

FEDERAL TRADE COMMISSION

CONSUMER INFORMATION AND THE MORTGAGE MARKET

Thursday, May 29, 2008

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Federal Trade Commission  
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FEDERAL TRADE COMMISSION

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1 to help ease the crisis.

2 Economically sound solutions to these problems  
3 require an understanding of why current consumer  
4 protection policies may have failed, as well as an  
5 assessment of the likely long-run effects of alternative  
6 proposed policies on consumer choice and competition in  
7 mortgage markets.

8 While there are many ramifications and angles  
9 from which to view mortgage markets, this economic  
10 conference focuses on how consumer information impacts  
11 the functioning of these markets. A variety of  
12 distinguished scholars will share their research on how  
13 consumer information and the regulation of such  
14 information affects consumer choices, mortgage outcomes,  
15 and consumer welfare. By bringing together distinguished  
16 panelists with expertise in real estate economics,  
17 mortgage markets, information regulation, as well as  
18 marketing and consumer behavior, and through what I hope  
19 will be a free and open discussion of the relevant  
20 economic issues, I know we will learn a great deal. It  
21 is my hope that the fruits of this workshop will be  
22 useful to policymakers in their quest to enhance the  
23 welfare of consumers.

24 The Federal Trade Commission's twin missions,  
25 consumer protection and competition (or antitrust),

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1 uniquely position staff and the Agency's Bureau of  
2 Economics to contribute to today's discussion. It is  
3 well-documented in the economics literature that consumer  
4 access to accurate information is an essential  
5 underpinning of the virtues of competitive markets. For  
6 this reason, much of the FTC's work on the consumer  
7 protection side uses our expertise in the economics of  
8 information to ensure that information disclosed by  
9 businesses is accurate rather than unfair or deceptive,  
10 and that the information presented is understood by  
11 consumers. This ensures that the freedom of choice that  
12 buyers exercise in markets, the hallmark of a free  
13 society is based on the best available information.

14 On the competition side, our expertise in  
15 industrial organization permits us to identify  
16 anti-competitive business practices, as well as overly  
17 burdensome regulations, that distort firm's incentives to  
18 engage in healthy price and quality competition. This  
19 expertise empowers the Commission to utilize a multi-  
20 faceted approach to protecting consumers, especially in  
21 the subprime area. We enforce consumer protection laws,  
22 provide consumer education, and help ensure that business  
23 practices or regulations do not adversely affect  
24 competition or consumer choice.

25 In addition, and very importantly, the



1 respect to public policy and the stakes are high.  
2 Regulations and policy decisions made today will affect  
3 consumers' mortgage and home ownership opportunities for  
4 years to come. Many stakeholders are involved in this  
5 important market. Today's scientific discussion of the  
6 economic issues and merits of existing and proposed  
7 regulations will help us better understand the root cause  
8 of the problems, as well as the potential benefits and  
9 costs of alternative proposed solutions.

10 Regardless of which solution policymakers ultimately  
11 adopt, there are sound economic reasons for improving the  
12 flow of information to consumers in mortgage markets.

13 Our first session this morning will focus on  
14 recent developments in mortgage market products and  
15 provide us with a better understanding of how mortgage  
16 products and mortgage markets have evolved. Over the  
17 past decade, changes in the market include the rise in  
18 prominence of mortgage products like hybrid ARMs, payment  
19 option ARMs, interest-only loans, no down payment loans,  
20 piggyback loans, no documentation loans and other loan  
21 products that are of some controversy today.

22 Some suggest that this evolution represents an  
23 attempt to expand markets to include previously under-  
24 served groups of consumers, thus broadening access to the  
25 American dream of home ownership. Others suggest it was

1 a scheme by unscrupulous lenders to prey on unsuspecting  
2 consumers. And still others, that it was a response to  
3 secondary market investors pursuing higher rates of  
4 return. Similarly, some explain the increased use of  
5 prepayment penalties as a reasonable method for  
6 controlling loan risk and offering lower rates to  
7 borrowers, while others suggest that they are a way of  
8 locking misled consumers into predatory loan terms.

9           Scholars on our first panel will help us  
10 understand the root causes of the evolution of mortgage  
11 markets. This is a crucial first step in understanding  
12 the source of the current problems and to crafting  
13 economically sound solutions.

14           Our second session this morning will focus on  
15 the information that consumers receive about mortgage  
16 products, how well they understand that information, and  
17 its impact on consumer choices over loan products and  
18 market outcomes. Distinguished researchers on this panel  
19 will address a number of fundamental issues, including  
20 the mechanism by which consumers are presented mortgage  
21 bccally sound solutions.



1 understand the terms of their own mortgage transactions,  
2 whether current information policy can be improved, and  
3 the role of advertising in mortgage markets.

4 In addition, panelists will share views on what  
5 the economics of information tells us about the role of  
6 information on market outcomes and the likely effects of  
7 regulations on mortgage information, and the lessons that  
8 behavioral economic research may provide for the analysis  
9 of mortgage information policies. This is just the  
10 morning.

11 After lunch, Chairman Kovacic will introduce  
12 our two afternoon sessions. In the first afternoon  
13 session, panelists will use their own expertise to  
14 provide perspectives on the relationship between mortgage  
15 information and the current problems faced by consumers  
16 in the mortgage market.

17 The final afternoon session is forward-looking,  
18 with a discussion of how consumer information policies  
19 could be developed to help prevent deception and  
20 delinquencies in the mortgage market. So, as you can  
21 see, we are in for a very full and exciting and  
22 intellectually stimulating day.

23 Let me conclude by thanking you all for being  
24 here and for taking the time out of your busy schedules  
25 to arrive promptly this morning. I understand that

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1 several of our speakers actually rearranged vacation  
2 plans to be here, and I think that self-sacrifice is a  
3 great testimony to your interest to protect consumers and  
4 I only hope that you are not too deeply in debt with your  
5 families for doing that.

6 Finally, I would like to thank those that are  
7 responsible for this conference. I would like to thank  
8 Jan Pappalardo and Jim Lacko for taking the lead and  
9 planning and executing this workshop, and Micah Burger,  
10 Maria Villaflor, Alethea Fields, Neal Reed, Tammy John  
11 and Matt Eaton for handling the many burdens of the  
12 logistics in putting something like this on.

13 I will now turn this over to Paul Pautler, who  
14 is the Deputy Director of Consumer Protection in the  
15 Bureau of Economics, and he will be moderating the first  
16 panel. Again, I thank you all for being here and I hope  
17 you have a great day here at the FTC.

18 **(Applause.)**

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1           **SESSION I: ECONOMIC ANALYSIS OF MORTGAGE PRODUCT**  
2           **DEVELOPMENT, MARKET STRUCTURE AND MORTGAGE OUTCOMES**

3           MR. PAUTLER: Thanks, Mike. We are here for  
4 the first session to discuss new products in mortgage  
5 markets and changes in the markets. Before we get to  
6 that, I have a few little housekeeping details I want to  
7 go over.

8           In the event of an emergency, quite unlikely,  
9 but if there is one, you should follow the FTC personnel  
10 who will lead you out that door, around to the right,  
11 down the hallway a little bit and down the stairwell.  
12 And you came through security on the way here this  
13 morning. If you leave the building, you will have to go  
14 through the same game once again. So, if you would  
15 rather avoid that, you can get some lunch at the Top of  
16 the Trades up on the seventh floor. I will give them a  
17 little plug. They have wonderful food, of course. And  
18 you can get almost anything you would want up there.

19           One other little piece of housekeeping, I  
20 guess, if you have cell phones on, please turn those off,  
21 both because they bother other people and they do not do  
22 a lot for our recording of the event.

23           For the questions and answers that undoubtedly  
24 will occur, I would like to hold the questions until the  
25 end of each session, and then you can stand, give your

1 name and affiliation, and ask your question. I would ask  
2 that we do questions rather than speeches, but we will  
3 see how that works out.

4 **(Laughter.)**

5 MR. PAUTLER: Our first session, Mike already  
6 described what it would be about, and we have a number of  
7 distinguished panelists. I am not going to go through  
8 their entire bios, because, number one, you have them.  
9 Number two, it would take too long. We have a number of  
10 people that have spent, in some cases, an entire career  
11 in real estate and examining credit markets. Others who  
12 have done a lot of very recent empirical work to try to  
13 divine what has happened in mortgage markets recently as  
14 a result of changes in products and various innovations.  
15 We will hear, I think, a wide-ranging set of views in  
16 this first panel about how that has worked out.

17 I do want to give just a little bit of overview  
18 of who our speakers are. Susan Wachter, to my left, is  
19 from the Wharton School at the University of  
20 Pennsylvania. She is the Richard B. Worley Professor of  
21 Financial Management. She is one of the people on the  
22 panel that has been working in the real estate area for  
23 quite a while.

24 Anthony Pennington-Cross will be tag-teaming  
25 with Souphala Chomsisengphet. I am sure I got that name

1           terribly botched, but Anthony is the Associate Professor  
2           of Finance at Marquette University. He was formerly at  
3           the St. Louis Fed. He has done a lot of work in  
4           predatory lending and subprime lending while he was at  
5           the St. Louis Fed and now at Marquette.

6                        Souphala is in the Office of the Controller of  
7           the Currency. She does work in financial institutions  
8           and credit risk underwriting, which must be a wonderful  
9           thing to be an expert in these days.

10                      Then Christopher Mayer is the Director of the  
11           Paul Milstein Center For Real Estate at Columbia  
12           University at the business school, and this year he is  
13           visiting at the Federal Reserve Bank of New York.

14                      And our second tag team on this session will be  
15           Richard Todd, from the Federal Reserve Bank of  
16           Minneapolis. He has worked on a number of home ownership  
17           and financial education issues while he has been at the  
18           Fed in Minneapolis and he is currently the Vice President  
19           in the Supervision, Regulation and Credit Division.

20                      Tagging with him will be Morris Kleiner, who is  
21           from the Hubert H. Humphrey Institute of Public Affairs  
22           at the University of Minnesota. He holds the AFL-CIO  
23           chair there and he has been doing a lot of work on  
24           occupational regulation and its effects. They will be  
25           doing the fourth presentation.

1                   So, I would like to get us started with Susan  
2                   Wachter.

3                   MS. WACHTER: Thank you, Micah, Paul, Mike,  
4                   Jim, and Jan for convening today's meeting and for  
5                   inviting me. It is a real pleasure to be here.

6                   I was here about five years ago for a conference  
7                   that Jim put together on economic perspectives on mortgage  
8                   markets way before the current crisis began. But even  
9                   then there were questions about mortgage practices and the  
10                  need for policy to improve consumer choice. We came out  
11                  of that conference with a data list. We have now had a  
12                  natural experiment that provides some of the answers to  
13                  the questions being raised even then, about how  
14                  deregulation and profusion of non-traditional mortgage  
15                  instruments impact mortgage markets.

16                  I have been asked to speak about the history of  
17                  the current crisis. First, it is important to emphasize  
18                  the historic move to increased access to credit, not just  
19                  in the U.S. but worldwide. At the same time, a worldwide  
20                  boom in housing prices. There are three common drivers  
21                  here, including a historic interest rate decline. Coming  
22                  out of the 2001 recession, instead of having interest  
23                  rates increasing, which is typical, interest rates  
24                  declined, not only in the U.S. but worldwide. A second  
25                  driver is capital market integration. Liberalization of

1 mortgage markets facilitated the integration of mortgage  
2 markets into capital markets, which increased access to  
3 credit. A third driver is worldwide economic growth at a  
4 fast pace up until recently.

5 But the U.S. is unique in the world in how  
6 mortgages are funded through securitization. Prior to  
7 2000 in the U.S., securitization of mortgages allowed the  
8 transfer of interest rate risk to capital markets through  
9 Fannie Mae and Freddie Mac. What changed in the past  
10 decade is the development of private label markets, which  
11 facilitated the securitization of default risks.  
12 Traunching of securities by default risk is new and unique  
13 to the U.S.

14 At the same time, banks moved, to a large  
15 extent, to an originate-to-distribute model. And in the  
16 secondary market, securities were exempt from assignee  
17 liability. Rating agencies' incentives, everyone now is  
18 quite aware, were misaligned.

19 Markets work when you have buyers and sellers.  
20 Markets for securities lacked sellers. And the ability to  
21 short sell was lacking because securities were so  
22 specialized. They were marked to model, not to market.  
23 This market discipline that would have resulted from the  
24 active trading of these securities was lacking. The  
25 results was systemic risk and incentives for risk-taking,

1 especially one in which secondary markets lack assignee  
2 liability and trading. Broadly, there is moral hazard in  
3 an originate-to-distribute and marked model system. But  
4 systemic risk was heightened and prolonged by dynamics of  
5 housing markets.

6 We are all aware of the growth of  
7 nontraditional, nonprime, and what might be termed  
8 "aggressive" mortgages. But it is more enlightening to  
9 look at the specifics of the exotic mortgages and the  
10 timing of when they came to market. It really was not  
11 until 2004 when the huge ramp-up of exotic mortgage growth  
12 occurred. Interest only mortgages were a very small share  
13 of the market until 2004. Again, pay option ARMS were  
14 essentially zero until '04 and then took off. Negative  
15 amortization and interest only loans grew in '04.

16 Also, within these product types, there was  
17 deterioration of lending standards. Consolidated loan to  
18 value ratios dramatically increased. Also, full  
19 documentation loans fell. On the other hand, the dog that  
20 failed to bark, FICO scores were constant. That is what  
21 everyone was focused on. So, when pools were identified,  
22 they were identified by the FICO score, not by these other  
23 risk factors.

24 Indeed, another datapoint that is very important  
25 is the cost of borrowing, that is the premium over the



1 base interest rate. That did not increase. In fact, it  
2 was compressed. So, as additional risk was taken in the  
3 market, lenders did not require additional risk premia.

4 The result of this growth in credit, and in work  
5 with Andrey Pavlov, we document that prices increase. In  
6 cross-section work in which we look at the specific type  
7 of loans and where they were made by zip code, we see that  
8 aggressive mortgage lending resulted in (using instruments  
9 for the aggressive mortgages) price run-ups. There was an  
10 increase in subprime over time, and then, the shock of the  
11 tremendous withdrawal of lending, once defaults did rise.  
12 The withdrawal of lending itself causes price declines.  
13 The result is the unprecedented surge in defaults as  
14 prices plummet and loan-to-value increases.

15 Borrowers could not be aware of this systemic  
16 risk. We are in favor of choice generally, and risk-based  
17 pricing allows more choice, but, of course, the question  
18 is, is this informed choice? And, is this informed risk-  
19 taking? Asymmetric incentives were such that loan fees  
20 for originators were higher with greater risk.

21 Yield spread premiums which increased with risk  
22 went to the originators of the mortgage. So, it is not  
23 just the existence of asymmetric information, but market  
24 incentives to create asymmetric information. Hyperbolic  
25 discounting, Professor Laibson will be here this

1 afternoon, I can leave him to that. But how good are  
2 borrowers, how good are we at making choices over time is  
3 the question. And, of course, perfusion of choice,  
4 complexity problems, we know about behavioral finance  
5 issues there.

6 Another factor is shopping difficulty. It is  
7 nearly impossible in the subprime world to shop, and  
8 others will elaborate on this. Borrowers looked to the  
9 affordability of initial mortgage payments as opposed to  
10 long-run rates. The easing of standards had price effects  
11 on housing markets, but did not increase the price of risk  
12 in mortgage markets. While risk increased, additional  
13 risk was not reflected in risk premia. Therefore, it  
14 could not feed back to borrower's behavior. On the other  
15 hand, for the short run, these mortgages did become more  
16 affordable over time, and that drove housing prices. A  
17 disconnect resulted in the normal supply-demand linkage  
18 for informed choice back to market stimulus.

19 This would not have happened if the U.S. as a  
20 whole was more like the markets of Texas and North Dakota,  
21 for example. Markets with a huge increase in demand for  
22 housing did not see an increase in housing prices. So, we  
23 did not have capitalization of price expectation effects  
24 there, but we did in more than one-third of America.

25 Why? Why now? Work by my colleagues, Todd

1 Sinai and Joe Gyourko at Wharton, points to the new  
2 importance of regulation in increased supply  
3 inelasticities. I think we have a system that is more  
4 vulnerable now to increases in demand because of new  
5 supply inelasticity. With the expansion of aggressive  
6 mortgage lending in non-affordable markets, the result is  
7 a procyclicality of risk-based pricing. Remedies should  
8 include implementing the Federal Reserve proposals. We  
9 need remedies on the industry side as well. We should be  
10 revisiting Basel II, securities trading reserving, as well  
11 as insurance issues. Thank you.

12 **(Applause.)**

13 MR. PAUTLER: Thank you, Susan. Our next  
14 speaker will be Anthony Pennington-Cross and he will be  
15 tag-teaming with his coauthor Souphala Chomsisengphet.

16 MR. PENNINGTON-CROSS: Souphala, how do you say  
17 your last name?

18 MS. CHOMSISENGPHET: It is Chomsisengphet.

19 MR. PENNINGTON-CROSS: I have known Souphala  
20 for, I don't know, six years and I have never said it  
21 right. So, congratulations.

22 So, Souphala and I are going to break up this  
23 presentation. We are going to get a little bit more of  
24 the nitty-gritty, look at some products and see how they  
25 changed through time and see how they have changed in

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1 as Alt A. So, Alt A and subprime, there are quite clearly  
2 Alt A loans in this data set and there is quite clearly  
3 the ability to substitute for. Alt A is alternative. Alt  
4 A is typically loans -- historically, people say typically  
5 it is loans for people with good credit scores but do not  
6 fully document their income. However, you have people  
7 with good credit scores that do not fully document their  
8 income in this data set, also. So, just keep in mind it  
9 is a securities, data set and it is in the ABS market.

10 We will be looking from 2000 to 2007, about the  
11 middle of 2007. We have left to go through 2008 and we  
12 will get there at some point. The total number of  
13 originations that we see in this time period is about 16  
14 million loans. We're going to be flipping through product  
15 types, loan types and borrower types.

16 So, Susan already gave, I think, a little bit of  
17 duplicate information. I just saw through the back of my  
18 head Susan's slides. But this is just a story that we all  
19 know. Subprime grew a lot. Quite dramatically, right?  
20 And this is the securities portion.

21 And then in 2000 -- we have work through July  
22 there. So, you can see 2000 the market was starting to  
23 dry up. I think today it is -- I do not know if it is  
24 largely dried up, but there are not many securities being  
25 issued today. So, that is just to give us an idea of the

1 size of the market.

