**An International Perspective for Mortgage Market Reform**

Dwight M. Jaffee University of California, Berkeley Email: jaffee@haas.berkeley.edu

Revision: July 26, 2014

**1) Introduction**

The United States (U.S.) and certain European countries (e.g. Ireland and Spain) have recently experienced serious distress in their residential mortgage markets. It has become especially clear that significant deadweight costs accompany mortgage foreclosures. These deadweight costs arise when families are forced to move from their homes, lenders must sell foreclosed properties under fire-sale conditions, and foreclosed property sales have negative effects on the prices of adjacent properties. Borrowers, lenders, and governments have all experienced at least some part of the deadweight costs, thus creating a consensus to carry out major mortgage market reforms to avoid future replays.

The proper reforms, of course, must take into account the market features that created the failures. Mortgage markets are, however, complex enterprises, so identifying the dysfunctional elements is easier said than done. In this paper, I make use of the important differences that exist between U.S. and European mortgage markets to help identify those aspects of residential mortgage markets that are most in need of reform.

**2) United States Mortgage Market Reforms To Date**

Low underwriting standards, including predatory lending, were clearly a dysfunctional element of U.S. mortgage markets during the subprime lending boom. So it is not surprising that mortgage market reform has already proceeded rapidly in this area. The first regulatory action was carried out in July 2008 when the Federal Reserve revised the Truth in Lending rules to require lenders to verify the borrower’s ability to repay on certain high-rate mortgages; see Federal Reserve Board (2008). Further ability to pay regulations were stipulated in Title XIV of the Dodd-Frank Act of 2010, with the regulatory responsibility given to the newly created Consumer Finance Protection Bureau (CFPB). The CFPB announced its final and expanded ability to pay mortgage rules in 2013; see Consumer Finance Protection Bureau (2013). These rules include the standards for a Qualified Mortgage (QM), which provide lenders a safe harbor against law suits even if a borrower were to default on a QM mortgage.

While these regulatory reforms were going forward, the Obama Administration also createdtwo major initiatives to expedite mortgage modification and refinancing opportunities: the Home Affordable Refinance Program (HARP) and Home Affordable Modification Program (HAMP). It seems fair to say that the results have been disappointing; see Remy, Lucas, and Moore (2011) and Government Accountability Office (2012). In particular, it appears that the mortgage owners have resisted modifying their mortgages to a much greater extent than was anticipated in the initial “win-win” descriptions of the plans.

At least three factors appear to explain the reluctance to carry out loan modifications:[[1]](#footnote-1)

1) Large numbers of borrowers remain current on their mortgages, even with significant

negative equity positions. In this circumstance, lenders are reluctant to create a reputation of offering loan modifications to delinquent borrowers, for fear of creating an inventive for their still-current borrowers to stop their mortgage payments in order to qualify for a loan modification.

2) Complex loan ownership structures, including second mortgage liens and multi-class mortgage backed securities, create mixed incentives for a loan owner to modify the loan.

3) A significant number of borrowers default even after receiving a modified loan.

Comparable problems with residential mortgage modifications arose during the Great Depression for both private lenders and the Home Owners Loan Corporation (HOLC). Although the HOLC has a deservedly high reputation for its work, a new book by Rose (2013) indicates that the same three factors also greatly frustrated the ability of the HOLC to modify loans. For example, close to 50% of the HOLC applications had to be denied, and almost 20% of the modified loans eventually defaulted.

**3) Limited Residential Mortgage Default and Foreclosure in Western Europe**

Residential mortgage defaults and foreclosures have historically been far more limited in Western Europe than in the U.S. For example, defaults and foreclosures were rare in Northern Europe in the late 1980s and early 1990s, even though house prices declined by as much as 25 percent in several countries over that period.[[2]](#footnote-2) Similarly, default and foreclosures rates have remained remarkably low over the recent period of severe house price declines in countries such as Ireland and Spain. This suggests that, at least on an ex-post basis, mortgages in Western Europe have been substantially and systematically safer than U.S. mortgages.

Two major factors appear responsible for the high mortgage underwriting standards in Europe:

1) Most European mortgages allow recourse to a borrower’s full assets upon mortgage default.

Furthermore, deficiency judgments are relatively easy to obtain and a borrower’s

responsibility to repay the loan generally survives bankruptcy. Thus a defaulting European

mortgage borrower would expect to face wage garnishment until the loan is repaid. This provides borrowers, as well as lenders, with a strong incentive to make mortgages only where the ability to repay is well established.

