Responses to Questions from Committee Members with Regard to Dec. 5, 2007 Hearing on "The Looming Foreclosure Crisis: How to Help Families Save Their Homes"

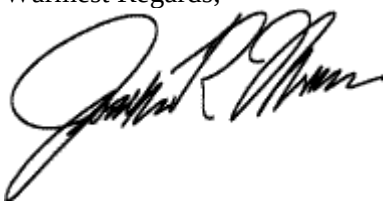
JOSEPH R. MASON†

The Office of the Honorable Patrick J. Leahy
United States Senate Judiciary Committee
224 Dirksen Senate Office Building
Washington, DC 20510a
Att'n: Mr. Justin Pentenrieder, Hearing Clerk

Dear Chairman Leahy, Ranking Member Specter, and Members of the Committee:

Thank you for your interest in my testimony and the follow-up questions. Enclosed are my replies, which often delve into subject matter in much more depth than was possible in the oral testimony. Like others, I did not receive the December 13 letter until December 21 and by then was travelling with family during the holiday season. These answers are my best effort to provide as much information as I can, given the short period of time allotted. Hence, I invite you to write or call if I can be of further assistance in clarifying my original testimony or these written responses.

Warmest Regards,



Dr. Joseph R. Mason

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General Question: Do you believe that assigning a pre-securitization rating based upon borrower information AND lender performance to mortgages would help to decrease the future likelihood and the type of meltdown we've experienced in the subprime market?

I interpret this question as relating primarily to secondary market problems, not the bankruptcy bill, per se. As such, that "pre-securitization rating" was supposed to have been issued on the pool of mortgages on the basis of borrower information and lender performance by the Nationally Recognized Statistical Rating Organizations, or NRSROs such as Moody's, S&P, and Fitch. Obviously, those organizations failed to perform their duties. Yes, had they properly undertaken their duties, the present crisis would be much less severe if not avoided altogether.

Both the House and the Senate conducted hearings into those issues through the summer and fall. It should now be clear that ratings agencies had appropriate information yet failed to take into account new loan and borrower types in the process of rating securitizations (such was admitted by Moody's over the summer when they reported how they planned to include such information going forward). Nonetheless, Congress has sought to make no changes to the industry as a result of those hearings.

More generally, without some liability stake for ratings accuracy (similar to, say, that of auditors in the accounting profession), ratings agencies have little incentive *not* to ignore relevant information in the next market boom and repeat the mistakes, albeit in different product areas. Recent market events should hammer home the message: when ratings are the key to regulatory and statutory investment limits, ratings have value far beyond a mere editorial opinion. (For more detail, see the attached Financial Times op-ed co-authored with Charles Calomiris.)

Questions from Senator Jeff Sessions: You concluded your written testimony by stating that bifurcation of mortgage contracts – what S. 2136 would permit – will encourage the "cashing out of home equity." It is assumed that by this you are referring to the fact that people will put all of their extra cash into a mortgage, which is tax exempt, rather than into other savings streams.

Let me clarify first my assertion in my written testimony. In my opinion, the most difficult aspect of addressing borrower troubles and formulating mortgage reform for this Congress stems from the fact that mortgages have been used for much more than just purchasing homes, whether they be primary residences or vacation homes (which is, itself, a problematic distinction). The problem is that the practice of cashing out home equity through cash-out refinancing has led many individuals to use the home equity built up through making their monthly payments and through home price appreciation for consumption purposes.

Such behavior leads borrowers to *maximize* the ratio of their mortgage *borrowing* to the value of the home, leaving them with higher mortgage payments and little equity cushion to help them weather temporary declines in home prices. (Note: No one ever believed that house prices could not decline regionally, and that certainly happened in the 1980s. Investors in mortgage-backed securities did believe, however, that it was highly unlikely that house prices would decline nationally, which (arguably) has not happened since the Great Depression.) Ask most borrowers why they choose to borrow via home equity rather than taking out an automobile loan, a student loan, or increasing

their balance on their credit card and the response is, invariably, the mortgage interest tax credit and lower interest rates on mortgages compared to those other forms of borrowing. The ability to bifurcate a debt contract in bankruptcy proceedings creates *further advantage* to the consumer of borrowing via mortgages, which will *further incentivize* the practice of cashing out home equity for purposes other than purchasing or improving a home.

