

Regulatory Impact Analysis: Emergency Homeowners' Loan Program

Summary

The Emergency Homeowners' Loan Program (EHLPL), as enacted in the Dodd-Frank Wall Street Reform and Consumer Protection Act, allows the U.S. Department of Housing and Urban Development to provide a maximum of \$50,000 to homeowners who are at least 90 days delinquent on their mortgages due to a reduction of household income and face the threat of foreclosure. Reasons for the reduction of income are limited to involuntary unemployment, involuntary under-employment, and medical conditions. Participants are also limited to households earning no more than 120 percent of Area Median Income (AMI), prior to the decrease in income. Further, current household income must be less than 85% of the household's previous income. EHLPL provides assistance through a 5-year no-interest loan, with loan re-payment beginning after program assistance ends. The funds may be received up to 24 months. Payments cease after 24 months or \$50,000, whichever comes first. Finally, EHLPL assistance is limited to homeowners in the 32 states and Puerto Rico which are not assisted by Treasury's Innovation Fund for Hardest Hit Housing Markets program.

Regulatory Impact Analysis

This program is intended to assist a segment of delinquent homeowners who face a high probability of foreclosure and have become delinquent due to a temporary loss of income. It is expected that the assisted households can recover financially within 24 months. The benefits of this rule include the avoidance of costs associated with foreclosure by lenders, homeowners facing foreclosure, neighbors of the foreclosed property, and local governments. Overall, the benefits of this rule are estimated to be between \$928 million and \$1.9 billion, offset by the costs of administration, namely selecting participants (\$87.3 million) and servicing the EHLPL loans (\$7.4 million to \$11.3 million), and up to \$29.5 million of incremental costs of foreclosure to lenders caused by borrowers assisted by EHLPL who subsequently default anyway. In addition, participants in this program receive a transfer ranging from \$28.32 million to \$43.3 million, which is equal to the government's cost of borrowing the funds. Lenders also receive a transfer totaling \$105 million to \$213 million, which includes costs related to the mortgage, such as interest payments, from the homeowner.

Demand for EHLPL Loans

The amount of EHLPL assistance a homeowner qualifies for depends on the monthly mortgage payment and current income. Under program rules, homeowners are required to pay their monthly mortgage payments up to 31% of their current monthly income. EHLPL assistance can cover the remaining mortgage amount, for a period up to 24 months. EHLPL assistance can also be used to pay delinquent mortgage payments (principal and interest), taxes, insurance, and certain other related fees.

Data from canceled Home Affordable Modification Program (HAMP) loans is used to estimate the number of homeowners who may need assistance from EHLPL. According to the HAMP data¹, 76,135 HAMP loans were canceled following their trial period in the eligible states after these homeowners

¹ HAMP data as of September 2010. The reported income and payment information used in this analysis is pre-modification since mortgage terms revert to pre-modification terms after the HAMP loan was canceled.

failed the Net Present Value test. This represents a sizable pool of households who face the threat of foreclosure and for whom mortgage and income data exists. However, the data used in this analysis is limited to households that experienced a 15% or greater fall in income and had incomes less than, or equal to, 120% of the area median income prior to the fall—a total of 22,546 homeowners. The average monthly income of these homeowners after modification in the HAMP program was \$3,329, 31% of which is \$1,032. The average monthly housing expenses for these households, including principle, interest, taxes and insurance, was \$1,519. However, the HAMP program does not contain data on 2nd mortgages. Assuming 2nd liens are 20% of the first lien, the total monthly housing expense is \$1,756, qualifying for \$724 of EHLPP assistance. This represents the monthly need for homeowners seeking EHLPP assistance and totals \$17,370 for 24 months. Participation in the EHLPP program requires households to be at least 3 months delinquent. Assuming that participating homeowners are on average 5 months delinquent, this would add \$8,778 to the total loan amount, for an overall total of \$26,148. With a program limit of approximately \$901 million available for loans to homeowners, after subtracting administrative costs, this would assist a maximum of 34,474 homeowners. This assessment calculates the benefits, costs and transfers assuming that a range of 22,546 and 34,474 homeowners receive EHLPP loans.

