



Paying Paul and Robbing No One: An Eminent Domain Solution for Underwater Mortgage Debt

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In the view of many analysts, the best way to assist “underwater” homeowners—those who owe more on their mortgages than their houses are worth—is to reduce the principal on their home loans. Yet in the case of privately securitized mortgages, such write-downs are almost impossible to carry out, since loan modifications on the scale necessitated by the housing market crash would require collective action by a multitude of geographically dispersed security holders. The solution, this study suggests, is for state and municipal governments to use their eminent domain powers to buy up and restructure underwater mortgages, thereby sidestepping the need to coordinate action across large numbers of security holders.

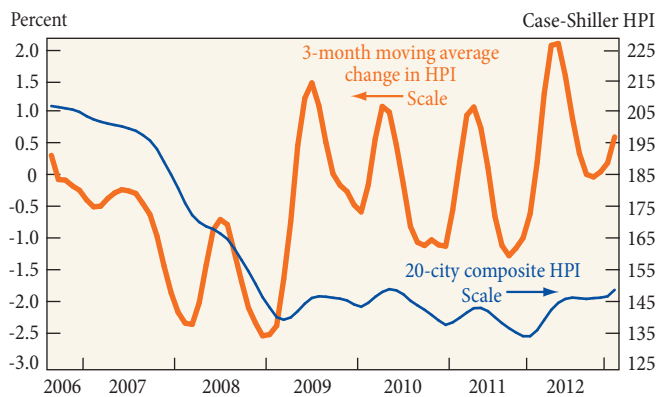
It is now more than six years since U.S. residential real estate prices peaked and then plunged. Prices dropped nationally by 35 percent and still linger close to 30 percent below peak levels. In harder-hit communities, prices are considerably more than 50 percent below peak.¹ While cyclical fluctuations push prices up for brief periods, no consistent upward trend has been firmly established (Chart 1). Indeed, the highest post-bubble price peak prior to March 2013 came not last year or the year before but in July 2010, while early 2012 saw the deepest post-bubble trough since April 2009. Prices reached a seasonal peak in September 2012, then leveled off through February 2013. These fluctuations, highlighted in the moving average change measure in Chart 1, have been the pattern in home prices since 2009.

While home prices—and hence home equity values—have fallen and remain low, the fixed debt obligations that buyers had to take on to purchase homes under bubble conditions have not. Consequently, approximately 11 million homes, or slightly less than a quarter of all homes with mortgages outstanding, are “underwater”—meaning that the balance on the mortgage exceeds the current market value of the home. Of these mortgages, between 3 million and 4 million are in default, in foreclosure, or foreclosed and awaiting liquidation. Over 2 million more are seriously delinquent—two-to-four payments in arrears (Olick 2012; Goodman et al. 2012; Ritholtz 2012; Goodman 2012).

¹ Data are from CoreLogic, available at <http://www.corelogic.com/>, and from OCC Mortgage Metrics, available at <http://www.occ.treas.gov/publications/publications-by-type/other-publications-reports/index-mortgage-metrics.html>.

Trends in Home Prices: July 2006–March 2013

Based on the Twenty-City Composite Case-Shiller Home Price Index



Source: Standard & Poor's/Case-Shiller Home Price Index (HPI).

Recognizing that defaults and foreclosures take a toll on the economic welfare of communities and the nation as a whole, many analysts have called for the write-down of principal on mortgage debt as the most effective solution to the problem of underwater mortgages. As these analysts attest, write-downs have the important advantage of *raising* value.

However, the difficulty lies in carrying out the write-downs. While principal reduction on mortgages held in bank portfolios occurs at significant and still growing rates, loans held in private-label securitization (PLS) trusts have certain structural features that make such reductions very rare. Specifically, these loans are subject to pooling and servicing agreements that would require collective action by a large majority of security holders before the loans could be modified or sold out of trusts. Conducting such a collective action across most holders of the securitized loans would be nearly impossible.

This edition of *Current Issues* puts forward a strategy for carrying out the write-downs. Essentially, it recommends that state and municipal governments use their eminent domain powers to address the collective action problems that now prevent the write-down of privately securitized loans. Under eminent domain, these governments can step in to purchase underwater loans at fair value, deal directly with the trustees of the private-label securitization trusts, and sidestep the rigidities of the pooling and servicing agreements. They can then reduce the principal on these loans, lowering the “water” and thereby reducing the risk of default.

The Mortgage Debt Overhang: Scope of the Problem

Fewer than half of the nation’s roughly 11 million underwater mortgages are current, and large numbers of these mortgages

go delinquent each month.² Together with loans that are already delinquent or in default, 7.5 to 9.5 million additional homes are expected to go into liquidation over the next several years absent remedial action.³ These liquidations would further burden an already depressed market, yielding a backlog of vacant homes equal to 200 percent of U.S. annual home sales at the current sales pace (Olick 2012; Goodman et al. 2012; Ritholtz 2012; Goodman 2012).

For communities, the fallout from these developments is substantial, with residents forced to give up their homes and property tax bases weakened—ironically, just as abatement costs wrought by abandoned properties rise (Hockett 2012a). Other homeowners lose neighbors and endure the blight and lost value associated with boarded-up neighboring homes. Over time, they may see city services cut, school districts retrenching, and local economies shrinking—an aggregate monetized loss now estimated at \$2 trillion (Hockett 2012a; Shoen 2012). Though causality is doubtless complex, the fact that so many counties have been filing for bankruptcy of late seems unsurprising against this backdrop (Church et al. 2012).