2) In a number of Western European countries, a substantial proportion of mortgage lending is

funded by covered bonds issued by banks. The mortgages remain on the bank’s balance sheet

and the bank is in the first-loss position for 100 percent of all possible losses.[[3]](#footnote-3) The first-loss

position, of course, gives the banks a strong incentive to enforce high lending standards.

Furthermore, bank regulators also have responsibility and incentive to verify that the loans

collateralizing covered bonds are written to a high standard.

The residential mortgage markets of Western Europe have outperformed the comparable U.S. markets over a variety of performance standards, in addition to the low default and foreclosure rates. Table 1 shows the average performance data over the last 20 years, the longest period for which data are available. The results indicate the U.S. performed more poorly than the European average in terms of housing start and house price volatility, home ownership rates, and relative mortgage interest rate levels. The superior European record has been achieved, moreover, with a substantially lower level of government intervention than for the U.S.

This very positive record of European mortgage market performance, however, is currently being challenged by the substantial house price declines that have occurred in Ireland and Spain. Although default and foreclosure rates remain remarkably low in both countries, the countries now face the prospect that a significant number of homeowners could face a lifetime of garnished wages to make payments on mortgages with large negative equity positions. This is now seen as threatening the social fabric of the countries, especially for younger borrowers. Thus, for the first time, the governments are developing plans to force banks to modify loans or otherwise temper the recourse option.

**4) Alternative Mortgage Contracts To Eliminate the Deadweight Costs of Foreclosure**

The high deadweight costs of mortgage foreclosure that have been observed in the U.S., and in Ireland and Spain,result from design features of the current mortgage contracts. In this section, I outline several proposals that could eliminate a large part of the deadweight costs that otherwise arise when falling house prices create mortgage defaults and foreclosures.

4.1 Automatic (Ex Ante) Loan Modifications

Ambrose and Buttimer (2012) have proposed a new mortgage that would reduce loan balances and payments automatically when house prices decline.[[4]](#footnote-4) The result is that a large house price decline would no longer put borrowers in the position of making large required mortgage payments on a home in which they have a large negative equity position. Of course, unemployed homeowners may still be unable to make even the reduced payments, but in this case the home could be sold for a value that would cover most, if not all, of the reduced mortgage balance.

Many details need to be considered for a complete plan. For example, it would seem practical that the mortgage would be adjusted only if the house price decline exceeded some threshold. There is also the question whether the bank or the borrower obtains the benefit if house prices rebound following the initial decline.[[5]](#footnote-5)

Perhaps the most difficult technical issue is how best to measure the house price index that would be the basis for the mortgage contract adjustments. Lenders might be expected to require significant compensation for the risk that the mortgage balance would be reduced as a result of house price declines. However, when foreclosures occur under the current mortgage contract design, the lender suffers a similar loss in the form of the reduced value of the foreclosed home, as well as the deadweight costs of carrying out the foreclosure and selling the home.[[6]](#footnote-6) Thus the directional effect of the proposal on mortgage interest rates is ambiguous.

4.2 Automatic (Ex Ante) Option To Convert Mortgaged Properties to Rentals

This proposal is to include a new option as part of residential mortgage contracts to allow a borrower to convert her home ownership and mortgage obligation into a rental agreement on the same property. The mortgage lender would then own the property and become the landlord to the borrower. Borrowers would generally exercise the rental option only if the home equity had become distinctly negative. By exercising the option, a borrower would avoid the deadweight costs of default and foreclosure, and would remain living in the home. This concept has already been proposed as an ex post policy to convert existing foreclosed properties to a rental basis (see Ranieri etal (2012)), and some large lenders have started trial programs (see for example Schwartz (2012)).

As with the mortgage modification plan described in Section (4.1), many details need to be considered for a complete plan. These would include how the rent level would be set, the length of the lease, and the available renewal options. Presumably at some point the lender would sell the property, and the borrower/tenant would have to move (unless she repurchased the property herself).

Lenders would also presumably require compensation for the expected loss if and when the mortgage is converted to a rental agreement. However, without this plan or its equivalent, the lender would face the loss in home value and the deadweight costs of default and foreclosure. Thus the net effect on the mortgage interest rate of introducing the rental option could be small, and it is possible the actual result could even be a lower mortgage rate.

4.3 The Government Sponsored Enterprises, Mortgage Backed Securitization, and Covered Bonds

There is now a broad consensus that the public/private hybrid design for the U.S. mortgage market’s government sponsored enterprises (GSEs)—i.e. Fannie Mae and Freddie Mac—failed due to the perverse incentives it created for risk-taking; see, for example, U.S. Treasury (2011). This raises the policy question of whether it is necessary to replace the GSEs at all, and if so, what form the replacement should take. This question is independent of the continuing role for the Housing and Urban Development (HUD) agency and its FHA mortgage program. Most observers believe the HUD and FHA programs should continue to support lower income and first-time home buyers. Most European countries also have similar programs.

