 (1.4%)	166,075 (1.3%)	214,315 (1.0%)	478,340 (1.2%)
Civil judgment	1,082,948 (15.3%)	3,204,975 (26.0%)	11,025,534 (50.0%)	15,313,457 (37.0%)
Civil judgment and tax lien	207,738 (2.9%)	359,152 (2.9%)	835,867 (3.8%)	1,402,757 (3.4%)
Tax lien	297,023 (4.2%)	1,053,779 (8.6%)	3,423,506 (15.5%)	4,774,308 (11.5%)
Unpaid government debts	71,645 (1.0%)	459,810 (3.7%)	738,767 (3.4%)	1,270,222 (3.1%)
Total	**7,069,219 (17.1%)**	**12,317,537 (29.7%)**	**22,034,936 (53.2%)**	**41,421,692 (100.0%)**

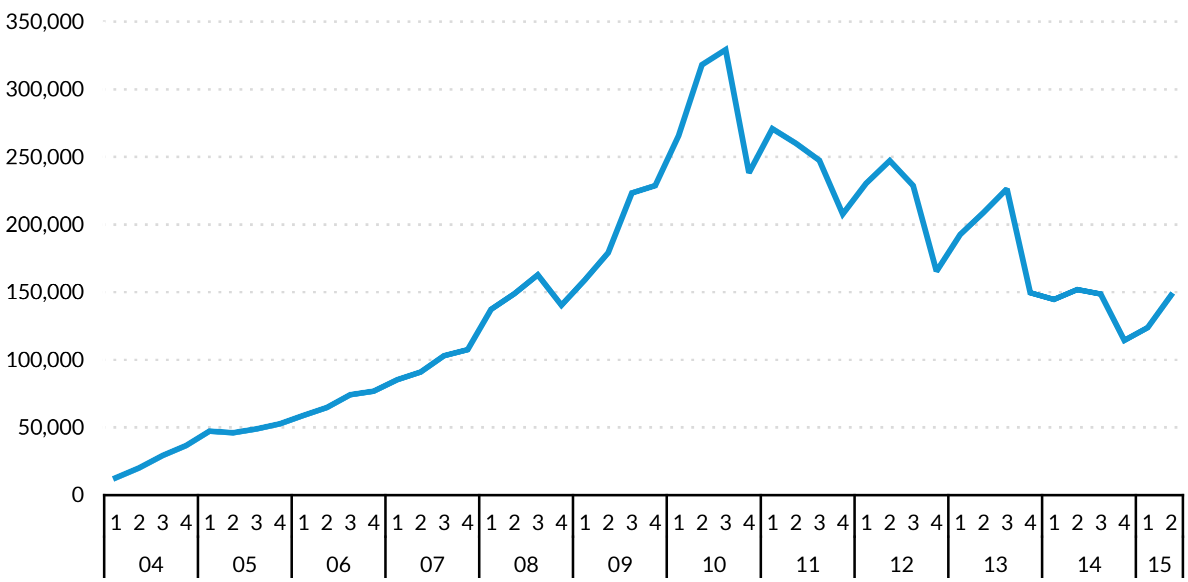
Source: Authors' calculations using credit bureau data.

New Credit Blemishes Peaked in 2010

Grossing up our 2 percent random sample of credit bureau data, figure 1 shows a quarterly time series of the number of consumers who experienced a foreclosure for the first time. In the peak quarter (Q2 2010), about 325,000 borrowers went into foreclosure. For the peak year (2010), the number is 1.1 million. Before 2006, new foreclosures averaged only around 50,000 a quarter. The number ramped up quickly from 2005 through 2010, but it has come down considerably, although it has not yet decreased to pre-crisis levels.

Figure 2 shows the number of consumers with adverse public records added in any given quarter. Before the crisis, the number of new adverse public records was about 450,000, with a short spike in Q1 2006. By 2010, it had increased to close to 1 million a quarter; it now hovers at about 700,000.

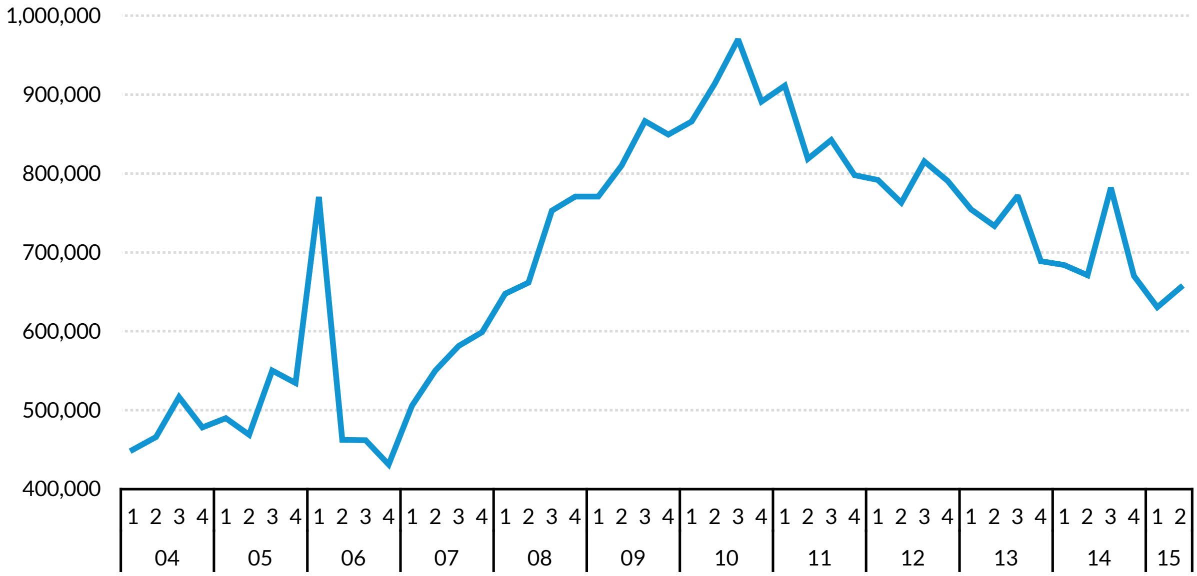
FIGURE 1
New Foreclosure Filings by Quarter, 2004–15



Source: Authors' calculations using credit bureau data.

FIGURE 2

New Negative Public Records without Foreclosures by Quarter, 2004–15



Source: Authors' calculations using credit bureau data.

Number of Consumers with Credit Blemishes Still on Their Records Peaked around 2015

Although the incidence of foreclosure and adverse public records peaked in 2010, the cumulative number of consumers with adverse events still on their credit reports peaked around 2015. This lag highlights the extended impact of these negative events on individuals and the economy as a whole; it also at least partially explains the slow recovery after 2010.

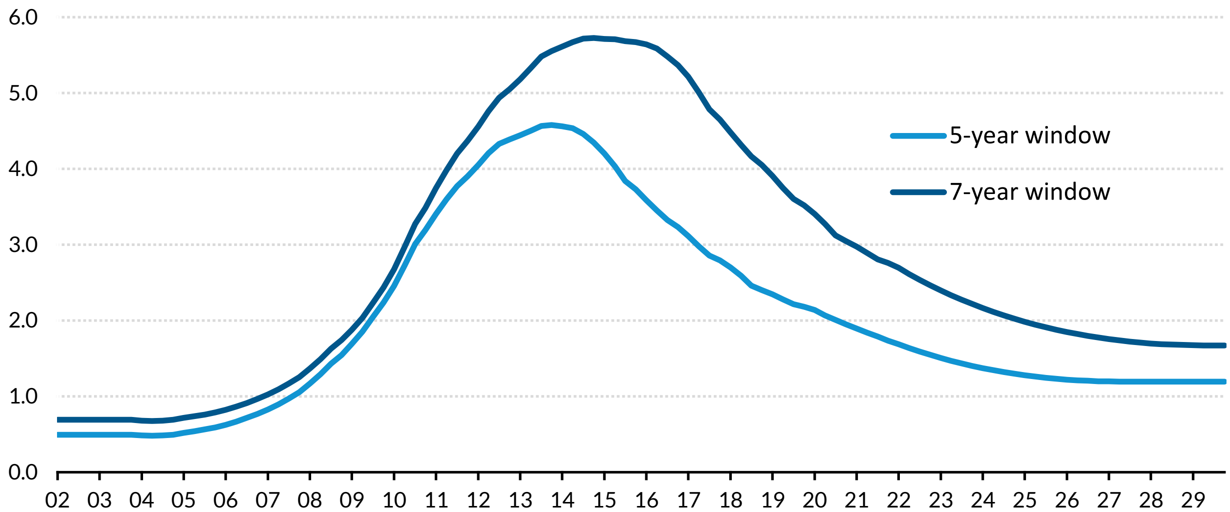
Figure 3 shows the number of consumers who are still within five and seven years after their foreclosure filings for each quarter between 2002 and 2029. Consumers with foreclosure filings still on their credit reports within the seven-year window peaked around 2015 at 5.7 million, climbing from less than 1 million before 2007. That number is now down to 5.5 million, which is still close to the peak. Using a five-year window, consumers with foreclosure filings still on their records peaked around 2014 at 4.6 million, increasing from less than 0.7 million before 2007. That number is now down to 3.3 million.

Figure 4 does a similar analysis for those with adverse public records but without foreclosures. The peaks occur at the same time, but the numbers are considerably larger. For example, at the peak around 2015, 22.1 million consumers were still within seven years from their foreclosure filings. Thus, if we add those with foreclosures and those with negative public records, we find 27.8 million borrowers still have a blemish on their credit reports at the 2015 peak. Even by the third quarter of 2016, 26.8 million borrowers still have a blemish on their credit reports.

We also project how many consumers who experienced adverse events will have credit reports that continue to reflect these events within five and seven years. These projections are based on the historical declines in these numbers, until they hit a threshold. These blemishes remain for a considerable time, indicating that many consumers will have trouble borrowing again in the coming years. For example, at the end of 2018, 22.8 million consumers will still have a foreclosure or adverse public record. This is almost 9 percent of the US adult consumer population. Before the crisis, only 15 million consumers, or about 6 percent of the US adult population, had such credit blemishes.

FIGURE 3

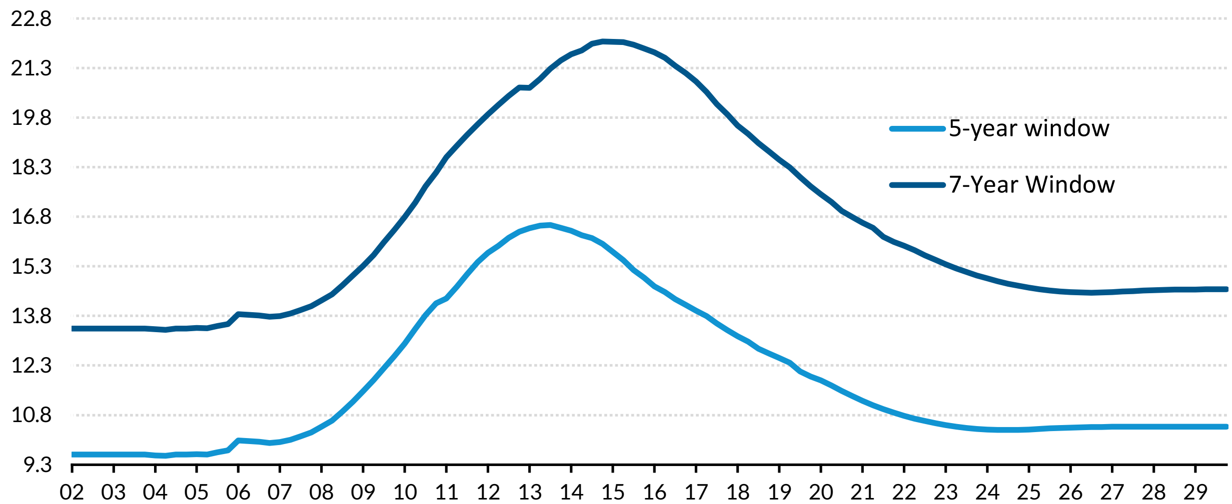
Number of Consumers with Foreclosure Records on Their Credit Reports, Using Seven- and Five-Year Windows, 2002–29 (millions)



Source: Authors' calculations using credit bureau data.

