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U.S. Senate

Committee on Banking, Housing, and Urban Affairs

Subcommittee on Housing, Transportation and Community Development

Hearings on Ending Mortgage Abuse: Safeguarding Homebuyers

June 26, 2007

Mr. Chairman and members of the Subcommittee, thank you for this opportunity to discuss what economic research has been able to determine about the role and function of the market for subprime mortgage credit, including recent experience with high default and foreclosure rates. I have done research on high-risk lending for over 25 years, beginning with my work as for the Federal Trade Commission as an external consulting evaluating the economic effects of the Credit Practices Rule. More recently, I co-edited the papers for two special issues of the *Journal of Real Estate Finance and Economics* on the topic of subprime lending and I am currently supervising an active research project regarding default and prepayment on subprime loans. We know quite a bit about subprime mortgage lending. I understand that you are particularly interested in proposed amendments to the Truth in Lending Act section 129 A, or S.1299, the Borrower's Protection Act of 2007. I will consider that specific proposals in the third section of my remarks. I will begin with some observations on what we know about subprime mortgage lending that bear on the consideration of S. 1299 and then give my perspective on the role of an economist in informing this debate. After I discuss the legislative proposal in detail in the third section, I will conclude with suggestions for an alternative approach. I previously testified before the U.S. House of Representatives Committee on Financial Services on March 30, 2004 on subprime lending and believe that the observations made at that time are still relevant today but will not repeat them.

Background On Subprime Mortgages Relevant to S. 1299

Current academic literature provides a good understanding of subprime lending

There is an extensive literature in academic journals of economics and housing finance that provides a good understanding of the functioning of mortgage markets in general and subprime lending in particular. This literature provides valuable insights that should inform attempts to regulate these markets. Some points from the current literature are noted below – this is but a small sample of the potential benefits of consulting the literature before acting.

One standard finding in the literature is that there is no financial free lunch. In the context of the current regulatory discussion, this means that imposition of additional regulations on mortgage credit markets will raise the price of credit, raise underwriting criteria, or both as it results in a restriction in the supply of credit.

Reasons for the measured rise in subprime lending

The reported increase in subprime lending over the past decade is partly the statistical artifact of the way in which subprime lending is measured but also it is the result of deliberate government policy, designed to increase mortgage credit availability to "underserved" borrowers and/or underserved areas.

Subprime lending is generally measured using the Home Mortgage Disclosure Act (HMDA) and, for a variety of reasons, the fraction of all subprime mortgages reported under HMDA has increased over time. Furthermore, the flattening of the yield curve tends to increase the number of mortgages classified as subprime under HMDA. Accordingly, year-to-year changes in the reported number of subprime mortgages should not be taken as an accurate measure of the actual change in subprime mortgages.

An important factor in the growth of subprime lending over the past decade has been pressure from both the legislative and executive branches of government, particularly bank regulators, on the need to increase mortgage lending to what has been termed "underserved" borrowers and neighborhoods. Over this period of time, lenders anxious to please regulators and achieve excellent CRA ratings have developed specialized products to accommodate applicants who would have been regulated in the past. Thus, at some point, the government itself must take credit for the current volume of subprime lending. To the extent that the problem is now that some borrowers and neighborhoods are "overserved", perhaps the answer is to be honest about the reasons for the problem and to try less regulation rather than more regulation.

What is different about subprime mortgage credit?

Based on the Financial Services Research Program Dataset, there are three distinguishing characteristics of subprime mortgage credit: higher interest rate (based on measured APR or annual rate), high percentage of cash-out refinancing, and the low credit score of the borrower.[1] Specifically for the 2001 cohort of fixed rate loans, average APR was 12.36%, 57% were cash-out refinancings,

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[1] The Financial Services Research Program at George Washington University data are from a subprime mortgage database, which the Federal Reserve estimated to account for nearly a quarter of originations of higher priced home purchase and refinance mortgages on owner-occupied homes in 2004 (see Robert B., Glenn B. Canner, and Robert E. Cook. "New Information from HMDA and Some Implications for Fair-Lending Enforcement." *Federal Reserve Bulletin*, 91 (Summer 2005): 344-94). The database contains loan-level data on all originations of subprime subsidiaries of eight large financial institutions between third quarter 1995 and third quarter of 2004. My subsequent comments on results from the FSRP database will be based on statistical analysis conducted by Jevgenijs Steinbuks currently a Ph.D. candidate in economics at George Washington University and visiting assistant professor of economics at Ohio University.

and mean FICO score was 595. Average loan to value ratio was 86%, payment to income ratio 27%, 57% were cash-out refinance loans, 18% were broker initiated, and 40% has prepayment penalties. It follows that much of the demand for subprime loans arises from the desire of households to reduce their home equity and the inability to accomplish that goal in the primary mortgage market – I have termed this the "home equity trap" and discussed it at length in my previous testimony. Accordingly subprime mortgage credit should be viewed as a blend of consumer credit (given its use for debt consolidation and durables finance) and home finance.

