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Volume Author/Editor: Price V. Fishback, Jonathan Rose, and Kenneth Snowden

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Chapter Author(s): Price V. Fishback, Jonathan Rose, Kenneth Snowden

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CHAPTER 5

THE ECONOMIC RATIONALE FOR THE HOLC

What is the economic rationale underlying the HOLC's intervention into the residential loan market? This is a question of whether the program can be justified from an economic policy perspective, rather than how Congress and the president actually justified it. Not all distressed loans are good candidates for modifications, but society is often better off if lenders choose to modify some distressed loans rather than foreclose upon them. From this perspective, the important question for policy is why lenders chose to foreclose so many loans during the 1930s rather than implement HOLC-style modifications themselves. Moreover, if borrowers, lenders, and the economy as a whole were better off with so many loan modifications, we must also consider why private actors did not come together to create a private version of the HOLC.

Foreclosure as a Resolution Mechanism

During normal periods foreclosures are relatively rare events, and the problems of foreclosure are dealt with in a routine fashion. The possibility for foreclosure is included in all mortgage contracts to provide a solution, agreed upon at the time the contract was signed, that can be used to resolve a lender's claims if the borrower defaults on scheduled loan payments.[1] Foreclosure clauses establish the procedures for selling a mortgaged property to pay off any remaining loan balance, any unpaid interest, and any costs the lender incurs while pursuing foreclosure and the property sale.

Foreclosure is a key incentive for borrowers to pay back their loans and a way for lenders to reduce losses in cases when borrowers do not repay. Nevertheless, the foreclosure option is often not used because it is more costly than other solutions for resolving a default. Foreclosure requires time, effort, and legal fees to remove the borrower's ownership rights to a property. It then generates expenses related to the sale of the property, including possible costs of repairs if the borrower did not maintain the home.

In the event of borrower default, there are two possible cases: the property can be sold for either more or less than the lender's claims plus the costs of selling the property. When the property can be sold for more, the borrower has an incentive to avoid foreclosure and its costs, and therefore retain more of her equity, by simply selling the property herself and repaying the lender with the proceeds.

If the sale of the property cannot fully cover all the lender's claims, on the other hand, the burden of foreclosure costs shifts to the lender. In this situation, both borrowers and lenders can often do better through modification of the defaulted loan rather than foreclosing upon the borrower. This approach lets the borrower stay in the home with an opportunity to resolve the default without generating the costs associated with transferring ownership and selling the property. By modifying the loan, moreover, the lender avoids the costs of holding and managing the borrower's property if it turns out to be hard to sell. It also gives the borrower more incentive to maintain the property because she retains ownership so long as she can meet the requirements of the modified loan.

Why Lenders Did Not Implement HOLC-Style Modifications during the 1930s

Lenders in the early 1930s were well aware of the benefits of loan modification after a default rather than foreclosure. In New York City, research on property prices during the 1920s and 1930s shows that the sale price for foreclosed property was about 26 percent lower than the sale price for similar properties in regular sales. Lenders expected, therefore, that there would be fewer resources to pay off debts after a foreclosure. A major factor in these costs was delay. In a sample of New York mortgages from 1920 through 1947, the average time between the date the lender dispatched the loan to a foreclosure attorney and the completion of the foreclosure was around five months. On

average, it took the lender about 4.7 years to sell the property, although many lenders were able to rent out the homes while waiting to sell them. As a result, foreclosures were neither a fast nor a low-risk way to obtain cash when a lender ran into trouble.[2]

Faced with these practicalities, lenders commonly modified loans rather than foreclosing, even as the mortgage crisis heated up between 1931 and 1933. In a study of New York mortgages during that time, lenders modified an annual average of 8 percent of the loans in place, while they foreclosed on only 1.1 percent. These modifications were not as concessionary as HOLC modifications, however, nor were they as effective. The structure of these modifications followed the pattern advocated publicly by lenders' groups for the HOLC. Over 96 percent of the modifications lengthened the repayment period, 40 percent changed the type of loan, and only 10 percent lowered the interest rate. Literally none of the modifications lowered the principal debt, and in some modifications the borrower ended up with worse terms than before.[3]