Benefits

The benefits of this rule include the avoided costs associated with foreclosure. Foreclosures impose costs on four groups: the owner of the foreclosed property; the lender holding the mortgage on the foreclosed property; homeowners living near the foreclosed property; and the local government.

Owner of Foreclosed Property:

Owners of foreclosed properties incur moving costs, legal fees and administrative charges. Moreno (1995) estimated the total cost to homeowners related to foreclosure at \$7,200 per household. This estimate is based on information collected through the Mortgage Foreclosure Prevention Program (MFPP) in Minneapolis and Saint Paul, Minnesota. This study was based on over 800 low- and moderate-income distressed homeowners who were assisted by the MFPP. Adjusting for inflation, from 1995 to 2010, increases this estimate from \$7,200 to \$10,339 (43.6 percent)². In addition, families bear un-measurable costs of emotional stress and possibly the higher cost of housing in the future due to a poor credit rating. To the extent that any recipients choose to move following the two-year loan period, this estimate would be partially reduced as the homeowner merely delays the costs of moving. However, it is expected that households assisted through this program will remain in their homes even after the mortgage is made current.

Lenders:

Foreclosure also imposes significant costs on mortgage lenders, including loss on loan, property maintenance, appraisal, legal fees, lost revenue, insurance, marketing, and cleanup. A study from the Federal Reserve Bank of Chicago reported that lenders alone can lose \$50,000 per foreclosure (Hatcher, 2006). Assuming a \$224,000 loan held by the first lien lender, a \$50,000 foreclosure loss by Hatcher (2006) implies a loss severity of only 22 percent. This estimate of the \$50,000 loss predates the housing market crisis. This is critical because one of the largest factors leading to lender loss is the loss in equity. Current estimates are greater. Standard and Poor's (2008) estimate a 45 percent loan loss severity on subprime loan sizes of \$210,000 (averaging \$94,000 per loan). UBS (2008) presents a range of estimates that begin at 23 percent and range as high as 92 percent. This range reflects the fact that loan loss severity depends on several factors, primarily loan amount and property value.

² Based on the Consumer Price Index (CPI) first half of 1995 (151.5) to first half of 2010 (217.535).

Using Standard and Poor's estimate of 45% and the average unpaid principle of the relevant households discussed above (\$152,052), the avoided lender costs of foreclosure totals \$68,423 per house.

In the scenario described above, there is a prevented loss to the lender of \$68,423. However, the prevented loss to the lender cannot necessarily be counted as social benefit. Much of this benefit is a transfer. If there had not been a foreclosure, the loss in equity would have been borne by the borrower and not the lender. The foreclosure affects the determination of whether the lender or homeowner bears the burden of a specific cost, but not the aggregate cost.

Transaction costs borne by the lender that should be considered as deadweight loss include legal fees, court fees, and broker fees. Commissions and court and legal fees would not have been paid if the property had not been foreclosed upon and sold, and do represent transaction costs that decrease social welfare. The deadweight loss from transaction costs is thus the sum of 2 percent of the loan balance for legal fees and 6 percent of the housing price for brokers' fees. The total of deadweight loss avoided per loan is \$10,063, or approximately 7 percent of the unpaid balance. The estimates from Cutts and Merrill (2008) imply that 49.1 percent of costs to the lender, excluding unpaid balance, represent a deadweight loss, which is similar to the 41.3 percent share developed in this analysis using estimates from Standard and Poor's (2008).

The reduction in property value from being forced to sell a home because it is foreclosed upon (stress discount) could be a source of deadweight loss. However, the stress discount should be counted as a transfer rather than a cost. While the seller will lose from a reduction of value, there will be another investor who may gain from the opportunity to purchase at a lower price.

There is evidence that properties lose value that they would not have if they had been traded in another circumstance. Pennington-Cross (2006) finds that REO properties suffer a 22 percentage point discount in appreciation as compared to the metropolitan average. One obvious explanation for this result is one of reverse causation: a default may occur because appreciation in a particular submarket lags behind the metropolitan average. There are two other theoretical explanations for this empirical result that provide insights into economic behavior.

