The "Mortgage Crisis Solution Project": Discussion of A Mechanism for Large Scale Mortgage Renegotiation Proposed by Steven Kravitz, Ira Hecht and Robert Martin

Andrew Caplin
Professor of Economics, New York University

March 3, 2009

Preliminary Draft
Important Mortgage Crisis Solution Project Highlights:

- Self-funded centrally-coordinated federal program for standardized market-stabilizing mass renegotiation
- Enables massive wave of renegotiation of underwater mortgages into a form that can be afforded by homeowners and realizes adequate value for mortgage holders whose participation is voluntary
- Private capital is used to fully or partially payoff distressed mortgages
- Market forces determine value of payoff amount of existing mortgage
- Supported by a federal "break-even" insurance program modeled after Small Business Administration programs
- Federal regulation and oversight of the Program
- The parameters of the program have been reviewed by mortgage securitization counsel at Sonnenschein, Nath & Rosenthal, LLP, who believe that the program has substantial merit and is worthy of serious consideration
- Private-public partnership enables the institutions of housing finance to be rebuilt in more durable, fair, and efficient form
- All program participants and insurance program share in recapture of underwater amount
- Essential technology already developed
- Pilot program "shovel-ready" with federal approval. If the Pilot program utilizes only mortgages that are already government insured, there are no

additional government funds at risk; in fact the insurance fund would reduce the government's exposure on those mortgages.

I. Background

I believe that resolving the ever-deepening housing crisis must be the top priority if we are to restore America's promise. Without a root and branch solution to this crisis, there is a risk that one expensive spending program will have to follow another, with all failing to take hold due to the underlying fragility of household and financial sector balance sheets. If this unfolds, our generation will effectively be dimming the lights for future generations.

By way of background, I am professor of economics at New York University, having held previous academic appointments at Harvard University, Princeton University, and Columbia University. My research interests include economic theory, psychology and economics, and macroeconomics, as well as the economics of residential real estate. I am Co-Editor of the Oxford University Press series "Methods of Modern Economics", on the Steering Committee of the Health and Retirement Survey, and a Fellow of the Econometric Society. My interest in housing finance is of long standing. My early work on defects in the U.S. residential real estate finance market includes the 1997 book *Housing Partnerships*. Now that the problems with housing finance markets have burst into the open, the reforms that I been proposing, which involve sharing of equity, have gained wide attention. My recent work on sharing of appreciation is to be found in a paper presented in September 2008 at the Hamilton Project: http://www.brookings.edu/papers/2008/09_mortgages_caplin.aspx

Together with Professor Tom Cooley, the Dean of NYU Stern School of Business, I have recently put together a five step plan for effectively ending the mortgage crisis (henceforth the C-C proposal).
http://whitepapers.stern.nyu.edu/summaries/ch16.html

The centerpiece of the C-C proposal is large scale renegotiation of underwater mortgages, based in part on "debt for equity swaps" of a form common in the business sector. A critical gap in the plan is that it does not contain a mechanism that would enable the massive wave of renegotiation that is called for to take place. Given this gap, I was delighted to be approached by Ira Hecht and Steven Kravitz to consider the potential value in the housing crisis of a mechanism that they have developed that is explicitly designed to liberate large scale renegotiation. Their proposal contains many similar elements to the C-C plan, but would additionally enable private sector participants to participate efficiently, and in a well-incentivized manner, in a massive wave of equity-based renegotiation of current mortgage contracts. While it would take some work to combine ideas into a unified design and to include other pertinent considerations, I believe this now to be eminently achievable. Adoption of the plan in some guise would greatly speed market normalization, reduce default and foreclosure, increase asset values of holders of mortgage backed securities, all the while costing taxpayers far less than other plans that are on the table.

Moreover, it would work simultaneously to resolve short run problems and to rectify longer term structural problems of mortgage markets.

II. Key Elements of the Kravitz-Hecht-Martin (K-H-R) Proposal

Consider a homeowner for whom the payments on current mortgage(s) either are, or threaten soon to become, too onerous relative to the current value of the home, its expected future value, and/or the level of current and anticipated income. This induces a real risk of a future default if the homeowner does not renegotiate loan payments. The threat of future default spills over immediately to the mortgage holders (the current owners of interests in payouts on the mortgage). The belief that there are an ever-growing number of such at risk borrowers has made the entire class of mortgage backed securities of low value, and illiquid. Both borrower and mortgage holder would be better off if the mortgage could somehow be renegotiated in favor of a more realistic and more liquid instrument. To date, such renegotiations have taken place too infrequently, and too late in the cycle of deterioration, when default and foreclosure are almost the only options left.