2 How about products? Here are the products we  
3 are going to be looking at. There is a little mislabeling  
4 here. So, the ARMs, when you see something with an ARM up  
5 there, they are ARMs that are not interest only loans and  
6 do not have balloon features, and when you look at that,  
7 in this data set, about 96 percent of those are hybrid  
8 loans. So, these are typically 2/28s in subprime or two  
9 years fixed, and then 28 years, where they turn into an  
10 adjustable rate loan, and those are typically indexed on  
11 Libor and reset every six months. So, if you have a big  
12 teaser, you are going to be at the teaser rate for two  
13 years and then the reset comes in the 25th month.

14 Then, we have fixed rate loans, again, those  
15 that are amortizing and do not have balloons on them.  
16 Then, we will separate out the balloons and the IOs. .  
17 So, those are the parts we are going to be flipping  
18 through and, again, trying to think about why credit-  
19 constrained, cash-constrained borrowers might want to use  
20 these type of products.

21 So, ARM, which really means hybrid, about half  
22 the market over this time period was hybrid and the other  
23 half was fixed rate. Over time, there is a growth in the  
24 use of the interest only product, especially on the fixed  
25 rate side. But, you know, balloons grow through time, IOs

1 grow through time. But kind of traditionally, in the  
2 early 2000s and late 1990s, there were 2/28s and fixed  
3 rates, splitting the market pretty much 50/50.

4 Here's a look through time, and you can see that  
5 the fixed rate, which is -- good, it shows up okay. The  
6 green lines kind of decline, so fixed rates are becoming a  
7 little less important part of this market through time.  
8 The red lines, those are the 2/28s, again, kind of  
9 declining a little bit over time. And then we have the  
10 balloon line. So, balloon is growing, so kind of what  
11 people call exotic or mortgage exotic features. The use  
12 of balloons, the use of interest-only features have become  
13 more important. You especially see a pretty big increase  
14 in 2003, 2004 and 2005, of the IO ARM.

15 So, why did the subprime market use these?  
16 Let's take a look at some maps. And I think this gives  
17 some hints about where these products first showed up.  
18 You will see, there is a pretty strong pattern about where  
19 they showed up. You probably already have a pretty good  
20 idea. So, we are going to flip back and forth. Again,  
21 these are really 2/28s. You see that word "adjustable  
22 rate." Just think hybrid, hybrid loans, 2/28s.

23

1 means we had no data. We had one data error down there in  
2 Dade County. That does not mean there are no subprime  
3 loans in Dade County. There are plenty of subprime loans  
4 in Dade County. We have a code switch in there, so it  
5 just dropped out of the data. So, I am pretty sure that  
6 the missing data down that swath coming down the Dakotas,  
7



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1 that is another way we can get the initial payments down  
2 for a borrower.

3 So, balloons, you know, 2000, I see no pattern,  
4 okay? So, we just have a little mishmash there. Not  
5 overly prevalent. By 2006, balloons are being used  
6 dramatically across the United States. The whole West  
7 Coast is using balloons quite heavily. Again, down in  
8 Florida, you can see Boston highlighted, Washington, D.C.,  
9 this time we have Chicago and Minneapolis again. I would  
10 call all of those places where it has gotten expensive to  
11 buy a house by 2006. So, if you are purchasing a home,  
12 this is one mechanism to help you get into it.

13 So, I would tend to call all of these measures  
14 "affordability mechanisms." It is not traditionally how  
15 we think about affordability, but these are types of  
16 mortgages that make it more affordable for you to go get  
17 into a house or to buy a bigger house.

18 And then the last little swath of balloons you  
19 see up there is in Michigan, right there at Lake Michigan  
20 over to Erie. So, there are kind of two types of  
21 affordability, right? There is the affordability --  
22 because prices have gone up a lot, and then there is the  
23 affordability because wages have gone down, or there is  
24 lack of jobs. There are two ways you can end up in an  
25 affordability bind.

1           Let's take a look at prepayment penalties. One  
2 of the key things about subprime is that there are a lot  
3 of prepayment penalties. In our data here, over half,  
4 almost 60 percent over this time period, had prepayment  
5 penalties on them. In addition, if you look at the  
6 hybrids, I believe about three-quarters of the hybrid  
7 loans had prepayment penalties on them. And I think it is  
8 about 40 or 45 percent of the fixed rate loans had  
9 prepayment penalties on them.

10           Here's a look at 2000 and let's just clock  
11 forward to 2006. This is the first map where we have seen  
12 the states kind of suddenly appear. So, this has been  
13 county data, the splotches that have shown up, the dark  
14 colors showing what is more prevalent, whatever I have  
15 been looking at, have all been kind of metro driven. We  
16 saw Minneapolis, we saw New York pop up or the West Coast,  
17 but we have not seen states.

18           When we look here, you can see the light colors  
19 meaning that there is much less use of prepayment  
20 penalties we see in North Carolina, South Carolina,  
21 Georgia, New Mexico, Michigan, Connecticut. Those are all  
22 showing dramatically lower use of prepayment penalties in  
23 the states by 2000. And there is a big click. Many of  
24 these states kind of get lighter from 2000 to 2006. The  
25 reason that these states start to use fewer prepayment

1 penalties is because of the passage of predatory lending  
2 laws in these states over this time period. So, a lot of  
3 these predatory lending laws restrict the use and  
4 availability of prepayment penalties.

5 So, one thing that I think we are concerned  
6 about is that when you -- so what are prepayment  
7 penalties? Prepayment penalties are yet another mechanism  
8 to get your monthly payments down, right? If you are  
9 willing to take on that penalty, you should get a break on  
10 your interest rate, and your monthly payments will be  
11 reduced. So, if you take away -- so, I would call that  
12 another affordability mechanism, a way to get you into the  
13 house. Whether that is a good thing or a bad thing is  
14 another question. But it is definitely an affordability  
15 mechanism.

16 And if you take that away, the lenders are going  
17 to look for, and the borrowers, are going to look for  
18 something else, right? And some of our empirical work  
19 shows there is a strong relationship between the turning  
20 on of these prepayment penalty restrictions and the  
21 increased use of interest-only loans. So, we have  
22 preliminary evidence that IOs look like the choice  
23 substitute for loans that had prepayment penalties on  
24 them. So, in some sense, we have had a policy experiment  
25 here that has made places like Illinois there look more

1       like California in terms of its mortgage usage than it  
2       would have without the law.

3               I mean that because IOs are an important part of  
4       California, because they are a great affordability  
5       mechanism, and if you take away the prepayment to get  
6       affordability, you are going to end up with more IOs. So,  
7       that is basically what I have here.

8               So, my feeling is, why do we have these types of  
9       products and subprime? It is because of affordability.  
10       These are ways to get you into the house.

11               And that is going to be it for me, and then  
12       Souphala is going to come up and work through the second  
13       part of this presentation. This is just kind of a  
14       dramatic graph. It did not fit in well, but there were a  
15       lot of balloons in 2006.

16               MS. CHOMSISENGPHET: I am going to break my  
17       presentation into two parts based on Anthony's. I am  
18       going to first describe the type of loans that were  
19       originated during this same time period, and then the type  
20       of borrowers who used these type of loans. So, let's  
21       begin with the loan type.

22               This is distribution of mortgage originations by  
23       loan purpose. I just want to draw your attention to the  
24       red portion of the pie. We see that almost 45 percent of  
25       the loans originated during this time period are cash out

1 refinance loans. So, there are a lot of equity  
2 extractions in this market.

3 If we look at the distribution through time, we  
4 see that between 2000 and 2003, you know, almost 50  
5 percent of the loans were cash out refinance, and then  
6 after 2003, between 2003 and 2006, they sort of declined a  
7 little bit and then began to pick up again after 2006.

8 There has been a lot of discussion about  
9 negatively amortized loans, and out of the 16 million  
10 loans that were originated durin1 oedf-h71.00000 0.00000 0.00000 1.0

1 documentation. This is the level of documentation that  
2 borrowers provide to the lenders. As you can see there,  
3 almost two percent of these mortgages that originated  
4 during this seven-year period originate under the "no  
5 documentation required" program. And almost 43 percent  
6 really provide what they call a really low level of  
7 documentation.

8 What's interesting, though, is if you look at  
9 this distribution through time, we see that the  
10 origination of the no doc loans remain relatively stable,  
11 but the originations of the low documentation loans  
12 steadily increased, and then I think so passing the  
13 origination of the full documentation type of loans after  
14 2005. So, there is a clear substitution here.

15 And then if we look at the distribution across  
16 the country, they show up sporadically, some in  
17 California, in the northwestern states, some in the  
18 northeastern states, and in Texas and then in Florida. By  
19 2006, however, you can see that in California, for  
20 example, it is really an intense use of low doc type of  
21 loans, and in the northeastern states, it has also become  
22 intense, and in Florida, it has become intense. At the  
23 same time, I think it has also spread to newer parts of  
24 the region, such as the Midwest, Wisconsin, Minnesota,  
25 Michigan and then the Mid-Atlantic States. So, that is





1 greater than 40. As you can see, this steadily increased,  
2 and suddenly by 2006, you see kind of like a drastic drop  
3 there.

4 So, to recap again, I think the descriptive  
5 statistics we just showed here are about affordability.  
6 These borrowers have a high debt to income. There is a  
7 lot of unreported income, and perhaps there is a weak  
8 credit profile. We think that perhaps future research  
9 should probably turn to assess whether this weak credit  
10 profile is a temporary issue or is it permanent, such that  
11 can these borrowers who took out these high-priced loans  
12 improve on their credit profiles and then transition out  
13 of these high-priced loans.

14 So, in summary, I think our descriptive evidence  
15 suggests that the subprime market is made up of borrowers  
16 who are cash and credit-constrained, and this is over the  
17 seven-year period. But we have seen a significant  
18 increase in products that allow borrowers to afford the  
19 monthly mortgage payment since 2003, such as the low doc,  
20 the IOs, and the balloons.

21 Thank you very much.

22 **(Applause.)**

23 MR. PAUTLER: And now Chris Mayer will give us  
24 his view of the subprime market.

25 MR. MAYER: Thanks. So, this is, I think, kind

1 of timed what we are doing quite well in terms of a  
2 progression. First, thinking about where we got into this  
3 program and sort of saying something about origination.  
4 What I am really going to focus on today is thinking about  
5 what has led to defaults. Here, I think there has been  
6 quite a big dichotomy between what I would sort of call  
7 rhetoric or myths, which is sort of a proliferation of  
8 many of the kinds of products that our earlier paper  
9 talked about and what has actually really led to the  
10 default problem. I think that dichotomy is a particularly  
11 important one to kind of understand in terms of policy.

12 So, this is based on a bunch of work that I have  
13 been doing. I should say that I was listed as a visiting  
14 scholar with the Federal Reserve Bank of New York. I have  
15 also spent the year at the Federal Reserve Board of  
16 Governors, working with Karen Pence, who is going to be  
17 talking later today, and we have put together a series of  
18 papers, three of these are actually sort of now -- at  
19 least two of them are publicly available and two of them  
20 you will see some pictures -- but they are still in a  
21 review process at the Federal Reserve Board. Of course,  
22 my comments do not reflect any views that the Federal  
23 Reserve had, as if anyone would believe they would.

24 So, there are a few takeaways. The first is  
25 what I sort of call dispelling the myths. There is very

1 little evidence so far -- actually, I take that back.  
2 There is quite convincing evidence that defaults appear  
3 really unrelated to many of the mortgage market  
4 innovations that we have heard talked about earlier,  
5 including prepayment penalties, including rate resets on  
6 short-term ARMs, 2/28s, 3/27s, floaters, various things  
7 like that and so-called interest only or option ARMs.

8 While this last category, particularly the  
9 option ARMs, are ones which we expect might create  
10 problems in the future, at least up to the moment, they  
11 are -- in fact, in that category of loans, we have  
12 actually seen fewer defaults relative to the broader set  
13 of mortgages.

14 So, what has caused the problem? Well, in a  
15 very proximate way, the unprecedented rise in foreclosures  
16 has, first and foremost, been driven by a stagnation and  
17 collapse in house prices. Now, this is clearly not -- it  
18 is not as if the world suddenly dropped house prices down.  
19 Clearly, it is related to what is happening in credit  
20 markets and subprime. But it is really important to  
21 understand how unprecedented the kinds of very, very quick  
22 house price declines that we have seen in markets are.  
23 There really is no history in the U.S., even looking at  
24 Texas in the sort of mid 1980s or New England in the early  
25 '90s of house prices that declined this rapidly on a

1 nominal basis.

2 I sort of cut my teeth doing early work looking  
3 at loss aversion and liquidity constraints in data in  
4 Boston. We never saw prices drop this precipitously in  
5 any of the declines. In fact, the only one that I know of  
6 in North America, there was one episode in Vancouver where  
7 we saw prices double and then fall in half over about a  
8 three-year period. So, it has been an enormously  
9 unprecedented decline in house prices, and it is important  
10 to understand that. I think it has a lot to do with the  
11 complete evaporation of credit for a large group of  
12 borrowers that were relying on subprime credit.

13 The second, obviously, is slackened  
14 underwriting. I am going to show you some data on that in  
15 a second. There have been a number of other people that  
16 have looked at this. And the third is just poor economic  
17 conditions in a subset of the markets.

18 So, let me talk first about prepayment  
19 penalties. I am going to spend a couple of minutes on  
20 this because I have some work with Tomasz Piskorski and  
21 Alexei Tchisty at Columbia and NYU that sort of go  
22 through why prepayment penalties are around. I think this  
23 work does not make an assumption one way or another that  
24 people fully understood or did not. But one thing that is  
25 really clear is that people who took out prepayment

1 penalties got much lower interest rates.

2 So, the idea of a mortgage broker walking in and  
3 giving you, sort of throwing in a prepayment penalty in  
4 the bottom without giving you any benefit associated with  
5 that prepayment penalty, is clearly not in the data.  
6 Whether people understood the implications of prepayment  
7 penalties, I think is something that other people are  
8 going to talk about later. Karen and others are going to  
9 sort of talk about how people understand their mortgage  
10 product. But we should just get it off the table straight  
11 off, people did get benefits from these and I will show  
12 you that in a second.

13 There was a lot of criticism. Senator Clinton  
14 suggested that you eliminate prepayment penalties that  
15 lead to the high rates of default and I think,  
16 unfortunately, the causality has been reversed, which is,  
17 as it turns out, the people who took out prepayment  
18 penalties were very risky. That does not mean the  
19 prepayment penalties caused them to default more.

20 Why do I think prepayment penalties are not the  
21 devil that they have been made out to be? First, by the  
22 way, if you look around all industrialized countries as  
23 well as commercial mortgages, the United States and the  
24 Netherlands are pretty much the only two countries that  
25 actually muckrr 0.0000 a5T0000Urctu2erest rates. Iif yot

1 move north of the border in Canada, I have a friend who  
2 sold his house moving from UBC to Toronto, he paid a  
3 prepayment penalty even selling his house. So, when we  
4 think about prepayment penalties, these are the norm  
5 around the world. The U.S. is the exception in allowing  
6 fully prepayable mortgages.

7 The reason we have prepayment penalties, at  
8 least theoretically, solves a very simple but important  
9 problem. Which is, if you want to lend to a risky  
10 borrower, you have to charge a high mortgage rate. As it  
11 turns out -- and I have two relatives who took out  
12 subprime loans, so I can at least have some personal  
13 experience in talking to them. Both of them were people  
14 who had gotten themselves into credit trouble.

15 And when you lend to somebody who has credit  
16 trouble, one of two things is going to happen. Either  
17 they are going to get their act together, and house prices  
18 may go up and they get a benefit. As soon as that  
19 happens, they are going to get out of that subprime loan  
20 as quickly as possible and refinance into a conventional  
21 mortgage with a much lower rate.

22 Or bad things can happen to them. Bad things  
23 could be house prices fall, it could be that they sort of  
24 lose their job. They sort of bump into their credit  
25 problems again. If those bad things happen to them, well,

1 they are not going to refinance, they are going to stay in  
2 the pool. So, part of the rationale for both the  
3 development, I think, of the 2/28 product was that people  
4 were over -- if you make your payments for two years, you  
5 are going to refinance out of the thing and go into  
6 something else. If you could not refinance at the end of  
7 two years, it probably meant that you did something wrong,  
8 or you got hit with a negative shock and the bump up in  
9 rates was intended to deal with that problem, that  
10 eventuality.

11 Now, that does not mean that there are not also  
12 psychological problems including sort of hyperbolic  
13 discounting that that product also takes advantage of.  
14 But there is a good sort of economic rationale for why  
15 people did this. In the insurance literature, by the way,  
16 people call this reclassification risk. So, this is a  
17 well-known problem in insurance.

18 And the nice thing about prepayment penalties is  
19 that they allow you to sort of spread the risk, so to  
20 speak. So, if you do not let people who have good draws  
21 get out of the pool right away, you force the people who  
22 have good luck to stay in the pool longer. They help cost  
23 subsidize the people who have the bad draws or the bad  
24 luck. And as a result of that, you can actually lower the  
25 initial interest rate associated with taking out a

1 mortgage, and that benefits people who are particularly  
2 risky, whose likelihood of default is very sensitive to  
3 the interest rate.

4 So, that is a relatively short explanation of a  
5 paper that will be on my website later on today, that many  
6 of you have probably seen kind of presented, that you can  
7 write out in very nice, dynamic contracting with my  
8 coauthors.

9 I am just going to show you three charts that  
10



1 prepayment penalty clearly is not supported in the data.  
2 Clearly, they did get a benefit associated with the  
3 prepayment penalty. Whether it is an optimal benefit or  
4 whether it is what would you get if you sort of worked out  
5 what the option value is, I think is a very complicated  
6 problem. But I think that we can observe that on the face  
7 of it these people got a benefit from a prepayment  
8 penalty.

9           Interestingly, the benefit was biggest for the  
10 highest risk people, because you will notice the  
11 difference between the lines with and without prepayment  
12 penalty narrows as the FICO scores go up. So, in other  
13 words, the biggest benefit associated with the prepayment  
14 penalty was for the riskiest group of borrowers. And, so,  
15 if this was just purely an interest rate option, such an  
16 interest rate option would not at least directly explain  
17 what is going on.

18           The third thing is evidence on defaults. This  
19 is sort of a place where I think people have really not  
20 controlled for sort of the kinds of people who are taking  
21 out prepayment penalties. You observe clearly the  
22 riskiest borrowers, those with FICOs under 620, have the  
23 highest default rates. So, that is not really surprising.  
24 Those people also take out more loans with prepayment  
25 penalties. So, if you do a correlation, you are easily

1 going to find the correlation between prepayment penalties  
2 and defaults.