I hope that clarifies my initial assertion. That said, I am confused by the wording of the introduction of the question, which reads, "…people will put all of their extra cash into a mortgage, which is tax exempt, rather than into other savings streams." *A mortgage is not a savings stream*: a mortgage is debt. The tax advantage on the interest on the debt creates an incentive to keep the debt principal high rather than paying that debt down over time. *The savings stream that arises from a mortgage contract is the equity built up in the home as the debt is paid down over time*.

Further confounding the problem of addressing the crisis for individuals that truly sought to purchase a home, i.e., build up the equity in a home so that the mortgage debt would eventually be extinguished, is that a substantial number of individuals used low-payment teaser contracts (which are not low-interest rate loans, per se) where the borrower makes a payment and does not build equity in the home as a substitute for rental contracts during recent years. Hence, even with the temporary disruption of moving, those borrowers are better off than they would have been had they rented over the last decade. (See accompanying essay co-authored with Charles Calomiris in the appendix.)

As I mentioned earlier in this response, sorting out those who truly sought to establish residency in a community and own a home by paying down a loan over time from those that (i) used real estate debt and rapid home price appreciation in a speculative manner for consumption purposes as well as (ii) those who merely sought to replace rental contracts with a similarly expedient legal arrangement that made sense in certain market and regulatory conditions is the biggest economic and political hurdle facing legislators in crafting mortgage relief and reform.

Questions from Senator Jeff Sessions (cont'd): If this is a correct assessment of your statement, it seems that we could also expect to see a decrease in personal or retirement savings as an unintended consequence of this legislation.

(a) Is it correct to expect this unintended consequence?

(b) What will be the long term effect, in your mind, of such an unintended consequence?

Yes, we can expect to see a further decrease in personal or retirement savings as a result of such reluctance to build equity in our homes.

About thirty-five years ago my Grandparents had a "mortgage-burning" party, not uncommon at the time. They made their thirty years of level mortgage payments and owned their home, outright. My Grandfather retired from the steel mills of Gary, IN, on a fixed pension and Social Security and lived out his years in that house. My Grandmother is in an assisted living facility and the home, her largest retirement asset, pays for her care.

People do not live like my Grandparents any more. People usually do not live in one place for thirty years, as labor markets are more mobile today than they were in my Grandparents' time (which is a good thing, from an economic

perspective). Along the way, people became comfortable with buying a more expensive house when they moved, accounting for both inflation and wage growth. In a way, this seemed like they were not building home equity since their mortgage nominally increased. But as long as they used the cash from the sale of the old home as a down payment for the new home they were building equity in the transactions. The idea at work was that they could downsize later on as they approached retirement by selling the larger home and moving into a smaller one. They were, therefore, engaging in a form of personally-imposed forced savings, just as with any retirement or long-term savings account.

The ability to cash out home equity provided liquidity to this strategy. If people wanted just a little of that home equity they would not have to sell the home and move right away. Reverse mortgage arrangements are also being developed that have the potential to add further efficiency to those arrangements.

The key investment rule-of-thumb at work here is that one should never consume one's endowment, or equity capital. Problems arise, therefore, when home equity loans and cash-out refinancings are used for immediate consumption *outside a long-term savings plan*, and that is precisely what has happened recently. Without the long-term buildup and later liquidation of home equity across an individual's lifetime, that individual is forgoing the benefits of what has heretofore been an individual's largest retirement asset: the equity they build by *paying down* their mortgage debt.