The role of the K-H-R process is to set up an organized and well-regulated central marketplace for renegotiations of at-risk mortgages. The process provides for instantaneous mass renegotiation and immediate settlement of all accepted offers. The critical features are a novel auction mechanism, a “Time-Out” Mortgage (a “TOM”) that replaces the original mortgage and a novel government-insured security that is issued in the course of this auction, which is associated with a particular Time-Out Mortgage. These are all to be understood in the context of an over-arching federal government role in standardizing, regulating, monitoring, and insuring key aspects of the process.

1. The Auction: The centerpiece of the K-H-R proposal is an auction mechanism designed to incentivize the massive wave of renegotiation of currently and soon-to-be underwater mortgages that is required. The auction has three direct participants: the mortgage holder/secured party; the homeowner/borrower; and a new investor. The homeowner bids a monthly payment. The investor bids an interest rate. The auction mechanism uses these bids as inputs and derives formulaically the value of a corresponding newly issued Home Certificate (to be described). The role of the mortgage holder is simple: it is to decide on a cutoff value that is acceptable in terms of replacing the existing mortgage.

a. While the basic description above is for an individual mortgage, another variant would allow for bidding on an entire pool of qualifying mortgages.

b. The broad requirements for mortgages and/or mortgage pools to be covered by the program are discussed in somewhat more detail in section III below. For reasons outlined in section III, the Federal Government would have considerable impact on the process of qualification. As a general matter, I believe that having broad qualifications has much to commend it.

2. The Home Certificate: The Homeowner retains ownership of the home but instead of owing the mortgage balance to a lender, the Homeowner now makes payments to the government. The government uses the Homeowner's payments to fund the whole program including capitalizing the insurance fund and paying interest to the Investor: it can be viewed from the homeowner/borrower's perspective as a loan that keeps debt close to the initial value, and that can be "redeemed" at any point during its term (5 or 10 years may often be appropriate) by paying back the investor the new principal value of the Home Certificate plus a portion of the mortgage holder's loss, if any, in accepting the Home Certificate principal as part payment of the original loan. The need to keep up with payments in order not to default provides the incentive to not bid excessively. In addition, the Homeowner could consult with an Advocate who will be able to assist the Homeowner with cash flow budgeting which should prevent a Homeowner from over bidding; as an alternative, the Federal Government could mandate this consultation with the Advocate and require the Advocate to "approve" of the monthly payment bid after completing a Homeowner financial and cash-flow analysis. Note that the borrower who defaults on payments on the Home Certificate is required to vacate the property quickly; this expedited process will be agreed to by the homeowner/borrower as part of the creation of the Home Certificate. The homeowner/borrower who wishes to move before the term of the Time-Out Mortgage is up gets the choice between paying off the Time-Out Mortgage and selling the home as owner, or directly moving and defaulting on the Home Certificate; alternatively, the Federal Government could make a policy decision to permit the Time-Out Mortgage and related Home Certificate to be assigned to another person which would effectively be a "sale" of the home and would require the new homeowner to continue to make monthly payments and eventually payoff the Time-Out Mortgage. A homeowner default may be difficult given that the event would be on the homeowner/borrower's credit record. Hence this is primarily designed for those who intend to remain as owners for the entire term of the Time-Out Mortgage.

a. The Time-Out Mortgage could be structured as a modification of the existing loan. Regardless of whether or not this is possible, it is intended that the existing servicer continue partially servicing the loan to minimize disruption and to incentivize participation. Payments could be processed electronically through the web-based software which would allow an immediate and precise snap-shot to be taken that would specify the number of Time-Out Mortgages that are up to date, behind in monthly payments, and in default. The idea is to take advantage of economies of scale and to improve monitoring through centralized payments processing.

b. The sharing of the gap between the principal amount of the Home Certificate and original loan amount provides the homeowners with the required incentive to bid up the monthly payment to a higher value. To the extent that this gap was left with the government, there would be additional sharing with the investor and with the mortgage holder to encourage their participation.

c. The precise term of the Time-Out Mortgage and related Home Certificate and the exact nature of the payoff at termination by the homeowner are program features into which the Federal Government should have significant input, provided the terms were such that private capital found the resulting structures sufficiently attractive to invest in the program.