The mortgage debt overhang undermines the health of the national economy as well. Defaults and foreclosures in the housing markets feed back into the macroeconomy through effects upon net worth and spending (Federal Reserve Board 2012; Dudley 2012). And as reduced spending lowers growth and employment, more mortgages are drawn into foreclosure (Federal Reserve Board 2012; Dudley 2012; Hockett 2012a, 2012b). Hence the familiar “holding pattern” of high underwater loan and foreclosure rates yielding low growth and employment, which in turn yield yet more default and foreclosure, and so on (Hockett 2012a, 2012b, 2013).⁴

The Prudent Solution: Scaled Principal Write-Downs

The most effective means of averting mortgage delinquency, default, and foreclosure—and the associated economic costs—is principal reduction. As even creditors recognize,

² See Olick 2012, Goodman et al. 2012, Ritholtz 2012, and Goodman 2012, as well as the latest data from CoreLogic and OCC Mortgage Metrics, cited in note 1 above.

³ See, for example, Fannie Mae 2012 Form 10-Q data, p. 111, available at <http://www.fanniemae.com/resources/file/ir/pdf/quarterly-annual-results/2012/q22012.pdf>. See also Olick 2012; Goodman et al. 2012; Ritholtz 2012; Goodman 2012.

⁴ Of course not all mortgage troubles are attributable to declining home values. Some homeowners face difficulty keeping current on payments for reasons of temporary unemployment in a slack economy. For this class of mortgagor, several colleagues at the Federal Reserve Bank of New York and I have designed a Home Mortgage Bridge Loan Assistance Program, informed by a successful Pennsylvania program developed during the early 1980s steel slump (Orr et al. 2011). A draft bill to institute the program, which two of us coauthored, is under consideration in New York (Campbell and Hockett 2012a, 2012c). But even assuming success here and in other states, the nation’s larger mortgage debt overhang problem will remain unaddressed (Campbell and Hockett 2012a, 2012b).

debt loss must be formally recognized in a manner that bears some intelligible relation to home *equity* loss. Moreover, for much underwater mortgage debt, write-downs raise value—a benefit borne out by the frequency with which portfolio loan holders write down debt (Olick 2012; Goodman et al. 2012; Ritholtz 2012; Goodman 2012).

Write-downs are not easily carried out in all cases, however. Much depends on whether the targeted loans are held in bank portfolios or by private-label securitization trusts. In the portfolio case, write-downs occur at significant and still growing rates (Goodman et al. 2012; Goodman 2012; Streitfeld 2011). Bank officers know that underwater loans foreclose at high rates, with the result that expected values fall needlessly short of face values; hence, they find it financially rational to write down these loans. In so doing, they benefit not only themselves, but also their debtors and the communities in which they reside. In this case, the interests of all parties converge.

Securitized mortgage loans, however, pose a problem. While it would be no less rational or beneficial to write these loans down, certain structural features of the loans—features that now act as market failures—prevent the rational thing from being done. The upshot is deadweight loss—loss whose recoupment and equitable distribution is one object of the plan sketched below.

Structural Impediments to Write-Downs

What are these structural impediments? A host of classic collective action problems, reinforced by dysfunctional contract provisions, stand in the way of the optimal solution (Hockett 2012a, 2012b; Shiller 2012). For one thing, there is a last-mover advantage where write-downs are concerned, owing to the benefits (positive externalities) that accrue to the creditors on later loans when principal is reduced on earlier loans. This problem afflicts portfolio loans too, of course, and probably therefore keeps modification rates lower than optimal even among banks. But in the case of privately securitized loans, it is reinforced by additional challenges.

Most decisive among the additional challenges is that so many of the pooling and servicing agreements governing the private securitization of loans—agreements drafted during the bubble years when few foresaw a marketwide housing price bust, and many rushed either to push or to purchase an innovative product—require supermajority voting among mortgage-backed securities (MBS) holders before loans can be modified or sold out of trusts. And these bondholders, geographically dispersed and unknown to one another, cannot collectively bargain with borrowers or buyers on workouts or prices.

Moreover, the agreements governing the loans prevent trustees and loan servicers, who are duty-bound to act on behalf of the bondholders and thus could in theory address

their collective action problems, from modifying or selling off loans in the requisite numbers (Hockett 2012a, 2012b).⁵ Finally, the agreements typically stipulate compensation arrangements that make it more profitable for servicers to oversee lengthy foreclosure proceedings than to seek modification. In sum, then, these contracts now virtually ensure that mortgage loans will default, harming all interested parties.

Additional complications arise from the fact that many underwater homes are subject to second liens that secure home equity lines of credit or closed-end second mortgages. First lienholders benefit little from loan modifications unless second lienholders modify too; hence, they are rationally reluctant to modify on their own. But second lienholders feel less pressure to modify because borrowers, strapped by post-bust liquidity needs for which home equity lines constitute precious sources of credit, are apt to make payments on them first—a reversal of the legal order of creditor priorities (Goodman 2012).⁶ In addition, the second lienholders quite often are banks—the same banks that service the first-lien-secured loans. That poses a conflict of interest where firsts prefer that seconds modify too in order to optimize the benefits that modification brings to firsts, further obstructing agreement among borrowers and creditors.

Other constraints—including inapplicable bankruptcy laws and Internal Revenue Code and Trust Indenture Act uncertainties—impede the kind of collective action that would benefit both debtors and creditors (Hockett 2012a, 2012b). But the foregoing discussion suffices to indicate how formidable the obstacles to principal write-downs can be, particularly for loans held in private-label securitization trusts.