The current high default and foreclosure rates are NOT a surprise

Anyone familiar with the literature on the determinants of credit risk in mortgage lending could have forecast the high default and foreclosure rates on subprime mortgages. My long-standing position has been that "underserved" borrowers and markets were high credit risk and thus represented lending that was not economically viable at prime interest rates. The primary reason for this prediction is the low credit scored associated with these loans, note the 595 mean FICO score in the FSRP data. The Department of Housing and Urban Development commissioned a number of studies to monitor the high default and foreclosure rates on loans deemed subprime by its definition. These results were discussed in some detail in a conference paper from 2001.[2] The recent rise in default and foreclosure rates is also not a surprise because when house prices stop rising, lenders are no longer able to refinance borrowers out of default (see discussion below).

There is no credible evidence that elevated foreclosure rates are due to product type

While it is quite common to attribute currently high default and foreclosure rates to subprime products like the option ARM, there is no credible evidence that these products have caused higher default and foreclosure rates. The fact that and assertion of truth is repeated by many individuals does

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[2] See, Harold Bunce, Debbie Gruenstein, Christopher E. Hebert, and Randall M. Schelesse, "Subprime Foreclosures: The Smoking Gun of Predatory Lending," Proceedings of a HUD Conference

not verify it as truth or substitute for formal statistical analysis. In this case, the problem may be a common confusion due to sample selection bias. We all know that some of the finest hospitals in the country have the highest patient fatality rates. This does not mean that the hospitals cause the death rate to be higher – rather this is a sample selection effect in which the most complex and least treatable cases are sent to the finest hospitals. Similarly, comparison of loss rates on mortgage products says nothing about the effect of product on expected future losses because the product is chosen by the borrower. To the extent that borrowers with the most fragile finances tend to choose the option ARM, default rates are higher due to sample selection rather than to the product itself. Eliminate a product with high loss rates and the fragile borrowers will choose another project which will then be incorrectly cited as a cause of default and the process repeats itself.

Sorting out the effect of product type on default, foreclosure, and prepayment is extremely complex statistically. Thus far our efforts with the FSRP database using joint hazard estimators with time varying coefficients and endogenous heterogeneity indicate that product type is not an important determinant of differences in default and foreclosure. While this may be counterintuitive for some, I can only state that economics is full of counterintuitive results which make it interesting to economists and important for those concerned with market performance.

Recent evidence indicates that borrowers are using hybrid (2/28) ARMs cleverly

An excellent recent paper by Pennington-Cross and Ho estimates a model of prepayment and default for hybrid arms and fixed rate subprime loans.[3] They examine differences in the pattern of prepayment and default over time for the hybrids that adjust and produce a "payment shock" after two years versus the fixed rate loans with no shock. Again the statistical inference is complex and requires joint estimation of prepayment and default. The results are that the payment shock after two years

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on Housing Policy in the New Millennium (2001).

3 Anthony Pennington-Cross and Giang Ho, "The Termination of Subprime Hybrid and Fixed Rate Mortgages," (2007).

produces a spike in prepayment of the hybrid arms but not a spike in defaults. This indicates that borrowers are well aware of the provisions of their mortgages and exploit the lower rates on the hybrid arms by refinancing when they reprice. Note that this formal statistical evidence is in sharp contrast to assertions that borrowers will be caught unaware by payment shock and massive foreclosures will result from use of this loan product.

It appears that, on average, subprime mortgage prices have been too low, not too high

Given the lack of profitability of subprime lenders, it appears that, on average, mortgages have been priced too low rather than too high given the level of credit risk. This does not mean that there were not cases in which prices were too high, simply that these cases were apparently more than matched by transactions on which price was below average cost. This is consistent with evidence from high-risk automobile lending where profitability of firms appears to be lower for those in the highest risk and highest price segment of the market. One reason for the low returns to subprime lenders may be the pressure of regulators to expand high risk lending.