3. Drawing in New Investors: While it is easy to understand the homeowner's desire to renegotiate, it is far from obvious how any new capital can be drawn into the process to take the investor side in the auction. The K-H-R proposal in this regard is modeled on similar programs that have been tried and tested by the Small Business Administration. New investors participate because what they receive is not a standard mortgage, but rather the equivalent of a "federally insured and secured Certificate of Deposit" from the Investor's viewpoint that may also convey the right to a share of housing appreciation or the difference, if any, between the principal amount of the Home Certificate and the balance of the original loan. In essence, the investor is interested in this program because the Investor receives the equivalent of a federally insured Certificate of Deposit without FDIC insurance limits. In the event of homeowner/borrower default, the Investor could choose to either to file an insurance claim or take ownership of the home.

a. Much of the hard work of detailing the proposal relates to ensuring that the federal insurance has little or no final cost to the taxpayers. Indeed, it may be possible to run the program in such a manner that participants were incentivized to make the insurance revenue positive: see section III.

4. The Federal Government: The federal government is the final participant in the auction, albeit indirectly. It sets all entry rules for the auction, and constrains the terms that may be accepted by the Mortgage Holder/Secured Party. As indicated, it also acts as guarantor of the Home Certificate and in that capacity sets entry and conduct rules that are sufficiently restrictive, and premiums that are sufficiently high, to ensure that the risk is manageable. Ideally, this process and development of applicable rules and regulations would be handed to respected authorities that are sufficiently removed from politicization.

It is worth giving an example. Consider a $225,000 face value mortgage on a house that has fallen in value from $250,000 to only $150,000. Suppose that the homeowner/borrower only has the ability to pay $1,000 dollars a month on the mortgage, but that the current required monthly payment is $1,500 a month. However much this homeowner struggles, the incentives all point to default in the not too distant future, at huge loss to all parties. The K-H-R renegotiation mechanism has much potential in this situation. In simplified terms, it operates as follows:

- Provided that the homeowner/borrower has retained a reasonable credit record and is, therefore, in accordance with the participation rules promulgated by the federal government to be acceptable to the program, the $1,000 dollars a month that they are able to pay would support roughly an $185,000 dollar “time-out” mortgage at an interest rate of 6.5% per annum.

- On the other side, an investor might be willing to accept a 3.5% interest rate on a ten year note that was guaranteed by the federal government, and that would promise to pay off the full $185,000 at the end of ten years, with the possible recovery in addition of some portion of the written-down amount (the difference between the loan’s face value of $225,000 and the amount the mortgage holder received from the auction).

- Assessing the risk of default to be sufficiently low, the federal government would accept 3% per annum in interest and program costs as an insurance premium. Program costs appear contained: as I understand it, servicing and administration costs would be kept down to roughly 0.4% per annum due, with fixed costs in the $1,500-$2,000 range. Whether set at 3% p.a. or not, it would be important to standardize the premium, and to ensure that it reflects the undoubtedly significant risk of secondary default. In the example just described, of the 6.5% per annum paid by the homeowner/borrower, 3.5% per annum would be the Home Certificate interest rate payable to the Investor and a majority of the remaining 3% would be added to the federal insurance fund and used to pay program fees. For mortgages that were already government insured, the Federal Government would stand in the shoes of the Mortgage Holder in a process similar to subrogation since the Mortgage Holder would be paid in full based upon the already existing guarantee. The Federal Government would, therefore, determine whether the computed Home Certificate amount is great enough to be acceptable as a payoff amount (compared with the payment made on the already existing guarantee).

    - Insurance and servicing costs would need to be set on a known schedule so that all market participants would have sufficient clarity to bid based on known program parameters.

- If the borrower continued payment for ten years (or to some earlier point of termination), the borrower would likely be able to re-enter the mortgage market to raise sufficient funds to add to any personal savings, and to pay off the Home Certificate.

- o There are many relevant options that would help ensure ultimate affordability: see section C.