Bypassing the Impediments through Collective Agency

Solving a collective action problem requires a collective agent. Of course, that is what PLS trustees and servicers in theory are. But as we have seen, these agents are often hand-tied or conflicted. Who, then, will act for the creditors and, in so doing, for homeowners and spillover victims of local foreclosure and the continuing weakness in the U.S. mortgage market?

As it happens, governments are also collective agents. They are likewise the sole entities authorized to sidestep the contract rigidities of the pooling and servicing agreements that stand in the way of broad write-downs for PLS loans. But *which* government should take up this mantle—federal, state, or local?

⁵ In some cases, for example, pooling and servicing agreements allow no more than 5 percent of the loans in the pool to be modified. This percentage, which shows how little the marketwide crash was expected, has long since been reached in the case of most loan pools.

⁶ Lee, Mayer, and Tracy (2012) offer a contrary view, finding that by the time a borrower goes delinquent on the first lien, there is little credit available on the home equity line.

In 2008–09, this author and two others separately advocated federal action under eminent domain—the power of governments to take private property for public use (Hockett 2009; Jackson 2008; Willis 2008). In 2010, two higher-profile advocates, including one member of Congress, added their names to the call (Miller 2010; Kuttner 2010). But thus far no action of this sort has been taken, even though other actions have brought some help.

The federal government’s flagship Home Affordable Mortgage Program (HAMP), for example, has accomplished much, but it is not designed to deal with underwater or “negative equity” mortgages. For their part, the government-sponsored enterprises (GSEs) Fannie Mae and Freddie Mac have been steered clear of write-downs by their regulator and current conservator, the Federal Housing Finance Agency (Appelbaum 2012). Finally, Congress has twice now attempted but failed to get mortgaged homes into the Bankruptcy Code, thus leaving no means for bankruptcy judges to employ their equitable powers to salvage value among mortgagors and mortgagees as they routinely do among other debtors and creditors.⁷

The consequences of our failure thus far to focus on principal reduction can be seen in more numbers: Since 2007, little more than 1 percent of underwater home loans have seen write-downs. Fewer than half of these write-downs have brought loans above water. Meanwhile, only 2.7 million loans have been modified in any way by their servicers, while 40 percent of these modifications have reduced monthly payments by less than 10 percent.⁸

This weak response is surprising in light of the abundant evidence, derived from the portfolio loan case, that sizable write-downs save sizable value (Olick 2012; Goodman et al. 2012; Ritholtz 2012; Goodman 2012). And it is surprising too given the compelling evidence, found in the GSEs’ filings with the Securities and Exchange Commission, that unmodified underwater PLS loans will default at high rates: For 2006 vintage loans, for example, 71 percent of subprimes, 70 percent of option adjustable-rate mortgages, 58 percent of variable-rate loans, and a surprising 40 percent of traditional fixed-rate loans have defaulted.⁹

The State/Municipal Eminent Domain Plan

If it is not to be federal instrumentalities or PLS trustees and servicers, then, the collective agents best able to address the structural problems that arise with the pooling and servicing

agreements on privately securitized loans are state and municipal governments. These governments (a) face the brunt of mass foreclosure and its consequences more directly than the federal government in any event, and (b) have constitutional authority to address these exigencies.¹⁰ Let us first consider how the subfederal units of government can act, then elaborate briefly on their suitability for these roles.

Using their traditional eminent domain powers—a legal authority enshrined in our state and federal constitutions for precisely such exigencies as the foreclosure crisis presents—states or their sub-units can compulsorily purchase underwater loans from private-label securitization trusts at fair value, dealing directly with trustees and sidestepping all contract rigidities. They can then write down the loans, reducing default risk and raising expected values in the process.

If need be, eminent domain authority can also be used to take second-lien-secured loans at fair value, or even the liens that secure them, while leaving the notes with their holders—effectively converting the latter to unsecured consumer debt. That prospect can bring recalcitrant second lienholders to the table with firsts—particularly if, as suggested below, they also are offered some fraction of the surplus recouped through the write-downs.

Financing the Refinancing: Federal Money, Private Money, or Both

But how are states or their sub-units to pay for the loans or the liens, given that the foreclosure crisis has left them more cash-strapped than the federal government? Here is how: One possibility is to finance the purchases with monies lent by federal agencies in the manner of the Treasury’s Troubled Asset Relief and Public-Private Investment Programs, and the Federal Reserve Bank of New York’s MBS stabilization programs, all of which ultimately have turned profits. Alternatively, they might use monies provided by private investors, or monies from both federal agencies and private sources. The federal agencies or private investors then can be paid from the proceeds of the refinanced and accordingly more valuable loans, or in bonds issued against pools of the same.

If private money is used, then the investors both can and ought to include current bondholders, who might receive warrants before federal or private investors are brought in. This approach respects bondholder interests and underscores the sense in which the eminent domain plan is meant simply to solve a collective action problem that dysfunctional pooling and servicing agreements prevent trustees and servicers from solving themselves on behalf of their bondholder beneficiaries.