When housing prices are rising, lenders may refinance borrowers out of default

The subprime mortgage is an alternative to higher-cost consumer credit or sale of the family home for households needing temporary financing who have poor credit histories. Many households use subprime mortgages in this fashion and prepay them in the first 24 months. For households whose financial problems persist and who would ordinarily default on their mortgage, rising house prices generate additional equity that allows the lender to refinance them out of default. This process can continue until households either cure their financial problems or sell the housing unit. However, if house prices are flat or falling, lenders are restricted in their ability to refinance households out of default and forced sale, deed in lieu of foreclosure, or foreclosure are likely to result. If house prices are rising very troubled borrowers can continue to refinance and remain owners while periods of flat or falling house prices trigger a spike in default and foreclosure.

Current delinquency, default, and foreclosure rates on subprime mortgages are misleading

Because lenders can refinance borrowers out of default the current rates of delinquency, default and foreclosure on subprime mortgages are misleading. A subprime mortgage currently in foreclosure may the cumulative result of a series of mortgage lending decisions that were earlier classified as "successful" prepayments and new subprime loans. Just as rejection rates can be deceptive because a single borrower may apply for many mortgages, the ratio of troubled subprime mortgages to total subprime mortgages in force does not reflect the average experience of subprime borrowers.

In general, when house prices are rising and troubled borrowers can be refinanced out of default, the current rate of foreclosure will tend to understate the proportion of distressed borrowers. Alternatively periods of flat or falling house prices will tend to overstate the proportion of distressed borrowers because those who were refinanced out of default in the past will now face termination.

Another problem arises because the duration of successful subprime mortgages tends to be much shorter than that of troubled mortgages. Accordingly troubled mortgages are over represented in the population of subprime mortgages in force at any time. This is analogous to the problem of hospital evaluation raised by the fact that seriously ill patients stay longer. Thus the proportion of seriously ill patients in a hospital population at any time overstates the average illness of patients admitted to the hospital.

The issue of "negative amortization" is often misunderstood

There appears to be a general prejudice against mortgage instruments that offer negative amortization (except for the reverse annuity mortgage where negative amortization is encouraged by federal policy). First, it is important to note that, in the first ten years of a 30-year note, the vast majority of amortization of the loan is due to inflation. Required amortization is negligible. The borrower "pays" this amortization in the form of the inflation premium in the mortgage interest rate (thus approximately half of the current 6% mortgage interest rate is amortization of the real mortgage balance by inflation.) A borrower choosing a mortgage instrument that provides for 2% negative amortization, is still paying down the real mortgage balance. Clearly it is optimal for some borrowers to amortize at a rate lower than the expected inflation rate and for these households, a negative amortization rate is appropriate.

Currently academic economists are puzzled by the overinvestment of U.S. households in home equity. Our reliance on the standard fixed rate self-amortizing mortgage along with the current inflation rate and appreciation in real house prices has led to a situation in which U.S. households appear to hold too much housing equity and too few of other risk assets.

General Observation on the Role of Economic Analysis

Solution to problems can often create bigger problems

There is no doubt that market outcomes are not always favorable for all participants. In financial markets, there are clearly vulnerable individuals who can easily be convinced to endorse contracts that are not in their self interest and public policy has taken steps to limit the possibility for such bad choices. Truth In Lending and Regulation Z created the APR to allow borrowers to shop for credit more easily and recently the Board of Governors has been reconsidering disclosure. Various creditor remedies have been banned – I was the Federal Trade Commission expert on the trade regulation rule concerning creditors' remedies. Such interventions should only be taken after careful benefit/cost analysis.

In the case of subprime lending, there are issues arising due to vulnerable borrowers. However, in considering regulations, it is important to recognize that the vast majority of borrowers have used subprime credit successfully and regulations that would deny them access to mortgage credit could force them to use higher cost sources, including grey market lenders, or generate a forced sale of their home in order to meet urgent expenditure needs. Careful benefit/cost analysis should precede regulatory initiatives to make sure that benefits exceed costs of regulation. Economists are particularly adept at identifying unintended consequences of regulation in the form of hidden costs that should be considered in the legislative process.