Now, as an economist I advocate choice in one's own financial arrangements. It may be appropriate for some individuals to cash out home equity when they are young, for instance, to invest in a business or other endeavor. Hence, restricting the ability to do so would constrain economic growth. Nonetheless, economic growth will also be constrained by individuals continuing to cash out home equity merely for immediate consumption *outside a long-term savings plan*, which sets the stage for others to bear the costs of those individuals' retirement and long-term care expenditures. Greater reliance on backstop retirement programs like Social Security and Medicare as individuals willingly spend down their assets will exacerbate the impending Social Security crisis.

Questions from Senator Jeff Sessions (cont'd): Industry associations have noted that S. 2136 and S. 2133, which both allow for the modification of a mortgage loan during bankruptcy under different circumstances, will introduce new risks into the loan process that will create new, unpredictable, results. Increased risk means increased mortgage cost for future borrowers and adjustable rate borrowers that want to refinance.

(a) In your view, if Congress changes the bankruptcy code to allow the terms of a mortgage to be modified in a Chapter 13 bankruptcy proceeding, will there be a negative effect on future borrowers looking to obtain a new mortgage and on adjustable rate borrowers that want to refinance at a lower fixed rate?

Allowing bankruptcy courts to unilaterally change the terms of a mortgage to those less favorable to the lender will impose unexpected and un-forecastable costs upon lenders and therefore raise the cost of providing funds to borrowers that can qualify for such treatment.

Questions from Senator Jeff Sessions (cont'd): (b) Would the end result of allowing bankruptcy judges to bifurcate mortgages be an increase in interest rates for future borrowers? If so, please explain why?

The cost of providing fund to borrowers consists of much more than the interest rate on the loan. Hence, this is an area that requires much more detailed discussion than previously accorded in the hearing or the initial written testimony. The increased cost of providing credit to affected consumers can result in a variety of outcomes, none of which are favorable to the consumer. Lenders may respond by increasing interest rates or collateral levels (that is, requiring higher down payments) or they may just choose instead to ration credit, that is, avoid lending to borrowers that may qualify under S. 2133 or S. 2136, as enacted. While it is not clear which combination of responses will occur, *a priori*, from an financial economic perspective it would be foolish to expect the effect to be benign.

According to Freixas and Rochet (The Microeconomics of Banking, MIT Press, 1999), credit rationing can appear as soon as the expected return on a bank loan (for a given category of borrowers) is no longer a smooth rising function of the nominal interest rate on the loan, as represented in Figure 1.

The bank facing the return schedule in Figure 1 will never offer an interest rate above R^*. This explains why a competitive bank may prefer to ration (not lend to) credit applicants.

Analyzing the entire banking sector requires taking into account the aggregate supply and aggregate demand for credit. The aggregate demand is straightforward, in that more credit is demanded at lower interest rates. The aggregate supply conditions, however, depend on the behavior of bank investors, i.e., primarily depositors (although, it must now be recognized the investors in securitizations fund about $9t of the consumer loan market today, compared to only $6t of aggregate bank deposits). Assuming that investors know the relationship between the quoted interest rate R and banks' rate of return ρ, a supply of funds increasing in the rate of return will determine a supply of loans on behalf of banks that is backward bending, like the expected revenue curve in Figure 1.

Figure 1: Expected Return for the Bank as a Function of the Nominal Rate of the Loan