FIGURE 4

Number of Consumers with Adverse Public Records but without Foreclosures on Their Credit Reports, Using Seven- and Five-Year Windows, 2002–29 (millions)



Source: Authors' calculations using credit bureau data.

These blemished credit reports affect not only consumers' ability to obtain a mortgage, but also their ability to get other credit, the rate they pay, and their ability to rent an apartment. These blemishes could even shape their employment prospects, as many employers pull an abbreviated credit report, which many not contain a credit score but will contain adverse public records.[19]

How Quickly Are Consumers with Credit Blemishes Strengthening Their Balance Sheets?

63 Percent of Consumers Had VantageScore Credit Scores below 620 in 2015, Long after Their Negative Financial Event

One way to measure how well consumers recover from a negative financial event is to look at their credit scores after the negative event. Table 3 shows consumers' VantageScore credit scores as of August 2015 by the type of consumer. Of the 7.1 million consumers who had experienced foreclosure, as of 2015, 54 percent had VantageScore credit scores still below 620, making them unlikely to qualify for a mortgage under current underwriting standards. Only 22 percent had scores above 680, the minimum level to be considered prime borrowers. Compare this with the 69.3 million mortgage borrowers who have never had a foreclosure or a negative public record: only 10 percent of them had VantageScore credit scores below 620, and 76 percent of them had scores above 680.

Of the 34.4 million consumers with negative public records but no foreclosure, 64 percent had VantageScore credit scores still below 620 by 2015; only 18 percent of them had scores above 680. The pattern is even more striking when this group of consumers is further divided into owners and renters. Of the 22 million consumers with a negative public record who have never had a mortgage, 78 percent of them had VantageScore credit scores below 620 as of 2015; only 9 percent of this group have scores above 680. In contrast, of the 153 million renters who have never had a mortgage or a negative public record, 48 percent of them had VantageScore credit scores below 620, but 31 percent of them have scores above 680.

The 12.3 million consumers who have had mortgages and negative public records but no foreclosures have better current VantageScore credit scores: 41 percent have scores below 620, and 34 percent have scores above 680.

TABLE 3

Consumer's Vantage Score credit scores in August 2015, by Consumer Type

		Negative Public Record, No Foreclosure			No Negative Public Record, No Foreclosure		
	Foreclosures	Have had a mortgage	Never had a mortgage	Subtotal	Have had a mortgage	Never had a mortgage	Total
300–619	3,851,429 (54%)	5,000,230 (41%)	17,127,320 (78%)	22,127,549 (64%)	6,999,820 (10%)	74,222,769 (48%)	107,201,567 (41%)
620–680	1,681,760 (24%)	3,111,589 (25%)	2,846,404 (13%)	5,957,993 (17%)	9,423,058 (14%)	30,887,434 (20%)	47,950,245 (18%)
>680	1,536,030 (22%)	4,205,717 (34%)	2,061,214 (9%)	6,266,931 (18%)	52,871,241 (76%)	48,213,423 (31%)	108,887,626 (41%)
Total	**7,069,220 (3%)**	**12,317,536 (5%)**	**22,034,937 (8%)**	**34,352,473 (13%)**	**69,294,119 (26%)**	**153,323,626 (58%)**	**264,039,438 (100%)**

Source: Authors' calculations using credit bureau data.
Note: In the total row, percentages in parentheses are of the total. In the rest of the table, percentages in parentheses are of the column values (i.e., the three VantageScore credit score levels).

Figure 5 shows quarterly new foreclosure filings and the latest (2015) VantageScore credit scores for these consumers in three buckets: 300–619, 620–680, and 681–850. We would expect that consumers with foreclosures filed long ago have a better chance of fully recovering their credit score by 2015 than their peers with recent foreclosures. But we find little correlation between the time since the foreclosure filing and the rate of recovery on consumers' credit scores.

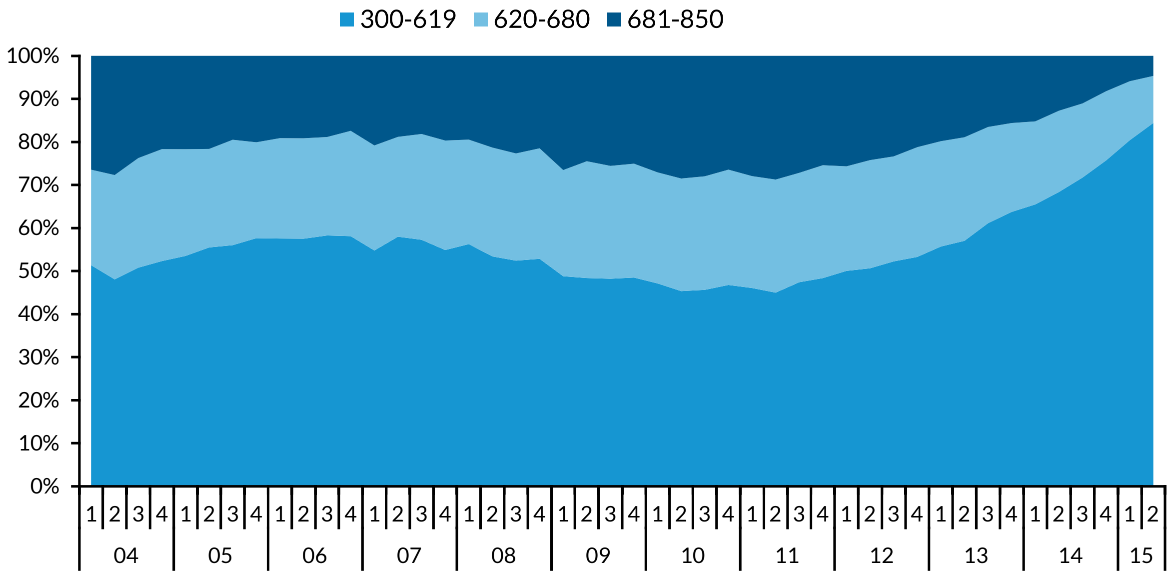
For example, 52 percent of the consumers against whom foreclosures were filed in 2005 still have VantageScore credit scores below 620 in 2015. In other words, a majority of consumers still have extremely low scores 10 years after their foreclosures. Only 20 percent of consumers whose foreclosures were filed in 2005 have VantageScore credit scores above 680 as of 2015.

These numbers change little for consumers in the 2004–11 cohorts, revealing just how big a challenge it is for consumers to restore their credit profile after a foreclosure. For the most recent foreclosures, more than 80 percent have VantageScore credit scores below 620. Combining these trends suggests that the share of consumers with very low credit scores drops from 80 percent to 50 percent in a few years, then stays there for a much longer period after the foreclosure filings.

The recovery rate on consumers' credit scores after a negative public record follows a similar trend. Sixty percent of consumers against whom a negative record was filed in 2004 and 2005 still have VantageScore credit scores below 620 in 2015 (figure 6). Within this cohort, only 20 percent have credit scores above 680 as of 2015. These two percentages are relatively constant for the quarterly cohorts of consumers against whom adverse public records were filed between 2004 and 2011, again showing a big challenge for these consumers to restore their credit profiles. For the most recent foreclosures, more than 70 percent have VantageScore credit scores below 620.

FIGURE 5

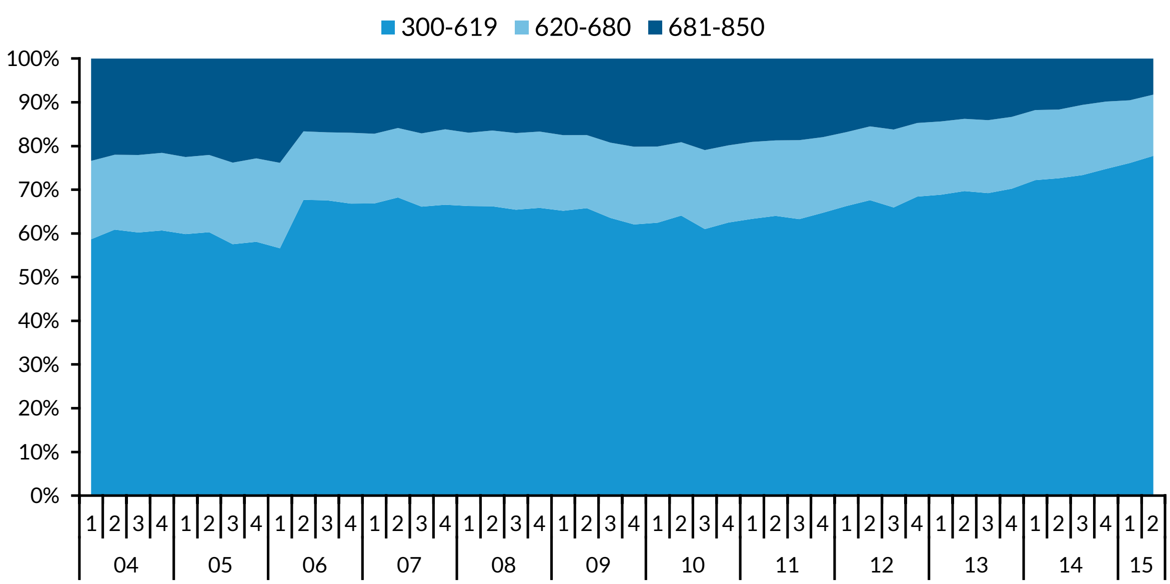
Quarterly New Foreclosure Filings and Their Latest VantageScore Credit Scores in August 2015



Source: Authors' calculations using credit bureau data.

FIGURE 6

Quarterly New Negative Public Records and Their Latest VantageScore Credit Scores in August 2015



Source: Authors' calculations using credit bureau data.

More than Half of Consumers with Blemished Credit Records Have Delinquent Debts

Another way to measure how well consumers recover from a negative financial event is to look at whether they still have delinquent debts. More than half of consumers once damaged by either a foreclosure or a negative public record still had a delinquent debt as of 2015, long after the initial negative event for many of them. As shown in table 4, a significant majority—64 percent—of the 7.1 million consumers who had experienced a foreclosure still had a delinquent debt in 2015. For the 69.3 million mortgage borrowers who have experienced no negative events, only 15 percent had delinquent debt as of 2015. These findings are very consistent with the work of Brevoort and Cooper (2013).

TABLE 4

Consumers with Delinquent Debt in 2015, by Consumer Type

		Negative Public Record, No Foreclosure			No Negative Public Record, No Foreclosure		
	Foreclosures	Have had a mortgage	Never had a mortgage	**Subtotal**	Have had a mortgage	Never had a mortgage	**Total**
No delinquent debt	2,521,991 (36%)	5,991,688 (49%)	10,960,660 (50%)	16,952,347 (49%)	58,996,172 (85%)	107,421,398 (70%)	185,891,908 (70%)
Delinquent debt	4,547,228 (64%)	6,325,849 (51%)	11,074,278 (50%)	17,400,126 (51%)	10,297,947 (15%)	45,902,228 (30%)	78,147,530 (30%)
Total	**7,069,220 (3%)**	**12,317,536 (5%)**	**22,034,937 (8%)**	**34,352,473 (13%)**	**69,294,119 (26%)**	**153,323,626 (58%)**	**264,039,438 (100%)**

Source: Authors' calculations using credit bureau data.
Note: In the total row, percentages in parentheses are of the total. In the rest of the table, percentages in parentheses are of the column values (i.e., the two delinquent debt statuses).