• Upon entering the K-H-R program, the Homeowner/Borrower enters the auction environment and makes a starting monthly payment bid of $1,000.00, and the Investor enters a starting bid of 3.5% per annum for the Home Certificate interest rate the Investor is willing to accept. Assuming that the applicable interest rate for the insurance program is 3% per annum, the total interest rate on the Home Certificate would be 6.5% per annum (3% for the insurance program and program fees plus the 3.5% to the Investor). The bidding process would continue until the resulting Home Certificate principal amount is accepted by the Mortgage Holder/Secured Party in payment of the original mortgage. During the bidding, the homeowner/borrower could bid a higher monthly payment which would both increase the principal amount of the Home Certificate and provide the homeowner/borrower with a greater share of the difference between the Home Certificate principal amount and the balance of the original mortgage. The investor would be able to bid a lower interest rate in order to compete with other Investors who also wanted to invest in the particular Home Certificate.

- o I believe that it would be necessary to cap the new Home Certificate at a value to be below some upper cutoff in relation to the newly assessed value of the underlying home: say at 125%. This should not be a significant barrier to the renegotiation, since the value in case of foreclosure would be far less than 100% of the current home value. In addition to this cap, it may be advisable to increase insurance premiums due to the government as the LTV ratio rises above 100% to take account of the additional risk of default.

III. Comments and Questions

I regard the program as having many positive aspects. In particular, it has excellent incentive properties, and can be organized so as to be of low cost to taxpayers.

1. Participation is voluntary on all sides. Borrowers who are confident in their ability to pay off the mortgage in its current form would be unlikely to choose to participate, since there are some real sacrifices in terms of ownership status, and sharing of part of the up-side.

a. It is important to avoid creating a class of medium term “Zombie” homeowners, which is what current policies are creating. This requires that there be mechanisms in place to share any risk of further house price declines, and even to ensure that the homeowner is highly likely to have positive equity at the termination of the Time-Out period. As one change to ensure this, I amend the program to insist on some sharing of the up-side and down side risk with the Investor and with the government. Some part of this up-side amount could also be used as an insurance reserve by the federal government that would further reduce costs to the taxpayer. Finally, explicit introduction of equity sharing should be a goal of the program, since this would help seed what I believe to be the markets of the future. However, the nature of any appreciation sharing is best seen as a program feature to be settled at a later stage. Hence, this would be complementary with changes in rules relevant to broader market take-off of shared appreciation mortgages.

2. Participation is voluntary for Mortgage Holders/Secured Parties. They would be likely to prefer the K-H-R program over existing alternatives with respect to clearly at risk mortgages given that they can immediately liquidate their risky mortgages for a greater amount than the market currently evaluates them.

a. It is important to prevent Servicers and mortgage holders from putting low quality mortgages into these pools. For that reason there should be an escrow account, with not all funds from the auction delivered immediately to the servicer or mortgage holder/seller. Some proportion would be transferred immediately, with the rest contingent on the average performance of the mortgages sold by this particular entity.

3. A crucial question concerns how precisely a Servicer would qualify a mortgage or even a pool of mortgages for the auction process. In most servicing agreements, Servicers have the right to renegotiate mortgages that are either in default or in “reasonably foreseeable” danger of entering default. What remains unsettled is whether or not the fact that a homeowner is far under water creates such danger. Even if it is not known that a given mortgage at 150% LTV is in imminent danger of default, it may well be statistically accurate that such default is likely to hit many of the mortgages that are in such a condition. A reasonable interpretation is that the Servicer has the responsibility to preserve the value of the pool of mortgages, so that having a set of mortgages many of which are highly likely to default may be a valid trigger for the “foreseeable” danger clause.

a. There may be benefit to clarifying the interpretation of the “reasonably foreseeable” danger clause. In substantive terms, it applies to many underwater mortgages in the current situation, since house prices have fallen, show every indication (statistically) of continued declines, and there is a massive simultaneous increase in unemployment. If cases on this matter are decided in line with economic reason, it would establish the right to renegotiate to be far more widespread than is commonly understood.

b. Most imposed renegotiations or “cram-downs” will damage the prospects for future securitizations, by making contract enforcement uncertain. In contrast, an approach that clarified the right of the Servicer to renegotiate in a manner that increased the value of the pool would have the opposite effect. Hence it is likely to result in better designed future securitizations, in which better procedures are written into the contract with respect to renegotiation in the event of a major economic calamity and other unforeseeable shocks. In essence, including specific clauses in this regard would add value by removing uncertainty concerning the operation of the contract in the face of a changing environment.