Despite the costs and delays associated with foreclosure, the number of foreclosures nationwide increased by roughly 65 percent between 1930 and 1932. The number of foreclosures threatened to grow so large that various states began to implement foreclosure moratoria. The most obvious reason for the rise in foreclosures would seem to have been that more borrowers were falling behind on their mortgages as the economy crumbled. Yet lenders still might have handled the problems with modifications instead of foreclosures. Instead, in the New York sample, the ratio of foreclosures to modifications rose each year from 1932 through 1935.[4]

Modifications were even more difficult in situations where multiple lenders owned the loan or where there was a second mortgage on the property. Not only were the basic negotiation costs amplified by having multiple lenders, but there was a greater likelihood of disagreement between the mortgage lenders, and legal safeguards put in place to protect each lender created additional obstacles. This became a particularly severe problem in the New York and Chicago metropolitan areas, where mortgage guarantee companies had issued mortgage-backed securities based on groups of mortgages and sometimes sold pieces of the same mortgage to multiple investors. The mortgage companies that issued and guaranteed these securities failed during the foreclosure crisis, and special legislative solutions were required to obtain per-

mission for modification from dispersed investors. A relatively small share of mortgages were involved in these transactions, so the problem was not as severe as in the recent mortgage crisis when most mortgages were included as parts of securities.[5]

In choosing between modification and foreclosure, a lender would typically compare the cash flow from the two options. To put dollars earned in the future on the same terms as dollars earned sooner, lenders discount future cash flows, resulting in a net present value (NPV) for each option. The cash flows are quite different for foreclosures and modifications. Foreclosures have some upfront costs and a lump-sum cash flow whenever the property is sold, though the gap before sales may be long. For example, a federal government study estimated that the duration of the foreclosure process averaged eight months across the forty-eight states during the 1930s. The survey also noted some significant expenses from legal fees, court costs, and advertising.[6] Although foreclosure raises funds at a delay of several months, the discounted cash flow could still be higher than a modification. At best, modifications bring lenders revenue only gradually as loan payments are made, and at worst modifications can just end in redefaults. The total cash flow may be higher than a foreclosure, but once receipts many years in the future are discounted, the NPV may be lower. As a result, whether the NPV of a modification exceeds that of a foreclosure depends very much on the rate at which future cash flow is discounted, and on the probability of redefault.

If a lender did an NPV test for a modification in 1933, the lender likely thought a great deal about the borrower's ability to pay off the loan amid the Depression. As unemployment rose and there appeared to be no end in sight, lenders faced increasing difficulty in accurately identifying viable candidates for modification. Modification made sense if borrowers were likely to eventually repay their loans, but expanding unemployment (and underemployment) made it more difficult to identify which borrowers were in a situation where they might return to work in a reasonable time span. Lenders were reluctant to extend modifications to borrowers who would default in the future regardless of the modification. As a result, many NPV tests likely favored foreclosure on solid economic grounds.

However, not all lender NPV tests are necessarily optimal from a societal point of view. Society's NPVs may differ from lenders' NPVs in many cases. Consider three reasons why lenders might view a modification as having an NPV that is "too low." First, there are costs of foreclosure that are imposed

on society and not on a lender, which often caused lenders to disregard these costs. Second, because of the distressed conditions of the early 1930s, lenders might have been using particularly high discount rates when considering the value of revenue several years in the future, making modifications less attractive. Third, lenders may have valued modifications less because of concerns that nondistressed borrowers would seek modifications as well, if a program like the HOLC had any greater ability to prevent such concerns, which it might not.