Of the 34.4 million consumers with negative public records but no foreclosures, 51 percent had delinquent debt in 2015—a share that holds true for both owners and renters. Of the 153 million renters who have had no negative events, 30 percent had a delinquent debt as of 2015.

Breaking these consumers into quarterly cohorts according to when the negative event first appeared on their credit report helps explain why the national recovery has been so slow. Figure 7 shows that the for the cohorts of consumers with foreclosure filings between 2004 and 2011, 50–60 percent still had delinquent debt in 2015, a number not sensitive to the date of the foreclosure filing. In other words, more than half of consumers who have experienced a foreclosure are still having a hard time managing their debt more than 10 years later. For the most recent foreclosures (those between 2013 and 2015) 70–100 percent still have delinquent debt. A similar trend is found for consumers with negative public records but no foreclosures, except that this cohort slowly escapes delinquent debt as time goes by (figure 8).

Only 8 Percent of Consumers with Credit Blemishes Had Obtained a New Mortgage as of 2015

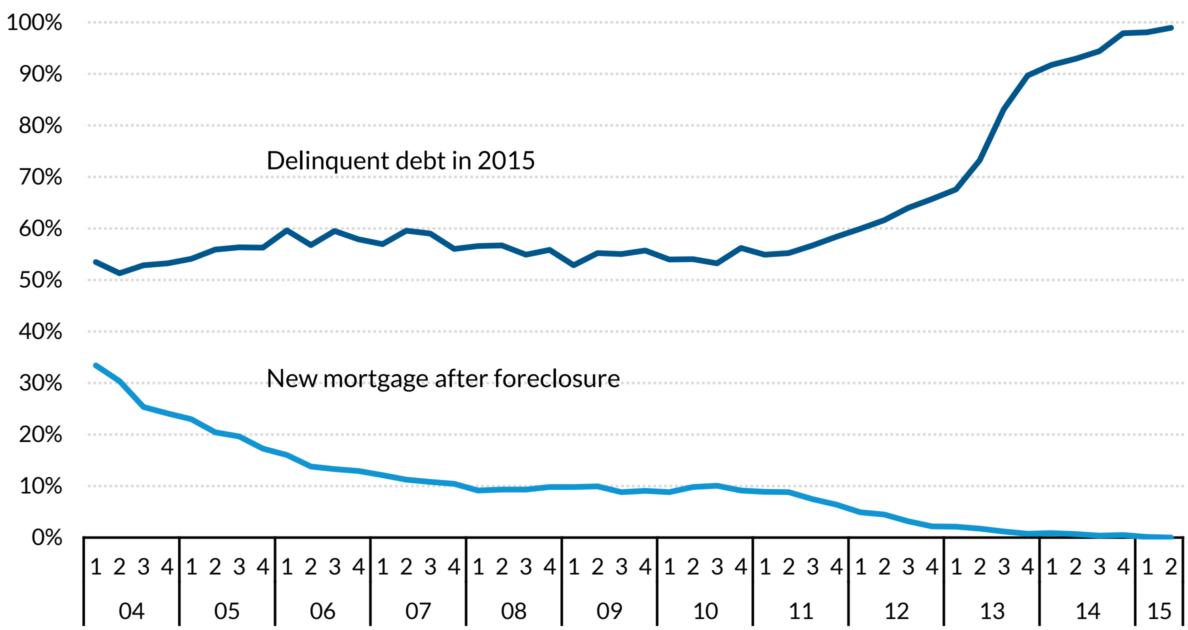
Of the 7.1 million foreclosed-upon consumers, only 7 percent obtained a new mortgage after the foreclosure. Of the 34.4 million consumers with a negative entry on their public record but no foreclosure, 9 percent obtained a new mortgage after the negative event.

Breaking down the consumers into quarterly cohorts reveals that the older vintages are more likely to have obtained a new mortgage after the negative event than the newer vintages. The share of foreclosed borrowers that had taken out new mortgages by 2015 drops from 30 percent to 10 percent from foreclosures filed in 2004 to foreclosures filed in 2007 (figure 7). The share hovers around 10 percent for 2008–10 foreclosures but is much lower for more recent originations.

Similar trends apply to consumers with negative public records. The share of consumers with negative public record that had taken out a new mortgage by 2015 slowly drops from 20 percent for those with first ran into trouble in 2004 to almost zero for the most recent records (figure 8). This is consistent with the results of Cordell and Lambie-Hanson (2015).

FIGURE 7

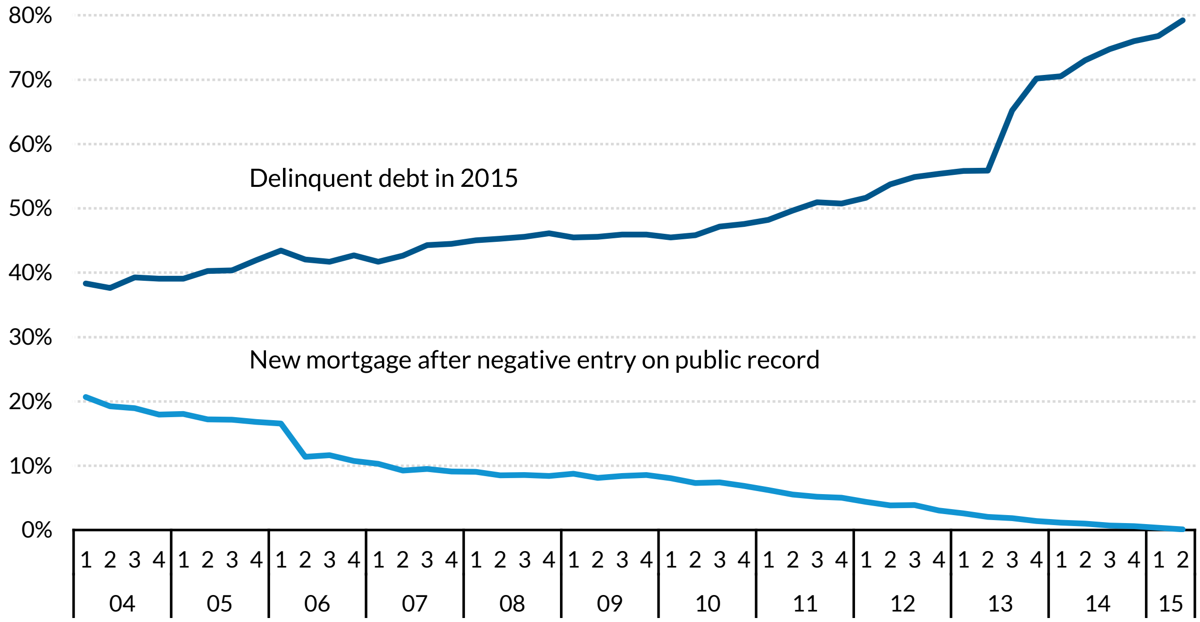
Quarterly New Foreclosure Filings and Financial Status in August 2015



Source: Authors' calculations using credit bureau data.

FIGURE 8

Quarterly New Negative Public Records and Their Latest Financial Status in August 2015



Source: Authors' calculations using credit bureau data.

Who Has Been Affected?

Middle-Aged Consumers Hit Hardest

Table 5 shows the age distributions by type of consumer. The vast majority of the 41.5 million consumers with foreclosures or negative public records—73 percent—were between 29 and 59 years old in 2015. This age group accounts for only 53 percent of the population of adult consumers. Because these middle-aged consumers have the strongest preference for homeownership, their foreclosures and adverse public records have had a profound impact on the country's homeownership rate and economy.

Among foreclosed-upon consumers, 34 percent were 29–44 years old, 43 percent were 45–59 years old, and 22 percent were 60 years old or older in 2015. Consumers who had experienced an adverse public record without a foreclosure followed a similar age distribution: 34 percent were 29–44, 38 percent were 45–59, and 23 percent were 60 or older in 2015.

TABLE 5

Consumer's Age in 2015, by Consumer Type

		Negative Public Record, No Foreclosure			No Negative Public Record, No Foreclosure		
	Foreclosures	Have had a mortgage	Never had a mortgage	**Subtotal**	Have had a mortgage	Never had a mortgage	**Total**
18–28	61,000 (1%)	109,842 (1%)	1,636,007 (7%)	1,609,915 (5%)	2,304,048 (3%)	44,370,244 (29%)	48,481,142 (18%)
29–44	2,414,318 (34%)	3,305,286 (27%)	8,725,103 (40%)	11,764,826 (34%)	17,173,427 (25%)	42,553,805 (28%)	74,171,939 (28%)
45–59	3,040,048 (43%)	5,435,191 (44%)	7,307,596 (33%)	12,970,881 (38%)	24,524,089 (35%)	25,253,420 (16%)	65,560,345 (25%)
60+	1,553,853 (22%)	3,467,217 (28%)	4,366,231 (20%)	8,006,851 (23%)	25,292,555 (37%)	41,146,157 (27%)	75,826,013 (29%)
Total	**7,069,220 (3%)**	**12,317,536 (5%)**	**22,034,937 (8%)**	**34,352,473 (13%)**	**69,294,119 (26%)**	**153,323,626 (58%)**	**264,039,438 (100%)**

Source: Authors' calculations using credit bureau data.
Note: In the total row, percentages in parentheses are of the total. In the rest of the table, percentages in parentheses are of the column values (i.e., the four age levels).

In contrast, consumers who have had a mortgage but no foreclosure or adverse public record tend to be older: 37 percent of that group is 60 or older. Those who have never had a mortgage, a foreclosure, or an adverse public record are primarily successful renters and are much younger; 29 percent of those consumers are between 18 and 28 years old in 2015.

State Variations

Table 6 shows the top 10 states, ranked by their share of US consumers with negative financial events. For example, California accounts for 15.2 percent of all US foreclosures (column A), making it the top state for foreclosures. California tops all the lists for each consumer type, in fact. Big states such as New York, Florida, Texas, Ohio, and Georgia dominate the lists.

Table 7 ranks the states by the share of their consumers with a negative event. For example, 5.2 percent of the adult consumers in Nevada experienced a foreclosure, putting that state at the top of the foreclosures list (column A). Indiana had the highest share of consumers who have had a mortgage and a negative public record but no foreclosure (column B). There is little overlap between the states with high foreclosure rates (column A) and the states with high negative public records rates (column B).

TABLE 6

States with the Highest Shares of Consumers with Negative Events (percent of US total)

Rank	State	A	State	B	State	C	State	D	State	E
1	California	15.2	California	9.4	California	9.5	California	9.4	California	10.4
2	Florida	11.5	Florida	6.1	New York	8.1	New York	6.8	New York	6.3
3	Texas	6.3	Texas	5.6	Ohio	5.1	Ohio	5.1	Florida	5.9
4	Illinois	4.4	Ohio	5.2	Georgia	4.2	Florida	4.8	Ohio	4.9
5	Michigan	4.1	New York	4.5	Indiana	4.2	Texas	4.6	Texas	4.9
6	Arizona	3.9	Illinois	4.1	Florida	4.0	Georgia	4.1	Georgia	4.1
7	New York	3.8	Michigan	4.1	Texas	4.0	Indiana	4.1	Illinois	4.0
8	Ohio	3.7	Georgia	4.1	Virginia	3.8	Illinois	3.9	Michigan	3.9
9	Georgia	3.6	Indiana	3.9	Illinois	3.7	Michigan	3.8	Indiana	3.7
10	North Carolina	2.7	Pennsylvania	3.1	Michigan	3.6	Virginia	3.5	Virginia	3.2

Source: Authors' calculations using credit bureau data.
Note: Column headings are as follows: A = foreclosure; B = negative public record, no foreclosure, have had a mortgage; C = negative public record, no foreclosure, never had a mortgage; D= negative public record, no foreclosure; E= foreclosure or negative public record.