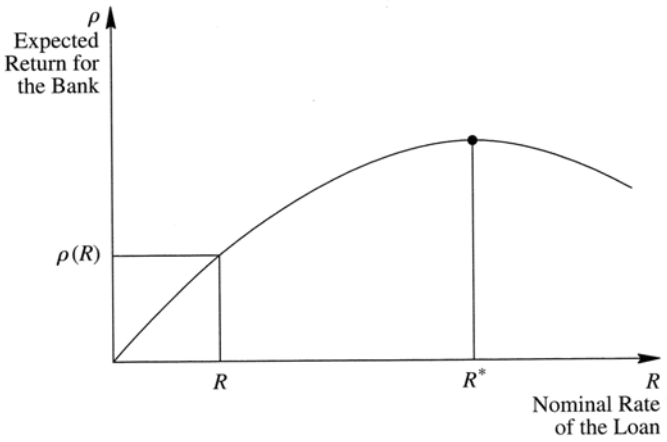

Figure 2: Equilibrium Credit Rationing

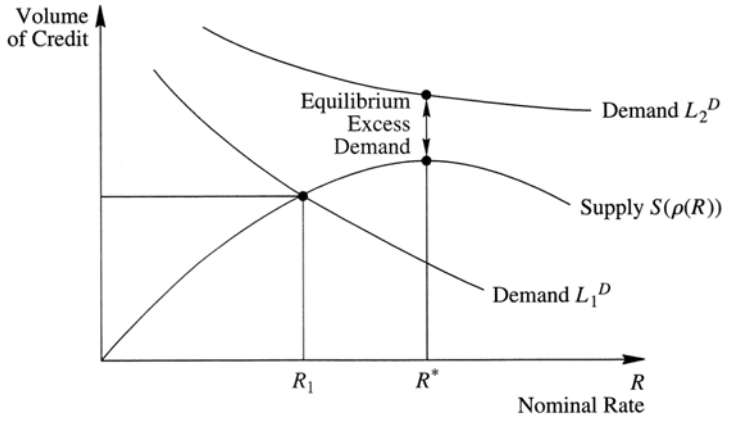

Figure 2 shows how credit rationing occurs. If the demand schedule is L_1^D, a competitive equilibrium exists characterized by equilibrium of supply and demand at nominal rate R_1. If, instead, the demand schedule is L_2^D, supply and demand do not intersect. Hence, the equilibrium rate of interest is R^* and borrowers would wish to borrow at rates above R^* (in particular, needier or subprime borrowers) will be excluded from the market.

Hence, while it is unclear exactly how lenders will react, economic theory suggests that lenders will, indeed, respond to the increased risks of lending to qualified borrowers under S. 2133 or S. 2136 in an economically rational manner. In particular, it should be acknowledged that collateral is a classic mechanism for distinguishing among which borrowers to ration. In general, banks prefer contracts with higher collateral and interest rates. (See Freixas and Rochet pp. 144-148 for a full discussion.)

The point is that S. 2133 or S. 2136 will lower expected collateral values to various extents due to the possibility of cram-down, creating the need for either higher interest rates, higher collateral levels (i.e., higher required down payments), and/or rationing, all of which increase the cost of credit to the consumer.

Questions from Senator Jeff Sessions (cont'd): (c) In your view, which proposal – S. 2133 or S. 2136 – will create the most negative effects? Which provisions of each bill create the most risk?

In light of the above, the bill that will create the least disruption to credit markets is that which limits relief to the narrowest sector of borrowers. Income limits and sunset provisions can limit the negative impact of the bills. Expanding the effect through judicial determination of the terms of the modification and abrogating other terms of the contract serve to increase credit market disruption.

Questions from Senator Richard J. Durbin: In your written testimony you argue… that "mortgages are other real estate assets are poor candidates for bifurcation [cram down] in bankruptcy because they can be fully expected to regain value later in the life of the contract." Do you think banks are eager to hold on to 2.2 million foreclosed properties to wait for the real estate market to turn upwards?

My response has three parts. First, banks are working to develop appropriate modification platforms and, if left to themselves, will come to appropriate

arrangements that are reasonable and economical for borrowers and lenders, alike. Second, banks or other investors with spare capital will purchase properties and keep them occupied, substantially reducing the neighborhood effects of vacant properties. Third, banks that have made uneconomical loans with borrowers who cannot pay for properties that are not worth the outstanding balance of the loan will suffer and perhaps fail, and will therefore communicate to markets that some types of loans are uneconomical going forward.