SOCIAL COSTS OF FORECLOSURES

Several costs to foreclosure are not internalized by lenders but instead are borne by others. This is especially true when the number of foreclosures becomes large. As foreclosure sales move from relatively rare events to more common ones, they are more likely to have important impacts on house prices. Moreover, individual lenders have little incentive to consider these costs, as most lenders are too small to affect aggregate housing prices even within a community. In the 1930s, as the number of foreclosures mounted, each foreclosure created negative spillover effects on all home sales. A leading real estate professional noted the problem at the height of the 1930s foreclosure crisis: "Foreclosures in this situation are destructive to the market in general. They accomplish nothing of lasting benefit, even to the holder of the mortgage . . . since the effect of forced sales is [to] demoralize values in the vicinity and therefore to depreciate that of his acquisition."[7] The individual lender had every incentive to focus on his own benefits and costs, including the demoralizing effect on the price of his own foreclosed property, and ignore the spillover effects on other values in the vicinity.

As housing prices fell further, borrowers found it even more difficult to sell homes to meet the demands of lenders, putting more people in danger of falling behind on their payments. More people pulled deposits out of banks and savings institutions, and fewer people bought insurance, further cutting the funds with which lenders could make loans. As the supply of credit dried up, the housing market went into a downward spiral of decreases in home values, additional home foreclosures, further deterioration in household balance sheets, and further disruptions in intermediated mortgage lending channels. Economists refer to this situation as the "financial accelerator," and historians have argued that this force was at work not only during the mortgage crisis of the early 1930s but in other crises as well.[8] The individual lender

bears the burden of only the losses on his own foreclosed property and not the spillover costs on other properties. In addition, foreclosure imposes costs on neighborhoods through the blight of unoccupied homes, and on families through the stress of losing their homes.

These are costs that are not reflected in individual lenders' NPV tests between modification and foreclosure. As a result, society as a whole might have an interest in arranging for more modifications than lenders would enact on their own, and might be willing to spend taxpayer money in the process.[9] No individual lender would have the incentive to take these concerns into account, and collective action among lenders would be quite difficult, as individual lenders would have a strong incentive to defect from any agreement against foreclosure. No individual lender had the ability to stop the collapse of the real estate market, nor to contribute much to the collapse by dumping one more foreclosed property on the market.

In contrast, since the HOLC controlled such a large part of the loan market, its policies were much more likely to potentially affect aggregate market prices. The HOLC was large enough to interrupt the fire-sale atmosphere in the residential real estate market of the mid-1930s. Moreover, it could do so without the collective action problems that private lenders would face. In general, the HOLC was designed to take spillover costs into account when evaluating whether a modification should be pursued rather than a foreclosure.

DISCOUNT RATES

Modifications yield income streams that are drawn out and uncertain given the possibility of redefault. As a result, lenders are more likely to enact modifications if they are patient and do not discount future cash flows too heavily. Lenders in 1933 could not afford much patience, however. Lenders were under pressure to shrink their lending during the early 1930s as funding became increasingly scarce. Between 1929 and 1933, the supply of loanable funds declined consistently, and after 1933 these funds came back only slowly. These declines occurred over several years, not just panic-driven withdrawals over short periods. B&Ls, for example, usually did not have to pay all withdrawals on demand, but rather could use available cash to pay some portion of withdrawals each month. In such cases, withdrawals were not satisfied for years. Over the same period, depositors steadily withdrew their funds from savings banks and commercial banks, and policyholders cashed in their accounts at

life insurance companies. To make up the difference, all of these lenders borrowed what they could from other sources and liquidated investments such as securities when possible, but eventually contraction of loan portfolios was needed to rebalance assets and liabilities.

These funding declines likely raised lenders' discount rates, as they were more likely to value activities that generated cash flow sooner rather than later. There is little way to measure how lenders' preferences changed, but it is difficult to believe that the lenders' patience rose, and much easier to imagine lenders becoming more impatient with loans in default. When lenders conducted NPV tests, though foreclosures did not generate immediate cash flow, lenders might see that cash flow from foreclosure could easily be faster than that of a modification. With a large enough discount rate, foreclosure could be preferred, as a lender with large withdrawal demands over, say, a two-year period, would value very little income coming five years later.