TABLE 7

States with the Highest Shares of Consumers with Negative Events (percent of state total)

Rank	State	A	State	B	State	C	State	D	State	E
1	Nevada	5.2	Indiana	8.9	Mississippi	18.3	Indiana	25.9	Indiana	28.7
2	Arizona	5.1	Idaho	7.7	Indiana	17.1	Mississippi	24.4	Mississippi	26.1
3	Florida	4.6	Utah	7.1	South Dakota	14.9	South Dakota	20.5	Idaho	23.2
4	Puerto Rico	3.7	Ohio	6.9	Wyoming	14.1	Arkansas	20.4	Utah	22.7
5	Michigan	3.6	Arkansas	6.4	Arkansas	14.1	Wyoming	20.2	Arkansas	22.2
6	Idaho	3.3	Michigan	6.3	Nebraska	13.2	Idaho	19.9	Wyoming	21.9
7	California	3.2	Tennessee	6.3	Alabama	13.0	Utah	19.8	South Dakota	21.9
8	Minnesota	3.1	Mississippi	6.1	Utah	12.7	Nebraska	19.1	Ohio	21.8
9	Georgia	3.1	Georgia	6.1	Virginia	12.2	Ohio	19.0	Nebraska	20.9
10	Colorado	3.1	Wyoming	6.1	Idaho	12.2	Alabama	18.7	Alabama	20.7

Source: Authors' calculations using credit bureau data.
Note: Column headings are as follows: A = foreclosure; B = negative public record, no foreclosure, have had a mortgage; C = negative public record, no foreclosure, never had a mortgage; D = negative public record, no foreclosure; E = foreclosure or negative public record.

Consumers Foreclosed Upon at the Peak of the Crisis from Judicial States Have Recovered More Slowly than Their Peers from Nonjudicial States

As described in the methodology section, to test the hypothesis that judicial foreclosures slow down the recovery of foreclosed consumers, we calculate and compare the simulated and actual number of foreclosed consumers in judicial or nonjudicial states in the following three categories:

- with VantageScore credit scores below 620 in 2015,
- with delinquent debt in 2015, and
- with a new mortgage after a foreclosure as of 2015.

The simulated numbers are calculated by assuming that the consumers who incurred a foreclosure in a judicial state have the same percentage distribution of credit scores as consumers in a nonjudicial state. So if 50 percent of the Q2 2010 consumers in a nonjudicial state have credit scores below 620, we apply this percentage to calculate the judicial simulation. None of our findings contradicts the hypothesis that the judicial foreclosure process slows down the recovery of foreclosed consumers. The slowing is, unsurprisingly, most significant for consumers who were foreclosed upon at the peak of the crisis around 2010, when a spike in foreclosure filings created a bottleneck in the process. We did not perform this analysis for the consumers with only an adverse public record, as one would expect the foreclosure process to make no difference in their results.

Consumers Foreclosed Upon at the Peak of the Crisis from Judicial States Have Lower VantageScore Credit Scores than Their Peers from Nonjudicial States

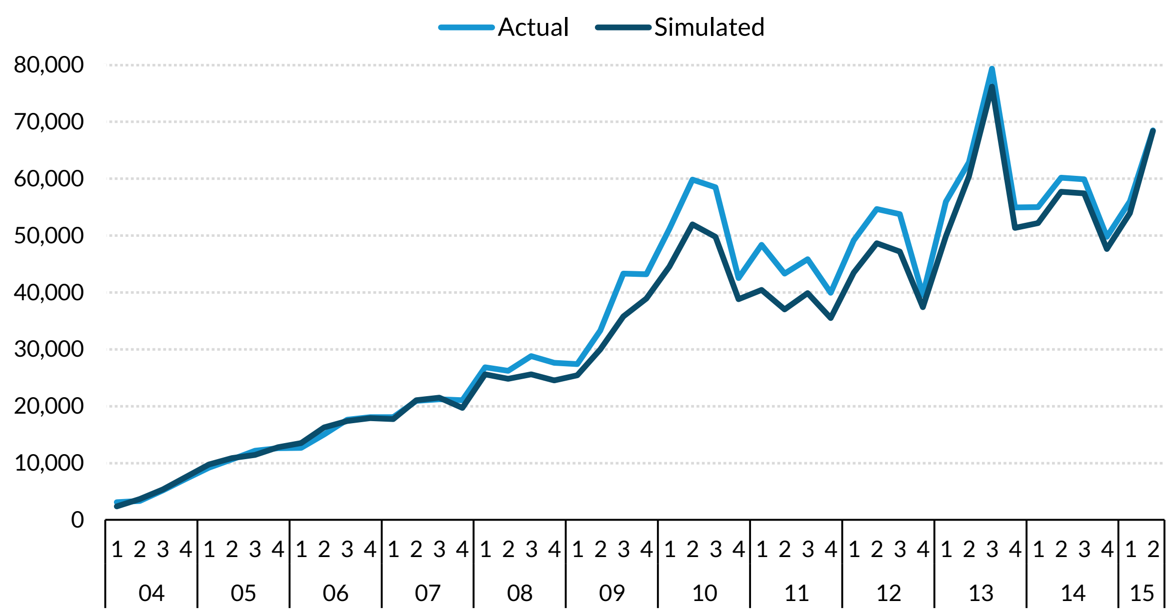
Figure 9 shows the number of foreclosed consumers in judicial states with VantageScore credit scores below 620 in 2015 and compares this number with what the VantageScore credit score would have been had the consumers been located in nonjudicial states. For the quarterly cohorts of consumers who incurred a foreclosure at the peak of the crisis in 2010, if the nonjudicial foreclosure process had been in effect in judicial states, 10,000 additional consumers a quarter would have risen above the lowest credit score bucket (300–619) by 2015. Figure 10 shows that if foreclosed consumers from nonjudicial states were placed under a judicial foreclosure process, more of them would have been left in the low credit score bucket in 2015. For quarterly cohorts other than those at the peak of the crisis, the difference is much smaller.

Cumulatively, the judicial foreclosure process would have increased the number of foreclosed-upon consumers with VantageScore credit scores below 620 in 2015 in judicial states by 124,503 (figure A.1 in the appendix). It would have increased the number of foreclosed-upon consumers with credit scores below 620 in 2015 in nonjudicial states by 192,948 (figure A.2). In both cases, most of these increases are from foreclosures at the peak of the crisis.

FIGURE 9

Quarterly New Foreclosure Filings from Judicial States and Their Latest Financial Status

Number of consumers with VantageScore credit scores still below 620 by August 2015

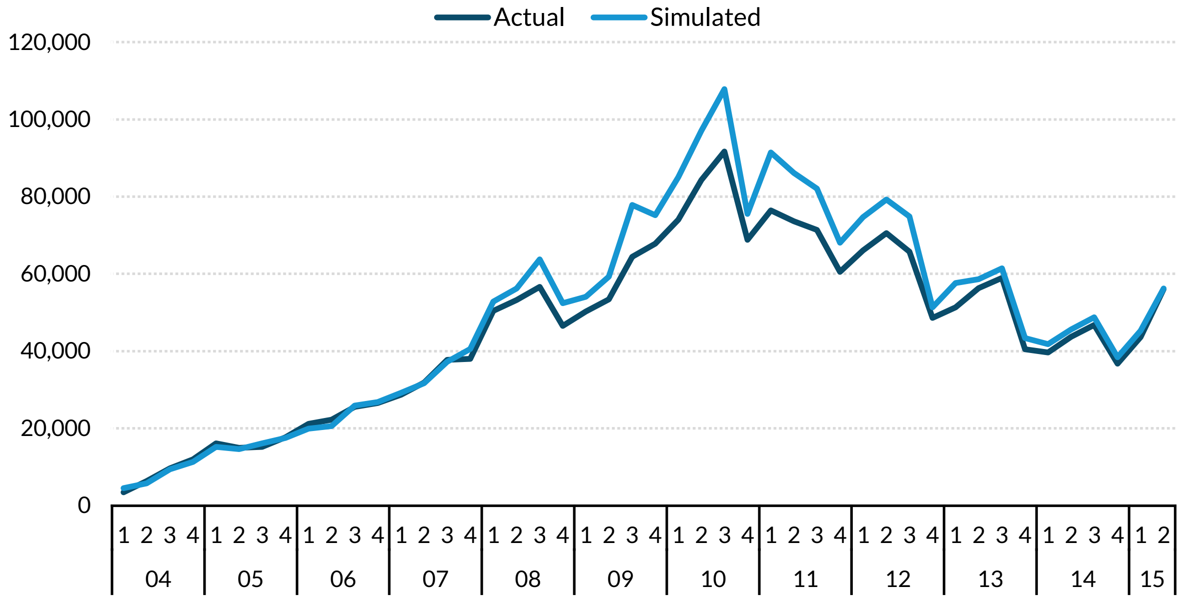


Source: Authors' calculations using credit bureau data.

FIGURE 10

Quarterly New Foreclosure Filings from Nonjudicial States and Their Latest Financial Status

Number of consumers with Vantage Score credit scores still below 620 by August 2015:



Source: Authors' calculations using credit bureau data.

Consumers Foreclosed Upon at the Peak of the Crisis from Judicial States Are More Likely to have Delinquent Debt in 2015 than Their Peers from Nonjudicial States

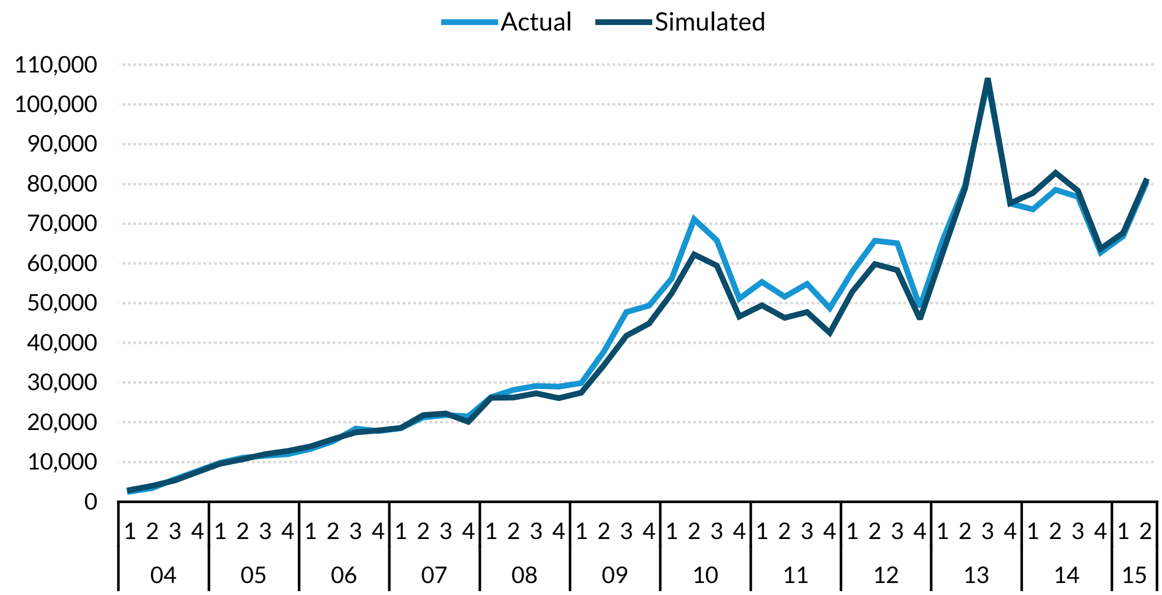
Figure 11 shows the number of foreclosed consumers in judicial states with any delinquent debt as of 2015 and, using the simulation, compares it with what the number would have been had the consumer gone through a nonjudicial foreclosure process. This again shows that for the quarterly cohorts of consumers in judicial states who had foreclosure filings at the peak of the crisis in 2010, a nonjudicial foreclosure process would have left fewer of them with delinquent debt as of 2015. Conversely, figure 12 shows that if foreclosed consumers from nonjudicial states were put under a judicial foreclosure process, more of them would have had delinquent debt as of 2015. Again, for quarterly cohorts other than those at the peak of the crisis, the difference is not significant.