While Moody's reported last summer that only a small proportion of loans were being modified, vendors and servicers have recently increased the pace of modification. Equifax recently unveiled tools to help them determine if certain borrowers are qualified for loss mitigation on that, much maligned, case-by-case basis. Equifax's new tool helps lenders classify borrowers based on income, employment, creditworthiness and available equity. According to Dann Adams, president of U.S. Consumer Information Solutions at Equifax. "Leveraging the power of our vast data and advanced analytics, we are equipping lenders with a systematic solution that offers a clear and concise way to segment their portfolios, evaluate loan modification requests and streamline the qualification process… as financial institutions are responding to thousands of customers requests to modify individual loans," (Kerri Panchuk, "New Equifax Solution to Aid HOPE NOW Alliance," *DS News*, Dec. 20, 2007).

Other necessary forms and procedures are also coming into place. (Kerri Panchuk, "MRG Offers Loan Modification Contracts," *DS News*, Dec. 17, 2007). Dallas, Texas-based MRG Document Technologies (MRG), a company known for providing documents to the financial services industry, recently began offering loan modification agreements to financial companies who are involved in a slew of loss mitigation efforts. According to Terry King, chairman of MRG, "Market conditions are forcing lenders to rethink existing loan agreements in order to reduce foreclosures and cope with ever-changing state and federal regulations… To help meet this demand, MRG now provides the capability to order and receive modification agreements through its Miracle DocPrep software package. In addition, we provide access to our legal staff for our customers to further enhance their ability to fully stay in compliance."

What we are seeing, therefore, is the market generating the ability to modify contracts where appropriate without government intervention. Those private sector initiatives will substantially reduce foreclosures where the borrower has means to make the loan payment and the lender can still recover a reasonable rate of return well prior to bankruptcy.

Some still argue that empty houses put downward pressure on other home prices in the same neighborhood. Well-functioning markets, however, abhor a vacuum. Hence, a property will not sit idle if it can be sold and/or rented to another occupant. Furthermore, markets are awash in ready cash waiting to take real estate off banks' hands to facilitate that transformation.

Markets are already at work in this regard. Vulture investors are already active in Florida, purchasing homes from both developers and banks. The fund strategies are simple: "Buy new homes cheap, rent them for a few years and sell them at huge markups when the real estate market inevitably rebounds," (James Thorner, "Funds picking over bones after collapse," *St. Petersburg Times*, December 17, 2007). In general, vulture funds are offering homebuilders about

70 cents on the dollar for unsold new construction and offering banks about 40 cents on the dollar for foreclosures.

Recent investment offerings include an "'REO pool' of 30 Tampa area homes worth $5-million. The pooler promises the fund will increase in value. In a few years, those homes could be worth a collective $7.5-million, a gain of 50 percent. Another Tampa Bay area developer said the amount of private equity chasing cut-rate real estate is staggering. A few years ago a $250-million fund was an impressive fund. Nowadays you hear a group's assembled $1-billion and you say, 'That's all?'" (James Thorner, "Funds picking over bones after collapse," *St. Petersburg Times*, December 17, 2007).

My own work on vulture investing estimates that high volatility and low interest rates lend value to waiting for recovery. It is easy to see why. High volatility suggests that values may be temporarily low right now. Low interest rates in the economy mean that there are few places where an investor can earn high returns as an alternative to waiting for recovery. Hence, it can be wise for investors to wait five or even ten years for returns from vulture investing. (Joseph R. Mason, "A Real Options Approach to Bankruptcy Costs: Evidence from Failed Commercial Banks during the 1990s." *Journal of Business*, July 2005 (79:3), pp. 1523-53.)

The interaction of volatility and interest rates to create vulture investing opportunities is precisely why private mortgage loan modifications rarely involve principal reductions. Suppose a borrower pays $1,000 now to file Chapter 13 and receives, in return a $5,000 principal reduction on their mortgage loan.