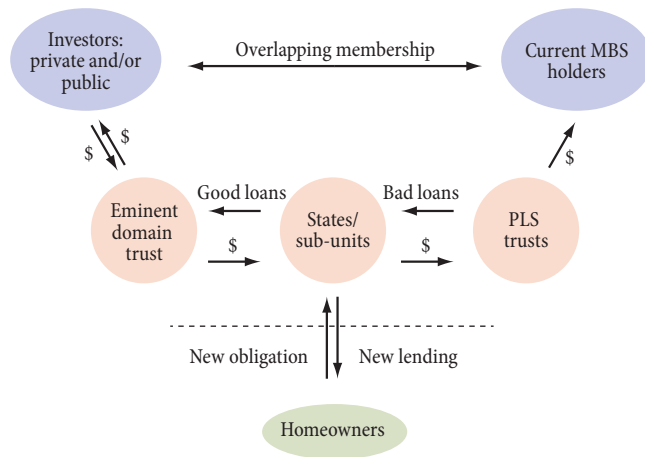
⁷ For more on the 2009 and 2010 efforts to pass mortgage “cramdown” legislation, see Hockett (2012b).

⁸ See the latest CoreLogic data and OCC Mortgage Metrics, cited in note 1.

⁹ See Fannie Mae’s second-quarter 2012 Form 10-Q, p. 111, available at <http://www.fanniemae.com/resources/file/ir/pdf/quarterly-annual-results/2012/q22012.pdf>, and its 2011 Form 10-K data, available at http://www.fanniemae.com/resources/file/ir/pdf/quarterly-annual-results/2011/10k_2011.pdf.

¹⁰ Note, however, that Fannie Mae and Freddie Mac themselves hold significant numbers of underwater loans in their portfolios.

Basic Structure of the Eminent Domain Plan



Notes: The double-headed arrow represents class overlap rather than a flow. The two vertical arrows crossing the dotted line represent a detour between the “bad loan” and “good loan” arrows. *MBS* is mortgage-backed securities; *PLS* is private-label securitization.

By working with states or municipalities in this manner, current bondholders would piggyback on governmental authority to sidestep the contracts that currently preclude their doing what portfolio lenders already do. To note that these participating bondholders will be “paying themselves” less than face value would just be a roundabout way of saying that they are writing down principal.

The diagram above presents a schematic rendering of the eminent domain plan. The diagram, which should be read counterclockwise, shows investors, including current bondholders and perhaps federal agencies, conveying funds to eminent domain trusts operated by the states or their sub-units. These eminent domain trusts then purchase deeply underwater (“bad”) loans from private-label securitization trusts. The states or their sub-units, in most cases probably advised or otherwise assisted by financial professionals, then work with homeowners to write new mortgages, replacing the negative equity loans with modestly positive equity loans—probably thirty-year fixed-rate mortgages in all cases.¹¹ Finally, the new (“good”) loans are conveyed to the first-mentioned trusts, which convey the resultant funds to the first-mentioned investors.

The payouts will in most cases take the form that payouts on the earlier, unmodified loans took—bond yields to bondholders. And, as noted earlier, the new bondholders should include as many of the original bondholders as wish to participate, since

¹¹ Freeing the loans from their PLS trusts, it bears noting, renders them amenable to the Federal Housing Administration Short Refinance, Hardest Hit Funds, and HAMP Principal Reduction Alternative programs.

the aim of the plan is to enable homeowners and bondholders to do what the pooling and servicing agreements now prevent them from doing—modifying underwater loans to recoup presently lost value.

The sequence of steps depicted in the diagram provides only the broad outline of the plan. More is required to render any particular variation operational. There are, for example, the matters of (a) selecting and valuing appropriate loans; (b) securing government and/or private investors, if any; (c) commencing the legal proceedings necessary to exercise eminent domain authority; (d) modifying and possibly re-securitizing the loans once purchased; (e) working with homeowners throughout the foregoing; and (f) compensating investors at appropriate stages.

All of these actions can be managed in various ways (Hockett 2012a). Briefly, on (a), the guiding criterion should be whether the loans’ expected value can be raised sufficiently to offset the write-downs and associated transaction costs. A variation on this criterion, where public money is available to supplement private money, might be to include loans whose expected-value improvements fall slightly short of offsetting the write-downs and associated transaction costs, in light of the foreclosure externalities that write-downs will avoid.

On (b), if federal and subfederal units of government find merit in the plan, they can approach one another to arrange lending from the former to the latter. Either can also approach existing bondholders or other investors if desired.

On (c), states or their sub-units will commence the proceedings and courts will conduct them. In the “quick take” proceedings available in most states, the taking authority places the estimated value of the loans plus some margin in escrow when filing, explains the basis of its valuations to the court’s satisfaction, then takes title. Subsequent litigation, if any, concerns only whether more should be paid, not whether the taking can proceed. In most cases, governments have accurately assessed the value of the loan, often with assistance from private valuation experts, and paid adequately. This bears noting in view of popular misconceptions concerning the likelihood of protracted litigation.

It should also be noted that, in view of the market failure and consequent waste stories that prompt this proposal, we can anticipate sizable pre-trial, out-of-court agreements among state or municipal governments and bondholders on loan selection and valuation criteria, particularly if relevant federal officials facilitate.

As for (d), (e), and (f), these are primarily matters for states or municipalities to manage, albeit again with assistance from public or private financial professionals in most cases. The municipalities are best situated to approach

prospective homeowner beneficiaries once qualifying loans are identified. Financial advisory assistance, in turn—whether from a federal entity like the Federal Housing Administration, from private providers, or both—will be helpful in most cases both in restructuring loans and in arranging investor compensation.