Cumulatively, the judicial foreclosure process would have increased the number of foreclosed-upon consumers in judicial states with delinquent debt in 2015 by more than 81,000 (figure A.3). The process would have increased the number of foreclosed-upon consumers in nonjudicial states with delinquent debt in 2015 by 150,979 (figure A.4). In both cases, most of the increases are from foreclosures at the peak of the crisis.

FIGURE 11

Quarterly New Foreclosure Filings from Judicial States and Their Latest Financial Status

Number of consumers with delinquent debt by August 2015

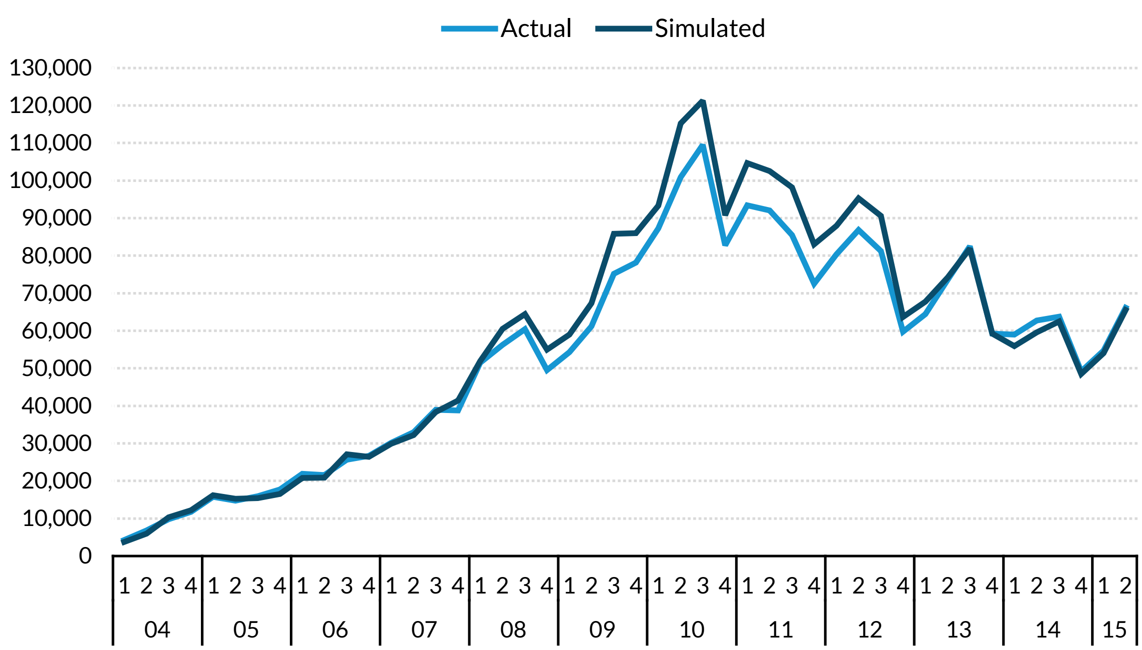


Source: Authors' calculations using credit bureau data.

FIGURE 12

Quarterly New Foreclosure Filings from Nonjudicial States and Their Latest Financial Status

Number of consumers with delinquent debt by August 2015



Source: Authors' calculations using credit bureau data.

Consumers Foreclosed at the Peak of the Crisis from Judicial States Are Less likely to Have Had a New Mortgage by 2015 than Their Peers from Nonjudicial States

Figure 13 shows the number of foreclosed-upon consumers in judicial states that had new mortgages after foreclosure by 2015, and compares that, using the simulation, with what it would have been had the borrowers gone through a nonjudicial foreclosure process. For the quarterly cohorts of consumers in judicial states with a foreclosure filed between 2008 and 2012, the nonjudicial foreclosure process would have given the consumers a higher chance of obtaining a new mortgage by 2015. The benefit of the nonjudicial process is stronger for obtaining a new mortgage than it is for credit scores or delinquent debt. Figure 14 shows that if foreclosed-upon consumers from nonjudicial states were put under a judicial foreclosure process, fewer of them would have had new mortgages by 2015.

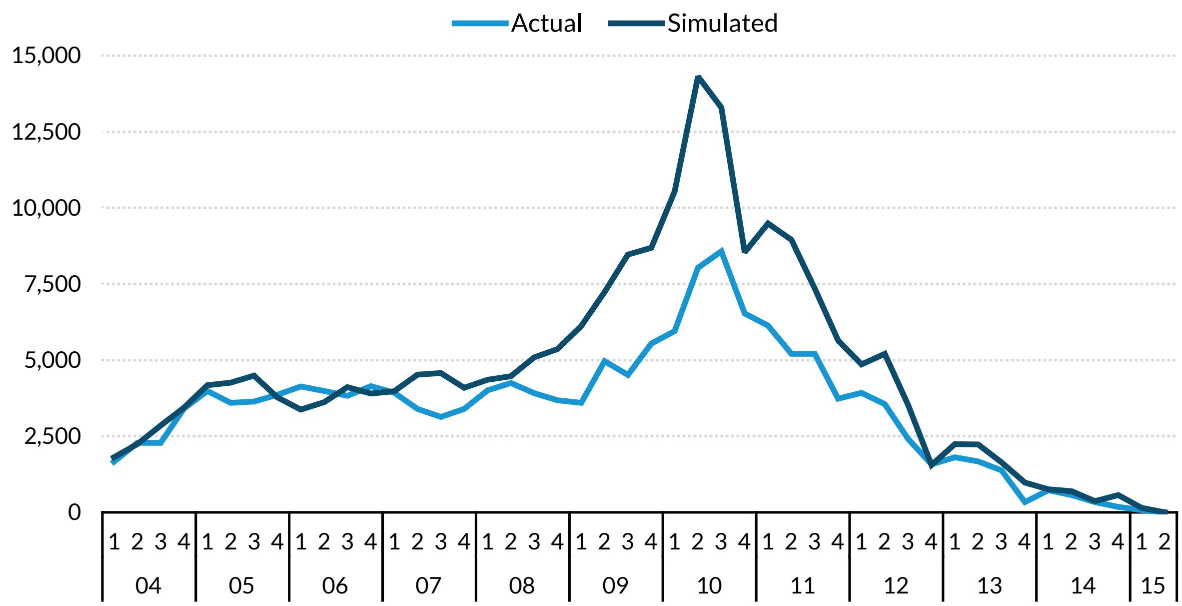
Cumulatively, the judicial foreclosure process would have increased the number of foreclosed-upon consumers in judicial states with new mortgages after foreclosures by 54,814 (figure A.5). The process would have decreased the number of foreclosed-upon consumers in nonjudicial states with new mortgages by 94,476 (figure A.6). Most of the decrease is from foreclosures between 2008 and 2012.

We recognize that both judicial and nonjudicial states have foreclosure variations and that timelines differ within judicial states and within nonjudicial states. Some states even have both judicial and nonjudicial procedures. But, at least at the peak of crisis when foreclosures spiked and created a bottleneck in judicial foreclosure states, the long process might have prevented foreclosed borrowers from moving on.

FIGURE 13

Quarterly New Foreclosure Filings from Judicial States and Their Latest Financial Status

Number that obtained new mortgages after foreclosures

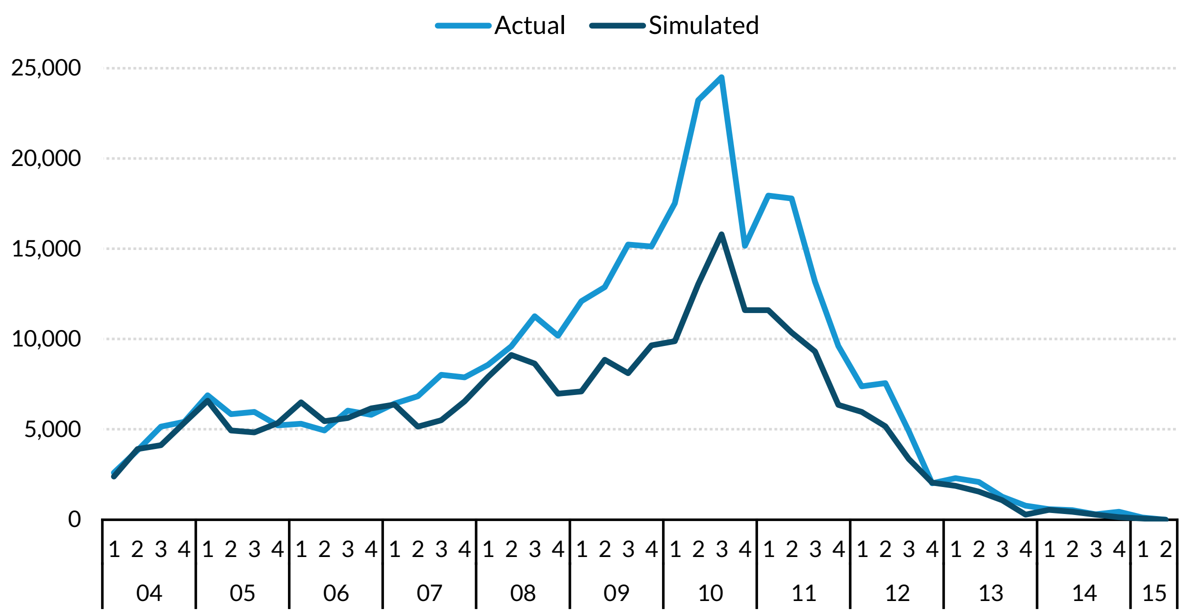


Source: Authors' calculations using credit bureau data.

FIGURE 14

Quarterly New Foreclosure Filings from Nonjudicial States and Their Latest Financial Status

Number that obtained new mortgages after foreclosures



Source: Authors' calculations using credit bureau data.

Conclusion

From 2004 through 2015, 7.1 million borrowers experienced a foreclosure filing, and 34.4 million consumers acquired an adverse public record other than foreclosure. Altogether, 41.5 million people, or 16 percent of the 264 million US consumers with credit records, experienced an adverse event.

Although the incidence of foreclosure and adverse public records peaked in 2010, the cumulative number of consumers still with the adverse events on their credit records actually peaked around 2015, highlighting the extended impact of these adverse events on individual consumers and the economy as a whole. We believe this extended impact at least partially explains the slow recovery after 2010.

More than 60 percent of consumers with these negative financial events still had VantageScore credit scores below 620 in 2015. More than 60 percent of them had delinquent debt in 2015, and only 8 percent of them were able to obtain new mortgages as of 2015. And, more than 70 percent of them were the age that preferred homeowning (between 29 and 59 years old) in 2015; this large group of potential borrowers with negative financial events profoundly affects the homeownership rate.