Table 1: Investment Returns from Recovered Principal in Judicial Cram-downs

Pay Now	Receive Later	Years to Recovery	Effective Investment Return
$1,000	$5,000	10	17%
$1,000	$5,000	9	20%
$1,000	$5,000	8	22%
$1,000	$5,000	7	26%
$1,000	$5,000	6	31%
$1,000	$5,000	5	38%
$1,000	$5,000	4	50%
$1,000	$5,000	3	71%
$1,000	$5,000	2	124%
$1,000	$5,000	1	400%

Table 1 shows that if the real estate regains that $5,000 value in as long as 10 years, the borrower obtains a 17% *annual* return on their $1,000 filing cost investment (a 400% total return). The gains are even higher if markets recover more quickly, as is expected in high-growth states like California and Florida. With such returns available, I can envision the growth of speculators willing to pay filing fees on behalf of borrowers in return for a portion of the gains, creating

more bankruptcies unnecessarily as investors profit from the legal system while harming consumer credit unnecessarily.

There is another risk to be concerned with, as well: the risk that the Federal Reserve will drive interest rates too low and provide an incentive to wait for recovery. Japan faced extremely high volatility in real estate and zero nominal (negative real) interest rates for much of the decade of the 1990s, and is still waiting for recovery as few investment offerings trump expected returns from old vulture real estate funds that will eventually come back. Hence, it is important to fuel economic growth through fiscal as well as monetary policy so that markets can properly absorb losses and reallocate gains and move past the current crisis.

Last, for bank loans that are completely uneconomical, both banks and borrowers will lose. Except in specific cases of fraud, such as that involving Ms. McGee, it is hard to argue that borrowers who bought something they could not afford and the institutions that sold that product to them should not both suffer some sort of loss. Banks are now posting those losses and, where appropriate, investors are providing capital to tide them over the crisis (or not).

Questions from Senator Richard J. Durbin: You argue in your testimony that the real estate market will impose additional "lemons discount" that will raise interest rates on all loans if my bill's change to the bankruptcy law is implemented, because of increased uncertainty.

(a) Is the market already uncertain at the moment?

First, it is important to distinguish between risk and uncertainty. In his classic book *Risk, Uncertainty, and Profit*, Frank H. Knight (The Riverside Press: Cambridge, 1921) proposed a distinction between risk and uncertainty as descriptions of imperfect knowledge about the market environment. Risk, as defined by Knight, is a quantitative measure and uncertainty, a non-quantitative measure. By uncertainty, therefore, Knight meant situations in which markets collapse because of moral hazard or adverse selection, i.e., un-forecastable exogenous events or shifts in market behavior or institutional underpinnings. Those are elements that cannot *ever* be priced and therefore cannot be statistically estimated with any degree of accuracy.

Uncertainty is always and everywhere a part of market conditions. The question becomes the level of uncertainty. In that sense, the unexpected shift in lending on the basis of little or no documentation, the increased acceptance of leverage – and therefore default risk – on behalf of consumers, and the unbridled pace of financial innovation all represent sources of uncertainty plaguing markets today.

(b) Do mass foreclosures add uncertainty to the market?

On the basis of Knight's well-accepted distinctions, mass foreclosures do not add uncertainty to the market. On the contrary, the incidence and impact of foreclosures can be statistically predicted with a fair degree of accuracy: investors and policymakers simply do not like the recent results of that estimation exercise.

(c) Does the possibility of loan modification outside of bankruptcy not add just as much uncertainty as the exact same modifications within bankruptcy?

No. Increased reliance on loan modifications does not increase uncertainty in the classical sense. Again, the distinction is that the outcome can be statistically estimated with some degree of accuracy. If a lender modifies a loan of its own

accord and based on a single algorithm applied systematically across the entire pool of loans, it can be reasonably certain that the modification is in the best interest of the lender and the borrower alike. If, instead, modification is imposed upon the lender based upon differing algorithms, judicial fiat, and differing discretion and differs across jurisdictions it becomes unclear whether economic efficiencies are maintained, thus raising uncertainty.

(d) Do you have any statistical evidence to support your claim that higher interest rates would result from bankruptcy code changes?

In addressing this question let me first reiterate my reply to Senator Sessions.