The Plan's Legal Basis: Taking Intangibles for Public Purpose and Paying Fair Value

How commonly is eminent domain used for more than compulsory land purchases for roads and bridges? Though non-lawyers are not always aware of the fact, governmental authorities compulsorily purchase property at fair value for public use all the time (Hockett 2012a, Section IV). And they do so with all manner of property—tangible and intangible, contractual and realty-related alike.

Forms of intangible property that have been purchased in eminent domain include bond tax exemption covenants, insurance policies, corporate equities, other contract rights, businesses as going concerns, and even sports franchises (Hockett 2012a). Because the law draws no distinctions between kinds of property that can be purchased in eminent domain, it is unsurprising that loans and liens in particular, as one form of contractual obligation among many, are themselves regularly purchased.¹² Among these are mortgage loans and liens, as the Supreme Court and state courts have long recognized.¹³

The question, then, is not what kinds of property can be taken, but whether a public purpose justifies the taking and fair value is paid. Preventing more foreclosures, blighted properties, revenue base losses, and city service cutbacks is recognized by courts as the most compelling of public purposes justifying use of the eminent domain authority.¹⁴ As for fair value, how is this determined? Won't municipalities have to purchase loans at less than fair value to recoup enough margin to compensate the investors, public or private, who put up the purchase money?

First, on valuation, there are multiple methods available. Where mortgage-backed securities associated with a particular loan pool or analogous pools trade at a discount, for example, imputation of counterpart discounts to underlying loans is arithmetically straightforward. And private-label securitization bonds, it bears noting, are trading at very steep discounts.

¹² *Phillips v. Washington Legal Foundation*, 524 U.S. 156 (1998) (accrued interest on account funds); *Armstrong v. United States*, 364 U.S. 40 (1960) (materialman's lien); and the iconic *Legal Tender Cases*, 79 U.S. (12 Wall) 457 (1870). See, generally, Hockett (2012a).

¹³ *Louisville Joint Stock Land Bank v. Radford*, 295 U.S. 555, 602; *W. Fertilizer & Cordage Co. v. City of Alliance*, 504 N.W.2d 808, 816 (Neb. 1993). Again, see Hockett (2012a).

¹⁴ *Kelo v. City of New London*, 545 U.S. 469 (2005).

Senior Bond Pricing for Private Label Securitization Trusts: August 2012

	Price as a Percentage of Senior Bond	Senior Bond Percentage of Total	Price as a Percentage of Loan UPB
Subprime	55.7	90.0	50.1
Option ARM	58.5	90.0	52.7
Alt-A ARM	66.7	90.0	60.0
Alt-A Fixed	73.1	90.0	65.8

Source: Amherst Securities.

Notes: UPB is unpaid principal balance. ARM is adjustable-rate mortgage; Alt-A is Alternative-A, a risk classification between prime and subprime.

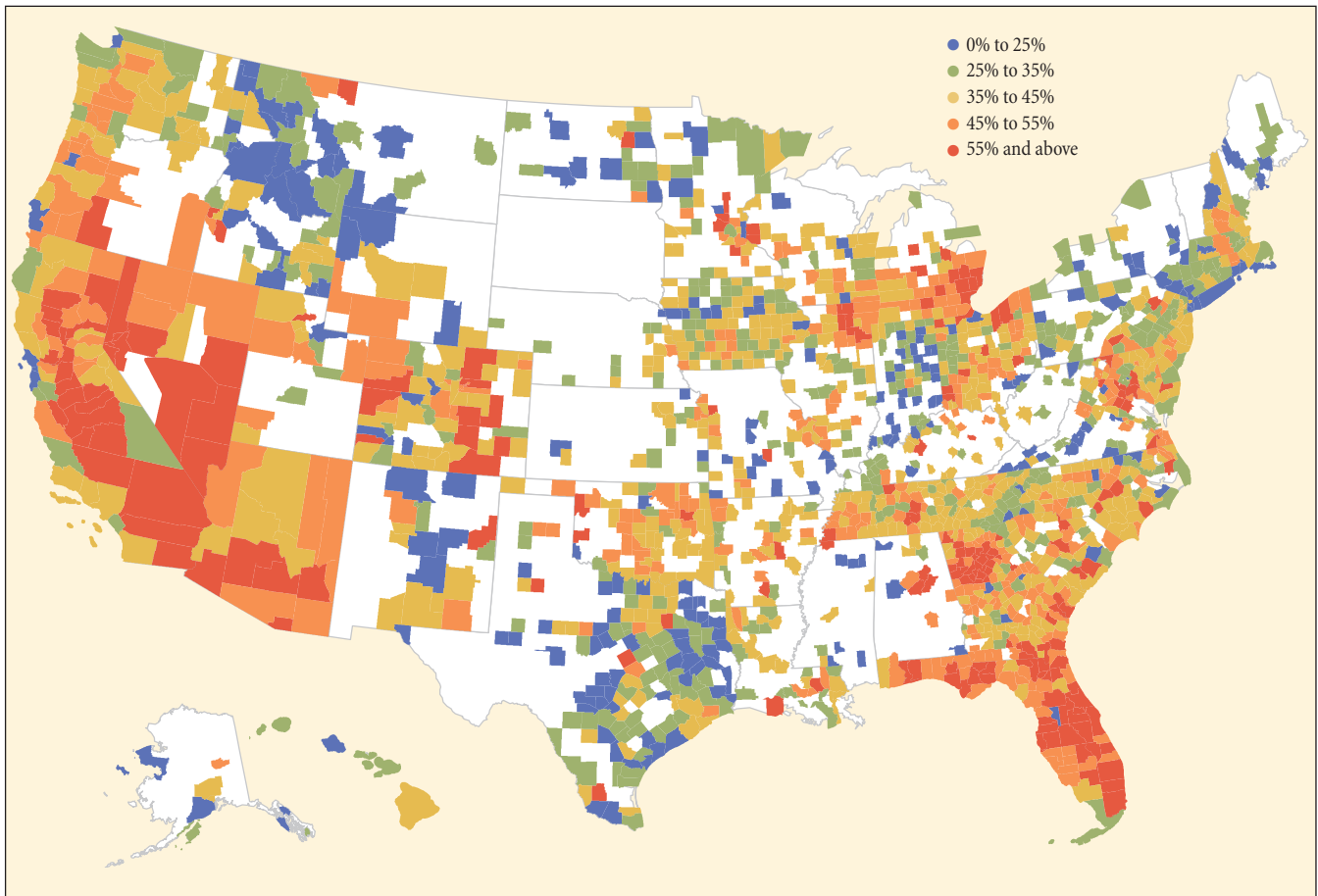
The latest data from Amherst Securities on PLS senior debt, for example, are telling, as are estimates of senior bonds as percentages of total bonds outstanding and prices thereof as percentages of unpaid principal balances (see table above).