In the final section of my remarks, I will make a tentative suggestion for a federal government initiative. This change might have a benefit cost ratio greater than unity but it needs substantial elaboration and should be subject to a careful and independent analysis.

Specific Comments on S. 1299

Mortgage applicants should not treat loan officers as financial advisors

The legislative proposal appears to confuse the duties, capabilities, and obligations of loan officers with those of financial advisors. It asserts that the loan officer has a "fiduciary relationship" with the applicant and should be subject to the requirements for fiduciaries otherwise applicable under State or Federal Law.

The relation between mortgage applicants and loan officers, employees who take mortgage applications, is not analogous to the relation between investors and financial advisors and applicants should not treat loan officers as financial advisors. There are three major reasons for this position. First, employees who take mortgage applications are not financial advisors and do not assess the creditworthiness of the applicant. Creditworthiness is evaluated by underwriters who view the entire loan file and assess the financial condition of the applicant in relation to the proposed loan to determine the ability to repay the mortgage or by an automated underwriting system designed to perform the underwriting function. ***Fair lending is based, in part, on this separation of function in which the underwriter does not meet or directly become aware of the personal characteristics of the applicant.*** Second, applicants should not be encouraged to reveal their financial condition to loan officers, beyond information needed for underwriting purposes. If an applicant knows that future income is uncertain or that expenses may rise, that information should not be revealed to the loan officer. We do not want to encourage applicants to reveal information that could lead to rejection of their application. Similarly, applicants should not be encouraged to reveal their prepayment plans, etc. Third, major lenders often have hundreds of loan products, many introduced in connection with regulatory fair lending objectives. Loan officers are generally aware of a very small fraction of these loan types and are in no position to determine which product is optimal for a given applicant. [4]

The loan officer has an incentive to direct the applicant toward loan products for which the applicant is qualified because rejection by the underwriter results in a loss to the lender that is often shared by the loan officer.[5]

Underwriters currently verify the reasonable ability of borrowers to repay loans except when distressed borrowers are refinanced out of default in connection with a workout

The legislative proposal seems to ignore the role of the underwriting process. My understanding is that all lenders have an underwriting process that is designed to insure the reasonable expectation of repayment. One exception may be cases in which borrowers are refinanced out of default. In this case, the prepayment of the old note and endorsement of a new loan should not be viewed as a new mortgage transaction but rather as part of a workout.

To the extent that this provision was interpreted by lenders as not allowing them to offer workouts to distressed borrowers, it reduces the options of such borrowers and has the potential to cause significant harm by forcing them into foreclosure.

The focus on payment to income ratios as a cause of credit risk is misplaced

As noted above, the average monthly payment to income ratio in the FSRP database of subprime loans is not high, 0.27. Furthermore in estimates of default models, the monthly payment to

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[4] My experience in advising some large lenders is that no one in the company is familiar with all of the loan products.

[5] Many loan officers are compensated based on the number of loans endorsed.

income ratio is often not significant as a "cause" of default. This is not unique to the FSRP data. Other econometric models of default and prepayment risk on higher risk loans estimated using modern statistical techniques often find that payment to income or debt to income ratios are non-significant.[6]

In addition to the statistical evidence that payment to income ratios are not major determinants of credit risk in subprime lending, there are obvious examples of situations in which current income has little to do with loan repayment – i.e. cases in which future income is likely to be much higher than current income, where borrowers have significant wealth, or where there is a cosigner. The classic case is the medical resident or individuals who return to school seeking advanced degrees.

Taken as a whole, the attempt of S. 1299 to regulate payment to income ratios and restrict the information used to compute such ratios is misplaced and could impose significant costs on many qualified borrowers.

Extension of joint liability for representations by mortgage brokers could impose large costs

The extension of liability for acts, omissions, and representations made by a mortgage broker to a lender purchasing a mortgage could literally shut down local mortgage markets. A similar experiment was performed about four years ago in Georgia with very costly results. The problem is that, given the narrow margins and particularly the lack of profitability in the subprime market, imposition of significant additional cost would likely result and a refusal to lend at all. It is important to consider the costs associated with additional regulatory burdens that require lenders to monitor the behavior of others.