At least at the peak of crisis, when the spike in foreclosure filings jammed up judicial foreclosures, the long judicial foreclosure process might have prevented foreclosed-upon borrowers from moving on.

We suggest that the United States has experienced such a sluggish recovery from the Great Recession at least in part because of the magnitude of the damage to consumer credit records during the 2008–09 financial crisis and the very slow recovery of many of those consumers. The lingering effects of foreclosures and adverse public records prevent consumers from obtaining mortgages and pursuing homeownership, hinder the recovery of the housing market, limit consumers' ability to obtain other credit such as auto loans, and reduce their ability and willingness to spend (Hurd and Rohwedder 2010). These adverse impacts in turn weaken the strength of the economic recovery in a vicious cycle.

Policy Implications

The two goals of this paper are to understand why American consumers were so slow to recover from the latest financial crisis, and to understand the impact of this slow recovery on the housing market and the economy. This analysis has several policy implications.

First, seven years is a long time for a foreclosure or adverse event to stay on a consumer's credit record. It might be more reasonable, as was suggested by Wu (2013), to remove this information sooner if consumers are trying to improve their credit, such as by paying debts on time each month with no delinquencies.

Second, credit scores have become extremely important. Efforts to score more borrowers by considering payments for rent, mobile phones, and utilities could be beneficial. Renewed efforts to consider trends rather than point-in-time scores would also be useful. For example, a borrower with a 660 VantageScore credit score and improving credit may be a better credit risk than a 660 borrower whose score was 750 a year ago. Fannie Mae has announced that it will be using trended credit data and giving some recognition to improved trajectories.[20] It is unclear how reliant Fannie Mae will be on these data and trajectories, but it is a clear step in the right direction.

Third, it is time to take a closer look at the impact of taking credit reports into account when considering a job-seeker's suitability and see if greater consumer protections are necessary. Employment firms often pull an abbreviated credit report when evaluating candidates, although they rarely look at credit scores, which do little to predict future job performance. Employers can reject any applicant who refuses to submit to a credit check, and federal law permits employers to use credit history as a basis for denying employment (Traub 2013). While this practice is widespread, it is not universal. Several states and New York City prohibit the use of credit reports for most employment purposes.[21] However, excessive reliance on credit reports, especially to screen candidates before an interview that would permit an explanation of negative items, is likely to reduce the opportunity for someone with a foreclosure or adverse public record to reenter the labor force. The perverse result is the reduced ability of troubled consumers to recover from financial problems. This leads to a vicious financial cycle in which borrowers are unable to reenter the housing market because of their poor credit histories and are unable to improve their financial situations because of the roadblocks that hinder their employment (Traub 2013).

Fourth, it is important to increase consumer education and understanding about financial decisions, and to do so in a way that increases positive consumer behaviors. The Center for Financial Services

Innovation recommends measuring financial health using eight key indicators (spending less than income, paying bills on time and in full, having sufficient living expenses in liquid savings, having sufficient long-term savings or assets, having a sustainable debt load, having a prime credit score, having appropriate insurance, and planning ahead for expenses) that provide a holistic understanding of consumer financial health and behaviors (Parker et al. 2016). Though foreclosure or actions leading to adverse public records are often attributable to external factors, other difficulties in obtaining and retaining financial health often contribute to the negative outcomes.

Financial capability needs to be an integral part of a child's education, at school and at home, from the earliest age. Research conducted by the Consumer Financial Protection Bureau indicates that individuals' financial decision-making strategies are already defined by the time the person reaches adulthood. This stresses the importance of ingraining positive financial habits early. Teaching children financial skills (such as knowing how to process financial information, how to make sound financial decisions, and how to execute financial decisions) will equip all children with the tools they need to succeed in the future (CFPB 2015). As of 2015, only five states (Alabama, Missouri, Tennessee, Utah, and Virginia) required a full-semester (half-year) course in financial literacy for high school students (Pelletier 2015). Integrating financial counseling and coaching into workforce training, community college, and other adult learning opportunities can equip individuals with the financial tools they need to avoid the type of stress that continues to plague people well after the conclusion of the financial crisis (Federal Reserve Bank of San Francisco and Corporation for Enterprise Development 2015).

Appendix: Additional Results

TABLE A.1

Number of Consumers, by Type and State

		Negative Public Record, No Foreclosure		No Negative Public Record, No Foreclosure		
State	Foreclosures	Have had a mortgage	Never had a mortgage	Have had a mortgage	Never had a mortgage	Total
AK	9,130 (0.1%)	13,462 (0.1%)	28,705 (0.1%)	163,376 (0.2%)	337,525 (0.2%)	552,198 (0.2%)
AL	81,280 (1.1%)	231,066 (1.9%)	526,355 (2.4%)	917,350 (1.3%)	2,288,801 (1.5%)	4,044,852 (1.5%)
AR	42,362 (0.6%)	151,723 (1.2%)	336,138 (1.5%)	547,539 (0.8%)	1,311,054 (0.9%)	2,388,816 (0.9%)
AZ	273,784 (3.9%)	253,813 (2.1%)	282,056 (1.3%)	1,454,250 (2.1%)	3,147,667 (2.1%)	5,411,570 (2.0%)
CA	1,077,535 (15.2%)	1,152,004 (9.4%)	2,086,308 (9.5%)	7,857,401 (11.3%)	21,419,107 (14.0%)	33,592,355 (12.7%)
CO	133,468 (1.9%)	241,705 (2.0%)	325,267 (1.5%)	1,392,892 (2.0%)	2,230,135 (1.5%)	4,323,467 (1.6%)
CT	64,877 (0.9%)	127,700 (1.0%)	201,435 (0.9%)	899,670 (1.3%)	1,630,043 (1.1%)	2,923,725 (1.1%)
DC	7,273 (0.1%)	9,246 (0.1%)	31,258 (0.1%)	124,495 (0.2%)	447,002 (0.3%)	619,274 (0.2%)
DE	19,034 (0.3%)	38,182 (0.3%)	67,351 (0.3%)	224,927 (0.3%)	455,129 (0.3%)	804,623 (0.3%)
FL	810,598 (11.5%)	746,159 (6.1%)	890,153 (4.0%)	4,394,861 (6.3%)	10,868,061 (7.1%)	17,709,832 (6.7%)
GA	255,872 (3.6%)	504,222 (4.1%)	919,554 (4.2%)	1,825,338 (2.6%)	4,766,255 (3.1%)	8,271,241 (3.1%)
GU	580 (0.0%)	696 (0.0%)	2,205 (0.0%)	22,129 (0.0%)	81,034 (0.1%)	106,644 (0.0%)
HI	19,885 (0.3%)	25,377 (0.2%)	62,632 (0.3%)	328,067 (0.5%)	675,321 (0.4%)	1,111,282 (0.4%)
IA	47,430 (0.7%)	127,854 (1.0%)	233,815 (1.1%)	726,622 (1.0%)	1,169,148 (0.8%)	2,304,869 (0.9%)
ID	41,859 (0.6%)	99,305 (0.8%)	156,096 (0.7%)	377,238 (0.5%)	609,496 (0.4%)	1,283,994 (0.5%)
IL	311,658 (4.4%)	509,599 (4.1%)	819,668 (3.7%)	2,894,380 (4.2%)	5,999,333 (3.9%)	10,534,638 (4.0%)
IN	147,589 (2.1%)	477,104 (3.9%)	918,200 (4.2%)	1,312,346 (1.9%)	2,527,298 (1.6%)	5,382,537 (2.0%)
KS	44,373 (0.6%)	130,678 (1.1%)	273,468 (1.2%)	655,709 (0.9%)	1,147,245 (0.7%)	2,251,473 (0.9%)
KY	68,398 (1.0%)	191,917 (1.6%)	288,129 (1.3%)	918,704 (1.3%)	2,022,558 (1.3%)	3,489,706 (1.3%)
LA	63,175 (0.9%)	151,568 (1.2%)	299,696 (1.4%)	880,094 (1.3%)	2,420,955 (1.6%)	3,815,488 (1.4%)
MA	95,323 (1.3%)	177,410 (1.4%)	271,998 (1.2%)	1,744,211 (2.5%)	3,125,919 (2.0%)	5,414,861 (2.1%)
MD	126,157 (1.8%)	258,842 (2.1%)	535,794 (2.4%)	1,443,534 (2.1%)	2,803,718 (1.8%)	5,168,045 (2.0%)
ME	20,465 (0.3%)	55,823 (0.5%)	81,394 (0.4%)	340,215 (0.5%)	569,327 (0.4%)	1,067,224 (0.4%)
MI	288,562 (4.1%)	507,858 (4.1%)	803,536 (3.6%)	2,231,321 (3.2%)	4,169,105 (2.7%)	8,000,382 (3.0%)
MN	125,035 (1.8%)	198,764 (1.6%)	291,805 (1.3%)	1,453,593 (2.1%)	1,943,768 (1.3%)	4,012,965 (1.5%)
MO	122,597 (1.7%)	288,552 (2.3%)	434,399 (2.0%)	1,358,964 (2.0%)	2,560,346 (1.7%)	4,764,858 (1.8%)
MS	41,201 (0.6%)	147,700 (1.2%)	439,893 (2.0%)	433,876 (0.6%)	1,344,451 (0.9%)	2,407,121 (0.9%)
MT	14,662 (0.2%)	39,884 (0.3%)	95,785 (0.4%)	242,336 (0.3%)	407,220 (0.3%)	799,887 (0.3%)
NC	187,939 (2.7%)	332,847 (2.7%)	545,194 (2.5%)	2,106,709 (3.0%)	4,752,789 (3.1%)	7,925,478 (3.0%)
ND	5,919 (0.1%)	26,035 (0.2%)	60,079 (0.3%)	165,620 (0.2%)	288,727 (0.2%)	546,380 (0.2%)
NE	25,301 (0.4%)	82,864 (0.7%)	188,321 (0.9%)	447,572 (0.6%)	677,798 (0.4%)	1,421,856 (0.5%)
NH	23,599 (0.3%)	42,399 (0.3%)	44,527 (0.2%)	393,448 (0.6%)	566,579 (0.4%)	1,070,552 (0.4%)
NJ	184,728 (2.6%)	347,625 (2.8%)	780,131 (3.5%)	2,000,823 (2.9%)	4,359,538 (2.8%)	7,672,845 (2.9%)
NM	35,282 (0.5%)	75,513 (0.6%)	136,134 (0.6%)	407,763 (0.6%)	1,027,242 (0.7%)	1,681,934 (0.6%)
NV	133,584 (1.9%)	133,657 (1.1%)	190,371 (0.9%)	569,011 (0.8%)	1,536,161 (1.0%)	2,562,784 (1.0%)
NY	266,086 (3.8%)	554,280 (4.5%)	1,774,077 (8.1%)	3,477,241 (5.0%)	10,090,654 (6.6%)	16,162,338 (6.1%)
OH	260,902 (3.7%)	641,438 (5.2%)	1,118,745 (5.1%)	2,510,526 (3.6%)	4,736,226 (3.1%)	9,267,837 (3.5%)
OK	65,651 (0.9%)	185,186 (1.5%)	354,823 (1.6%)	734,205 (1.1%)	1,710,767 (1.1%)	3,050,632 (1.2%)
OR	83,331 (1.2%)	174,586 (1.4%)	387,358 (1.8%)	932,361 (1.3%)	1,790,446 (1.2%)	3,368,082 (1.3%)
PA	180,202 (2.5%)	386,078 (3.1%)	534,324 (2.4%)	3,049,051 (4.4%)	5,862,457 (3.8%)	10,012,112 (3.8%)
PR	78,224 (1.1%)	28,085 (0.2%)	52,187 (0.2%)	514,462 (0.7%)	1,467,008 (1.0%)	2,139,966 (0.8%)
RI	19,188 (0.3%)	41,161 (0.3%)	67,429 (0.3%)	241,524 (0.3%)	471,072 (0.3%)	840,374 (0.3%)
SC	109,173 (1.5%)	177,100 (1.4%)	316,176 (1.4%)	982,074 (1.4%)	2,366,352 (1.5%)	3,950,875 (1.5%)
SD	9,014 (0.1%)	35,668 (0.3%)	96,443 (0.4%)	195,022 (0.3%)	309,198 (0.2%)	645,345 (0.2%)
TN	118,651 (1.7%)	329,249 (2.7%)	519,236 (2.4%)	1,396,839 (2.0%)	2,899,496 (1.9%)	5,263,471 (2.0%)