Where bond-to-loan discount-imputation is unavailable owing to missing markets, discounted cashflow methods will do. As noted above, for example, Fannie Mae and Freddie Mac publish expected default rates for sundry classes of under-water PLS mortgages each year. From these—along with foreclosure costs, associated recovery rates (generally no more than 22 percent on defaulted loans), and discount rates—the calculation of net present values is not a recondite exercise. And our courts, which routinely hear valuation arguments in multiple contexts and often impanel experts, will oversee the proceedings as required by law, ensuring fairness to parties. Even this safeguard might be more than is necessary, however, if federally overseen valuation summits of the kind mentioned above and discussed further below should prove workable.

What about the putative need to pay current investors less than fair value to compensate new ones? Must one rob Peter to pay Paul? The answer is no. Eminent domain proceedings need not represent “zero sum games.” By averting market failures—and the needless sacrifice of value that these failures entail—the plan proposed here recoups value, which can then be equitably distributed to render all stakeholders better off.

First lienholders who help finance the purchases from their PLS trusts receive loans that are higher in expected value in exchange for loans with lower expected value. First lienholders who do not thus participate receive fair value for otherwise unmarketable assets. (This is so even if trustees in some cases must divide proceeds among subclasses.) Homeowners receive modest equity in their homes and diminished default and foreclosure risk. Neighbors see their communities, property values, and municipal services stabilized, while municipalities see property tax revenues restored and abatement costs drop. Even second lienholders can benefit if paid a small fraction of

Underwater Mortgages as a Share of All Mortgages, by County As of Fourth-Quarter 2012



Source: CoreLogic Negative Equity Report.

the value recouped by the write-downs, since in foreclosure they receive nothing.

Why the National Problem Is First a Local Problem

It was suggested earlier that state and local governments might be better situated than the federal government to take the lead in pursuing a plan like that sketched in this article—even if federal instrumentalities might play helpful supporting roles. Why is this the case? In what sense do localities face the worst of the mortgage debt overhang problem, and thus have incentive to act first?

The answer is that even though the problem is ultimately national in scope, its worst symptoms are locally concentrated. In some communities, more than 80 percent of PLS loans are underwater. The *degree* to which the loans are underwater, moreover, can be dramatic: some communities' underwater PLS loans have average loan-to-value (LTV) ratios greater

than 200 percent, and many more have ratios approaching that number. The map above affords a telling, if understated,¹⁵ picture of how localized the worst of the nation's underwater mortgage problems actually are.¹⁶

Concerns Raised by the Eminent Domain Plan

While it is not possible here to anticipate and fully address all concerns that the eminent domain plan might invite, one can cover the most obvious ones in broad outline. These fall under two headings—concerns of the sort that debt write-downs seem always to raise, and concerns relating to the reliance on state rather than federal authority to implement the plan.

¹⁵ The chart covers all underwater loans, and does not distinguish high-LTV loans from lower-LTV loans.

¹⁶ CoreLogic Negative Equity Report, Fourth-Quarter 2012, available at <http://www.corelogic.com/>.

Debates over the justice and efficiency of debt forgiveness are long-standing. Critics say that contracts are binding commitments that must be upheld, while proponents of debt forgiveness say some debts are “odious.” Again, critics say that write-downs induce moral hazard and reduce credit availability, while proponents observe that you cannot squeeze blood from turnips. We are not going to settle such perennial questions here, any more than the Book of Leviticus or centuries of “law versus equity” have done. But three things bear noting.

First, owing to asset-price bubbles’ status as collective action problems, it is doubtful that many homebuyers during the bubble years had much choice when it came to buying overvalued homes. That *most* homes were overvalued is what rendered the bubble a bubble. It therefore seems mistaken to blame homeowners as a class, or to characterize write-downs as per se unfair or morally hazardous. It is also easy to formulate loan-selection criteria in ways that do not encourage “strategic” defaults going forward—by reference to LTV/default correlations as suggested above (Hockett 2012a, 2013, 2010).