In effect, illiquidity—the lack of cash to meet obligations—can prevent lenders from making good investments, as the high discount rate would lower some investments' discounted cash flows. Fundamentally, lenders' high discount rates during the 1930s stemmed from an interruption in the ability of lenders to mediate between borrowers and savers. After 1929 the supply of savings available to traditional private real estate lenders simply declined in aggregate, as households and businesses became less likely to accumulate new savings and more likely to tap into their existing savings to replace lost income. Therefore, in order to sustain the same level of activity, existing lenders would have needed to find new sources of funding, but they were in no way prepared for such a fundamental and rapid change. No new private-sector intermediaries popped up to fill the void.

The HOLC directly filled this void by tapping a new class of investors who were willing to invest in the HOLC and therefore supply credit to borrowers. This effectively increased the amount of funding that was available for residential mortgage lending by breaking free from the traditional funding sources relied upon by existing lenders, who simply did not have access to the HOLC's form of financing. In fact, this is a key traditional role of a bad bank. Bad banks allow troubled assets to be segregated away from other assets, funded differently, and therefore dealt with patiently, free from the pressures faced by lenders with credit-quality problems funded by impatient investors or depositors.

As noted in chapter 4, the FHLB system was also created to help address the

funding shortfall, but failed. There were several shortcomings in the FHLB, including that its activities were limited to B&Ls in relatively strong condition. Fundamentally, though, the FHLB system had only about $85 million in loans to lenders outstanding at the end of 1933 and 1934. In comparison, the HOLC funded $3 billion in loans between 1933 and 1936. The FHLB simply did not match the scale of the shortfall in funds available for lending, and therefore likely did not have the ability to materially lower lenders' discount rates or change their NPV tests.

ISOLATING GOOD PROSPECTS FOR MODIFICATION

Lenders likely worried about extending modifications to borrowers who were not truly in distress. For example, if a lender set benchmarks for borrowers to meet in order to obtain a modification, such as delinquency for three months, borrowers would have a strategic opportunity to obtain a modification.[10] They could stop paying for a while, meet the benchmark, and obtain a modification. Meanwhile, losses from the unnecessary modification could further weaken the lenders. No lender wants to give concessions to borrowers who do not need them, or to borrowers who are likely to default even with the concessions. Such information problems could lower the NPV of a modification, and anecdotes from the 1930s suggest this was the case, although there is little systematic evidence.

These information problems are difficult to solve, and the HOLC had no silver bullet. The Roosevelt administration emphasized the HOLC as a relief program for home owners who ran into problems "through no fault of their own." To identify such borrowers, it seems unlikely that the HOLC had any more information than existing lenders. The HOLC ran credit reports on borrowers and asked about their employment situation, but lenders had the ability to do the same and had the entire loan case file at their disposal.

The HOLC's application structure might have helped. The HOLC was able to mitigate moral hazard somewhat by requiring (as of an April 1934 amendment) that borrowers' defaults be dated to before the HOLC's establishment in June 1933.[11] The HOLC's structure might also have helped mitigate the problems of identifying truly distressed borrowers. The HOLC accepted applications for limited windows from May 1933 to November 1934, and then in May and June 1935. This could have prevented nondistressed borrowers from gaming the system by imitating the characteristics of successful applicants.

The law establishing the HOLC also created criminal penalties for anyone who misrepresented information to the organization, a fact that was noted in HOLC literature for the public, though it is not clear that any loan applicants were ever prosecuted under that law.

Each application took several months to process; therefore, relatively few borrowers would have had enough information about the true benefits of the modifications before filing applications. The corporation tried to discourage applications by publicizing their rejection rate of nearly 50 percent. By fall 1933 the agency regularly reported in newspapers the number of applicants who had been rejected because they did not meet the program's eligibility requirements or could not demonstrate sufficient distress.[12]

Over several years, the HOLC did eventually figure out which borrowers had no hope of meeting their debts. Essentially, the HOLC gathered information by implementing modifications and carefully monitoring who was likely to redefault. Such cases ended in foreclosure, and ultimately constituted nearly 20 percent of their pool of borrowers. The average loss on these foreclosures was 33 percent. One way of looking at the program is whether the benefits delivered to the 80 percent of borrowers who did not foreclose were worth the losses incurred on the remaining loans.

Could the HOLC Have Been Done Privately?