State	Foreclosures	Negative Public Record, No Foreclosure		No Negative Public Record, No Foreclosure		Total
		Have had a mortgage	Never had a mortgage	Have had a mortgage	Never had a mortgage	
TX	445,436 (6.3%)	690,994 (5.6%)	872,590 (4.0%)	5,390,669 (7.8%)	14,691,436 (9.6%)	22,091,125 (8.4%)
UT	63,717 (0.9%)	154,083 (1.3%)	274,628 (1.2%)	657,217 (0.9%)	1,017,335 (0.7%)	2,166,980 (0.8%)
VA	147,202 (2.1%)	357,837 (2.9%)	831,622 (3.8%)	2,040,013 (2.9%)	3,431,286 (2.2%)	6,807,960 (2.6%)
VI	1,122 (0.0%)	387 (0.0%)	619 (0.0%)	13,386 (0.0%)	49,843 (0.0%)	65,357 (0.0%)
VT	7,080 (0.1%)	16,093 (0.1%)	18,260 (0.1%)	183,725 (0.3%)	267,714 (0.2%)	492,872 (0.2%)
WA	141,554 (2.0%)	276,560 (2.2%)	455,947 (2.1%)	1,801,468 (2.6%)	3,163,766 (2.1%)	5,839,295 (2.2%)
WI	94,511 (1.3%)	250,602 (2.0%)	475,367 (2.2%)	1,442,876 (2.1%)	2,180,446 (1.4%)	4,443,802 (1.7%)
WV	19,691 (0.3%)	90,446 (0.7%)	170,835 (0.8%)	335,108 (0.5%)	905,614 (0.6%)	1,521,694 (0.6%)
WY	7,969 (0.1%)	28,550 (0.2%)	66,423 (0.3%)	139,970 (0.2%)	226,655 (0.1%)	469,567 (0.2%)
J	2,922,648 (41.3%)	5,315,297 (43.2%)	9,884,564 (44.9%)	29,376,863 (42.4%)	64,647,591 (42.2%)	112,146,963 (42.5%)
N	4,146,572 (58.7%)	7,002,239 (56.8%)	12,150,373 (55.1%)	39,917,257 (57.6%)	88,676,035 (57.8%)	151,892,476 (57.5%)
Total	**7,069,218 (2.7%)**	**12,317,536 (4.7%)**	**22,034,939 (8.3%)**	**69,294,121 (26.2%)**	**153,323,626 (58.1%)**	**264,039,440 (100.0%)**

Source: Authors' calculations using credit bureau data.

TABLE A.2

State Distribution by Consumer Types

Row percentages

State	Foreclosures	Negative Public Record, No Foreclosure		No Negative Public Record, No Foreclosure	
		Have had a mortgage	Never had a mortgage	Have had a mortgage	Never had a mortgage
AK	1.7	2.4	5.2	29.6	61.1
AL	2.0	5.7	13.0	22.7	56.6
AR	1.8	6.4	14.1	22.9	54.9
AZ	5.1	4.7	5.2	26.9	58.2
CA	3.2	3.4	6.2	23.4	63.8
CO	3.1	5.6	7.5	32.2	51.6
CT	2.2	4.4	6.9	30.8	55.8
DC	1.2	1.5	5.0	20.1	72.2
DE	2.4	4.7	8.4	28.0	56.6
FL	4.6	4.2	5.0	24.8	61.4
GA	3.1	6.1	11.1	22.1	57.6
GU	0.5	0.7	2.1	20.8	76.0
HI	1.8	2.3	5.6	29.5	60.8
IA	2.1	5.5	10.1	31.5	50.7
ID	3.3	7.7	12.2	29.4	47.5
IL	3.0	4.8	7.8	27.5	56.9
IN	2.7	8.9	17.1	24.4	47.0
KS	2.0	5.8	12.1	29.1	51.0
KY	2.0	5.5	8.3	26.3	58.0
LA	1.7	4.0	7.9	23.1	63.5
MA	1.8	3.3	5.0	32.2	57.7
MD	2.4	5.0	10.4	27.9	54.3
ME	1.9	5.2	7.6	31.9	53.3
MI	3.6	6.3	10.0	27.9	52.1
MN	3.1	5.0	7.3	36.2	48.4
MO	2.6	6.1	9.1	28.5	53.7

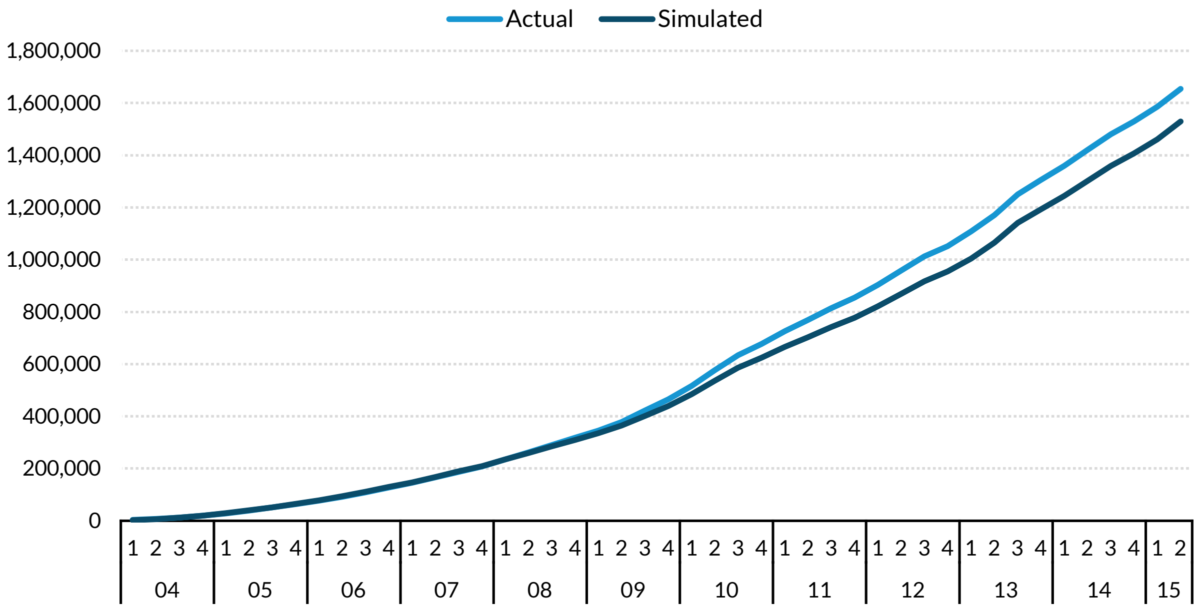
State	Foreclosures	Negative Public Record, No Foreclosure		No Negative Public Record, No Foreclosure	
		Have had a mortgage	Never had a mortgage	Have had a mortgage	Never had a mortgage
MS	1.7	6.1	18.3	18.0	55.9
MT	1.8	5.0	12.0	30.3	50.9
NC	2.4	4.2	6.9	26.6	60.0
ND	1.1	4.8	11.0	30.3	52.8
NE	1.8	5.8	13.2	31.5	47.7
NH	2.2	4.0	4.2	36.8	52.9
NJ	2.4	4.5	10.2	26.1	56.8
NM	2.1	4.5	8.1	24.2	61.1
NV	5.2	5.2	7.4	22.2	59.9
NY	1.6	3.4	11.0	21.5	62.4
OH	2.8	6.9	12.1	27.1	51.1
OK	2.2	6.1	11.6	24.1	56.1
OR	2.5	5.2	11.5	27.7	53.2
PA	1.8	3.9	5.3	30.5	58.6
PR	3.7	1.3	2.4	24.0	68.6
RI	2.3	4.9	8.0	28.7	56.1
SC	2.8	4.5	8.0	24.9	59.9
SD	1.4	5.5	14.9	30.2	47.9
TN	2.3	6.3	9.9	26.5	55.1
TX	2.0	3.1	3.9	24.4	66.5
UT	2.9	7.1	12.7	30.3	46.9
VA	2.2	5.3	12.2	30.0	50.4
VI	1.7	0.6	0.9	20.5	76.3
VT	1.4	3.3	3.7	37.3	54.3
WA	2.4	4.7	7.8	30.9	54.2
WI	2.1	5.6	10.7	32.5	49.1
WV	1.3	5.9	11.2	22.0	59.5
WY	1.7	6.1	14.1	29.8	48.3
Total	**2.7**	**4.7**	**8.3**	**26.2**	**58.1**

Source: Authors' calculations using credit bureau data.

FIGURE A.1

Quarterly New Foreclosure Filings from Judicial States and Their Latest Financial Status

Cumulative number with VantageScore credit scores still below 620 by August 2015

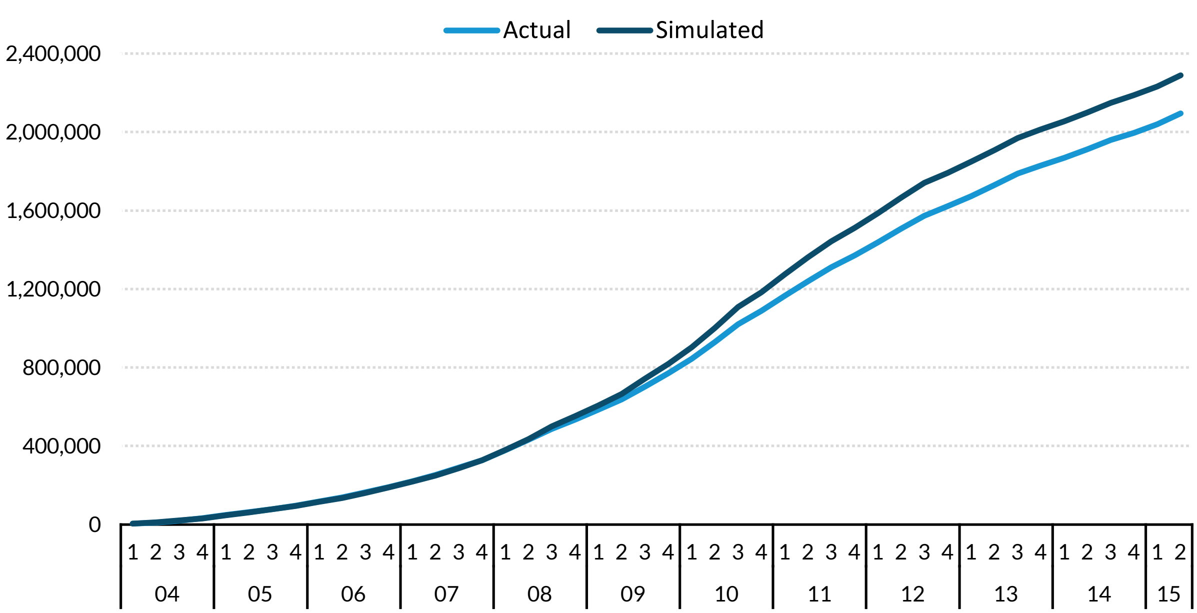


Source: Authors' calculations using credit bureau data.