3 The problem is, if you control for FICO, that  
4 correlation disappears. In fact, it actually goes the  
5 other way for the lowest FICO people. Default rates with  
6 prepayment penalties are actually lower than default rates  
7 without prepayment penalties. And that suggests that  
8 among this particular very, very high-risk group of  
9 borrowers, the lower interest rate associated with the  
10 prepayment penalty might well have both allowed them to  
11 purchase a house they might not have otherwise and  
12 actually potentially given them a lower interest rate for  
13 which they received some benefit.

14 So, that is the first piece and that is where I  
15 was going to spend kind of more of my time. I want to  
16 talk about some of the broader issues. That first set of  
17 stuff was really work that Tomasz and Alexei and I have  
18 been working on. The rest of this is work that I have  
19 done with Karen Pence and/or work that Shane Sherlund has  
20 done at the Fed. I am just going to highlight some of  
21 this work. This is all work that is going to be coming  
22 out in The Journal of Economic Perspectives later on this  
23 year and, hopefully, we will be able to get a working  
24 paper online in the next couple of months.

25 But the data is sort of fairly straightforward.



1 large cuts in interest rates that the Fed has pursued  
2 suggests that most of the rate resets today, if we look at  
3 the loans rolling over in the next year to year and a  
4 half, will take place with a rate reset typically under  
5 100 basis points. In other words, while rate resets would  
6 have potentially been a big problem if we had seen the  
7 credit markets evaporate without low interest rates, the  
8 fact that interest rates have come down has meant that  
9 people are not going to be facing large rate resets, when  
10 the sort of 2006 vintage, late 2005, 2006 vintage of  
11 subprime loans comes into the market.

12 The third thing is just the interest-only and  
13 option ARMs. I am not arguing that these are particularly  
14 great products. There has been lots of look at credit  
15 cards and people who make minimum payments on credit cards  
16 and the ability to kind of hang themselves, and there have  
17 been rules that have been portrayed to not allow people  
18 who make the payment to sort of see negative amortization,  
19 but that has clearly not so far been a big issue.

20 One thing which, I think, you know, in the paper  
21 that Anthony presented, you know, they are looking at  
22 subprime. The vast majority of option ARMs are actually  
23 the Alt A product. So, our evidence suggests even a much  
24 lower rate of option ARMs than you guys have in your data.  
25 We show very, very few of them actually showing up in the



1 borrowers every month are making the minimum payment.  
2 That is, they are negatively amortizing their loans. This  
3 is potentially a very large problem to come, but one which  
4 we have not seen so far. These option ARMs actually have  
5 lower default rates than other loans up to this point.

6 So, what happened? Well, if we look at the  
7 data, this is data looking at loan vintage for California,  
8 Florida, Arizona and Nevada. That is the places where  
9 house prices, according to the recent Kay Schuler  
10 (phonetic) stuff, have dropped an astounding 20 percent in  
11 a year and a half.

12 If you look at those locations, and the dotted  
13 line is the rest of the U.S., for the '04 loans, you can  
14 see the rest of the U.S. had much higher default rates out  
15 to 42 months than those states did, when house prices were  
16 going up enormously. As house price appreciation slowed  
17 in the '05 vintage, this is when house prices really  
18 started to collapse, after about two years for the '05  
19 loans, this is 2007.

20 And you can sort of see that this reverses  
21 itself. So that in 2006, it is the California, Florida,  
22 Arizona and Nevada loans that have much higher default  
23 rates than the U.S. does. In some cases, double the  
24 default rates. The unprecedented rise in defaults is very  
25 highly concentrated in those four states, where we have

1       seen significant negative house price appreciation, and  
2       this is the data from 2007, which is showing the same  
3       pattern.

4               So, house price appreciation, endogenous  
5       clearly, is a big, big factor for what is going on.

6               The second is just, if you look at the  
7       underwriting, look at observable loan-to-value ratios.  
8       People talk about this split between adjustable and fixed  
9       rate and, clearly, the adjustable rates have terrible  
10      default experience. They also had the worst quality  
11      borrowers. If you look at the median cumulative  
12      loan-to-value ratio for purchase loans, you can see that  
13      that was 100 percent. People were putting no money down.  
14      The median in the United States purchase loans in '05, '06  
15      and '07 in the subprime pools was 100 percent. In the Alt  
16      A pools, it was 95 percent.

17              So, these were people who were putting no money  
18      down, and as it turns out from work that Shane has done,  
19      the existence of a piggyback loan, even controlling for  
20      cumulative loan-to-value, is another signal that indicates  
21      higher ratio of defaults and fully a quarter of those  
22      people who were using piggyback loans in '05 and '06, and  
23      what we are really going to sort of think of is the  
24      nightmare vintages of subprime loans.

25              The other thing is just unobservable stuff.





1 who are walking away from their houses at rates that we  
2 have just never really seen before in mortgage  
3 originating.

4 And I put this up on the Alt A just for sort of  
5 a benchmark. People never usually use the same axis on  
6 these things. I thought it was useful to show you that  
7 the Alt A loans, which had almost all of the exotic  
8 products, the use of negative amortization, the use of  
9 interest only, three-quarters of Alt A loans had neg ARM  
10 or interest only. A quarter of Alt A loans had investors  
11 versus 9 percent of subprime. By almost all observable  
12 measures, except FICO, the Alt A loans had all the exotic  
13 features. Their default rate so far has been better. So,  
14 understanding that this so far has not been the exotic  
15 features, it has been who they lent to.

16 So, where do we go from here? This is my last  
17 slide. I think government policy has to understand that  
18 if we do not have a private mortgage market, and by  
19 private I do not mean the GSEs, we have a trillion dollars  
20 to replace. In my view, the reason house prices have  
21 fallen this quickly is because we completely erased  
22 mortgage products that served marginal buyers, and we not  
23 only got the ones who probably could not afford it, but we  
24 also have gotten the ones who probably could afford it at  
25 this point. Just erasing a large class of buyers from the



1 rights has the effect of reducing credit, which will have  
2 the effect of causing house prices to continue to fall,  
3 and this is a place where we really have to be careful  
4 with policy.

5 MR. PAUTLER: Thank you, Chris.

6 **(Applause.)**

7 MR. PAUTLER: Our final presentation in this  
8 segment will be done by Richard Todd and Morris Kleiner.  
9 They will be tag teaming.

10 MR. TODD: My balloon comes due next year. It's  
11 in your Minneapolis numbers, but it is okay, I think.

12 **(Laughter.)**

13 MR. TODD: I got into the hotel late last night  
14 and saw CSPAN had the National Governors Association  
15 talking about this. My governor and Pennsylvania's were  
16 touting mortgage broker regulation. So, there are a few  
17 things to say about mortgage brokers and licensing of  
18 mortgage brokers.

19 I am going to jump right in in the interest of  
20

For The Rec

1 actually better than we do, we are going to cover them  
2 only as background to our empirical work on state  
3 licensing, state licensing requirements for mortgage  
4 brokers. And I am going to quickly summarize that for you  
5 right up front. Before that, let me note that, like Chris  
6 here, I have to say that Morris and I are speaking for  
7 ourselves today and our views do not represent those of  
8 the Federal Reserve Bank of Minneapolis or the Federal  
9 Reserve System.

10           These [referring to the bullets on a projected  
11 slide] are our main points, the core of our results so  
12 far. Most forms of broker licensing have had little  
13 discernible impact on market outcomes that we can find in  
14 our study period of 1996 to 2006. This includes numerous  
15 requirements for mortgage broker education and experience,  
16 which casts doubt on the relevance, at least to mortgage  
17 brokers, of models of occupational licensing that stress  
18 human capital.

19           However, we did find one licensing provision,  
20 that brokers maintain either a minimum net worth or an  
21 occupational surety bond that is at least statistically  
22 associated with the effects in both the labor market and  
23 the mortgage market. However, the nature of these  
24 associations, as shown on this slide, in the sub-points  
25 there, is at best ambiguous regarding consumer welfare and

1 at worst not inconsistent with a Milton Friedman view that  
2 occupational licensing mostly hurts consumers by creating  
3 barriers to entry. And Morris is going to discuss the  
4 regressions that lie behind those associations in a few  
5 minutes.

6 I want to briefly note some additional points to  
7 the work, however. There are not that many empirical  
8 studies that have looked at mortgage broker licensing.  
9 The main exceptions, by El Anshasy and others, and by  
10 Backly and others, examine only a few states. We were  
11 lucky to make use of Cindy Pahl's much more complete index  
12 of state mortgage broker regulations for this '96 to 2006  
13 period. That index is available on our website and the  
14 final slide tells you how to find the whole data set.

15 We also need, I think, further theoretical work  
16 in this area. Perhaps the most complete model I know for  
17 addressing mortgage broker controversies might be Yiting  
18 Li's Middlemen and Private Information, but I really can't  
19 think of any theoretical model yet rich enough to cover  
20 the factors listed here on the slide that come into play.

21 Accordingly, we are going to report -- basically  
22 reduced form results focusing on the sign and significance  
23 of the coefficient on mortgage broker bonding and net  
24 worth and how it relates to market outcomes.

25 Before I do that, I want to comment a little bit

1 about surety bonds. They play a key role here and are  
2 also not very well studied. I want to talk about how they  
3 can be a barrier to entry. If a broker violates specific  
4 licensing provisions in a state resulting in a claim owed  
5 to a customer, the customer can have trouble collecting  
6 the claim from the broker. To resolve that, the states  
7 often require brokers to buy each year a surety bond from  
8 an insurance company, say, for \$50,000 or so.

9 Then if a claim arises, the insurance company  
10 will pay the customer, making it easier for the customer  
11 to collect, and the insurance company then goes and gets  
12 its money back from the broker. Therefore, the bond is  
13 essentially a mechanism for the insurer to lend money to  
14 pay the customer and then get repaid by the broker. So,  
15 it is like a line of credit and it is not that the broker  
16 actually has to put up all that money in a bank account or  
17 something.

18 Creditworthy brokers easily qualify for a bond  
19 and they pay relatively little for it, perhaps 1 percent  
20 or less of the bond. Like \$500 for a \$50,000 bond. But  
21 if you have defective or a thin credit file, you may  
22 simply be denied a bond and not be able to practice in the  
23 industry or you have to pay a lot more, a subprime surety  
24 bond, if you will, paying perhaps 10 or 15 percent, like  
25 5,000 bucks a year for a \$50,000 bond, and that is a

1 barrier for people.

2 I am going to close my part by talking about a  
3 few key characteristics of the industry, fitting the first  
4 panel theme here. Most mortgage brokers, their role,  
5 again, is to make and facilitate loan transactions. They  
6 do not actually take on credit risk. They are not  
7 providing the funding for credit risk purposes.

8 They convey information to borrowers. They  
9 convey information about the array of loan options. To  
10 lenders, they convey information about the borrower's  
11 qualifications. In this capacity, brokers provide  
12 marketing services as well, helping lenders reach  
13 borrowers. For example, brokers were important in  
14 enabling upstart mortgage banks to rapidly gain nationwide  
15 market share without establishing their own branch  
16 network. They help existing commercial banks penetrate  
17 new areas, too.

18 Brokers can help to hold down loan processing  
19 and closing costs by performing the paperwork and handling  
20 of loans efficiently. Their most direct competition comes  
21 from loan officers who work directly for mortgage lenders.  
22 These loan officers mostly perform the same functions, but  
23 work solely for their employer. The line, therefore,  
24 separating brokers and loan officers is especially thin.  
25 In some cases, the case of correspondent lenders, these



1 are lenders who do not really take much credit risk, they  
2 quickly resell loans to others at prearranged prices.

3 So, a lot of the controversy in mortgage broker  
4 regulation turns on whether independent brokers and the  
5 in-house loan officers should be treated equally because  
6 many existing and proposed regulations apply differently  
7 to the brokers versus the lenders' own loan officers.

8 Based on data through 2003, most of the mortgage  
9 brokerages are small firms with one office, about 10  
10 employees, five or six brokers, one or two managers.  
11 There are, of course, larger firms as well as a fringe of  
12 very small firms, including part-timers.

13 The industry's rapid growth that you saw on the  
14 first chart since the late '80s did take place mostly at  
15 the extensive margin. That is, they added firms without  
16 increasing firm size very much. So, I think that points  
17 very much to the potential importance of barriers to entry  
18 in this industry.

19 Brokers' compensation is controversial. That  
20 has been alluded to already. They are typically paid on  
21 commission for each loan they help originate. This often  
22 includes a fee set at a percentage of the loan amount that  
23 the borrower pays directly to the broker. But it also  
24 includes a payment -- often, it also includes a payment  
25 from the lender to the broker, called a yield spread

1 premium, and they are especially controversial.

2 As a number of people have pointed out, they can  
3 be thought of as negative points in return for a higher  
4 interest rate that you are going to pay. The lender  
5 provides cash back at closing, typically, credited to the  
6 broker. This can be a useful way for cash-poor borrowers  
7 to finance a portion of the broker's overall fee or other  
8 closing costs, but controversies arise because borrowers  
9 often have little awareness or understanding of these  
10 payments and because the payments give brokers an  
11 incentive to steer borrowers toward high-priced loans.

12 To mitigate the potential for abuse, brokers are  
13 required to disclose these yield spread premiums, but  
14 research by the FTC, Fed and others suggest that the  
15 disclosures are often ineffective. Similar payments are  
16 also made in the competing origination channels with  
17 correspondent lenders and their in-house loan officers.  
18 But in those cases, the same type of disclosure is often  
19 not required, and that adds to the controversy.

20 A number of proposals have been made to limit  
21 the potential abuse in mortgage brokering, including  
22 tighter broker licensing. And on that note, I will let  
23 Morris discuss our results.

24 MR. KLEINER: I am delighted to be here. I am  
25 going to be looking at this issue from a very different

1 lens, that is from the view of occupational regulation.  
2 And as a quick background, occupational regulation in the  
3 U.S. grew from around 4 or 5 percent in the 1950s  
4 according to some recent analysis that I have done with  
5 Alan Kruger at Princeton up to about 29 percent. This is  
6 an area that has experienced very dramatic growth, both at  
7 the state level, sub-state level and really at the  
8 national level as well.

9 Just yesterday, I was called by the director of  
10 an association who represents data entry workers at

1 experiences that are necessary to enter a particular  
2 occupation. Often they require continuing education  
3 requirements.

4 Traditionally, there is a license fee, and the  
5 license fees serve as a way for the state or local  
6 government to pay for these occupations to be regulated,  
7 and for them to be monitored. In most cases, the fees are  
8 in excess of the amount that it would take to monitor  
9 these occupations. There tends to be background checks  
10 for issues of good moral character. And in most cases,  
11 with respect to mortgage brokers and the real estate  
12 market, there really is a requirement for bricks and  
13 mortar regulations. That is, a physical presence as  
14 opposed to an internet presence. That has been the issue  
15 of some recent Justice Department litigation.

16 There also are various legal forms that need to  
17 be presented and are required by both the industry, that  
18 is, the regulation of the industry as opposed to the  
19 regulation of the occupation. Almost all states regulate  
20 the industry. In fact, Alaska, as of July 1, 2008, will  
21 be the last state to impose regulation on the industry.  
22 But as of 2006, only 18 states required full occupational  
23 licensing of the occupation of mortgage brokers. And  
24 these included a wide variety of different requirements,  
25 including audited financial statements, and an issue that



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1 credit seem to gain as a result of these regulations.  
2 There is alack a very clear, causal story.

3           However, they are sort of consistent with Milton  
4 Friedman's writing of the market and the role of  
5 occupational licensing; that is licensing is mainly an  
6 entry barrier that raises prices and cuts the quantity of  
7 brokers and also reduces the quantity of loans, as well as  
8 their quality. It is difficult, at least in our analysis,  
9 to find any pro-consumer interpretations and it would be a  
10 very difficult to find its impact as being significant.

11           Contrary to many public policies, proponents of  
12 a greater occupational regulation, including individuals  
13 like Mort Zuckerman and others who are arguing for greater  
14 regulation of mortgage brokers, our results certainly  
15 downplay the role of sort of regulated human capital, that  
16 greater regulation results in greater knowledge and, as a  
17 result, being able to serve consumers in a very positive  
18 way. Certainly more analysis is needed, but broker  
19 licensing does not look like a silver bullet for curing  
20 abuses, although perhaps some additional analysis in this  
21 area is needed to perhaps tease out some of these more  
22 detailed effects.

23           If you are interested in some of our results,  
24 especially the regulation data, which was developed by a  
25 former student, Cynthia Pahl, who worked with the



1 Minneapolis Federal Reserve Bank.

2 MR. PAUTLER: Thank you, Morris.

3 **(Applause.)**

4 MR. PAUTLER: I am going to break into your  
5 break time for just a little bit to allow some time for  
6 questions and answers from the audience. Questions from  
7 the audience, not answers, of course. So, if anyone has a  
8 question. The woman in the back?

9 **(Off microphone)**

10 UNIDENTIFIED FEMALE: Hi, my name is (inaudible)  
11 and I have a (inaudible) question for Dr. Mayer. I take  
12 your point about prepayment penalties being a proper risk  
13 mitigation tool for lenders in some instances, but I think  
14 what we have seen over the past couple of years is a  
15 loosening of underwriting standards. So, what may have  
16 been reasonable, that a risky borrower would qualify for a  
17 mortgage at 6 or 7 percent, that they could pay that  
18 mortgage, it may be unreasonable to think that the same  
19 borrower could afford the mortgage at 9 or 11 percent.  
20 So, when we look at these mitigation tools by lenders, in  
21 the context of loose underwriting standards, where  
22 borrowers are not being underwritten at the fully  
23 amortized interest rate for that mortgage product, I think  
24 that is where the problem occurs.

25 So, my question is, when you said that borrowers

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1 UNIDENTIFIED MALE: Well, to add color to my  
2 question, I am from Arizona momentarily. The issue is  
3 that we have a very large Hispanic population, and the  
4 concern is, if we do, whether it is bonding or licensing,  
5 et cetera, that that will be the market, the percentage of  
6 the market that is most dramatically or adversely impacted  
7 by this legislation.

8 MR. KLEINER: I would agree that certainly  
9 providing information to consumers, either registration or  
10 certification, provides very useful information. But  
11 licensing really restricts -- or adding these additional  
12 bonding requirements for entry really restricts entry,  
13 especially among minority communities.

14 UNIDENTIFIED MALE: Thank you.

15 MR. PAUTLER: Yes, sir. Please identify  
16 yourself before you ask the question.

17 MR. LYNCH: Hi, I am John Lynch from Duke  
18 University. So, this is a question for Souphala. What is  
19 the economic rationale for why low documentation loans are  
20 a positive thing? What is the benefit? What is the  
21 welfare benefit for low documentation loans?

22 MS. CHOMSISENGPHET: I am not quite sure what  
23 the benefit is. I think we have -- have you seen any  
24 performance on the low docs? Did you look at that?