It is thus striking that none of the Western European countries have mortgage market entities comparable to Fannie Mae and Freddie Mac.[[7]](#footnote-7) Recalling the superior performance of the European housing and mortgage markets relative to the U.S., as detailed in Table 1, there is a case that the U.S. mortgage markets are not at all in need of further government intervention. However the political reality is that U.S. mortgage lenders, home builders, and real estate agents are likely to be successful in lobbying to have the government take over at least some of the functions previously provided by the GSEs. The policy question is thus to design a policy that satisfies both sides.

As of this writing, the Warner-Corker plan, introduced in June 2013, is the leading contender as a feasible plan.[[8]](#footnote-8) The core idea is that private capital would take a 10 percent first-loss position on qualifying mortgage-backed securities, with the federal government then providing catastrophic backstop reinsurance for the remaining risk. In principle, the 10 percent first-loss position should cover most losses on well-underwritten U.S. mortgages, and the government would receive risk-based insurance premiums for its catastrophic backstop. The concern is that political pressure will reduce the first-loss position and restrict the risk-based premiums, creating a large government subsidy.

This certainly has been the experience with the U.S. National Flood Insurance Program, which is already $17 billion in debt from Katrina losses and with its debt certain to expand when losses from Sandy are included; see Kousky and Michel-Kerjan (2012). On the other hand, the Terrorism Risk Insurance Act (TRIA) appears to have succeeded in providing a government catastrophic reinsurance backstop for private insurance against terrorism attacks on commercial properties at little risk for taxpayers; see Jaffee and Russell (2006).

Although some mortgage-backed securities are used in Europe, covered bonds are the more common mechanism to tap the capital markets for funding residential mortgages. The distinctive feature of European covered bonds is that the mortgages remain on the bank balance sheet, and unlike mortgage-backed securitization, the bank retains the first-loss position for all default risk on the mortgages. The result is the mortgages are underwritten to a very high standard.[[9]](#footnote-9)

This raises the question whether covered bonds could become a useful mechanism to allow U.S. banks to tap capital market funding for their mortgage lending. The Dodd-Frank requirement that

U.S. banks retain 5% of the risk on mortgage backed securities (unless they obtain the QRM exemption) can be interpreted as a first step in this direction. Indeed, covered bonds would, in effect, enforce a 100% risk retention requirement. It is possible that pools of high-quality mortgages could be most effectively funded through covered bonds. However, this would require a substantial change in FDIC policy, which to date has been generally resistant to covered bond funding of U.S. residential mortgages.[[10]](#footnote-10)

**5. Summary and Conclusions**

This paper has reviewed certain proposals for the reform of residential mortgage markets. With regard to the mortgage contract itself, there are two proposals. They would create a new mortgage contract in which (1) the loan balance and payments are automatically reduced when house prices decline, and/or (2) the borrower has an option to convert her mortgage and homeownership to a rental basis. Both reforms would eliminate the large deadweight costs associated with mortgage foreclosures.