First is the possibility that in an environment of asymmetric information, a foreclosure is a signal of a "lemon" property, in which case the buyer is compensated through a lower purchase price for taking a risk. One could argue that this discount should be small when investors are savvy. In the case of a housing market with a large inventory of foreclosed homes, this discount may become larger as the market is thinner and as a property spends more time on the market (delaying the receipt of surplus for the buyer).

A second explanation of the stress discount involves an avoidable deadweight loss. Frequently, before owners sell a home, they invest a great deal in the structure, at least in cosmetic aspects of the property. An owner who knows that he or she will default will cease to maintain and upgrade the property, and may even actively disinvest. Cutts and Merrill (2008) explain that homeowners often destroy property prior to losing a home through foreclosure, including damage to walls and windows and inducing flooding by clogging drains. The depreciation to the property is structural and real: the new owner must invest resources to restore the property to its pre-foreclosure state. Harding et al. (2000) find evidence of this externality: borrowers with high loan-to-value ratios spend, on average, 19 percent less on maintenance than those with lower LTV ratios. Knowledge of impending default would increase the overuse of housing. With a EHLPP loan, the program could eliminate some of the loss associated with

the depreciation of the structural value. We assume that this structural damage at one-half of the stress discount on the property, which yields \$14,445 ($1/2 \times 19\% \times \$152,052$).

We have estimated two sources of real social benefits: preventing transaction costs that would not have been paid without the foreclosure and preventing the real structural loss surrounding a foreclosure. The social surplus per lender for a foreclosure avoided is \$24,508 ($\$10,063 + \$14,445$) or 36 percent of the total gain to the lender.

Local Government:

The local government faces direct costs from a foreclosure through a variety of administrative and legal and additional policing services, and, in some cases, demolition. The Joint Tax Committee uses an estimate of \$19,227 of the average direct cost per foreclosure to local governments from a study by Apgar and Duda (2005). This figure is based on Scenario 6 from the Apgar and Duda (2005) study in which the structure is demolished by the local government. A more typical situation would be one in which the property is sold. A scenario where there the property is vacant for a period of time, where there is modest criminal activity and where the property is sold at auction costs the local government an average of \$6,200 (Scenario 4). This represents only direct administrative and legal costs and specifically excludes property tax losses, unpaid property taxes not recovered, utility taxes foregone, water bills unpaid, and property maintenance. Appendix A of Apgar and Duda (2005) provides a complete explanation and listing of the administrative and legal costs included in this estimate, and also highlights items specifically excluded.

Neighbors:

Foreclosures resulting in long-term vacancies have a negative impact on the value of neighboring properties by reducing the physical appearance of the neighborhood, attracting crime, and depressing the local economy. The Joint Tax Committee of the U.S. Congress cites an estimate of \$1,508 by Immergluck and Smith (2006) of the negative externality of a single foreclosure on a neighboring property. These externalities arise when a foreclosed property is not maintained which leads to a lower quality neighborhood. The stigma of a foreclosed property can also cause neighborhood values to fall as other homeowners decrease their sales prices or more homes are available for sale in anticipation of decreased neighborhood quality. In addition, weak property appraisals based on comparables which include the foreclosed property affect neighboring properties.

Immergluck and Smith's estimate of \$1,508 is included in the oft-cited total cost of foreclosure of nearly \$80,000 from the Joint Tax Committee. If, however, one were to take the Immergluck and Smith study seriously the external cost of a foreclosure on surrounding properties would be much greater. Their study reports a reduction of 0.9 percent of value for all properties within one-eighth of a mile. Given that there are 31.4 acres in a radius of one-eighth of a mile and a reasonable density is 3 units per acre, this effect would extend 94 properties. For example, if the average sales price were \$171,100³, then the aggregate externality would be \$144,750 per foreclosed house.