25 MR. PENNINGTON-CROSS: Want me to try that?



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1 is through their mortgage and some of their debt is  
2 through credit cards.

3 Part of the reason the 125 LTV loans developed  
4 was when people started getting tough on credit card  
5 defaults. Lenders discovered, well, gee, if we make the  
6 loan on the house, you will not default on it because we  
7 can take your house right away, but if we make the loan on  
8 a credit card and you do not pay, we cannot take away your  
9 house. So, the idea of the option ARM or the negative,  
10 the 125 percent LTV loan is to provide a secured way of  
11 doing a mortgage that people will pay, and so far, they  
12 haven't not paid. Although there are going to be some  
13 real questions as to whether they will down the road.

14 But looked at in isolation, it is hard to think  
15 about -- the option ARM is just a combination of other  
16 things that already exist in the market that are not  
17 illegal.

18 MR. PENNINGTON-CROSS: And let me also point  
19 out, the IOs and the option ARMs, those are, again,  
20 products which were important in the jumbo market before  
21 they spread into subprime. And, again, those were  
22 designed for individuals who had highly volatile, but  
23 large incomes, like lawyers and partners in law firms  
24 would often use these things because one month they would  
25 have a huge draw, the next month their draw would be next





1 borrowers for whom those myths are not myths, that are  
2 truths, or whether you were able to look at smaller -- if  
3 you were able to do that sort of analysis, whether your  
4 findings really extend to the sort of sub-analyses?

5 MR. MAYER: Almost surely there was some amount  
6 of fraud that took place and there were some pe -7

1 problems and then there was a paper by Elliehausen et al.  
2 last year, and they found significant decreases in  
3 interest rates only. So, I think you have to accept that  
4 borrowers did get a rate cut in exchange in the subprime  
5 market.

6 MR. PAUTLER: I would like to thank everybody  
7 for the questions. We have gone over our time. So, we  
8 are going to reconvene at about 10:35. That is seven  
9 minutes from now and we will push the whole schedule back  
10 about ten minutes. So, we will begin at 10:35 with  
11 Session 2. Thank you.

12 **(Applause).**

13

1                   **SESSION II: ECONOMIC ANALYSIS OF CONSUMER**  
2                                   **INFORMATION AND MORTGAGE CHOICE**

3                   MR. PAHL: Good morning. I am Tom Pahl. I am an  
4 Assistant Director in our Division of Financial Practices  
5 here at the Federal Trade Commission and I will be the  
6 moderator for this next session.

7                   In the first session, our presenters described  
8 the changes that we have seen in the mortgage products and  
9 in the marketplace in recent years. In this session, we  
10 will build on that solid foundation and examine the  
11 relationship between the information that consumers  
12 receive and the choices they make about their mortgages.

13                   When writing a story, journalists are taught  
14 that they are supposed to answer the five Ws and the one  
15 H. Who, what, when, where, why and how. Hopefully, our  
16 presenters today will help to answer those questions in  
17 the context of mortgages. Who should provide mortgage  
18 information, what they should give consumers, when it  
19 should be provided, where it should be conveyed, why it  
20 should be given, and how it should be provided. A tall  
21 order certainly, but fortunately we have a very  
22 distinguished panel here today to help us sort through  
23 these questions:

24                   David Laibson is a Professor of Economics at  
25 Harvard University and a research associate at the





1 these transactions.

2           For example, who is going to say to a consumer,  
3 if you buy this large house, you will be spending too much  
4 of your income on housing? Stay in your old house and do  
5 not engage in the transaction. Or if you extract more  
6 home equity and spend it on current consumption, you will  
7 be spending too much of your income on interest, do not  
8 take out a home equity loan. Or if you refinance now, you  
9 will be giving up a valuable option to refinance in the  
10 future, you should not refinance now.

11           These are all truths, we think at least, in some  
12 cases, for some consumers, and the market does not have an  
13 incentive to inform individuals about these facts, because  
14 the person who is going to make money, or the firm that is  
15 going to make money, is the firm that is going to interact  
16 with the consumer who is, let's say, unaware of these  
17 possibilities.

18           So, I want to talk about something that Xavier  
19 Gabaix and I discuss as shrouded attributes. These are  
20 features or aspects of a product that are underappreciated  
21 by the consumer. So, a famous classical example is a  
22 printer. Everyone knows the price of the printer and  
23 very, very few people know the price of the ink and, of  
24 course, the ink is ten times more expensive than the  
25 printer itself. Well, in the mortgage market, there is an

1 analogy. There is obviously the current interest rate,  
2 which is very, very clear. And then there are many other  
3 prices which are perhaps less clear for some consumers. I  
4 do not want to suggest that all consumers do not see these  
5 prices. But, certainly, some consumers may fail to see  
6 some of the costs associated with a mortgage, particularly  
7 if those costs are stochastic and are delayed.

8 Let me keep moving. So, here is a quick model  
9 to get us all on the same page and provide a little bit of  
10 formalism. It is really very simple and it just lays out  
11 the concepts that I want to discuss. So, imagine a market  
12 where there is perfect competition. So, we are going to  
13 have firms, mortgage origination companies, mortgage  
14 brokers, perfectly competing with each other. There will  
15 be no rents for these firms. Imagine that the value of  
16 buying a house is  $V$  and that there is a cost of providing  
17 a mortgage in terms of the consumers' cost and that is, an  
18 apparent cost,  $P$ , and then a shrouded cost,  $PS$ . And let's  
19 imagine for the purpose of our conversation that  $PS$  is  
20 weighted by a factor,  $\beta$ .

21 So, the consumer only perceives cost  $P$  plus  $\beta$   
22 times  $PS$  and, obviously,  $\beta$  here is a value between zero  
23 and one reflecting imperfect awareness. When  $\beta$  is  
24 equal to one, the consumer is perfectly aware. When  $\beta$   
25 is less than one, the consumer is failing to fully

1 understand or fully evaluate some of these shrouded or  
2 delayed costs.

3 Let's assume as well that the originating firm  
4 cannot push too many of the costs into this shrouded  
5 category. So, we are going to bound PS with some bound  $P$   
6 bar  $S$ . You cannot put all the costs into that category  
7 perhaps for regulatory reasons or some other reason.

8 Finally, assume that the actual economic cost of  
9 providing this loan is  $C$ . So, what does equilibrium look  
10 like in this market? And, again, that is a competitive  
11 equilibrium. So, this gets back to what Chris was telling  
12 us earlier. In this model, because of competitive  
13 equilibrium, you cannot basically rip the consumers off.  
14 In competitive equilibrium, it is going to be the case  
15 that all firms make zero profits. So, when you create  
16 more costs in one category, you are going to end up having  
17 less costs in the other category. So, we are going to see  
18 exactly the kinds of trade-offs that Chris and others have  
19 documented. That is a competitive equilibrium condition.

20 Firms are going to minimize the perceived costs  
21 of their loans. They are going to do that by putting as  
22 many of the costs as possible into the shrouded category.  
23 So, there are shrouded costs. PS will be as large as  
24 possible. So, that is going to imply that the visible  
25 costs or the completely visible costs,  $P$ , will, in



1 equilibrium, be equal to the true economic costs minus the  
2 shrouded costs in this competitive equilibrium.

3 Now, we can have an equilibrium that is  
4 inefficient in this case. And how do we get an  
5 inefficient equilibrium? Well, if the economic cost,  $C$ ,  
6 is greater than the true value to the consumer, which is  
7 then again greater than the perceived cost to the  
8 consumer, we may end up with consumers who are undertaking  
9 these transactions, even though it is value-destroying.  
10 And the condition, I have just rewritten it below,  
11 basically emphasizes the role that beta plays here. Beta,  
12 recall, is the ability to perceive all of these shrouded  
13 costs.

14 So, when beta is equal to one, the consumer  
15 perceives all of the costs in this transaction, all of the  
16 ways in which he is going to have to pay for this home.  
17 And in that case, there is no opportunity for an  
18 efficiency because  $C$  cannot be greater than  $V$  and then  
19 greater than  $C$  again. So, when there is perfect  
20 understanding of the cost structure here on the part of  
21 the consumer, there is no inefficiency.

22 So, let's think about a calibration of a model  
23 like this. Not because this has any kind of real  
24 empirical meaning, but it just helps us think about the  
25 magnitudes. So, if you think about the costs that are

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1 Sumit is in the second row, John is in the fourth row --  
2 Xavier Gabaix and myself. What I am showing you here are  
3 credit card fee payments as a function of account tenure  
4 using account fixed effects. So, these are all sources of  
5 variation for the same person as they go through their  
6 life as a credit card borrower. They begin paying lots  
7 and lots of fees. They are very apparently confused about  
8 this relationship.

9 And as their account becomes a longer and longer  
10 tenured account, those fees collapse. This suggests that  
11 they began the relationship in a state of confusion and  
12 then they ended the relationship with a much better  
13 awareness of how they could gain the credit card.

14 Now, obviously, mortgages are radically  
15 different. The stakes are so much bigger and it is all  
16 kind of determined at the beginning. But is it also  
17 possible that people who are taking out mortgages also go  
18 through a learning process where they initiate the  
19 mortgage, not fully understanding all the features, and  
20 only over time come to understand all the ways in which  
21 that contract is complicated?

22 Now, could the market for advice solve these  
23 problems? Could people go for advice to third parties and

1           Well, the first problem is that it is very hard  
2           to separate good advice from bad advice. The second  
3           problem is that in many circumstances, in fact, the vast  
4           majority of advice is bad.

5           Let me give you an example of that from another  
6           paper with Sumit and John. This one precisely on the  
7           mortgage issue. We studied refinancing advice. We looked  
8           at the 25 leading books and websites that provide  
9           refinancing advice on a kind of volume basis. Not one of  
10          these -- these are the leading 25, not one of these 25  
11          provide a calculation of the -- these are not, by the way,  
12          banks, these are people in the business of saying, I am an  
13          advice source, I am an author of a personal finance book.  
14          These are, you would think, unconflicted. I think they  
15          are, in fact, unconflicted. Nevertheless, they are wrong.

16  
17          Not one of them provides a calculation of the  
18          optimal refinancing differentials or a table of optimal  
19          refinancing differentials. They all provide a break-even  
20          rule. And as you know, the break-even rule is not the  
21          appropriate refinancing rule. That ignores all the option  
22          value of refinancing, if interest rates move further in  
23          the beneficial direction.

24          Most of the advice boils down to the following  
25          necessary condition for refinancing. Refinance if you can

1 recoup the cost, the closing costs of refinancing and  
2 reduced interest payments, which is, any economist will  
3 tell you, the wrong rule to use when thinking about  
4 refinancing.

5 So, advanced markets are problematic. Well,  
6 what about regulation? Maybe that is going to solve our  
7 problem. Here I am going to turn into a classical  
8 economist. Apparently, we economists cannot give up our  
9 training. I am actually rather skeptical of regulatory  
10 solutions. I do not think we should not think about them  
11 and work on them and try them. But the kinds of things  
12 that I have been studying lead me to believe that we are  
13 likely to be disappointed by regulatory interventions.

14 So, what are the kinds of solutions that I am  
15 discussing now? Well, we could provide consumer  
16 education. We could teach consumers to look for these  
17 shrouded costs and optimize accordingly. We could also  
18 regulate transparency. Compel firms to stop shrouding  
19 costs, to make the costs easier to see.

20 Let me show you some evidence now from different  
21 markets that make me skeptical of these kinds of  
22 arguments. This is a study that I recently did with John  
23 Beshears, James Choi and Brigitte Madrian, and we studied  
24 a new disclosure form that the SEC is promulgating. It is  
25 called a summary prospectus. Everyone is very excited

1 about this at the SEC. The Director of the SEC Division  
2 of Investment Management recently said the results should  
3 be disclosure that is layered in a manner that allows each  
4 mutual fund investor and each intermediary, analyst, and  
5 other user to quickly find and use the information that he  
6 or she needs and wants. And they proposed this new  
7 summary prospectus.

8 We actually rolled it out in our laboratory and  
9 we gave subjects real stakes, not 100,000, but 100. In  
10 fact, that was the scaling. And what did we find? Well,  
11 I want to contrast the subject choices using the old  
12 prospectus and using the new, improved, disclosure-great  
13 prospectus. So, if subjects had minimized fees, just to  
14 give you a benchmark in these experiments, they would have  
15 paid a fee of 1.82 percent of their assets.

16 In fact, when they had the old prospectus in our  
17 experiment -- this is all, of course, randomized, so there  
18 is perfect control groups here -- their statutory  
19 prospectus ended up with a fee of 3.73 percent. When we  
20

1           appeal as a theoretical object.   But as a practical  
2



1 funds. We are going to explain the fees to you as  
2 percentages. We are going to explain the fees to you in  
3 dollar terms, and we are going to lay them out on a single  
4 page, with language that we thought was crystal clear.  
5 And this is the result that we got.

6 **(Laughter.)**

7 MR. LAIBSON: Still worse than dart throwing.  
8 And we keep doing studies like this. Maybe we should give  
9 up. We keep thinking we are going to find a way to get  
10 people to do the right thing without basically holding  
11 their arm behind their back and dragging them across the  
12 room.

13 So, last slide, disclosure, in our experience,  
14 does not lead people to choose low fee mutual funds or at  
15 least has minimal effect. Even when the funds are index  
16 funds, even when they are identical commodity S&P 500  
17 index funds. Would better disclosure work in the mortgage  
18 market? I think we have seen some preliminary evidence  
19 that suggests it is hard there, too.

20 What educational interventions work? I do not  
21 know. And the more I study these interventions, the more  
22 I find that it is very hard to change behavior in a  
23 dramatic way. I am particularly struck by the costs of  
24 these interventions, and the minimal results we get from  
25 them. Not to mention, if we think about more forceful



1 time around, as in the case of David's work on credit  
2 cards.

3 Some of my co-panelists have done some very nice  
4 work, which they are going to talk about later, showing  
5 that there is abundant evidence that borrowers in the  
6 mortgage market just do not fully understand their loan  
7 terms. And I think there are sort of two implications  
8 that we could draw from this. There are two separate  
9 kinds of things, in some sense, that we might think about.  
10 One is just a traditional problem that has been around for  
11 many years in the mortgage market, that people may pay  
12 high fees or not shop enough for a good APR. These are  
13 issues that have been around for many, many years in the  
14 mortgage market.

15 And then there are more recent issues which have  
16 to do with both the innovation in the kinds of mortgage  
17 contracts and the set of people entering into mortgage  
18 contracts. Basically, the problem, people may put  
19 themselves into the wrong kind of mortgage or simply put  
20 themselves into a mortgage or a house that they just  
21 probably should not have been in. And this problem seems  
22 particularly acute in the subprime population that was  
23 talked about in the first session today.

24 So, I want to use my time to talk about two  
25 particular issues. One is, I want to follow up on some of

1 the things that David said about the extent to which the  
2 market provides sufficient consumer information and  
3 sufficient guidance in terms of steering consumers into  
4 appropriate financial contracts. And then, secondly, to  
5 talk about the question of whether better information  
6 alone provides sufficient consumer protection,  
7 essentially, again, following up on one of David's themes,  
8 the extent to which better information leads to better  
9 decisions. And I think I am going to come up mostly in  
10 line with the first speaker, although not completely.

11 So, what do we know about disclosure incentives  
12 in markets? I think one thing we know at a broad level is  
13 it depends on two things. It depends on the  
14 sophistication of the buyers in the market and it depends  
15 on the degree of competition. In fact, one of the old  
16 results in information economics, one of the most  
17 surprising results that came out of information economics  
18 many years ago is that in a market with sophisticated  
19 buyers, highly sophisticated buyers, sellers actually have  
20 an incentive to fully disclose what they know.

21 Essentially, the argument is that, in a market  
22 where buyers are very sophisticated, the absence of  
23 disclosure, the absence of revealing information would be  
24 taken as bad news. People will read into the fact that  
25 you did not disclose something as the idea that you had

1 something to hide. And, of course that requires a  
2 tremendous amount of buyer sophistication to make that  
3 inference, that not hearing about something means that  
4 there is probably something that the seller or the lender  
5 wants to hide.

6 In a market where consumers are unsophisticated,  
7 the main thing that we know from information economics is  
8 that sellers will have an incentive to disclose only if  
9 there is a mutual gain from doing so. That is sort of one  
10 way of interpreting the kinds of models that David has  
11 been working on. There has to be a mutual gain for the  
12 seller to want to bring information forward. That is  
13 where competition, in some ways, can come in because in a  
14 setting where sellers are competing to offer lower fees or  
15 better APRs, one might think that there, in fact, would be  
16 reasonably good incentives. But what this requires is  
17 that the competition is effective in the sense that buyers  
18 are actually entertaining offers from multiple sellers.

19 And my impression is that that is something that  
20 happens much less in the mortgage market than many other  
21 markets that you might otherwise think. For example, if  
22 you were shopping now for a plasma TV and you had access  
23 to the internet, it would be very hard to dramatically  
24 overpay for your plasma TV because it is just so easy to  
25 type plasma TVs into Google and see 700 prices.

1           In fact, in some segments of the mortgage  
2 market, it is pretty easy to do that now just by typing  
3 into Google mortgage interest rates and getting your home  
4 area. But in certain sets of the market, for example, in  
5 the subprime market, where the offer terms are much more  
6 idiosyncratic and highly tailored to individuals, it is  
7 much harder to shop around. I think there is probably  
8 also some confusion on the part of buyers about the role  
9 that brokers play in fostering competition, and the extent  
10 to which their incentives are aligned with buyers.

11           The second point is these are issues over things like  
12 APRs or fees. In some ways, the more recent point has to  
13 do with whether buyers get steered into sustainable  
14 obligations, the mortgages that work for them. And in a  
15 traditional lending environment, one might have thought  
16 that the incentives were actually pretty good for this.  
17 If a lender is going to hold the loan on his books, you  
18 really do not want to put a borrower in a position where  
19 he cannot repay.

20           But in a vertically disintegrated lending  
21 environment, such as the current environment, your agency  
22 problems are going to undermine that sort of basic  
23 incentive to get people into sustainable obligations. I  
24 think there is still a question as to the extent to which  
25 that has happened, but that's certainly an important topic

1 for us to be looking at.

2 Let me talk for a minute about why this problem  
3 is particularly acute in the subprime market. I think in  
4 the subprime environment -- and here I am going to draw on  
5 some of my work that I have done not on mortgages but on  
6 auto loans. One of the issues in subprime is that --  
7 actually, there are sort of two. One is that the  
8 population of subprime borrowers, at least from the  
9 research that I have done, is a highly heterogenous  
10 population. They are not all of the same kind. They are  
11 just very different people who find themselves in the  
12 position of applying for subprime loans. And they are  
13 also highly payment sensitive.