FIGURE A.2

Quarterly New Foreclosure Filings from Nonjudicial States and Their Latest Financial Status

Cumulative number with VantageScore credit scores still below 620 by August 2015

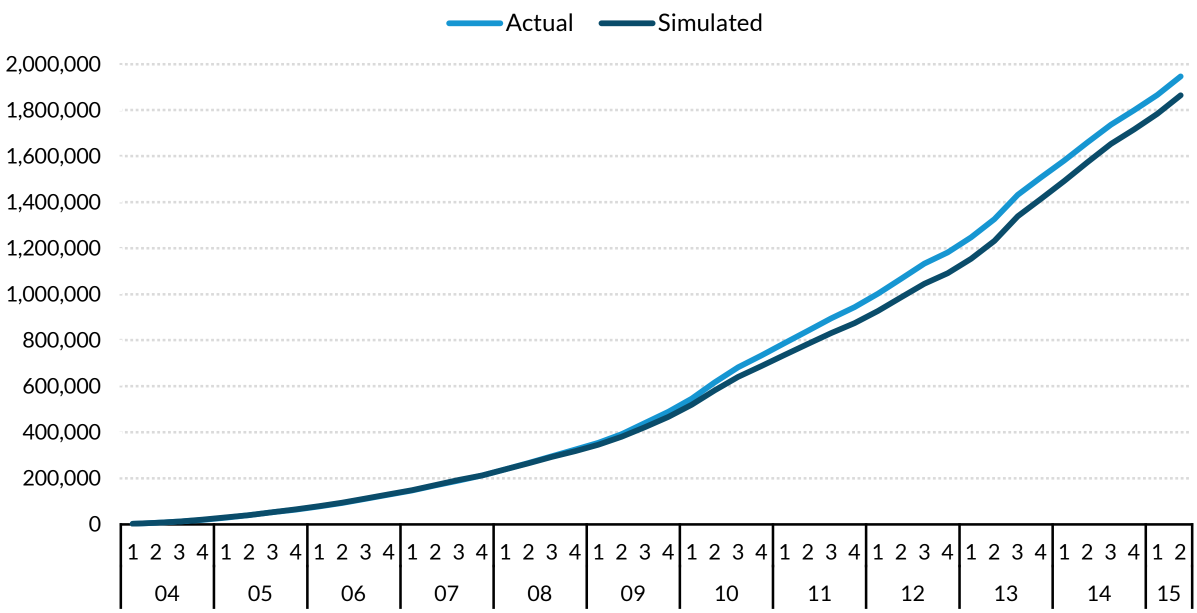


Source: Authors' calculations using credit bureau data.

FIGURE A.3

Quarterly New Foreclosure Filings from Judicial States and Their Latest Financial Status

Cumulative number with delinquent debt by August 2015

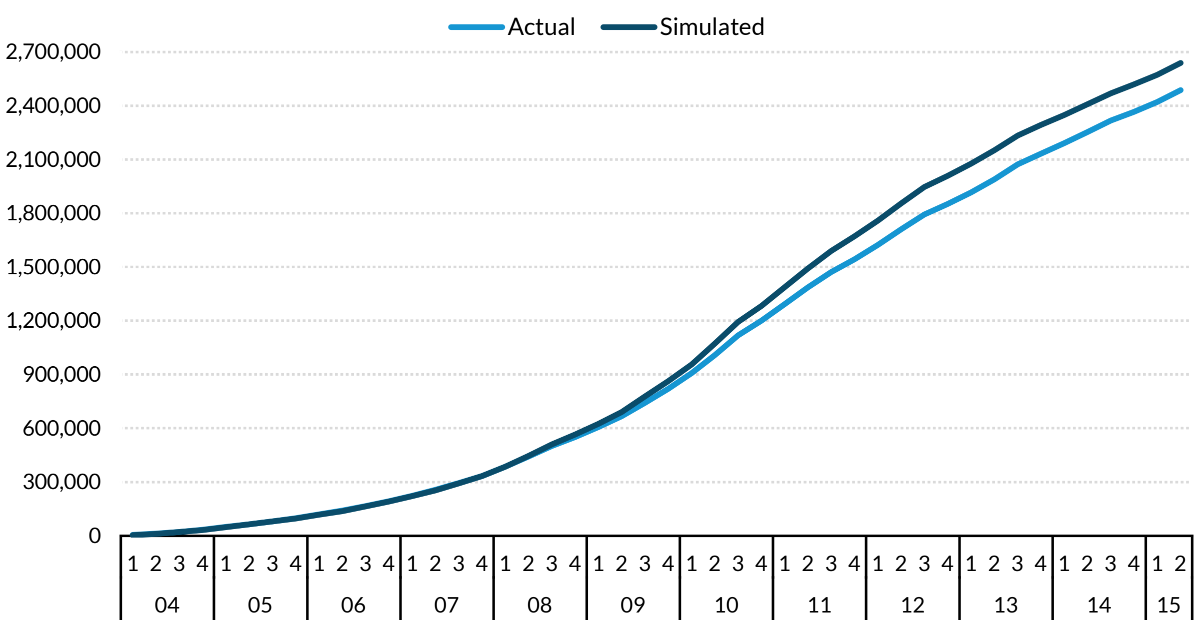


Source: Authors' calculations using credit bureau data.

FIGURE A.4

Quarterly New Foreclosure Filings from Nonjudicial States and Their Latest Financial Status

Cumulative number with delinquent debt by August 2015

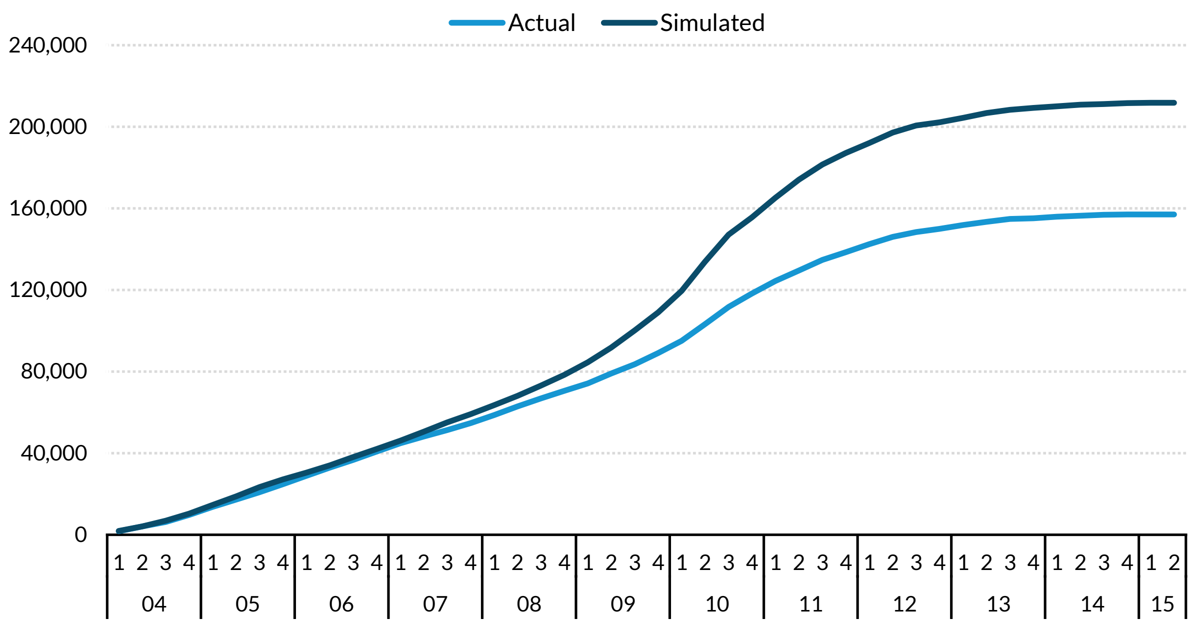


Source: Authors' calculations using credit bureau data.

FIGURE A.5

Quarterly New Foreclosure Filings from Judicial States and Their Latest Financial Status

Cumulative number that obtained new mortgages after foreclosures

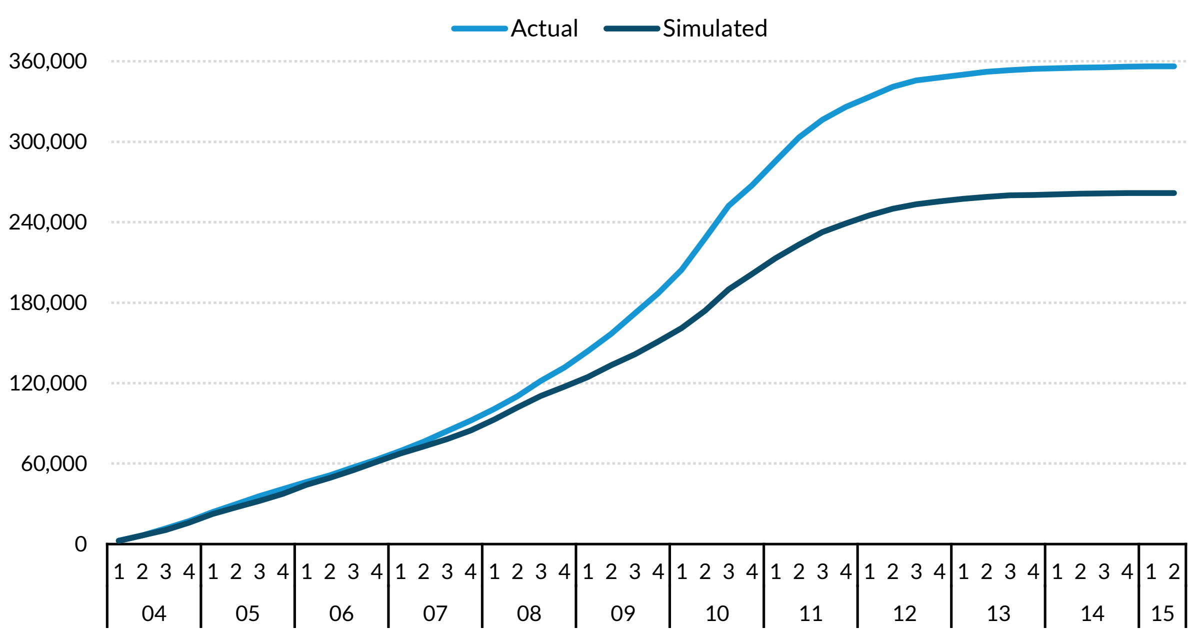


Source: Authors' calculations using credit bureau data.

FIGURE A.6

Quarterly New Foreclosure Filings from Nonjudicial States and Their Latest Financial Status

Cumulative number that obtained new mortgages after foreclosures



Source: Authors' calculations using credit bureau data.

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About the Authors

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Li's work has been published widely in various academic journals and has been covered in the *Wall Street Journal*, the *Washington Post*, and the *New York Times*, as well as in other print and broadcast media. Li is also a quantitative research methodologist with a deep understanding of cost-benefit analysis, program evaluation, and causal inference in social and political science.

Before joining Urban, Li was a principal researcher with the Center for Responsible Lending, where he wrote numerous publications on the housing finance market and created and managed the nonprofit organization's comprehensive residential mortgage database. Li received his MA in statistics and his PhD in environmental science, policy, and management from the University of California, Berkeley.

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Goodman was inducted into the Fixed Income Analysts Hall of Fame in 2009. She serves on the board of directors of MFA Financial, is an advisor to Amherst Capital Management, and is a member of the Bipartisan Policy Center's Housing Commission, the Federal Reserve Bank of New York's Financial Advisory Roundtable, and Fannie

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Statement of Independence