Second, for similar reasons, there seems little need to fear long-term contraction in liquidity or credit. Bubbles inflate only when credit is overabundant. We want, then, some credit-caution in future, just not too much. And we want to get to that middle ground as quickly as possible. The best way to do this is first to clear out the overhang under which 11 million homeowners still struggle, then to ensure that the pooling and servicing agreements for residential mortgage-backed securities going forward look more like the agreements for commercial mortgage-backed securities always have looked—providing in advance for value-salvaging modifications on a scale unanticipated before the most recent crisis, and thereby preempting the future need to resort to such methods as the one proposed here.¹⁷ New residential mortgage securitizations suggest that the latter change is already under way. To resolve what earlier securitizations have wrought, however, requires a plan like that outlined above.

Finally, it is important to recall that write-downs are done on nonmortgage debt all the time. We call it bankruptcy, and afford it to firms because it salvages value. The plan proposed here does the same. And as noted above, the value thus saved can be shared among all stakeholder classes.

Turning now to issues linked to the plan’s reliance on state, rather than federal, authority, we find some concerns stemming from possible differential application of the eminent domain plan across states and localities. Florida counties, for example, might construct variants of the plan that differ from those adopted by Louisiana parishes. California or Michigan plans might diverge from both. Would such differences raise fairness concerns?

¹⁷ For more on the differences between RMBS and CMBS pooling and servicing agreements, see Hockett (2012b).

The question is a complex one. We should certainly welcome some degree of national uniformity (this is one reason the present author [2009] first proposed federal, not state or local, action in 2008). But local conditions do vary from county to county, such that fairness itself dictates some variation. It is also the case that our federal system already involves quite significant state variation with respect to all manner of law—from property, tort, and even commercial law to electoral law. There will be nothing particularly unusual, then, in differing states’ crafting differing variants of the plan here proposed. It might even be welcome—for the usual “laboratories of democracy” reasons given for local experimentation.

All of that said, however, federal agencies could be helpful in confining local variation within reasonable bounds, as well as in promoting efficient and amicable loan workouts nationwide along lines like those here proposed. By bringing municipal or state, homeowner, bondholder, and bank representatives together under one “summit” structure, the Treasury, Federal Housing Finance Agency, Federal Reserve Board or regional banks like the Federal Reserve Bank of New York operating thereunder, the Department of Housing and Urban Development, or some combination thereof could facilitate consensus among all concerned parties on the basic contours that all local variants of the eminent domain plan should take. There is no reason this consensus could not include loan-selection and loan-valuation principles as well as more detailed practical elements.

Conclusion: It Takes a Village—but a Federal Government Helps

The guiding ideal in any such summit as that proposed here should be to convert the eminent domain tool into a mere formality enabling all interested parties to sidestep dysfunctional pooling and servicing agreements consensually and thereby recapture lost value. Getting past these contracts and the collective action problems they underwrite is, after all, precisely and solely what this plan is for. States and their sub-units are best situated at this point to act. But federal agencies could be helpful facilitators for all.

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The Financial Crisis at the Kitchen Table: Trends in Household Debt and Credit

Meta Brown, Andrew Haughwout, Donghoon Lee, and Wilbert van der Klaauw

Current Issues in Economics and Finance, vol. 19, no. 2, 2013

Since the onset of the financial crisis, households have reduced their outstanding debt by about \$1.3 trillion. While part of this reduction stemmed from a historic increase in consumer defaults and lender charge-offs, particularly on mortgage debt, other factors were also at play. An analysis of the New York Fed's Consumer Credit Panel—a rich new data set on individual credit accounts—reveals that households actively reduced their obligations during this period by paying down their current debts and reducing new borrowing. These household choices, along with banks' stricter lending standards, helped drive this deleveraging process.

Securitization and the Fixed-Rate Mortgage

Andreas Fuster and James Vickery
Staff Reports, no. 594, January 2013

Fixed-rate mortgages (FRMs) dominate the U.S. mortgage market, with important consequences for household risk management, monetary policy, and systemic risk. This study shows that securitization is a key driver of FRM supply. The analysis compares the agency and nonagency mortgage-backed-securities (MBS) markets, exploiting the freeze in nonagency MBS liquidity in the third quarter of 2007. Using exogenous variation in access to the agency MBS market, the authors find that when both market segments are liquid, they perform similarly in terms of supporting FRM supply. However, after the nonagency market freezes, the share of FRMs is sharply higher among mortgages eligible to be securitized through the still-liquid agency MBS market. The authors conclude that securitization is particularly important for FRMs because of the prepayment and interest rate risk embedded in these loans. They highlight policy implications for ongoing reform of the U.S. mortgage finance system.

Payment Size, Negative Equity, and Mortgage Default

Andreas Fuster and Paul S. Willen
Staff Reports, no. 582, November 2012

Surprisingly little is known about the importance of mortgage payment size for default, as efforts to measure the treatment effect of rate increases or loan modifications are confounded

by borrower selection. This study examines a sample of hybrid adjustable-rate mortgages that have experienced large rate reductions over the past years and are largely immune to these selection concerns. The authors show that interest rate changes dramatically affect repayment behavior. Their estimates imply that cutting a borrower's payment in half reduces his hazard of becoming delinquent by about two-thirds, an effect that is approximately equivalent to lowering the borrower's combined loan-to-value ratio from 145 to 95 (holding the payment fixed). These findings shed light on the driving forces behind default behavior and have important implications for public policy.