The HOLC was a government-sponsored bad bank. The HOLC bought large numbers of troubled loans from the lenders at or near the full value of the loans, and then took control of restructuring and servicing the loans. Whenever the government intervenes into the private market as the HOLC did, a natural question is why no private actors were interested in providing whatever service the government provides. There is no evidence from the early 1930s that any group of private actors considered creating a private version of the HOLC, but we discuss why this was not the case as a way of clarifying the HOLC's role in the economy.

A bad bank, either public or private, had several potential advantages in dealing with the foreclosure crisis relative to individual mortgage lenders acting on their own. First, no single lender was large enough to resolve the problems of the foreclosure crisis, so some form of collective action, either by an association of private lenders or by the government, was necessary to stop the downward spiral that was afflicting the mortgage and housing markets in

1933. By controlling a large share of the loan market, a bad bank could have the incentive and the capacity to take into account the spillover problems associated with foreclosure sales, and therefore reduce the number of foreclosures and slow the pace of foreclosed property sales.

Second, with long-term funding, the bad bank would not have to worry about the problems of carrying illiquid and nonperforming loans while being unable to meet withdrawal demands. The HOLC, for example, reduced these mismatch problems by issuing bonds, in 1933 and 1934, with maturity dates of 1949–1951.[13] The HOLC, therefore, could be patient in waiting for the foreclosure crisis to subside without fear of bondholders demanding earlier repayment. Meanwhile, the corporation had a substantial flow of principal and interest payments coming in each year from the refinanced loans it owned, and so could be lenient with borrowers facing foreclosure.

Third, a sufficiently large bad bank could diversify the risk of modifying troubled loans by assembling a portfolio of loans purchased from many lenders who operated in different local markets. Compared to an individual lender, a bad bank would have a more diversified portfolio funded over a longer term, potentially allowing it to raise capital at lower interest rates and for longer periods than a single lender.

All of these advantages apply to either a public or a private bad bank. Private lenders could have come together to form their own bad bank, or a group of private investors could have pooled capital to form a bad bank. It is important to understand what prevented them from doing so, and what relative advantages a publicly sponsored bad bank would have had. No bad bank can operate without funding, so a key to success is the ability to raise funds for purchasing loans. Any private bad bank would first have to gather investors who would be willing to invest capital in the enterprise and risk taking the first losses but also any potential profits. Such capital was likely quite scarce in the mid-1930s. Alternatively, a group of existing lenders could pool their loans, but a funding source would still have to be arranged. Assuming capital could be put in place, the bad bank would then try to raise additional funds, perhaps through bond issuance like the HOLC. An important issue, therefore, would be what interest rates market participants would demand in exchange for investing in such risky bonds, if they could be induced to invest in such bonds at all.

Government guarantees gave the HOLC a substantial advantage in raising

enough funds to purchase the troubled loans. When the HOLC first issued bonds in 1933, only the interest was guaranteed, but this was enough of a guarantee that the HOLC could issue bonds at the same interest rate as on high-grade corporate bonds with the same maturity. Once the federal government guaranteed the principal as well, HOLC bonds were equivalent to Treasury bonds, and their interest rates fell to 1 percentage point below the rates on high-grade corporate bonds.[14]

If a private bad bank had issued bonds to finance the purchase of loans, the interest rate on the bonds would have had to reflect the risk of loss from operating the bad bank. This risk, in turn, was determined by the probability that the bad bank would have to foreclose on the loans as well as the costs for each foreclosure. We estimate that the rate on bonds issued for a private bad bank likely would have been 1 to 3 percentage points higher than on HOLC bonds. The HOLC ended up foreclosing on 20 percent of the loans it bought and refinanced, and auditors estimated that the average loss on each foreclosure was around 30 percent. Calculations based on this information suggest that an investor who was "risk neutral" would have demanded an interest rate on the private bad bank bonds that was at least 1.25 percentage points higher than the rate on guaranteed HOLC bonds.[15] The 1.25 percentage points can be described as a "risk premium," which is the difference between the interest rates on a risk-free investment and on a risky investment that would have made the investor equally willing to invest in either investment. Had investors expected the private bad bank to foreclose on 30 percent of its troubled loans rather than the 20 percent by the HOLC, the risk premium for a risk-neutral investor would have risen to roughly 2 percent. Uncertainty about the risks of the loans would have raised the demanded risk premium even further. Few people at the time could have predicted effectively what share of the loans could be rescued. Investors react to such uncertainty by seeking additional risk premiums that could have raised the rate nearly 3 percent or more above the risk-free rate.