14 Let me just tell you a few things from some  
15 research that I have been doing recently with some of my  
16 colleagues at Stanford. This is on auto loans. So, why  
17 auto loans? Well, one of the things about looking at auto  
18 loans is that we have data from a major subprime auto  
19 lender. One thing that you can see in the data that we  
20 have is that you get to see consumers come on to the lot  
21 and get an offer and then make a decision. You see the  
22 application and then you see the purchase decision. I am  
23 not sure that this kind of data exists in the mortgage  
24 market. It would certainly be interesting if it did.

25 One of the things you can see is that the

1 decision to make a purchase, to close the deal after you  
2 have gotten an offer is just extraordinarily sensitive to  
3 down payment requirements. I mean extraordinarily  
4 sensitive to a degree that it would be hard to fathom for  
5 anyone in this room, given the sort of kinds of liquidity  
6 that most people in this room would have.

7 And purchasers are also remarkably insensitive  
8 to deferred payments to the extent that when you estimate  
9 demand and you put in deferred payments as an explanatory  
10 variable, you get a very precisely estimated zero as the  
11 effect of deferred payments.

12 The flip side of this coin that people are very  
13 sensitive to current payments means that though later  
14 payments do show up, they show up in default because when  
15 the later payments are due, then they are the current  
16 payments. And, so, you see remarkable sensitivity then to  
17 later payments down the road.

18 So, what that means is that you have just a





1        what is the right piece of advice, for example, what is  
2        the right information to provide to these borrowers  
3        because much of it may be idiosyncratic to them and their  
4        own situation. It makes it hard to think about a one size  
5        fits all product or solution when a lot of the relevant  
6        information may be in the hands of the person taking the  
7        loan as opposed to the person making the loan.

8                So, this then leads to the last thing I wanted  
9        to comment on, which is about whether or not better  
10       information leads to better decisions. I did not know  
11       that David was going to put up those beautiful results  
12       from his Harvard studies, but I think those make the point  
13       better than I possibly could.

14               Let me start by saying, some of my other  
15       co-panelists, Jim Lacko and Jan Pappalardo, have done a  
16       wonderful study showing that improvements in the mandatory  
17       mortgage disclosure could lead to substantial gains in  
18       consumer understanding. That is, if you do surveys and  
19       you ask, do you understand this feature of your mortgage,  
20       what you see is that you could do much better than the  
21       current way that mortgage terms are disclosed.

22               And, so, that then leads to the question of,  
23       would that, in fact, improve decision-making? And I  
24       actually had a slightly more optimistic view than David  
25       when I looked at their study, which is that it suggests to

1 me that there are certain things where better information  
2 might help. For example, showing that some fees are  
3 optional fees, that you are sort of opting into as opposed  
4 to fees you have to pay strikes me as something where you  
5 possibly might get some traction. But it seems much less  
6 clear that better information, sort of per se, is going to  
7 allow people to be better shoppers.

8 One of the things to keep in mind you are  
9 shopping for mortgages is just remarkably complex even for  
10 a sophisticated buyer. If you think about the trade-offs  
11 between different kinds of mortgage products, whether you  
12 should take a fixed rate mortgage or an adjustable rate  
13 mortgage, how long to lock the rate or whether to pay  
14 points to reduce the interest rate, these are incredibly  
15 complicated decisions that certainly Ph.D. economists  
16 would struggle with and probably get wrong most of the  
17 time. I am sure I got it wrong when I took out my  
18 mortgage and bought my house in California at the peak of  
19 the bubble.

20 **(Laughter.)**

21 MR. LEVIN: One lesson I have drawn from  
22 behavioral economists, work by David and others, is that  
23 in thinking about things like disclosure, the details  
24 matter to an extraordinary degree. That it is just  
25 incredibly easy to go wrong and very hard to go right.

1 Because minute things that appear minute about details of  
2 the exact context in which information is presented, the  
3 timing in which it is presented, who it is presented by,  
4 and the tone of voice seem to matter in randomized  
5 experiments.

6 So, this just suggests to the extent that we  
7 were going to move forward, and I suspect we are going to  
8 move forward with disclosure and potentially with much  
9 more aggressive regulation of this market, but a lot of  
10 thought has to be given to the details of the way it is  
11 done, and it would be foolish to rush in too aggressively  
12 without giving a lot of care to the exact manner in which  
13 information regulation is advanced from here.

14 **(Applause.)**

15 MR. AMBROSE: Thank you for inviting me to come  
16 here today. I am going to talk about a related issue  
17 about banks advertising and how bank advertising can  
18 actually affect consumer choices in the mortgage market.  
19 This is joint work with Summit. Our context is not  
20 actually first mortgages, but actually home equity lending  
21 and the home equity market.

22 And one of the things that is interesting about  
23 this is that we are looking at a group of consumers, these  
24 are not subprime, not Alt A, these are prime consumers,  
25 relatively sophisticated. One of the things that we are

1 able to observe is through an actual experiment that we  
2 identified at one particular financial institution is we  
3 could compare and contrast the choices that consumers make  
4 regarding types of home equity product, and how we  
5 classify the home equity product is into a variable rate  
6 product, a home equity line of credit, or a fixed rate  
7 home equity loan, and we can compare and contrast people  
8 who come into the bank, who essentially walk into the bank  
9 on their own, versus people who we then identified came  
10 into the bank and were sent a solicitation by this bank,  
11 and we can then see the choices that they made based on  
12 the type of characteristics of these borrowers.

13 So, with that in mind, I just want to kind of  
14 briefly show just some numbers that indicate, you know,  
15 obviously, advertising is extremely important, otherwise  
16 we would not spend so much money on this thing. The area  
17 that we are looking at is the direct mail solicitation.  
18 So, in 2005, we spent over \$55 billion on this. Financial  
19 services was the fourth largest industry doing this. So,  
20 clearly, we get a lot of mail from banks and financial  
21 institutions.

22 So, the question that we were asking in this  
23 project was, does this advertising persuade consumers,  
24 does it impact consumers' financial decisions? This is  
25 actually fairly timely in that even up until last year,

1 the banks were ramping up their marketing efforts to go  
2 out and sell more home equity lines of credit and home  
3 equity loans.

4 So, with that in mind, the previous research in  
5 economics clearly indicates that marketing is effective.  
6 However, there is very little research in how consumers  
7 evaluate these marketing efforts on financial products,  
8 and, in particular, almost no evidence or research on  
9 mortgages. And, so, that is where we are coming up into  
10 the study.

11 I am going to skip over a lot of the details in  
12 the interest of time. Needless to say, there have been a  
13 few studies in the area of consumer advertising in showing  
14 that the advertising does impact decisions. And we are  
15 going to then focus again, as I have said, on the role of  
16 the home equity market, and our choice variable then is,  
17 do you take a variable or a fixed rate product?

18 Now, the competing views of advertising are  
19 essentially that advertising can be persuasive. That is  
20 the old style, old school view that advertisers are going  
21 to try to alter a consumer's taste preferences. A more  
22 recent view is that, no, advertising is actually much more  
23 informative. It is just providing information to  
24 consumers about lowering their search costs or that it is  
25 somehow complementing their taste preferences and helping

1       them encourage consumption. So, we are going to try to  
2       disentangle the three effects and show that actually  
3       advertising has all of these effects. We actually can  
4       identify particular consumers who were persuaded, who were  
5       informed, or who had a complementary effect.

6                What I think is an interesting aspect from the  
7       study is that we will actually be able to show that there  
8       were some consumers who got it right, there were some  
9       consumers who got it wrong, but the evidence is not  
10      clear-cut that everybody got it wrong. So, advertising is  
11      not an evil in and of itself. Clearly, there were people  
12      who got it right and the advertising helped them in that  
13      decision.

14               So, our study comes from a large financial  
15      institution who originated these products back in 2002.  
16      And, again, we have the two different types of lines of  
17      credit and home equity loans. We have over 108,000  
18      observations. These are the loan applications. So, we  
19      identified that there were 108,000 walk-in consumers.  
20      These are the people that just came into the branch bank  
21      offices to originate a home equity credit.

22               We then matched this up with the bank's direct  
23      mail advertising campaign that they were conducting at the  
24      same time, and using the name matches we were able to  
25      identify precisely the consumers who received a





1 please come in and originate a line of credit. But it  
2 also would say, other options are available. And it did  
3 not say you are preapproved. It did not say you are  
4 guaranteed anything. It just said these are available.  
5 So, it is very clear that this was not a you are  
6 guaranteed to get this line of credit.

7 And, unfortunately, we do not have the actual  
8 solicitations from the bank. They have been lost. So, I  
9 pulled up some letters that I received this past winter  
10 just to show you, and we have shown these to the bank  
11 officers, and these are indicative of the types of letters  
12 that were being sent out back in 2002. So, again, these  
13 are not the financial institutions that we are dealing  
14 with. These are not the letters that were sent out, but  
15 these are representative of the type of letter that was  
16 going out five years ago.

17 And, so, these are two letters that I received  
18 back in January. One is for a line of credit, one is for  
19 a home equity loan. And what I want to highlight is, on  
20 the top one, this was for the home equity loan and it  
21 clearly states in the letter, you could also get a home  
22 equity line. The bottom one was for the home equity line  
23 of credit and it clearly states that fixed rate options  
24 are available. So, this is the type of solicitation that  
25 you are getting. I am sure most of you have received this

1 type of mail as well and promptly trash it as well, like I  
2 do. But it is showing that there is a menu available, and  
3 we have also confirmed with the bank that when the  
4 customers came into the office to originate a product,  
5 they were shown the menu of products that are available.  
6 So, the choice was up to the consumer in that sense.

7 So, what we are going to do then is just a  
8 straight economic specification to look at what is the  
9 impact of this advertisement solicitation on the choice of  
10 the consumer. We are relating it back to the literature  
11 on mortgage choice. There is a large literature on  
12 mortgage choice that goes back to the 1980s, that looks at  
13 the effect of various interest rate and economic factors.

14 And, so, we are going to show that the walk-in  
15 consumers, as you would expect and consistent with all the  
16 prior empirical studies from the 1980s, do behave  
17 rationally. They choose products, as you would expect,  
18 from our theoretical models on interest rate environment  
19 and things like that. And then we are going to show that  
20 this advertising effect does trump the specifications that  
21 came out of the economic environment.

22 So, again, one of the interesting things about  
23 this data is we have everything that the bank had on the  
24 application. So, we can control for just about everything  
25 that the bank would have used in underwriting and,

1 hopefully, in terms of controlling for the consumer's  
2 choice variables. So, we have things about the economic  
3 environment. We know what the interest rates were at the  
4 time that they were applying. We know the loan-to-value  
5 ratios, both the first mortgage as well as the home equity  
6 loan.

7 Interestingly, and this is something that is  
8 very new, we actually know what the borrower intended to  
9 do with the funds because the bank asked the borrower, "Do  
10 you want to do this, go out and take a vacation, or use  
11 this for remodeling or debt refinancing?" Clearly, the  
12 borrowers do not have to use the funds for that purpose,  
13 but this is an indication of what they planned to do with  
14 the funds. Of course, we have all of the information on  
15 the application, about the borrower itself, their FICO  
16 scores, their income, age, job tenure and so on. So, it  
17 is a very rich data set in that sense.

18 I am going to skip over how we actually did this  
19 just in the interest of time. One of the issues that we  
20 are worried about, of course, is, well, what if the  
21 consumer's response is endogenous to this letter? So, we  
22 are very careful about that. There is a theoretical  
23 argument for why our study should be minimized because we  
24 are dealing with the home equity product rather than first  
25 mortgages. So, these people, there is a natural bias for

1       them to want to prefer a home equity loan. So, in a  
2       sense, our results are going to be biased downwards away  
3       from finding an effect.

4

1 from 2003 through 2005. So, these are the time-varying  
2 probabilities of a representative consumer and what they  
3 would choose, the probability that they would choose a  
4 line of credit versus a loan.

5 So, the variability of the middle line, that is  
6 the walk-in consumers. You can see that the top line and  
7 the bottom line, these are the people that got the  
8 solicitation. There is almost no effect on the economic  
9 environment. So, the fact that they get a letter washes  
10 out completely the economic environment effect that we  
11 expect on their choice. You see the same thing for people  
12 who are refinancing. So, it is clear that the mortgage  
13 choice is being impacted by the economic environment, but  
14 then there is this overriding factor going on with the  
15 advertising campaign.

16 Now, in our paper, we have a slew of robustness  
17 checks because, obviously, we want to make sure that this  
18 is right. I do not have time to go through them all. One  
19 of the things that I will highlight is we were then able  
20 to go back and look at the people who got the solicitation  
21 and see who switched products, because these were clearly  
22 people that could not have been persuaded, right? If you  
23 got a line of credit offer and you switched and originated  
24 a loan, then clearly the advertisement did not persuade  
25 you to take out an incorrect product.

1           Well, lo and behold, the people who switch  
2 looked just like the walk-in customers in terms of our  
3 economic model. In fact, these are the people who, in  
4 terms of demographics, have higher credit scores, they  
5 have higher incomes, they are younger, and these are  
6 people who are using the product basically for remodeling  
7 purposes. There is some evidence that the people who are  
8 switching, they are different from the people who were not  
9 switching, who were following the cue from the bank  
10 solicitation.

11           We did, again, some more robustness tests to  
12 look at the comparisons between these walk-in customers  
13 and the people who received the solicitation. On this  
14 matched sample where we were able to control for all the  
15 characteristics of the borrowers, the solicitation  
16 variable comes in as being the most overriding choice  
17 factor. So, you are 44 percent more likely to select a  
18 line of credit if you received a line of credit letter  
19 than if you did not, controlling for everything else. So,  
20 again, this is a matched sample where we took the walk-in  
21 customers who did not receive any solicitation and matched  
22 them up with the solicitation people. So, this is washing  
23 out all of that effect and, clearly, the type of cue you  
24 got from the bank has a major impact.

25           Again, to speak to the idea, well, did these

1 consumers recognize that this was a mistake? Did they  
2 make a mistake? So, we were able to identify the people  
3 who were sent this solicitation, were persuaded, chose the  
4 product that they probably should not have chosen based on  
5 what all the walk-in people chose. And then we examined  
6 their three-month prepayment rate. Now, remember, these  
7 are home equity products, there is zero cost, there are no  
8 prepayment penalties, and lo and behold, the people that  
9 we identified as being persuaded have a prepayment rate, a  
10 three-month prepayment rate, a very short time period  
11 after origination, that is four times higher than the  
12 prepayment rate of the walk-in customers or the  
13 complemented customers.

14 So, there is evidence now that these consumers  
15 recognize that they made an incorrect choice, because it  
16 is a zero cost prepayment, they have presumably refinanced  
17 and switched off to a different product. Again, a number  
18 of different issues and robustness to verify that as well.  
19 One concern is maybe people just do not care that they  
20 were originating a product because, again, it is a zero  
21 cost product, so it does not really matter which choice  
22 they are making. We take the view that this is not  
23 correct because we examined the utilization rate of these  
24 lines of credit.

25 If it is true that the people would not care,

1 then we should observe the people who are making the  
2 incorrect choices, having a very low utilization rate.  
3 So, they are not paying interest costs, so it does not  
4 really matter. Well, that is not correct either. The  
5 utilization rate is consistent and is about the same  
6 magnitude as everybody else. So, they are paying a very  
7 high interest cost on a product that they probably should  
8 not have chosen relative to what everybody else chose.  
9 So, it is not a trivial decision.

10 So, the conclusion, then is that we do find that  
11 consumer choice is being driven by economic factors, just  
12 like in the literature from the 1980s. The intended use  
13 of funds that people have has a major impact on what they  
14 are going to choose, and then this advertisement, the  
15 direct mail solicitation, has a major impact on the choice  
16 of consumers.

17 Now, the takeaway then from this is, does this  
18 mean we need to eliminate advertisement? I do not think  
19 we want to go down that road because, remember, we showed  
20 that there was a large section of this group that made the  
21 right choice, got it right. So, they received the  
22 solicitation from the bank and they actually switched.  
23 So, it is not clear that just everybody who gets an  
24 advertisement is fooled by the bank, in some sense, to  
25 take a product that they should not have. They actually



1 chose the right product.

2 So, depending on your world view, you can view  
3 it as the glass is half full or the glass is half empty.

4 **(Applause.)**

5 MR. PAHL: Thank you. Karen Pence will be our  
6 next presenter.

7 MS. PENCE: Thanks very much. It is a pleasure  
8 to be here today. This really is an incredible group of  
9 speakers assembled, as you will see as I go through my  
10 presentation. I think I cite almost every single person  
11 who is on the panel this morning and this afternoon.

12 The usual disclaimer applies. These are not the  
13 views of the Board of Governors; they are just mine.

14 This is drawn from research with my colleague,  
15 Brian Bucks. I am going to gloss over a lot of details in  
16 this, so please ask me for the paper if you want the real  
17 details. We had this finding in our first iteration, that  
18 borrowers appear to understand their basic mortgage terms  
19 or they appear to either underestimate but not know the  
20 amount their interest rates can change. That is specific  
21 to ARM borrowers, obviously.

22 So, the part of this I am going to draw out a  
23 little bit more today is why. Why is it that borrowers  
24 seem not to know, as the reasons why borrowers do not know  
25 might inform our policy choices.

1           So, first, just to illustrate the first point,  
2           that borrowers do know basic mortgage terms. So, this is  
3           a distribution. It is from two different lender data sets  
4           and one borrower data set. So, just to be clear, we are  
5           not matching a borrower and a lender, we are just looking  
6           at the overall distribution. But if you look at it, these  
7           align pretty well on basic terms. So, all three data  
8           sources agree about 85 percent are mortgages  
9           -- and I should be clear, this is in 2001. That was the  
10          best year we could get most comparable data. So, about 85  
11          percent of mortgages in that year were fixed rate, and 11  
12          to 13 percent were ARMs.

13                 And if you look at the amortization period or  
14          how long they took the mortgage out for, they all agreed,  
15          about a quarter are 15-year mortgages, about 70 percent  
16          are 30-year mortgages.

17                 You get a very different picture when you go  
18          into the terms that are specific to an ARM. This is the  
19          cap on how much your interest rate can change per period.  
20          Again, remember, this is 2001. It was a very different  
21          world. We did not have all the products that Souphala and  
22          Anthony detailed for us earlier. So, pretty much you had  
23          a standard ARM where your interest rate could go up two  
24          percentage points each period. And that is what the  
25          lenders described. So, they said about half of the ARMs

1 outstanding in 2001, the most the interest rate could rise  
2 every year was two percentage points. There were some  
3 that could rise by more and then almost 20 percent that  
4 had no cap.