There are two proposals that would change the underlying structure of the U.S. mortgage market. One proposal, currently part of the Warner-Corker bill, would allow the federal government to take over some of the mortgage guarantee functions currently provided by the GSEs. The second proposal would allow U.S. banks to issued covered bonds in a format similar to that widely used in Europe, but this will require the FDIC to recognize the benefits of such a plan.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 1; The Performance of Western European Mortgage Markets in Comparison with the U.S.(**1) | | | | | | | | | | | |
| Statistical measures computed with annual data by country for the years 1998 to 2011 | | | | | | | | | | | |
|  | (1) | | (2) | | (3) | | (4) | | (5) | | (6) |
|  | Rate of Owner | | Coefficient of | | Standard | | Mortgage | | Mortgage | | Mortgage To |
|  | Occupancy | | Covariation | | Deviation of | | Adjustable Rate | | Interest Rate | | GDP Ratio |
|  |  | | Housing Starts (2) | | House Price | | Rate | | Spread | |  |
|  | Latest Available | |  | | Inflation | | Average | | Average (3) | | 2011 |
| **Western Europe** | | | | | | | | | | | |
| Austria | 57.4% | 7.2% | | 2.4% | | 4.69% | | 1.79% | | 27.8% | |
| Belgium | 78.0% | 14.5% | | 7.2% | | 5.47% | | 2.57% | | 47.2% | |
| Denmark | 53.5% | 55.4% | | 8.9% | | 5.68% | | 2.54% | | 100.9% | |
| Finland | 74.1% | 12.3% | | 3.5% | | 4.02% | | 1.09% | | 42.7% | |
| France | 57.8% | 15.2% | | 6.1% | | 4.77% | | 1.80% | | 42.4% | |
| Germany | 43.2% | 26.5% | | 1.6% | | 4.97% | | 2.05% | | 45.3% | |
| Ireland | 74.5% | 99.2% | | 13.9% | | 4.25% | | 1.15% | | 83.5% | |
| Italy | 80.0% | 25.7% | | 3.4% | | 4.65% | | 1.56% | | 22.9% | |
| Luxembourg | 68.1% | 16.6% | | 4.5% | | 3.92% | | 1.05% | | 47.3% | |
| Netherlands | 55.5% | 14.5% | | 6.6% | | 5.01% | | 2.06% | | 106.2% | |
| Norway | 85.0% | 24.0% | | 4.8% | | 5.98% | | 1.44% | | 68.6% | |
| Portugal | 74.9% | 40.5% | | 3.0% | | 4.42% | | 1.35% | | 66.6% | |
| Spain | 85.0% | 101.7% | | 18.3% | | 4.11% | | 1.08% | | 62.1% | |
| Sweden | 65.5% | 47.9% | | 3.4% | | 3.78% | | 0.91% | | 83.7% | |
| United Kingdom | 65.5% | 25.0% | | 6.6% | | 5.01% | | 0.93% | | 83.7% | |
|  | | | | | | | | | | | |
| **EU Average** | **67.9%** | **35.1%** | | **6.3%** | | **4.71%** | | **1.56%** | | **62.1%** | |
|  | | | | | | | | | | | |
| **US** | **66.1%** | **48.7%** | | **7.2%** | | **4.93%** | | **2.26%** | | **76.1%** | |
|  | | | | | | | | | | | |
| Notes: | | | | | | | | | | | |
| (1) Unless noted otherwise, the data are all from European Mortgage Federation (2011), an annual fact book | | | | | | | | | | | |
| that contains comprehensive mortgage and housing market data for the years 1998 to 2011 for 15 Western | | | | | | | | | | | |
| European countries and the United States. | | | | | | | | | | | |
|  | | | | | | | | | | | |
| (2) Computation based on housing starts where available; all other countries use housing permits. | | | | | | | | | | | |
|  | | | | | | | | | | | |
| (3) The mortgage interest rate spread equals the mortgage interest rate (column 4) relative to | | | | | | | | | | | |
| each country's 3‐month Treasury Bill rate; Source OECD Economic Outlook Database. | | | | | | | | | | | |

**References**

Adelino, Manuel, Kristopher Gerardi, and Paul Willen (2013), “Why Don’t Lenders Renegotiate More Home Mortgages?, Journal of Monetary Economics, Volume 60, Issue 7, pp 835-853.

Albul, Boris, Dwight Jaffee and Alexei Tchistyi, “Contingent Convertible Bonds and Capital Structure Decisions” (2013), available at: <http://faculty.haas.berkeley.edu/Tchistyi/CCB.pdf>

Ambrose, Brent and Richard Buttimer (2013), “The Adjustable Balance Mortgage,: Real Estate Economics, Volume 40, Issue 3, pp. 536-565.

Coles, Adrian and Judith Hardt, “Mortgage Markets: Why U.S. and EU Markets Are So Different,” Housing Studies 15, no. 5 (2000): 778.

Consumer Finance Protection Bureau (2013), “Ability to Repay and Qualified Mortgage Standards,” available at: <http://www.consumerfinance.gov/regulations/ability-to-repay-and-qualified-mortgage-standards-under-the-truth-in-lending-act-regulation-z/>

European Covered Bond Council, “ECBC Fact Book 2012,” available at: <http://ecbc.hypo.org/Content/Default.asp?PageID=501>

European Mortgage Federation (2007), “Study on the Efficiency of the Mortgage Collateral in the European Union,” May 2007, available at:

<http://62.102.106.72/docs/1/HLDKKAAACPIAGGGPGHGMHIDBPDBW9DBYWWTE4Q/EMF/Docs/DLS/2008-00118.pdf>

European Mortgage Federation (2011), “Study on Non-Performing Loans in the EU,” available at: <http://intranet.hypo.org/docs/1/HHMJJJKABODHMLDJOCDOKHEGPDWY9DBYAYTE4Q/EMF/Docs/DLS/2011-00132.pdf>

Federal Reserve Board of Governors, “Highlights of the Final Rule Amending Home Mortgage Provisions of Regulation Z (Truth in Lending),” news release, July 14, 2008, <http://www.federalreserve.gov/newsevents/press/bcreg/regz20080714.htm>

Fishback, Price, Jonathan Rose, and Kenneth Snowden (2013), Well Worth Saving: How the New Deal Safeguarded Home Ownership, National Bureau of Economic Research and the University of Chicago Press.