4. Even if permitted to renegotiate, Servicers currently have incentives that may point in favor of keeping mortgages on their books even when future default is likely. Many Servicers operate on microscopic profit margins (and some are right now on the verge of bankruptcy). They have little incentive to renegotiate in the current market, since they receive fees only on mortgages that remain on their books in most current contracts. The K-H-R plan is well designed from this perspective. The participating Servicer would simply retain the Time-Out Mortgage as a mortgage that they are partially servicing and continue to be paid servicing fees for Home Certificates that have replaced defaulted mortgages. Servicers would be saved the significant costs of pursuing foreclosure for all of the defaulted mortgages that they hold thereby allowing them to rebuild their assets.

5. The program incentivizes renegotiation at a relatively early stage in the default cycle. This is critical to containing the cost to the federal government, and also will help to more quickly resolve the problems that are still building in the market associated with future defaults. Those who renegotiate in this way before they are in actual default are showing their profound intent to stay in their home and repay the mortgage. Their participation is the key to cost containment, and must be nurtured.

6. Given that there is much value at stake in efficient renegotiation, one can expect many mortgage pools to be bought up by investors seeking to take advantage of the new program, at the same time consolidating any divided interests that may be preventing current renegotiation.

a. Once the K-H-R program is implemented on scale, mortgage holders and Servicers holding such renegotiations hostage could be identified, and the problems could be rectified through new legislation. Indeed such a process should be put in place at once to make quite clear that there is no value to be preserved by those who refuse to be part of the implemented solution to the current problem. In extremis, one could imagine invoking an underlying “force majeure” clause to open up more securitizations to renegotiation. After all, the current recession represents an uncontrollable force that was not accounted for when the mortgages were originated. Invoking this implicit clause will get all the more credible as we teeter on the brink of depression.

7. The federal government gets to restrict the terms of the renegotiations by standardizing the terms of Home Certificates thereby preventing the terms from becoming individually negotiated, and ensuring that borrowers understand their options and choose appropriately whether or not to participate. It designs the key parameters of the program, thereby keeping control of the financial risks involved.

8. The K-H-R proposal is highly complementary with the C-C plan. The C-C plan consists of five steps. The first step is for the Federal Government to set up standards for debt to equity renegotiations. This corresponds in the K-H-R plan to the standardization of the terms of the Home Certificate and the sharing of housing equity at point of termination. The second step in C-C involves setting appropriate fiscal and accounting rules. This would be needed in the K-H-R context, in particular since rulings on write-downs and capital gains taxation could play a key role in encouraging the necessary wave of refinancing to take place as soon as possible. The third stage in the C-C proposal calls for setting up demonstration projects: the K-H-R mechanism makes this clear just how to do this at speed. The fourth stage involves addressing legal obstacles posed by securitization. The K-H-R plan would help uncover these obstacles, enabling them to be moved aside more quickly. The final aspect of the C-C plan involves simplification of secondary default, which is directly written into the K-H-R plan. a. An important issue in implementing the program would be resolving any possible barrier that is imposed by current interpretations of FAS 140. Statement of Financial Accounting Standards No. 140 ("FAS 140") may be interpreted as restricting servicer rights to recover value from defaulted or delinquent loans. What may be required is for FAS140 to be amended or authoritatively interpreted to ensure that placing these mortgages in the auction is a permitted activity, and will not have adverse tax consequences.

With all these positives, the program still has many key design elements that likely require further work.

1. As guarantor through the insurance program, the federal government has the essential responsibility of managing its risk. By far the biggest question concerns how to assess and control the insurance pool, and hence how to contain the financial risk of the program. While the high insurance premiums make it plausible that the plan could be run without great cost to taxpayers, a poorly run plan would surely fail in this regard. Moreover, the SBA itself is in no position to assess the risk of losses. Hence it is crucial to set up safeguards against poor performance of the newly renegotiated loans, using absolute best industry practices. Such skills reside in the Private Mortgage Insurance Industry and in OFHEO, which are routinely tasked with assessing risk of default on high-risk mortgages. A consortium should be formed to manage the risk and to set standards for entry into the auction mechanism and corresponding fees. By way of incentive, one might be able to offer private participants a share of any net revenues for successful renegotiations that resulted in net benefits rather than losses for taxpayers.

a. I believe that a pilot program should be organized as soon as possible to begin to set program parameters, and to ensure that the procedures are put in place at once to track program performance. There would have to be explicit projections of program performance that would themselves be monitored so that there would be learning over time concerning best practices for cost containment. To the extent the pilot program included only mortgages that were already government insured, the program does not in any way increase the government's obligations; in fact, the government's exposure will likely be substantially reduced due to the substantial amount of insurance premiums created on a self-funded basis through the program.