5 Well, borrowers were wildly more optimistic

1 MS. PENCE: So, three different possibilities.  
2 In the first one Brent just talked on a minute ago, the  
3 benefit of acquiring the knowledge is small. So, maybe  
4 people do not know because it does not matter. So, my  
5 colleagues say to me, for example, I do not know what the  
6 interest rate is on my credit card, but I always pay off  
7 my balance every month, it does not matter. And that is a  
8 common framework that people look at. They say, well, it  
9 does not matter, so why do I need to figure it out? So,  
10 maybe the borrowers do not know because they know it is  
11 not going to have a big financial effect on them.

12 There is a very nice paper that Sumit and  
13 Souphala have looking at correct card contracts and saying  
14 that as a financial penalty grows for choosing the wrong  
15 contract, people are more likely to choose the right  
16 contract. So, we take that as evidence. So, when the  
17 costs are high enough, people acquire the information.  
18 But when the costs are small, I mean, we all have a finite  
19 amount of time every day.

20 I did not see evidence for this "it doesn't  
21 matter" hypothesis in this paper. This left-hand graph is  
22 a simulation we ran. I will spare you the details, but we  
23 said, what is going to happen to these people if they get  
24 a really big interest rate shock? So, we calculated the  
25 change in their payments relative to their income, and

1       this is the 90th percentile. So, what that means is that  
2       ten percent of the ARM borrowers that were in the bottom  
3       half of the income distribution were going to have a  
4       payment shock of 13 percent or more of their income. So,  
5       under a scenario, that is how much their payment was going  
6       to go up for ten percent of them, 13 percent or more.

7                If you look at people in the top half of the  
8       income distribution, and they are much less of a problem,  
9       so ten percent of them are going to have a shock of six  
10      percent or more. So, they have much less exposure to bad  
11      shocks. If you just looked at that and if you thought the  
12      people do not know because it does not matter, you would  
13      expect low income borrowers to know these terms a lot more  
14      because they are going to face a big penalty and we do not  
15      see that at all. So, 41 percent of ARM borrowers in the  
16      bottom half of the distribution said they did not know  
17      their per period cap compared to 25 percent in the top  
18      half.

19               The exact same thing, if you look at people who

1 same. So, ten percent of them are going to have a shock  
2 of 13 percent or more of their income. That is the  
3 change. It is not the payment. It is the change in the  
4 payment.

5           If you took out your mortgage earlier, much  
6 smaller. Seven percent is the amount of the shock that  
7 the top ten percent are going to get. And, again, this  
8 does not line up well with the do not know rates. So, the  
9 people who do not know are actually the people that took  
10 out their mortgages recently, not the people who took it a  
11 while ago.

12           So, another possibility, understanding mortgage  
13

1 mistakes a lot more.

2           There is also another strand of literature  
3 saying people really have problems with interest rates.  
4 Again, Anna has done some work in this. But people seem  
5 to have much more trouble with compound interest rates and  
6 other financial terms.

7           Here we do find support for this theory. So, if  
8 you look at people that went to college versus people that  
9 did not, the people who went to college are a lot less  
10 likely to say they do not know. So, 25 percent of these  
11 people say they do not know compared to 41 percent of  
12 people that did not finish college. We are able actually  
13 to replicate the age result, although actually much more  
14 dramatically than David and Sumit and John found in their  
15

1 finally decided it was a financial literacy thing. So,  
2 people that are not willing to take any risk at all in  
3 their investments, like nothing. There are questions and  
4 they are like, "Well, I am willing to take a little risk,"  
5 but these are the people that say no risk at all. These  
6 are actually the people, sadly enough, that are taking on  
7 the most risk because they do not understand their  
8 contracts.

9 A third possibility that Jonathan alluded to  
10 earlier, borrowers may be not focused on the long-term  
11 financial consequences. They may just be focused on what  
12 is my monthly payment going to be right now. It may be  
13 because borrowers are impatient by nature. This is what  
14 economists would call a preference parameter. Or it may  
15 just be they are in a situation, they really need money,  
16 they are borrowing constrained, they do not have very good  
17 options, they just need to get a loan as soon as possible  
18 and they are not thinking about the terms of the mortgage,  
19 per se. They are thinking about how to get out of the  
20 contract and into a better situation.

21 And there are some very interesting focus groups  
22 of subprime borrowers, including the work that Jan and Jim  
23 are going to talk about in a minute, where a lot of  
24 subprime borrowers, in particular, report feeling  
25 desperate and powerless when they enter into transactions.



1 They are not really in a position where they are in a  
2 position to argue with the lending institution.

3 I interpret our evidence as consistent with this  
4 hypothesis also. So, people who said I did not apply for  
5 a loan because I thought I might be turned down, 46  
6 percent of those people did not know their caps compared  
7 to 36 percent of those who said, no, I have never had  
8 that. The same thing, people that did not have any  
9 informal borrowing options, so people who said I cannot  
10 borrow \$3,000 in an emergency from family or friends. So,  
11 48 percent of these people said, no, I do not know my  
12 interest rate caps.

13 On the people who said they are just focusing on  
14 the short-term in their planning and savings decisions,  
15 those people are much more likely not to know. And this  
16 last one, it was not clear to me if this was a financial  
17 literacy or a desperation, I think you could make either  
18 argument. But people who do not do any comparison  
19 shopping when shopping for loans do not know, which maybe  
20 is not a surprise.

21 To conclude, of the three explanations that we  
22 suggested, financial literacy and short-time horizon seem  
23 to be the main reasons why ARM borrowers do not know their  
24 interest caps. We do not find a lot of support for the  
25 "it does not matter" explanation. So, I think this is



1 to the area of looking at mortgage disclosures, oh,  
2 several years ago. There is a long history of mortgage  
3 disclosure requirements going back to things like the  
4 Truth-in-Lending Act back in 1968 and the Real Estate  
5 Settlement Procedures Act, which requires the GFE and in  
6 TILA, it is the Truth-in-Lending statement, and some  
7 history of concern about the effectiveness of disclosures.  
8 In addition, one thing that interests us about disclosures  
9 is that we have seen, in FTC cases, that consumers can  
10 receive every required disclosure and still be deceived.  
11 So, that leaves open a question of how well do disclosures  
12 work.

13 A few years ago, I was asked to look at some  
14 regulations, and I went to do a review of literature on  
15 what we knew about mortgage disclosures. I was actually  
16 shocked to find that there was basically no research on  
17 mortgage disclosures. So, we at the FTC, having done  
18 disclosure research in other areas, decided to do some of  
19 our own work. This particular study, we tried to focus on  
20 understanding how consumers understand current disclosures  
21 because, as I said, we had seen in cases that people must  
22 not understand them. We were looking at mortgage terms  
23 and whether people understood the terms of their own  
24 mortgages, and we found that there is virtually no  
25 evidence on whether better disclosures could actually

1 improve consumer understanding, despite the fact that we  
2 had years of disclosures and many people thinking  
3 disclosures must work. We have them. Smart people write  
4 them. They must be effective.

5 The objective in our study was to learn about  
6 how consumers search for mortgages, how well they  
7 understand the current mortgages in terms of the recently  
8 obtained mortgages, and whether it is possible to develop  
9 better disclosures.

10 We did a two-part study, and it was a  
11 combination of qualitative and quantitative research. The  
12 first part was a series of in-depth interviews where we  
13 tried to get a detailed picture of real consumer  
14 experiences, where consumers used their own mortgage forms  
15 from real mortgage transactions to try to assess the  
16 accuracy of their knowledge of their own loans. In  
17 addition, we did quantitative consumer testing to test the  
18 actual performance with disclosures in a controlled,  
19 experimental environment.

20 So, I will tell you more about the consumer  
21 interviews. The interviews proved to be really, really  
22 interesting. It was very, very hard to find consumers to  
23 participate in the study, but what they offered was an in-  
24 depth picture of what people really know or do not know  
25 about their mortgages.

1                   We conducted 36 interviews, about an hour each,  
2 all in Montgomery County, Maryland. If there is a bias  
3 there, you would think that that was a bias of a highly  
4 educated population. So, we knew ahead of time that if  
5 people were confused that it was likely to underestimate a  
6 more general problem in the more general population.  
7 Everyone has obtained a mortgage within the previous four  
8 months. Approximately half of the people were prime, half  
9 subprime. And most interviews included a review of loan  
10 documents from the consumer's own recent mortgage.

11                   It was very interesting to watch the procedure  
12 unfold. Typically, respondents came into the interview  
13

1 so clear to them.

2 We also found, as mentioned earlier, that many  
3 of the subprime respondents really seemed to be  
4 experiencing financial difficulties. Oftentimes, really  
5 quite hardships had come upon them. So, we took that to  
6 indicate that when we looked at subprime people based on  
7 the HUD list, that it seemed that the people we had  
8 identified as being subprime situations oftentimes indeed  
9 did have financial difficulties.

10 Most of the respondents appeared to understand  
11 the general type of mortgage that they obtained, and some  
12 had clearly matched a loan type to their circumstances. I  
13 think we heard earlier today that people are different.  
14 Some people have good shopping skills. Some people do not  
15 have good shopping skills. Some people clearly thought  
16 about getting an adjustable rate mortgage for reasons that  
17 you would think somebody would want to get an adjustable  
18 rate mortgage. But many were unaware or did not  
19 understand or misunderstood, misunderstood key costs or  
20 features of their loans, including many things that are  
21 prominently disclosed.

22 People misunderstood the payment of up-front  
23 points and fees, lack of escrow for taxes and insurance,  
24 whether there was a large balloon payment, adjustable  
25 interest rates, prepayment penalties, understanding of

1 recent mortgages. Misunderstanding was apparent among  
2 both people with prime mortgages and subprime mortgages;  
3 people who were very highly educated; both those who had  
4 done very extensive comparison shopping, and those who had  
5 not done any. And, in fact, I can recall one person who  
6 talked about the little chart that they prepared so that  
7 they could compare the mortgage options, and this  
8 particular person had some very serious misunderstandings.

9 We also found that many respondents had not been  
10 able to understand the disclosures on their own, but  
11 relied on their loan originator to explain them. Many  
12 were confused by various fees itemized on the GFE form and  
13 did not understand how they differed. Few understood the  
14 annual percentage rate, one of the hallmark metrics of  
15 consumer disclosures. Many believed it to be the interest  
16 rate. A number were confused by the prepayment penalty  
17 disclosures.

18 And the most shocking and saddest finding, I  
19 think, is that, in some respects, the disclosures were  
20 actually worse than ineffective, and they actually seemed  
21 to create consumer misunderstandings. For example, many  
22 people believed that the amount financed disclosed in the  
23 title statement was their own amount rather than the loan  
24 amount minus prepaid finance charges. Many believed that  
25 the discount fee disclosed in the GFE was a discount that







1

on the forms. So, they were able to keep the forms. and TjET1.00000 0

1 both.

2           The next slide shows a little more dramatically  
3 the difference between the two, the current and the  
4 prototype disclosures. It looks at what percentage of the  
5 respondents were able to answer 70 percent or more of the  
6 questions correctly. Only 30 percent of the participants  
7 using the current yield forms were able to do that,  
8 whereas 80 percent using the prototype forms were able to  
9 do so.

10           While we found pretty large differences between  
11 the current and prototype form performance, we found only  
12 very small differences between the performance of prime  
13 and subprime borrowers. The next slide shows only a  
14 couple of percentage points difference between how well  
15 prime and subprime borrowers performed on the questions,  
16 which was kind of a surprise to us.

17           The next couple of slides show some of the  
18 individual results from some of the questions. The  
19 failure to convey key loan costs was evident across a wide  
20 variety of loan terms. For example, using the current  
21 forms, 87 percent of the participants were unable to  
22 correctly identify the total amount of up-front charges on  
23 loan. Seventy-four percent did not recognize that there  
24 were optional charges for credit insurance. Half could  
25 not even correctly identify the loan amount. A third

1 could not identify the interest rate. Again, this is  
2 while they had the forms in front of them and were free to  
3 continue to look through them.

4 Let's skip down a couple of slides. The  
5 improvements from the prototype form were also evident  
6 across a wide variety of different loan terms. For  
7 example, there was a 66 percentage point increase in  
8 correct identification of the total amount of up-front  
9 charges, 43 percentage point increase in correctly  
10 recognizing that there was optional credit insurance on  
11 the loan.

12 So, our findings, just to summarize the findings  
13 of the quantitative study, which is consistent with the  
14 in-depth interviews that we did, was that the current  
15 forms clearly fail to convey key loan costs to many  
16 consumers in both the prime and subprime markets, and they  
17 also -- a number of the disclosures also seem to  
18 affirmatively create misunderstandings, consumer  
19 misunderstandings. But we also found that it seems to be  
20 clearly possible to do a lot better than is being done  
21 now, that better disclosures could be developed, and that  
22 better disclosures would provide benefits for both prime  
23 and subprime borrowers.

1 MS. PAPPALARDO: Now, I realize since you did  
2 not see our slides that perhaps I should say very clearly  
3 that we speak for ourselves and not for the Federal Trade  
4 Commission or anybody else who really matters.

5 So what does this mean? What do we think this  
6 means? Well, we think that the ineffectiveness of the  
7 current federally required disclosures is likely to have  
8 contributed, at least somewhat, to the current problems in  
9 the mortgage market. Although after listening to some of  
10 the findings today you have to think how much, but I think  
11 probably likely somewhat.

12 The study results show that the current  
13 disclosures are not effective, even for the plain vanilla  
14 fixed rate loans that we tested. And findings would  
15 likely have been worse for ARM loans, particularly the  
16 more complex types marketed over the last few years. We  
17 do not mean to imply that all consumers misunderstood  
18 their loans or that ineffective disclosures are the  
19 primary cause of problems in the mortgage market. But the  
20 results do suggest that it is likely that many consumers  
21 did not know what they were getting into and that this  
22 lack of understanding made current problems worse.

23 Some of the loan terms currently of concern and  
24 being addressed by new regulatory restrictions are terms  
25 that current disclosures were particularly ineffective in

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1 good intentions are not enough. People have had good  
2 intentions in the past and we have seen that they have  
3 failed. Disclosures that make sense to well-intentioned  
4 bureaucrats often bewilder real consumers.

5 We think that the answer is testing. Marketers  
6 routinely test new advertising messages, but policymakers  
7 often fail to take similar precautions. Designing  
8 disclosures is tricky. More information is not always  
9 better. Simply adding more disclosures may not help at  
10 all. Disclosures must be carefully crafted to ensure that  
11 they will work as intended. New mortgage disclosures  
12 should not be implemented unless consumer testing  
13 demonstrates that they are better than those currently  
14 required and that they truly inform rather than confuse  
15 borrowers.

16 And for policymakers, we are concerned that a  
17

1       come around with a microphone.

2                   MR. KLEINER:  Morris Kleiner, University of  
3       Minnesota.  Question for David.  One of your co-authors,  
4       Brigitte Madrian, has done work on the power of  
5       suggestion.  I wanted to know if you thought giving a list  
6       of reasonable alternatives for a loan might matter.  For  
7       example, this was done in Medicare pharmaceutical  
8       payments, that there was a list of three or four suggested  
9       plans that might be the best.

10                  MR. LAIBSON:  So, I am a big fan of defaults  
11       or suggested choices.  And I certainly think that it would  
12       potentially work here as well.  The challenge is figuring  
13       out who sets the default or who makes the recommendation.

14                  The defaults are working so beautifully in the  
15       savings domain now because there is a natural agent who is  
16       assigned to make that choice, and that is the plan sponsor  
17       and the plan sponsor representatives.  So, there is a  
18       fiduciary obligation on the plan sponsor.

19                  The government is not setting the default in the  
20       savings domain.  If the government were to set a default  
21       or to set a kind of recommended template in the mortgage  
22       domain, we would need to create a firewall around the  
23       entity that was doing that.  Much like perhaps the Fed is  
24       mostly an independent body, this mortgage regulator might  
25       also be, or maybe it would be the Fed, who knows, or maybe



1 it would be the FTC. But I think the reason that some of  
2 us are hesitant to make that recommendation is that the  
3 political economy issues look so challenging.

4 MR. PAHL: Other questions?

5 MR. LONG: My name is Mike long and I work for a  
6 research and consulting company called Macro  
7 International, and we help government agencies develop and  
8 test new disclosures. So, I definitely agree with Dr.  
9 Pappalardo that more of that needs to be done.

10 **(Laughter.)**

11 MR. LONG: My question was for anybody on the  
12 panel, was whether you had done any research or seen any  
13 research on the extent to which improved disclosures can  
14 improve the speed with which people make decisions. So,  
15 getting back to some of the research that David or Dr.  
16 Laibson --

17 MR. LAIBSON: David.

18 MR. LONG: David talked about, even if the  
19 decisions that people make do not necessarily get any  
20 better, if they could make those decisions much faster  
21 because of improved disclosures that could also be seen as  
22 a benefit.

23 MR. LAIBSON: We do not have any data on time to  
24 decision. In other work, we do have data that shows that  
25 when people are torn they take a long time to make a

1 decision, which is not a surprising result.

2 So, I guess one of the striking features of this  
3 market, and of all of these different household finance  
4 decisions, is how little time people invest in these  
5 activities. So, when we survey people and ask them, "How  
6 long did you take to enroll in your 401(k) plan, to make  
7 the decision about asset allocation, to figure out what  
8 your savings rate would be? This is one of the top  
9 decisions of your life, right? Retirement savings?" They  
10 tell us 45 minutes.

11 So, yeah, we can introduce a default and take 45  
12 minutes down to three minutes or zero minutes. I wonder  
13 whether the social gains are very large given how little  
14 time is invested to begin with.

15 MR. LACKO: Yeah, I agree with David. I think  
16 for a lot of people, you may want to even increase the  
17 amount of time they are spending. They are taking too  
18 little time, not shopping at all and comparing  
19 alternatives at all.

20 **(Off microphone.)**

21 UNIDENTIFIED MALE: The time between application  
22 and closing has shortened a lot in the last 20 years. But  
23 that (inaudible).

24 MR. PAHL: Let's take one more question before  
25 we break for lunch. Does anyone have a question?

1                   **(No response.)**

2                   MR. PAHL: Lunch must be very a popular option.  
3 I only have one more person.

4                   MR. BERENSTEIN: I am Matias Berenstein from the  
5 FTC. This is a question I guess for David Laibson. In  
6 the experiments that you cited in your presentation, can  
7 you give us some more intuition as to why you found no  
8 effect of the improved disclosures? What was driving the  
9 initial decisions on making that and why was that not  
10 effective?