The term "reasonably advantageous" is not defined and could impose high costs

There are three distinct ways that the requirement that loan officers recommend to a consumer a reasonably advantageous home loan could impose significant costs that would substantially curtail the extension of mortgage credit. First, a requirement that recommendations conform to an undefined

[6] See, for example, Table III in Yongheng Deng and Stuart Gabriel, "Modeling the Performance of FHA-Insured Loans: Borrower Heterogeneity and the Exercise of Mortgage Default and Prepayment Options," Report to HUD, PD&R, (May, 2002).

criterion is an open invitation to litigation costs. Second, assuming that some definition of reasonable advantageous could be devised, lenders would have to hire, instruct and monitor loan officers capable of providing such financial services to applicants. Given the lack of returns in subprime lending currently and the generally thin margins, this would require a contraction of lending and/or an increase in price. Third, responsible application of the provision would subject the lender to fair lending litigation. Consider the case an applicant could meet underwriting criteria for a loan product and the loan officer either insisted that product was not reasonably advantageous while another product was advantageous. Applicants could easily regard this as a refusal to lend and the, particularly if the more advantageous product was more profitable to the lender, fair lending litigation could result. The suggestion that a loan officer refuse to forward an application for a particular product and suggest that the borrower apply for a different product at an alternative lender could also result in litigation.

This provision also has the standard problem that, for current borrowers being refinanced out of default, an entirely different standard for evaluating the mortgage transaction would apply.

Finally note the point made above in connection with fiduciary responsibility applies here also. Identification of a reasonably advantageous mortgage would require loan officers to seek information that applicants should not be obligated to divulge. Indeed, to suggest that loan officers collect such information would be a disservice to applicants.

Regulation of appraisers is best done at the state level

It is not clear why regulation of professionals who are licensed to appraise housing in local markets should not be conducted at the state and local level.

The effects of the proposal on the U.S. housing market could be very negative

By increasing the costs of mortgage lenders without producing compensating benefits, the legislative proposal would cause further contraction in the willingness to extend mortgage credit generally, and particularly subprime lending. This would tend to depress housing prices and further the default and delinquency problems caused by negative equity.[7]

Problems in mortgage credit markets are often "self correcting" and do not require regulation

When a new product market develops or an existing market expands rapidly, product innovation follows a Smithian process.[8] Many new techniques and variations on products are tried. Some succeed and others fail. Over time, the "invisible hand of the market" rewards ideas that have high benefit/cost ratios prevail over those with low ratios. This has clearly happened in subprime lending where new products, pricing techniques, and underwriting criteria have been developed to meet demands of the public. Some approaches have failed. For example, it appears that some underwriting that relied on stated income was subject to fraud.

There are forces in the market place that will correct these problems. Indeed, I understand based on informal evidence that the correction is underway.

My overall opinion of S. 1299 is that it should not become law. This is NOT the time to add regulations that would contract the supply of mortgage credit, collapse housing prices, and exacerbate the current problems in the U.S. housing market.

An Alternative Suggestion

Expand the role of the FHA

Concern over vulnerable households who are likely to make bad decisions regarding the purchase and financing of owner occupied housing is not new. Indeed it was the underlying reason for

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7 The empirical evidence indicates that negative equity (the put option) is very important in increasing default probabilities.

8 This is commonly called a "Darwinian" process but the process of natural selection was first identified by Adam Smith in *The Wealth of Nations*, over 75 years before it was applied to biological populations by Charles Darwin based on his prior reading of Smith.

the operating model behind the FHA. Recall that FHA mortgage insurance had substantial property inspection requirements, mortgage interest limits and other provisions designed to reduce the possibility that households would make bad decisions when they purchased and financed housing. I have long recommended that FHA be revitalized and that it be made a more effective competitor with conventional lenders. Instead, regulatory pressure on Fannie Mae and Freddie Mac forced them to compete with FHA (once again government policy has operated in the wrong direction).

In addition to its role in home purchase, FHA could be given an expanded role in refinancing within the subprime market (FHA already has streamlined refinancing of FHA mortgages).

Design of a specific set of FHA programs would require careful benefit/cost analysis but my major point is that we do not need something new because the issue of vulnerable homebuyers and homeowners is not new and we have a program that, for many years, successfully addressed the problem. This is not a new position for me.[9]

Thank you again for allowing me the opportunity to present these thoughts.

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[9] See the discussion in Anthony Pennington-Cross and Anthony M. Yezer, "The Federal Housing Administration in the New Millennium," *Journal of Housing Research*, Vol 11, No. 2 (Spring, 2001), pp. 357-372.