One approach to using the results from this literature would be to limit the negative effect to close neighbors (ones directly adjacent and across from the foreclosed property: two on each side of the property and five across the street). Doing so would limit the aggregate effect to \$13,859 (0.9 percent * \$171,100 * 9).

³ The median price of existing homes sold was \$171,100 for October 2010 as reported by the National Association of Realtors® (NAR).

Total Benefits of Avoided Foreclosure:

The sum of all costs avoided by the prevention of a foreclosure is \$54,906. This benefit will not be realized, however, for every household assisted. Some households will default on their new EHLF loan and eventually lose their homes in foreclosure even after the EHLF assistance. Although the program is limited to homeowners expected to regain the ability to repay its mortgage, some foreclosure by participants is expected.

At an assumed program foreclosure rate of 15 percent⁴, the expected benefits per household assisted would be \$46,670. At a lower program foreclosure rate, the expected benefit of preventing a foreclosure would be higher.

Table 1. Expected Economic Benefits

Category of Benefit	Expected Benefits per Foreclosure Prevented (\$)	Expected Benefit per EHLF Loan at Program Foreclosure Rate of 15% (\$)	Expected Benefit per EHLF Loan at Program Foreclosure Rate of 25% (\$)
Homeowner	10,339	8,788	7,754
Lender	24,508	20,832	18,381
Local government*	6,200	5,270	4,650
Neighboring home value	13,859	11,780	10,394
Average Economic Benefits	54,906	46,670	41,180
Aggregate for 22,546 Households	1,237,910,676	1,052,224,075	928,433,007
Aggregate for 34,474 Households	1,892,829,444	1,608,905,027	1,419,622,083

* Does not include lost or unpaid property taxes or utility bills, or property maintenance costs.

Costs

Administration

The costs of this rule include the administrative costs of the program and the incremental costs associated with assisted households who experience foreclosure despite an EHLF loan. For the servicing functions of EHLF, HUD can choose a third-party organization to administer the program, or delegate this function to states with substantially similar programs already in place. Of the 32 states for which this program affects, ten applied for self-administration. Administration under the third-party method will separate outreach efforts and loan servicing. Outreach efforts will be conducted by approved housing counselors. This will include marketing, counseling, and acceptance of applications and related documentation. The total costs for all of these services are reimbursed in the estimated amount of \$87.281 million from the EHLF appropriation. All servicing functions will be managed by a third-party organization that has extensive loan servicing capacity. Mortgage loan servicing costs typically range from 0.25% to 0.5% of loan principal per year. HUD anticipates the cost of servicing EHLF loans to be on the low end, or about 0.25%. Using the assumption of 22,546 loans averaging \$26,148, the loans will total \$579.129 million, producing a servicing cost of \$1,483,800 each year over 5 years or about \$7.4 million. If all funds minus the administrative costs are loaned, totaling \$901 million, the 5-year servicing costs would increase to \$11.3 million.

⁴ The assumption of 15% is approximately twice the national rate of homeowners seriously delinquent or in foreclosure. Since all of the participants are distressed, a rate higher than the national rate is assumed.

Lender

Despite assistance through the EHLP program, some homeowners will be unable to remain current on their mortgage and will still experience foreclosure. These homeowners will have borne the costs of foreclosure regardless of whether they received EHLP assistance or not. However, there may be incremental costs of delaying foreclosure to lenders. For example, homeowners may let their property deteriorate while they receive the EHLP assistance, or in some cases neighborhood values will decline further during the delay in foreclosure caused by EHLP participation. Assuming that the screening of applicants is will be designed to eliminate such homeowners, these costs should be negligible. However, assuming that costs to lenders increase 5% due to additional property deterioration on program foreclosures, the incremental cost per foreclosed house would total \$3,421.