Jaffee, Dwight and Thomas Russell (2006), “Should Government Provide Catastrophe Insurance?” The Economists’ Voice, 3, no. 5 (2006): article 6, available at <http://www.bepress.com/ev/vol3/iss5/art6>

Kousky, Carolyn and Erwann Michel-Kerjan (2012), “Hurricane Sandy, Storm Surge, and the National Flood Insurance Program, Issue Brief 12-08, Resources for the Future.

Manso, Gustavo, Bruno Strulovici, and Alexei Tchistyi (2010), “Performance-Sensitive Debt, Review of Financial Studies, 2010, Vol. 23 (5).

Ranieri, Lewis, Ken Rosen, Andrea Lepcio, Buck Collins, Veronica Krivkovich, and Melinda McLaughlin (2012), “Options for REO: The Private Sector to the Foreclosure Problem, available at: <http://www.ranieripartners.com/latest-news/ranieri-and-rosen-publish-reo-white-paper>

Remy, Mitchell, Deborah Lucas, and Damien Moore. 2011. “An Evaluation of Large- Scale Mortgage Refinancing Programs.” Congressional Budget Office Working Paper. Available at <http://www.cbo.gov/publication/42752>

Schwartz, Nelson (2012), “Bank of America Tests Rental Program as Alternative to Foreclosure,” New York Times, March 22, 2012, available at:

<http://dealbook.nytimes.com/2012/03/22/bank-of-america-tests-rental-program-as-alternative-to-foreclosure/?_r=0>

U.S. Government Accountability Office (2011), “Actions Needed by Treasury to Address Challenges in Implementing Home Affordable Programs,” GAO-11-338T, available at: <http://www.gao.gov/assets/130/125597.pdf>

U.S. Treasury (2011), “Reforming America’s Housing Finance Market”, available at

<http://www.treasury.gov/initiatives/Documents/Reforming%20America%27s%20Housing%20Finance%20Market.pdf>

1. See, for example, U.S. Government Accountability Office (2011) and Adelino, Gerardi, and Willen (2013). [↑](#footnote-ref-1)
2. The European Mortgage Federation is an excellent source of reports on European mortgage markets. Regarding European mortgage defaults and foreclosures, see, in particular, European Mortgage Federation (2007, 2011). [↑](#footnote-ref-2)
3. In fact, most covered bonds require the bank to replace any failing loans with new current loans. See European Covered Bond Council (2012) for data and descriptions regarding European covered bonds. [↑](#footnote-ref-3)
4. See also Manso, Strulovici, and Tchistyi (2010) for a more general analysis of debt contracts on which the payments to the lenders depend on the performance of the borrower’s assets.  
    [↑](#footnote-ref-4)
5. It may seem equitable for the lender to receive the benefit as an offset to the loss created by the initial house price decline. However, this would create an incentive for the borrower to sell the home, then buy a new, comparable, home on which she retains any upside appreciation. [↑](#footnote-ref-5)
6. This benefit is comparable to the savings in bank failure costs that may be achieved by contingent convertible bonds; see, for example, Albul, Jaffee, and Tchistyi (2013).  
    [↑](#footnote-ref-6)
7. One explanation for the limited government role in European mortgage markets is that entities such as Fannie Mae and Freddie Mac are prohibited by European Union rules against market subsidies; see Coles and Hardt (2000). [↑](#footnote-ref-7)
8. The legislation is the “Housing Finance Reform and Taxpayer Protection Act”, S. 1217.  
    [↑](#footnote-ref-8)
9. See European Covered Bond Council (2012). [↑](#footnote-ref-9)
10. The FDIC concern is that, for a failed bank, the covered bond holders would receive the underlying mortgages, leaving the FDIC with fewer assets with which to pay off depositors. An alternative view, however, is that the bank acquired the mortgages only in tandem with the covered bonds, and thus the shortfall facing the FDIC would be independent of the degree of a bank’s covered bond funding. [↑](#footnote-ref-10)