11                  MR. LAIBSON: Well, it is not that we find no  
12 effect. We find, in some cases, no effect and, in some  
13 cases, small effects. My developing understanding of all  
14 of this is that people have a lot of mixed, sometimes  
15 correct, sometimes incorrect, models of the world. And if  
16 you feed information into those models, even if the  
17 information that is being shared with them is, in some  
18 sense, crystal clear, they may process the information  
19 inappropriately and end up with the wrong answer.

20                  So, for example, look at index funds. We asked  
21 our subjects to allocate money across four index funds.  
22 Some of our subjects are actually Wharton MBA students. I  
23 did not show you that data. They say all sorts of  
24 remarkable things like I wanted to diversify my  
25 investments across these four S&P index funds, or they go

1 with a brand name even though there is no brand  
2 relationship here. That is commodity good that we are  
3 talking about.

4 So, even when information is crystal clear,  
5 sometimes the interpretation of that information and the  
6 inferences that are drawn from that information about what  
7 the appropriate product is, end up being very, very  
8 bizarre. And I think the challenge is both to give them  
9 information that is comprehensible and to facilitate the  
10 use of that information, so that the final decision,  
11 meaning the product choice, is, in some sense, optimal or  
12 near optimal.

13 MR. PAHL: Thank you very much. Thanks to all  
14 the members of our panel for their fine presentations.

15 **(Applause.)**

16 MR. PAHL: Chairman Kovacic will be starting off  
17 the afternoon program at 1:00. So, if folks could be back  
18 in time for that, we would appreciate it. Thank you.

19  
20  
21  
22  
23  
24  
25

1                   **WELCOMING REMARKS FOR THE AFTERNOON SESSION**

2                   MS. IPPOLITO: If we could get started so we can  
3 try to get back on schedule here. I am very pleased to  
4 present to you the Chairman of the Federal Trade  
5 Commission who will just say a few words to get us started  
6 for the afternoon. Chairman Kovacic.

7                   **(Applause.)**

8                   CHAIRMAN KOVACIC: Thank you very much, Pauline.  
9 And I want to add my own welcome to those of you who have  
10 come to attend this event which is really one in a long  
11 line of items that is truly a signature program of this  
12 agency.

13                   I would like to briefly introduce the agenda for  
14 the afternoon, but then also to tell you a bit about how  
15 this program fits into the larger framework of activities  
16 that we have pursued related to mortgage lending and  
17 information issues associated with that sector.

18                   We are going to start this afternoon with a  
19 panel that looks at the relationship between consumer  
20 information and the mortgage market crisis and, among  
21 other things, to consider how information policies may  
22 have contributed to the crisis and to explore possible  
23 solutions to problems that have been identified.

24                   We will then be turning to a roundtable that  
25 will look at the question of the adequacy and informative

1 nature of disclosures, to consider the extent to which  
2 consumers can actually absorb disclosures that are  
3 mandated by law, to consider what types of information  
4 individuals need in order to make effective decisions in  
5 financial services transactions, and to explore larger  
6 questions associated with how we go about using consumer  
7 research and other analytical tools to design disclosure  
8 instruments that indeed serve the purpose of putting  
9 consumers in a better position to make wise and effective  
10 choices that satisfy their needs.

11 This agenda and the entire program that we are  
12 pursuing today fits into a larger philosophy about how the  
13 agency ought to go about approaching policy questions in  
14 this and related fields. One of the most important  
15 qualities of the agency, a role that it has embraced in  
16 its modern era that goes back roughly 40 years or so, is  
17 to use a collection of policy instruments to address  
18 questions of this type.

19 We are, in part, a law enforcement agency and we  
20 have brought, as you have heard today, cases in this  
21 field. But that is only one policy instrument by which we  
22 seek to effectuate needed changes in the public policy  
23 arena. Quite significantly, we have relied heavily on a  
24 significant research capacity and you have heard earlier  
25 today about the work that James Lacko and Jan Pappalardo

1 have done in seeking to develop an empirical foundation  
2 for assessing the extent to which individuals can absorb  
3 the information that is mandated in disclosures under  
4 federal law or other public policifa4 1.00000 d ins. T1.00000 0.00000

1 have not simply by their physical appearance but with the  
2 enormous enthusiasm and creativity that they have  
3 exhibited in putting together materials that will make  
4 this a rich enterprise, not simply for today but in the  
5 longer term as others read the transcript and consult  
6 these materials and, indeed, most directly in the quality  
7 of our own work over time.

8 This event helps bring together the true  
9 synthesis of capabilities that are designed to make this  
10 institution, the FTC, a great one. Research, enforcement,  
11 public consultations and guidelines, a genuine synthesis  
12 of what we know, both from our law enforcement role and  
13 guidance efforts as well as the research work of our  
14 Bureau of Economics, have all played such a critical role  
15 in putting this program together.

16 Once again, with the greatest possible  
17 gratitude, I thank all of our participants for throwing  
18 themselves so successfully and enthusiastically into this  
19 effort to improve going ahead the quality of the work we  
20 do. Thank you again and thank you, Pauline.

21 **(Applause.)**



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1       them to bring that knowledge to the mortgage issue and to  
2       talk about that.

3               So, if we can get started, Paul.

4               MR. WILLEN: I would like to thank the  
5       organizers for inviting me. This title, Would More  
6       Disclosure of Loan Terms Help, I thought, at this point, I  
7       would be more controversial. But given Chris'  
8       presentation already, some of what I am going to say is a  
9       little redundant. There are a few familiar faces who have  
10      seen parts of this presentation before, and I apologize  
11      that you are seeing it again.

12              We have already heard this, but remember that  
13      the views today expressed are mine. This is important now  
14      because, in the past, I have done research and not even I  
15      really cared, but people do care about this, and I am  
16      speaking entirely for myself. I am not speaking for Eric  
17      Rosengren, the President of the Boston Fed or for that  
18      man, who you recognize I take it, and when I say "we," I  
19      do not mean Ben and me.

20              **(Laughter.)**

21              MR. WILLEN: Okay. The other thing, unlike Ben  
22      and the rest of the Federal Reserve Board, I actually am  
23      often wrong. And, so, everything I am about to say could  
24      be wrong and I am going to give you an example of that in  
25      just a minute about how we have been wrong, and I mean

1       that in the best possible way, which is that I think  
2       anybody who has worked in this area knows that you can  
3       look at some data or look at some analysis and think this  
4       is crystal clear, this is absolutely right, this explains

1 ownership including house prices and, in particular, house  
2 prices. That is what households needed. So, we need what  
3 I will argue is a more comprehensive measure of the risks  
4 of home ownership, as I say, above and beyond just the  
5 mortgage itself.

6 And I am going to argue at the very end that  
7 even having that kind of -- and this sort of fits with  
8 what David Laibson said -- that even giving people this  
9 information may not be enough. I think one can make a  
10 plausible case that we need to have a heavier hand, and we  
11 need some sort of requirement to prevent people who want  
12 to do crazy things from doing them.

13 So, I actually had, when I was making this up  
14 fortunately last night I had a bunch of slides, many of  
15 which Chris covered. It is a presentation I have given  
16 many times. And I realized I was not going to have time  
17 to cover them all, so I have fortunately selected one  
18 thing that Chris did not talk about. So, I am going to  
19 talk just now about past due rates, and this is an example  
20 of how we got something wrong at the Federal Reserve. We  
21 now think we have it right.

22 And it is a fact that I think -- I argued that  
23 no single picture has caused more bad public policy than  
24 this one, and one of my colleagues, this is economics  
25 humor here, said no, there is the Phillips curve.

1                   **(Laughter.)**

2                   MR. WILLEN: So, this picture shows  
3 delinquencies on subprime ARMs, and this is a picture you  
4 have seen and there are some figures I have not updated  
5 because I am too disorganized or lazy or something. But  
6 this one I deliberately did not update because it is  
7 important. This goes through the middle of 2007.  
8

1 loans past due to the total loans in that category.

2

1 go up, loans past due stays the same, and that means the  
2 delinquency rate on subprime fixed rate mortgages is going  
3 to go down.

4 So, even though nothing has changed here, there  
5 is no actual change in delinquencies among ARM or fixed  
6 rate borrowers; it is going to appear as if subprime fixed  
7 got better and subprime ARM got worse. So, when we go to  
8 the data and you actually look at what happened to the  
9 total number of loans, this is more or less what you see.  
10 Which is we saw, in this middle of 2007, a part of what  
11 was driving this in the end, ironically, was some messy  
12 reclassification issues with the Mortgage Bankers  
13 Association.

14 But the point here you see is that the number of  
15 ARMs is going down, and the number of fixed rate mortgages  
16 is going up. So, there is a sort of band-aid solution to  
17 this, which is rather than look at the rate, just look at  
18 the level. So, if you look at the level of delinquency of  
19 subprime ARMs, which is to say the number of subprime ARMs  
20 that were delinquent, and you look at the number of  
21 subprime fixed that were delinquent, you see that in 2007,  
22 the idea that the problems were confined to the ARMs was  
23 wrong. Both of these were rising at exactly the same  
24 rate. In fact, the subprime fixed were rising somewhat  
25 faster in that data.





1 thing that affected all of these pools, not something  
2 about the individual type of mortgage.

3 So, the other evidence, Chris did not mention  
4 this, but a lot of this you have already heard today. But  
5 one of the things, this word "teaser" I think is very  
6 misleading. For subprime borrowers, their teaser rate was  
7 something like 300 basis points more than a prime borrower  
8 would pay for identical mortgages. So, these people were  
9 not being lured in with some fictitiously low rate, the  
10 lender was not losing money those first two years. This  
11 is not credit cards where they lure you in with some --  
12 they lose money for a year in order to make money for  
13 later.

14 The subprime lenders made money for those first  
15 two years. In fact, that was the only way they were going  
16 to make money was to make money in the first two years  
17 because, as Chris pointed out, all of the good borrowers  
18 left after two years and, so, the only people you have  
19 left after two years are people who could not, for one  
20 reason or another, most of the people -- I should say we  
21 occasionally find in the data these people -- we actually  
22 have the names of the borrowers. We have the deed  
23 registry data. We have the names of the borrowers.

24 So, in some cases, we can see that some person  
25 had a reset in 2003, and they are paying like 11.5 percent

1 right now and they evidently have not had any credit  
2 problems in the last five years. So, you know that that  
3 person could be -- you want to refinance them yourself.  
4 And I even would offer them 10 percent interest, but  
5 anyway that would probably get me fired.

6           Anyway, so, Chris also mentioned this. When you  
7 look at the loan level data, there is no loan level  
8 relationship between rate resets and delinquency.  
9 Borrowers, most of them become delinquent before the  
10 reset, but as you see, it transitions through the reset  
11 smoothly.

12           There is this perception out there. A lot of op  
13 eds have been written in which they say that lenders  
14 targeted the most complex mortgages at the least  
15 sophisticated borrowers. Not true. They targeted the  
16 most complex mortgages to the most sophisticated  
17 borrowers.

18           So, if you look at the average FICO on an IO  
19 ARM, it was 726; the average FICO on an option ARM was  
20 707. The 2/28, which is typically a fully amortizing  
21 mortgage other than the fact it has this reset after two  
22 years, is a completely standard mortgage. It does not  
23 have interest only. The option ARM is -- so just to give  
24 you an idea of how confusing the option ARM is -- when we  
25 wrote a computer program to simulate option ARMs, the

1 program for a regular mortgage was five lines of code; a  
2 program to simulate an IO ARM was six lines of code; and  
3 to simulate an option ARM it was like 7,000 lines of code  
4 because they are incredibly complicated because everything  
5 changes. It all depends on what happens to the interest  
6 rate in the background -- that affects the amortization,  
7 that affects when the reset happens. It can happen  
8 stochastically anyway.

9 So, the other thing about this is the payment  
10 shocks are hugely overstated. For a typical subprime ARM  
11 borrower, in addition to the first mortgage, which had the  
12 payment shock in it which was the ARM, they typically had  
13 a second mortgage, the famous piggyback. The piggyback,  
14 so this is for the purchase mortgages, the piggyback was  
15 almost always fixed rate; it had a much higher interest  
16 rate. It was 11 or 12 percent interest and it was  
17 amortized over a much shorter period. So, 40 percent of  
18 their payment is fixed. So, the reset only affects 60  
19 percent of their balance.

20 And then to add to that, the reset, say it was  
21 from 8.5 percent, these are for the '05 and '06 vintage.  
22 It was, say, at the peak. In other words, before we  
23 started cutting rates to solve this problem, it was going  
24 from 8.5 to 11. It was not from 2.9 to 19.8. So, this  
25 was not an exploding payment. It was a payment that was

1 going up ten, 15 percent. It is not enough -- for a lot  
2 of people, they had a lot of other problems that were much  
3 bigger than that, and that is what put them into trouble  
4 long before they ever got to the reset.

5 So, our view is that house prices played a key  
6 role in the crisis. Without falling house prices, we  
7 would not have a crisis. Let me be precise, though, about  
8 what I mean. This is the foreclosure rate in  
9 Massachusetts going back to 1989. And the point here is  
#0 i b400 0.0ou compay everlosure rate in

1 is a good forecast I hope.

2           Anyway, so you can see that foreclosures spiked  
3 up obviously when house prices fell -- we all know about  
4 that. You can see actually that foreclosures peaked  
5 actually in the summer -- well, locally -- appear to have  
6 peaked. They actually fell in the fourth quarter of last  
7 year and have not recovered in the first quarter of this  
8 year either.

9           But we did, and we have this paper called  
10 subprime outcomes. What we did was to do this basically  
11 counterfactual exercise. So, what we can do is we -- so,  
12 here is our view of what the crisis is. The crisis is we  
13 have 2002 borrowers here, exceptionally low foreclosure,  
14 this is the foreclosure hazard. So, for the 2002  
15 borrowers, we have almost no foreclosures.

16           Then here are the people who bought in 2005. We  
17 have a data set which allows us to follow borrowers on  
18 every subsequent mortgage they have. So, these people may  
19 have refinanced in here. But we are following the  
20 homeowner over time and what you see is that the 2002  
21 buyers, 30 months out, there are still almost no  
22 foreclosures. You look at the 2005 buyers, you see this  
23 huge spike in foreclosures -- enormous, two orders of  
24 magnitude bigger number of foreclosure for the '05  
25 borrowers compared to the '02 borrowers.



1 prevent these unstable home ownerships. To do that we  
2 think what we need is a comprehensive measure of the  
3 riskiness of home ownership that takes into account both  
4 the type of mortgage, the conditions, the FICO score, and  
5 all those things and the evolution of house prices.

6 So, what we want to look at, our goal is we  
7 think we should look at when someone buys a house or gets  
8 a mortgage to look at the long run likelihood of  
9 foreclosure. One important thing is to look at the  
10 likelihood of foreclosure on this mortgage but also to  
11 take into account that they may -- the way they got out of  
12 this mortgage was to refinance into another mortgage, and  
13 we should see if they may be able to get through this  
14 mortgage, but the only way they do that is by getting into  
15 another mortgage, which is unsustainable but that is of no  
16 concern to the current lender.

17 So, we can take a buyer, we can look at his LTV,  
18 his debt-to-income ratio, his FICO score, and we should be  
19 able to forecast how likely this person is to enter into a  
20 sustainable home ownership experience. What we have  
21 actually done is to look at subprime purchasers and  
22 compare them with prime purchasers, and this is what we  
23 found, this is using our whole data set. Using all the  
24 house price realizations in our data set, what we  
25 concluded was that a person who buys a house, and this is

1 collecting all the differences between prime buyers and  
2 subprime buyers, so both the type of mortgage and the  
3 characteristics of the borrower, our claim is when someone  
4 buys a house with a prime mortgage about three percent of  
5 those people will eventually lose their homes. This is  
6 looking out 12 years into the future.

7 By contrast, someone who buys a house with a  
8 subprime mortgage, we estimate that 18 percent, almost one  
9 in five of them, will eventually lose their home. Their  
10 home ownership experience will end with a visit from the  
11 sheriff.

12 So, what are we arguing here? What we need to  
13 tell borrowers is not the terms of the mortgage. What we  
14 need to tell a subprime person who is buying a house with  
15 a subprime mortgage is you have a very, very good chance  
16 of losing this house; in fact, you have a one in five  
17 chance of losing this house. And I guess I am going to go  
18 one step further, and we might even just tell them you  
19 cannot get this loan. I do not know why I have been  
20 thinking about disasters lately, but -- I know why,  
21 because we are in one. And, so, anyway, you would  
22 recognize this ship, of course.

23 So, I remember this, we read "A Night to  
24 Remember" in fifth grade. Of course, the loss of life  
25 mostly would have been averted if they had enough





1 high-level perspective of what the field of consumer  
2 behavior would have to say about these discussions.

3 Just as a point of background, in 1980, I came  
4 to my first conference in consumer behavior and I went to  
5 this session on the topic of why consumers do not search  
6 for more information. Fantastic! Howard Beales and Steve  
7 Salop were there, and Brian Ratchford and Jim Bettman.  
8 There were people from economic perspectives and  
9 psychology perspectives. The basic idea is people engage  
10 in extremely low levels of search. One reason offered was  
11 that very quickly the benefits of search are outweighed by  
12 the costs. But the other main idea is that people do not  
13 search because it is so confusing to do so and that  
14 searching further actually does nothing more than make  
15

1 hundreds that possibly could be considered, some tiny,  
2 tiny fraction are actually considered, and that is pivotal  
3 to the ultimate decision outcome.

4 Second is extreme selectivity in what criteria  
5 are evaluated for those handful of considered options  
6 (e.g., monthly payments versus risk of default if home  
7 prices drop). I can connect these ideas to points of  
8 other speakers today. Like Brent, for example, I have  
9 studied economic effects of advertising and how  
10 advertising affects consumers' price sensitivity and  
11 ability to buy things that they like, but my explanatory  
12 constructs are those that I just alluded to here.

13 Similarly, I have worked on electronic shopping  
14 or online shopping. There, we study how information comes  
15 into markets and how it influences selectivity on those  
16 two sides of what alternatives get considered and what  
17 people think about for those alternatives that are  
18 considered.

19 In my work on internet retailing and internet  
20 shopping, I have written several papers about  
21 recommendation agents as a way to influence consumer  
22 consideration sets. I am going to relate that to  
23 mortgages - how the key to helping consumers is affecting  
24 their consideration sets.

25 Before elaborating this point, I want to mention

1 as a side-bar that I have been doing a lot of work on  
2 inter-temporal choice, which is an area that David Laibson  
3 is, of course, very well-known for. Inter-temporal choice  
4 is really all about what explains consumers, quote,  
5 "discounting of future outcomes" and their degree of  
6 preference for smaller-sooner versus larger-later rewards.