The cost of providing fund to borrowers consists of much more than the interest rate on the loan. Hence, this is an area that requires much more detailed discussion than previously accorded in the hearing or the initial written testimony. The increased cost of providing credit to affected consumers can result in a variety of outcomes, none of which are favorable to the consumer. Lenders may respond by increasing interest rates or collateral levels (that is, requiring higher down payments) or they may just choose instead to ration credit, that is, avoid lending to borrowers that may qualify under S. 2133 or S. 2136, as enacted. While it is not clear which combination of responses will occur, *a priori*, from an financial economic perspective it would be foolish to expect the effect to be benign.

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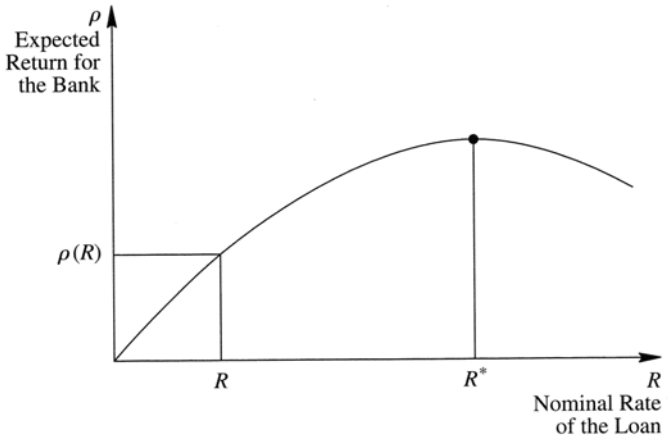

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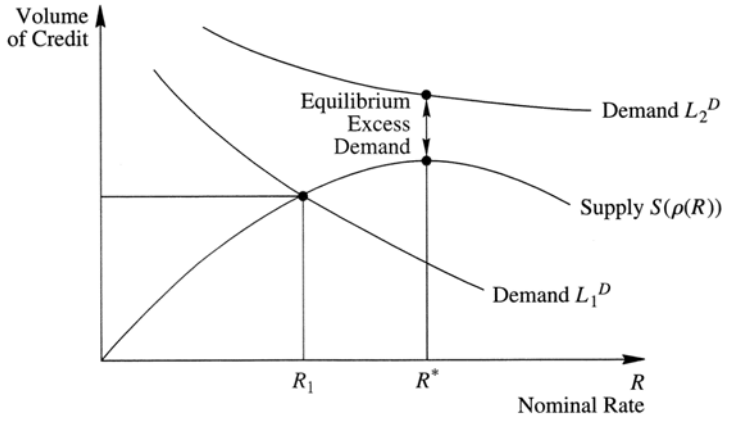
securitizations fund about $9t of the consumer loan market today, compared to only $6t of aggregate bank deposits). Assuming that investors know the relationship between the quoted interest rate R and banks' rate of return ρ, a supply of funds increasing in the rate of return will determine a supply of loans on behalf of banks that is backward bending, like the expected revenue curve in Figure 1.

Figure 2: Equilibrium Credit Rationing



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As regards statistical or empirical evidence, I am in agreement with the views put forth by Judge Thomas Bennett: there are too many statistical unknowns to be able to estimate the effects. Furthermore, appropriate data has never been gathered from lenders or the banking system to test the effects on differing aspects of loan prices (fees and collateral levels in conjunction with interest rates), much less to test credit rationing (because there are not records on loans that are denied). Nonetheless, we know that all those influences exist in the real world. It is important to realize, however, that those empirical shortcomings do

not mean that those effects do not exist – merely that it is difficult, of not impossible, to measure Knightian uncertainty since it cannot be statistically characterized in the first place. Hence, I would be skeptical of empirical studies that showed either statistically significant effects or the lack thereof.