One reason that the private bad bank foreclosure rate would likely have exceeded the HOLC's rate is that the HOLC refinanced the borrowers' loans at a 5 percent interest rate, even though the original mortgages were issued at interest rates ranging from 6 to 8 percent. Expert testimony by Horace Russell on April 20, 1933, shows that the HOLC was expected to lose money at the 5 percent interest rate. Russell was the Roosevelt administration's point

man in selling the legislation to Congress. As general counsel to the Federal Home Loan Bank Board, he also was heavily involved in drafting the bill. He confronted the issue of the expected profitability of the HOLC in a remarkably candid exchange with two Republicans on the Senate Banking Committee, John Townsend of Delaware and James Crouzens of Michigan.

SENATOR TOWNSEND. And you figure on this set-up that you have in the provisions of this bill that the Government would not lose any money?

MR. RUSSELL. Senator, I think that the rate [on mortgage loans] ought to be 6 percent in this bill, and if it were 6 percent, in my judgment the government would not lose any money, but at 5 percent my best judgment is that it cannot be operated at all on a 1 percent spread [between the mortgage rate and the HOLC bond rate]. Nobody else has ever been successful in operating a first-mortgage business of this character on a 1 percent spread.

SENATOR TOWNSEND. If you thought it ought to be 6 percent, why did you make it 5?

MR. RUSSELL. Well, I made it 6 and it was changed.

SENATOR CROUZENS. So far as I am concerned, I am perfectly willing that the Government should lose some money. . . .

MR. RUSSELL. [*Interposing*] That was the theory of that change.

When the HOLC first issued its bonds in 1933 with a federal government guarantee of only interest payments, the interest rate was 4 percent. Horace Russell suggested that the HOLC might have made money by charging 2 percent more to borrowers when refinancing the loans but would have lost money by charging only 1 percent more. In fact, the HOLC ultimately did operate at a loss while charging 5 percent on the loans, even though once the federal government guaranteed the principal and interest on bonds, it could issue bonds at 3 percent in 1934 and faced even lower interest costs later.

A private bad bank could not have subsidized the borrower's interest rate as the HOLC did. If the risk premium of 2 percent is added to the HOLC bond's 3 percent risk-free rate, the interest rates on private bad bank bonds likely would have been 5 percent in 1934. If it needed a 2 percent margin to make a profit, it would have had to charge 7 percent on the loans. As a result, it likely would have kept the same interest rates of between 6 and 8 percent that were on the original loans.

All of this presumes that the private bad bank could do as well as the HOLC did in identifying the loans to be purchased. If they did a worse job and the probabilities of foreclosure on the loans it purchased ranged above 30 percent, then it is not clear that the bad bank could have been a successful operation. The interest rates demanded by investors on the private bad bank bonds might have risen to levels where the bad bank could not have been viable while modifying the loans, even at the original interest rates.

A final issue is whether the HOLC crowded out private mortgage lenders, not just in the form of a private bad bank like the HOLC, but also in the form of conventional lending. There are two possible ways that this could have happened theoretically, but both seem unlikely. First, the HOLC could have taken loan customers that private lenders would have served. Since the HOLC refinanced only existing loans, it is clear that the HOLC did not compete with private lenders for new loans. As for the loans the HOLC did refinance, this is a question of whether lenders would have been willing to hang on to those customers, and empirically they preferred selling the loans to the HOLC. Second, the HOLC could have taken funding that lenders would have used to finance loans. This too seems unlikely, since the HOLC did not take deposits or otherwise compete for the savings of households. Rather, the HOLC funded itself on the bond market, where no lenders were getting funds.