2. One specific risk is that associated with a possible quick default on the Home Certificate on a home that is worth far less than the amount of the standstill loan. One guard against this would surely involve imposition of maximum LTV ratios on the Home Certificate. But there would need to be additional measures taken to safeguard against fraud by Servicers who might encourage homeowners/borrowers to enter the auction to renegotiate their loans, but then immediately default to take advantage of the program. Such behavior would result in an immediate insurance claim by the Investor who purchased the applicable Home Certificate. Possible methods for preventing such essentially fraudulent behavior include claw-back provisions, and a program of monitoring, with a refusal to deal again with Servicers whose record is suspiciously poor. There may also be a vesting period: until payments were made for one year, the transaction might be reversible. All of these incentives are modeled after the incentive devices that were used in the better days of the MBS market. More broadly, the federal role should include tracking of participant behavior. Those Investors who renege on promises to supply funds through the purchase of Home Certificates would be excluded from future participation. Those Mortgage Holders/Secured Parties and Servicers putting too many highly compromised mortgages into the program would similarly have program participation rights cancelled.

a. As indicated above, to prevent Servicers and mortgage holders from putting low quality mortgages into these pools, not all funds from the auction would be delivered immediately to the seller, with a significant portion being dependent on adequate repayment on the Home Certificates.

3. As guarantor, the Federal Government owns the property in case of default in the event the Investor opted to file an insurance claim rather than take possession of the home associated with the Home Certificate. It would be important to ensure that this did not create an additional incentive for borrower default. Any borrower who believes that in the end, the Federal Government will fail to enforce the contract and will essentially gift them the house, will obviously default. Every effort must be made to prevent this type of behavior from imposing a burden on future taxpayers, since it is sure to be politically

unappealing to enforce the contracts. Some form of explicit reporting of such conduct should be written into the program to safeguard future taxpayers.

4. If budgetary risk to the federal government was assessed to be too high, there could be many variations on the theme. In the most extreme version, the entire process would be self insuring, meaning that final payouts at the end of term would be adjusted down in the face of excessive default. A virtue of this is that it would incentivize all parties to properly reassess the overall level of risk. The drawback is that it would raise the required interest rate for investors.

5. Note that there may be many cases in which the amount resulting from the monthly payment and interest rate bids that replaces the loan (Home Certificate principal amount) will be greater than the current value of the house. This occurs in the example given. It is critical in such cases to ensure that there is positive equity at termination of the loan should the homeowner follow through on promised payments. There are many possible mechanisms for ensuring this.

a. A partial mechanism would be expand the required interest payments on the Home Certificate just high enough to ensure that, upon full payment, the value in ten years of the outstanding mortgage would be no more than 100% of the current value of the home.

b. A more profound and important solution would involve explicit sharing of appreciation and depreciation according to a suitable generic and broad local price index. Those who lived in areas that appreciate from the current levels would owe the insurance fund more, to balance the reduced debt of those who lived in areas that depreciated. With this, the amount of default at the termination of the Time Out Mortgage would be kept in bounds.

6. In addition to guarding against fraud and adverse selection on the part of the Mortgage Holder/Secured Party, the federal government would play a vital role in preventing abuses of the program by Homeowners/Borrowers seeking a few more years with relatively low rent, yet with no desire to, or belief that they would, stay in the home for the entire term of the Home Certificate. For this reason, there should be loan to value and payment to income checks. In addition to capping at some LTV ratio such as 120%, the payment to income ratio should also be kept within bounds, say to a maximum of 38% as in the current FHA program.

7. There are some subtle issues associated with the need for the Homeowner/Borrower to pay off the Home Certificate at term. This has several aspects. On the one hand, there may be good reason to trust such borrowers given their revealed willingness to make good on their debts. For this reason, there may be a strong private market in loans. Another possibility is to ensure that loans are made available with FHA guarantees up to a high LTV ratio. A final issue concerns possible increases in the interest rate making the loans unaffordable at termination. A possibility that has been mentioned in this respect

involves the federal government entering immediately into the rate-swap market to provide a cap on the interest rate at this point of termination. This also dovetails importantly with the sharing of appreciation and of depreciation.