Economic theory, therefore, complements statistical analysis because not all economic problems (particularly the most important economic problems) are able to be analyzed from a mere empirical approach. Economic theory can make sense of economic incentives and outcomes when there is little or no empirical method that can provide statistical answers. The theory we rely on to estimate the effects of increased uncertainty, that of George Akerlof, has been awarded the Nobel Prize in Economics. (See, for instance, George Akerlof, "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism," *The Quarterly Journal of Economics*, August 1970 (84:3), pp. 488-500).

The basis for this work is the belief that some market participants have information that others do not. While many are familiar with the transactional effects of asymmetric information – moral hazard and adverse selection premiums – relatively few are familiar with the theory of how asymmetric information contributes to financial market conditions. With asymmetric information, when there has been a shock to asset values and investors do not know the incidence of that shock, investors rationally respond by divesting across all markets. Investors do not reinvest until they receive credible information about the incidence that helps them pick winners and avoid losers in the future.

The banking crises of the Great Depression are held as a primary example of asymmetric information-based events. In my work with Charles Calomiris ("Contagion and Bank Failures during the Great Depression: The Chicago Banking Panic of June 1932," *American Economic Review*, December 1997 (87:5), pp. 863-884), we showed that the information shock that precipitated the Chicago bank panic of June 1932 was the announcement that Congress and the Federal Reserve had turned down requests to accept Chicago "tax anticipation warrants" as eligible paper at the discount window. For more than a year leading up to the crisis, city employees were paid almost exclusively in these warrants and had passed them on to others in lieu of cash for local transactions. Bank depositors knew that city finances were weakening and that the warrants were illiquid outside the greater Chicago area but they did not know which banks held greater or lesser concentrations of the illiquid and questionably-valued warrants. Hence, depositors ran all the local banks until they received more information, which in this case came from bank call reports filed on June 30, 1932.

The same pattern played out on a much larger scale in the year prior to March 1933, when nearly all the banks in the US were closed "on holiday" due to heavy depositor withdrawals. Upon President Roosevelt's inauguration on March 3, it was announced that all the banks would be closed and only sound banks allowed to reopen, their soundness to be established by inspections carried out by bank examiners throughout the country. Again, depositors knew there had been a shock to asset values but could not distinguish the incidence of the shock and responded by divesting from the entire market. Once information was credibly restored, depositors reinvested their funds.

In 2007, we realized that the $9 trillion of US securitizations that spawned asset-backed securities (ABS) and residential mortgage-backed securities (RMBS), for whom lower-grade securities had been resecuritized into roughly $0.5 trillion of long-term capital market instruments (collateralized debt

obligations, or CDOs) and $1.2 trillion short-term money market instruments (asset-backed commercial paper, ABCP, and structured investment vehicles, SIVs), variously backed by almost $0.8 trillion of private mortgage insurance (PMI) that is usually issued by a subsidiary of bond insurers that back a total of more than $2 trillion of debt, hedged in a $45 trillion credit default swap (CDS) market, had grown into a monster of an unregulated and conflicted market. In other words, financial innovation had created vast uncertainties in financial markets.

In the latter half of 2007, the Federal Reserve attempted to stimulate markets with successive Fed funds rate decreases totaling 100 basis points, to little effect. Despite that massive expansionary monetary policy, both the Dow Jones Industrial Average and the S&P 500 will most likely post losses for the second half of the year. Hence, in a manner similar to previous examples, investors are punishing markets for increased levels of uncertainty and refuse to respond to typical economic stimuli in lieu of information about the magnitude and incidence of losses. Increasing the level of uncertainty through legislative changes that further mask the incidence of losses will exacerbate an already very risky economic situation.

In summary, while no one would doubt the significant effects of lemons discounts in any of these classic events and the applicable theory, the exact magnitude of those effects cannot be statistically estimated (because such an estimation would require some proxy to the magnitude of uncertainty in markets at any given time). Statistical evidence, however, is only one means of economic reasoning. Worse yet, statistical evidence without theoretical basis and intuitive application is not economics, but mere data mining. The lack of statistical evidence, therefore, is no excuse for proceeding without acknowledging the very real threats indicated by sound economic theory and the accompanying market experience.