Table 2. Expected Economic Costs

Category of Cost	Expected Costs at Program Foreclosure Rate of 0% (\$)	Expected Costs at Program Foreclosure Rate of 15% (\$)	Expected Costs at Program Foreclosure Rate of 25% (\$)
Lender (Incremental Costs of Foreclosure)	3,421	3,421	3,421
Administration			
Outreach by approved counselors	87,281,000	87,281,000	87,281,000
Servicing			
for 22,546 Households	7,369,160	7,369,160	7,369,160
for 34,474 Households	11,267,827	11,267,827	11,267,827
Aggregate for 22,546 Households	94,650,160	106,219,640	113,932,627
Aggregate for 34,474 Households	98,548,827	116,239,160	128,032,715

Transfers

Homeowners

In addition to the costs and benefits produced by the program, homeowners will receive a transfer from the federal government equal to the federal government's cost of borrowing the funds. At the current 10-year Treasury rate of 3.33%, over the 7 year period, the transfer would total \$1,256 per loan.

Lenders

As explained previously, a portion of the gain to the lender represents a benefit to society. The remaining amount, \$43,915, is counted as a transfer to the original lender. This portion, although a gain for the lender, does not result in a welfare gain for society because for every dollar gain there is a corresponding loss for another party. For example, interest on the mortgage is not paid from the homeowner to the lender in the event of foreclosure. Preventing foreclosure, thus, assures these payments are made.

Table 3. Expected Transfers

Recipient of Transfer	Expected Transfer per Foreclosure Prevented (\$)	Expected Transfer per EHL P Loan at Program Foreclosure Rate of 15% (\$)	Expected Transfer per EHL P Loan at Program Foreclosure Rate of 25% (\$)
Homeowner	1,256	1,256	1256
Lender	43,915	37,328	32,936
Average Transfers	45,171	38,584	34,192
Aggregate for 22,546 Households	1,018,425,366	869,909,228	770,898,469
Aggregate for 34,474 Households	1,557,225,054	1,330,136,198	1,178,743,627

Costs, Benefits and Transfers at Various Participation Levels

This analysis assumes the participation of 22,546 homeowners in the EHL P program. This would account for \$589.5 million based on an average loan of \$26,148. After administrative costs (\$87.3 million plus per loan servicing costs) are subtracted, \$901.4 million remains for loan payments. If this amount were loaned at the average loan of \$26,148, 34,474 loans could be extended. Table 3 below compares the benefits and costs of these two levels of participation.

Table 4. Expected Benefits and Costs at Various Participation Levels

	Program Foreclosure Rate of 0% (\$)	Program Foreclosure Rate of 15% (\$)	Program Foreclosure Rate of 25% (\$)
Benefits			
22,546 Loans	1,237,910,676	1,052,224,075	928,433,007
34,474 Loans	1,892,829,444	1,608,905,027	1,419,622,083
Costs			
22,546 Loans	94,650,160	106,219,640	113,932,627
34,474 Loans	98,548,827	116,239,160	128,032,715
Transfers			
22,546 Loans	1,018,425,366	869,909,228	770,898,469
34,474 Loans	1,557,225,054	1,330,136,198	1,178,743,627

References

Apgar, William C., and Mark Duda. 2005. *Collateral Damage: The Municipal Impact of Today's Mortgage Foreclosure Boom*, report prepared for the Homeownership Preservation Foundation, Minneapolis (May 11).

Hatcher, Desiree. 2006. "Foreclosure Alternatives: A Case for Preserving Homeownership," *Profitwise News and Views*. Chicago Federal Reserve Bank.

Immergluck, Daniel, and Smith, Geoff. 2006. "The External Costs of Foreclosure: The Impact of Single-Family Mortgage Foreclosures on Property Values," *Housing Policy Debate* 17 (1): 57-80.

Moreno, Anne. 1995. *The Cost-Effectiveness of Mortgage Foreclosure Prevention*, report prepared for the Family Housing Fund: Minneapolis:

Standard & Poor's. 2008. "The Anatomy of Loss Severity Assumptions in U.S. Subprime RMBS." <http://www2.standardandpoors.com/portal/site/sp/en/us/page.article/4,5,5,1,1204835910066.html> (accessed May 7, 2008).

UBS, 2008, "Severity: Where Does it Come From?" *UBS Mortgage Strategist*, August 12.

United States Census Bureau, State and Local Government Finances by Level of Government and by State: 2005-06 (United States Total).