A New Look at Second Liens

Donghoon Lee, Christopher Mayer, and Joseph Tracy
Staff Reports, no. 569, August 2012

The authors use data from credit reports and deed records to better understand the extent to which second liens contributed to the housing crisis by allowing buyers to purchase homes with small down payments. At the top of the housing market, second liens were quite prevalent: As many as 45 percent of home purchases in coastal markets and bubble locations involved a piggyback second lien. Owner-occupants were more likely to use piggyback second liens than were investors. Second liens in the form of home equity lines of credit (HELOCs) were originated to relatively high-quality borrowers, and originations were declining near the peak of the housing boom. By contrast, characteristics of closed-end second liens (CES) were worse on all these dimensions. The default rate of the second lien is generally similar to that of the first lien on the same home, although HELOCs perform better than CES. About 20 to 30 percent of borrowers will continue to pay their second lien for more than a year while remaining seriously delinquent on their first mortgage. By comparison, about 40 percent of credit card borrowers and 70 percent of auto loan borrowers will continue making payments a year after defaulting on their first mortgage. Finally, the authors show that delinquency rates on second liens, especially HELOCs, have not declined as quickly as those on most other types of credit, raising a potential concern for lenders with large portfolios of second liens on their balance sheets.

Payment Changes and Default Risk: The Impact of Refinancing on Expected Credit Losses

Joseph Tracy and Joshua Wright
Staff Reports, no. 562, June 2012

This paper analyzes the relationship between changes in borrowers' monthly mortgage payments and future credit performance. The relationship is important for the design of an internal refinance program such as the Home Affordable

Refinance Program (HARP). The authors use a competing risk model to estimate the sensitivity of default risk to downward adjustments of borrowers' monthly mortgage payments for a large sample of prime adjustable-rate mortgages. Applying a 26 percent average monthly payment reduction that they estimate would result from refinancing under HARP, the authors find that the cumulative five-year default rate on prime conforming adjustable-rate mortgages with loan-to-value ratios above 80 percent declines by 3.8 percentage points. Assuming an average loss given default of 35.2 percent, the authors determine that this lower default risk implies reduced credit losses of 134 basis points per dollar of balance for mortgages that refinance under HARP.

Real Estate Investors, the Leverage Cycle, and the Housing Market Crisis

Andrew Haughwout, Donghoon Lee, Joseph Tracy, and Wilbert van der Klaauw
Staff Reports, no. 514, September 2011

This study explores a mostly undocumented but important dimension of the housing market crisis: the role played by real estate investors. Using unique credit-report data, the authors document large increases in the share of purchases, and subsequently delinquencies, by real estate investors. In states that experienced the largest housing booms and busts, at the peak of the market almost half of purchase mortgage originations were associated with investors. In part by apparently misreporting their intentions to occupy the property, investors took on more leverage, contributing to higher rates of default. The authors' findings have important implications for policies designed to address the consequences and recurrence of housing market bubbles.

Help for Unemployed Borrowers: Lessons from the Pennsylvania Homeowners' Emergency Mortgage Assistance Program

James Orr, John Sporn, Joseph Tracy, and Junfeng Huang
Current Issues in Economics and Finance, vol. 17, no. 2, April 2011

In an environment of high foreclosure rates and distressed housing markets, federal policies are focusing on loan modifications to help delinquent homeowners pay their mortgages. While it is too soon to assess the effectiveness of these modifications, policymakers considering future refinements may gain insight from a more established, state-

level enterprise that takes an alternative approach to mortgage relief. The Pennsylvania Homeowners' Emergency Mortgage Assistance Program provides temporary income support to homeowners unable to pay their mortgage during a spell of unemployment. The program has helped most participants retain their homes while paying off their loans—at a potentially lower cost than that of other relief initiatives.

A Private Lender Cooperative Model for Residential Mortgage Finance

Toni Dechario, Patricia Mosser, Joseph Tracy, James Vickery, and Joshua Wright
Staff Reports, no. 466, August 2010

This paper describes a set of six design principles for the reorganization of the U.S. housing finance system and applies them to one model for replacing Fannie Mae and Freddie Mac that has so far received frequent mention but little sustained analysis—the lender cooperative utility. The authors discuss the pros and cons of such a model and propose a method for organizing participation in a mutual loss pool and an explicit, priced government insurance mechanism. They also discuss how these principles and this model are consistent with preserving the “to-be-announced,” or TBA, market—particularly if the fixed-rate mortgage remains a focus of public policy.

Second Chances: Subprime Mortgage Modification and Re-Default

Andrew Haughwout, Ebiere Okah, and Joseph Tracy
Staff Reports, no. 417, December 2009, revised August 2010

Mortgage modifications have become an important component of public interventions designed to reduce foreclosures. This study examines how the structure of a mortgage modification affects the likelihood of the modified mortgage re-defaulting over the next year. Using data on subprime modifications that precede the government's Home Affordable Modification Program, the authors focus attention on those modifications in which the borrower was seriously delinquent and the monthly payment was reduced as part of the modification. The average re-default rate over the twelve months following the modification was 56 percent. The data indicate that the re-default rate declines with the magnitude of the reduction in the monthly payment, but also that the re-default rate declines relatively more when the payment reduction is achieved through principal forgiveness as opposed to lower interest rates.

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The Federal Reserve Bank of New York's *Household Debt and Credit Report* provides a quarterly snapshot of household trends in borrowing and indebtedness, including data about mortgages, student loans, credit cards, auto loans, and delinquencies. The report aims to help community groups, small businesses, state and local governments, and the public to better understand, monitor, and respond to trends in borrowing and indebtedness at the household level.

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