7 The basic theme of my work is about how  
8 discounting is explained by consumers' misperceptions of  
9 their opportunity costs or their relative opportunity  
10 costs now versus in the future. And I have been working  
11 on applying the psychology of inter-temporal choice to  
12 another financial decision domain, namely saving for  
13 retirement. David and Annamaria also work in this area.

14 I thought I would just pick up on a question  
15 that was asked of David after his talk. If you look at  
16 most of the discussion this morning and our panel, the  
17 focus has been on information remedies for errant mortgage  
18 decision-making. It is very interesting to contrast this  
19 with this retirement arena. In the retirement arena,  
20 there has been this dramatic change in regulation and  
21 actual practice to help consumers by providing less, not  
22 more, information.

23 In fact, yesterday, I was listening to a web  
24 seminar given by industry experts in this domain. This  
25 arena has been entirely taken over by ways to try to help

1 consumers by having less, not more information. A speaker  
2 made the historical contrast that they used to provide  
3 information, then they moved to try and provide education,  
4 and now they try to provide advice or help.

5           There are things like these "smart defaults"  
6 where employers will auto-enroll people in life cycle  
7 funds with an opt-out. There is also the practice of  
8 limiting 401(k) plan choice based on evidence that shows  
9 that when you offer people a large menu of options, they  
10 freeze and they do not choose anything or they choose  
11 things that are very low-risk options, which in that  
12 domain is a bad thing, not a good thing, because it is not  
13 going to get you the number you need for retirement.

14           An interesting question was asked of David right  
15 before the break related to the question of what is  
16 different between that retirement domain and this mortgage  
17 domain. There are two key distinctions I see. One of  
18 them is that in the retirement savings arena, the key  
19 mistake is an error of omission, basically failing to  
20 choose and procrastinating. Therefore, the idea of  
21 helping consumers is to make it simple to act. The whole  
22 movement to defaults with opt-out is in that line.

23           But in mortgage decisions, the key mistakes are  
24 errors of commission. There was a question earlier about  
25 "What about helping people to make faster decisions?" The

1 answer was, "I do not think it would help that much to  
2 speed up that process." The errors of commission are  
3 either choosing the wrong loan or choosing more house than  
4 one can afford given shocks of the sort that Paul  
5 suggested that a borrower should be concerned about.

6 The answer that David gave is the same answer I  
7 would give as my second difference. In retirement  
8 savings, the reason why you can get away with simplifying  
9 consumers' decisions is because you have these employers  
10 serving the role of benevolent agents steering employees'  
11 choices. For mortgages, there is no benevolent agent and  
12 there is a lot of self-interest for sellers to exploit  
13 consumers' information overload. So, I do not think the  
14 same remedies for bad retirement decisions can map exactly  
15 to avoid bad mortgage decisions.

16 But I want to give my take on this about what  
17 can help. This is going to be Consumer Behavior 101. I  
18 am going to tell you that in my field, if you want to  
19 understand what a consumer chooses in any one of a variety  
20 of categories, the single thing that is most important to  
21 know is the so-called consideration set. Assume there are  
22 capital N options out in the marketplace and the consumer  
23 considers small n out of the capital N. It turns out if  
24 you look at this literature that I work in, a naive model  
25 works well. It says that for any brand that was

1 considered, the probability of choice is one over small  $n$ ;  
2 for everything else, the probability is zero. That model  
3 explains 80 percent of the explainable variance in choice  
4 across a very wide area of product categories.

5 So, just getting in the consideration set is the  
6 most important thing to determine consumers' choices. Let  
7 me add what is going to sound like it is a completely  
8 naive statement that is actually, I think, very profound  
9 in explaining consumers' choices. In order for an  
10 alternative to be chosen, it has to be considered. Most  
11 of the time you do not make a sale as a seller, it is not  
12 because people look at you and decide they like something  
13 else. Most of the time you do not make a sale is because  
14 you never got considered.

15 On the flip side, the second profound truth I am  
16 going to tell you is that in order for an alternative to  
17 be chosen, the consumer has to fail to consider a better  
18 liked option. And here I want to say that most of the  
19 time you do make a sale, it is not because what you sold  
20 to the consumer is what would have been best had they  
21 engaged in a more exhaustive search; it is because they  
22 failed to consider something else they would have liked  
23 better. So, understanding the composition of the  
24 consideration set is the most important thing to  
25 understanding consumers' ultimate decisions.

1           On the margin of what they do with that handful  
2 of alternatives that are considered, there are some  
3 interesting issues, but the most important thing is to  
4 understand, once again, what is in the consideration set.

5           So, the idea that I want to talk about I think  
6 is related a bit to Paul's recommendations is to ask the  
7 question of whether some government regulatory agency can  
8 enhance competition and welfare by affecting this  
9 consideration stage. Let's just think about what things  
10 might be at our disposal to improve consumer decisions  
11 through affecting that consideration stage.

12           As I mentioned, over the last decade I have been  
13 doing this research on online shopping where one of the  
14 big topics I have studied is personalized recommendation  
15 agents. You can get recommendation agents for anything --  
16 even choosing your dog. There are various methodologies  
17 for this, though. Some require collecting no information  
18 from the consumer. Others ask the person a few questions,  
19 and you basically try to parameterize the individual  
20 consumer's utility function.

21           Now the "screening agent" has some idea of this  
22 utility function and the mapping of your utility function  
23 onto the features of the products, and it will simply sort  
24 the alternatives from those predicted to be liked best to  
25 those predicted to be liked worst. You can look at as



1 many as you want. But they will show you in a sorted  
2 order. If the sorting algorithm is highly correlated with  
3 your actual consumption utility, you get benefits as if  
4 you had searched from this exhaustive set while only  
5 looking at a handful of one, two or three alternatives.  
6 In some of my other work, I study the accuracy of  
7 different flavors of these recommendation technologies.  
8 The most powerful ones actually require you to -- for the  
9 individual consumer to give you information about how  
10 their utility changes over features of the product, so you  
11 are parameterizing their utility function over features.  
12 Interestingly, in most categories, those are not what are  
13 being used on online shopping sites. They are not being  
14 used because it is usually not in the seller's interest to  
15 share information about their products' features. Sharing  
16 the features is going to make it transparent to the buyer,  
17 how close I am as a substitute to somebody else.

18           And, so, it turns out that if you look in most  
19 consumer categories, the best recommendation systems are  
20 not in use because sellers do not have incentives to  
21 cooperate with some infomediary to provide the common  
22 attribute information that would allow a very effective  
23 screening.

24           My idea here is, what could a regulatory agency  
25 do in the mortgage arena? Well, it could require sellers

1 of loans to disclose the terms of the sort we are talking  
2 about. Next, it could have some very simple mortgage  
3 recommendation site that would allow personalized  
4 recommendations. A consumer would provide some  
5 information about her personal tradeoffs over mortgage  
6 attributes after receiving information about specific  
7 risks she might face given her personal circumstances.  
8 The site would estimate her utility function and return  
9 some sorted list of alternatives. Toward the top would be  
10 ones that actually might be good for her and the ones that  
11 might not be so good for her would be toward the bottom.  
12 I would say that disclosures are not going to solve the  
13 problems we talked about before, but affecting the order  
14 of the things in the consideration set actually will.

15           There is a very good book that came out fairly  
16 recently that talks, quite a bit, about the problem of  
17 mortgages. It's this book by Thaler and Sustein called  
18 "Nudge." I would like to relate my remarks to the themes  
19 in their book and recommend that book to you all. They  
20 talk a lot about "choice architecture." This refers to  
21 changing the environment in which people are seeing  
22 alternatives. They show you how small changes in the  
23 architecture can change decisions when education does not.

24           The idea of a "nudge" is something that is not  
25 making you do something, but just causing you to consider

1 consider things first that actually might be in your  
2 self-interest. When are these nudges most beneficial?  
3 They say when decisions are hard, infrequent, no feedback,  
4 you do not know your preferences, and markets will not  
5 correct your mistakes. If you listen to the presentations  
6 from the morning, those are the kinds of markets we are  
7 talking about.

8           And, so, my closing thought is that a benevolent  
9 smart agent can arrange a better choice context. This  
10 benevolent smart agent would collect from consumers a  
11 little bit of information about their circumstances. It  
12 would then help them understand that if you choose this  
13 kind of loan, you might have this higher risk of default,  
14 providing them warning signs about risk, as Paul was  
15 talking about.

16           But the most important thing about it is that  
17 can choose whether to take these warnings into  
18 consideration in subsequently providing information about  
19 their tradeoffs over attributes and risks. Unless they  
20 deliberately reject the warnings, when the agent presents  
21 alternatives sorted by their personal utility, they will  
22 likely see less dangerous options listed first.

23           In closing, the work I have been involved in  
24 shows, that providing more information has very little  
25 impact on many decisions. Moreover, if options are very

1 dissimilar, putting them side by side and making it an  
2 easier comparison has very little impact. But changing  
3 the order in which consumers consider the alternatives has  
4 a fairly dramatic impact. You the prospective home buyer  
5 might actually trust the order of the recommendation,  
6 because it was a government infomediary that was requiring  
7 the lenders to provide information about the features of  
8 their loans. Because the infomediary was providing this

1 people to choose what might be the perfect mortgage for  
2 them and instead to focus on, "Can I afford this mortgage  
3 I am talking about."

4 To pick up something John just said, the thing  
5 which is really most important, in my mind, for a borrower  
6 as well as for a lender, is "Am I likely to be able to pay  
7 this loan?" Let's give that an early and high degree of  
8 focus.

9 Now, I looked through the slides of Susan  
10 Kleimann, who is speaking later, and there are a couple  
11 that really appealed to me. One says it is easy to make  
12 something that is easy to read and visually compelling,  
13 but can you also make it understandable and clear? That  
14 would definitely be the goal we are after. A second of  
15 her slides, which I think is really good, says, "Decide on  
16 the desired action for the document." Do not do anything  
17 until you know what you want consumers to do with the  
18 information.

19 Well, here is my idea about what I want  
20 consumers to do with the information: think about whether  
21 they can afford this loan. It is, in other words, to  
22 underwrite themselves. Of course, the lender is going to  
23 underwrite the borrower. With a reasonable degree of  
24 probability, under a reasonable range of circumstances, is  
25 the borrower going to pay and is the probability of





1 in many cases. The more we try to make the information  
2 absolutely complete, the more we succeed in effectively  
3 zero information transfer and just baffling people. The  
4 Mortgage Bankers Association tells me the average closing  
5 package now is 80 to 85 pages of things in small type and  
6 confusing language. If we make them then sign something  
7 that says "I have read and understand this information,"  
8 what we are forcing them to do is lie because, of course,  
9 they have neither read nor understood the information. If  
10 you get down to the bottom of my one-page form it says "Do  
11 not sign this if you don't understand it," which may not  
12 cause you to always understand it, but it is a more honest  
13 way to approach it.

14 Another thing about disclosures: because of  
15 regulatory systems and possible litigation, disclosures  
16 come to serve the purposes of lenders rather than serve  
17 the purposes of the customers. The disclosures develop in  
18 order to protect the lenders from legal liability and  
19 regulatory action, as opposed to helping the consumers.  
20 About the only objections I have gotten to the one-page  
21 form approach is from lawyers who represent lenders. They  
22 are afraid that by having to make estimates -- you have to  
23 make estimates to do this right -- you may be creating  
24 some new kind of lender liability which, naturally, they  
25 do not want. Therefore, the safe harbor idea I will



1 mention later is an important factor.

2           The other thing is timing. To get the best  
3 disclosure in the world is useless if you get it at the  
4 mortgage closing. Everything is decided by then. It is  
5 useless if you get it two days before the mortgage  
6 closing. It has to be soon enough in the process where  
7 you actually can make a decision that is meaningful. So,  
8 as soon as possible. I am suggesting upon approval of the  
9 mortgage by the lender. That is because at that point the  
10 lender has all the information it needs to underwrite you;  
11 it can therefore share that information with you so you  
12 can underwrite yourself.

13           The story of the one-page form is that a little  
14 more than a year ago I was testifying to a subcommittee of  
15 the House Financial Services Committee. I made the points  
16 that we all agree on: how too much information is the  
17

1 the one page by making the type smaller. Of course, as we  
2 all discover, it is a lot harder to actually do it than to  
3 say that somebody should do it. I went through a lot of  
4 iterations. I went around talking, especially to young  
5 people at AEI, saying, what do you think about this, does  
6 that make sense to you? When you do this, you always  
7 realize when you get used to any trade, you lose the sense  
8 of what a specialized vocabulary you deal in and how that  
9 vocabulary to other people is meaningless.

10 Among the other people I tried it out on were my  
11 own children. One is still in college, three are out.  
12 They are all magna cum laude graduates. One of the  
13 things, especially the daughters said, was "Dad, this is  
14 full of words we do not understand." (They obviously did  
15 not study finance.)

16 So, I did decide that you had to have, along  
17 with the form, what turned out to be a one and a half page  
18 set of (I hope) common language and avuncular descriptions  
19 of what the terms mean. I pictured this also possible on  
20 a screen where you could click and have the terms  
21 explained

22 Having done all this with my own highly informal  
23

1 do not find in any other disclosures: your income. You  
2 find in capital letters "This is the income on which we  
3 are basing this loan."

4 Now, we know about liars' loans. If you were  
5 lying about your income, this gives you a chance to  
6 reconsider your lie -- or maybe if your generous estimate.  
7 But if somebody else was lying about your income for you,  
8 this gives you a chance to fix it.

9 Somebody said this morning people do not  
10 understand interest rates. What they understand is  
11 payments. So, this is your payment. Not just your loan  
12 payment. Your total payment, "PITI," as they say,  
13 principal, interest, taxes and insurance, and we ought to  
14 throw in mortgage insurance premiums, if any, as well.

15 How much a month, how much a month at the  
16 introductory rate, if there is one, and how much when the  
17 loan resets at its fully indexed level. We also want to  
18 tell you, and this was a suggestion of one of my family  
19 member market tests, what is the maximum possible rate on  
20 your loan. Okay, this is going to start off at 6 percent.  
21 How high can it go? Give me the worst case. 14 percent?  
22 Well, I want to think about that. How likely is 14  
23 percent?

24 This is the full payment: principal, insurance,  
25 taxes and insurance, whether or not your insurance and

1 taxes are being escrowed, how much in dollars in the  
2 beginning and after reset and what percent that is of your  
3 income.

4 Is there a prepayment fee? We heard this  
5 morning from the great research that Jan and Jim did, that  
6 two-thirds of the people cannot tell if they have one or  
7 not. We ought to make it know. Also, what is the check  
8 you will have to write at closing for points and closing  
9 costs.

10 When this one-page form was introduced into the  
11 House of Representatives, interestingly enough there was a  
12 debate among some of elected representatives of the people  
13 over whether the borrower should sign. I think the

1           Senator Schumer introduced a one-page form bill  
2 a few months ago. The City of Washington, D.C. actually  
3 has made a form very much like this now mandatory for  
4 adjustable rate loans. This, by the way, was a highly  
5 unusual alliance: the Washington, D.C. City Council and  
6 the American Enterprise Institute. Soon, we are going to  
7 be able to do some research on the Washington, D.C.  
8 experience.

9           Now, Jan and Jim had this wonderful line in  
10 their presentation this morning: disclosures that make  
11 sense to well-intentioned bureaucrats often bewilder  
12 consumers and, of course, that also goes for well-  
13 intentioned fellows of the American Enterprise Institute.  
14 So, we do want to keep learning. A big mistake is to do  
15 something only once. The magic of markets is you try it  
16 out, keep learning, and keep getting it fixed up.

17           The key idea is one-page form focused on whether  
18 you can afford this loan. If you want to take a risk, go  
19 ahead, as long as you understand the risk you are taking.  
20 I have nothing against people who want to eat oatmeal  
21 three times a day for three years, so they can have the  
22 house of their dreams. But they'd better understand what  
23 they are signing up for.

24           I think this is a nonpartisan or an omni-  
25 partisan idea and it ought to be done whatever else in the

1 mortgage area is done or not done.

2           There is a further possible use. I picture high  
3 school personal finance classes with this form or  
4 something like it that says, when you are getting a  
5 mortgage some day, see if you can fill out this form about  
6 the mortgage. It will tell you a lot about whether you  
7 can afford it. Who fills it out? It would be wonderful  
8 to have not only lenders able to complete such a form, but  
9 if the borrowers themselves knew how to complete the form  
10 on their own behalf. That would be a useful form of  
11 education, to get people into an active role of  
12 underwriting themselves.

13           In sum, I hope we will keep making progress in  
14 the direction of the one-page form.

15           MS. IPPOLITO: Okay, well, thank you very much.

16           **(Applause.)**

17           MS. IPPOLITO: Now, we will hear from David Weil  
18 who is the Everett Lord Distinguished Faculty Scholar at  
19 Boston University's Business School and he is also the co-  
20 director of the Transparency Policy Project at the Kennedy  
21 School.

22           MR. WEIL: Thank you. Let me start also by  
23 offering my thanks particularly to Jan and Jim for  
24 inviting me.

25           It seems to me the mark of a successful

1 conference is if it is coherent or whether you are always  
2 looking back at the program to figure out what is this  
3 conference about, and I think I am certainly struck by how  
4 much the presentations this morning and this afternoon  
5 have built on one another. So, I hope my comments build  
6 on a lot of the excellent presentations and research we  
7 have heard about so far.

8 I guess I should also thank Pauline for lowering  
9 expectations about my presentation, because it is  
10 absolutely true, I am not an expert on the mortgage market  
11 by any means. And my comments do come from thinking about  
12 the problem of disclosure from a somewhat different  
13 research base, but I hope to offer some insights on many  
14 of the questions we are discussing today.

15 I should also thank the Bureau of Economics. My  
16 home base is Boston University. I am in the Department of  
17 Finance Economics, and I thank the FTC for sending my  
18 colleague -- Mike Salinger was the director down -- here  
19 back to us. We are very grateful for that.

1 represent our collective view about, as the slide says,  
2 both the promise and pitfalls generally of transparency  
3 policies and how that might pertain to some of the  
4 questions of the mortgage market crisis.

5           And I should start by saying our research  
6 enterprise comes at some of the very same questions,  
7 particularly the second panel this morning was discussing,  
8 but from a different sort of angle. Rather than looking  
9 at building up, in a sense, understandings about consumer  
10 choice from the ground up through experiments or surveys,  
11 we decided to look at this growing phenomenon of the  
12 application of mandatory disclosure across a whole range  
13 of regulatory domains with a similar kind of question,  
14 which is whether one is looking at an area which  
15 disclosure has long been applied, financial disclosure, or  
16 newer areas, nutritional disclosure, health care  
17 disclosure, disclosure on different kinds of product  
18 safety, a whole range of social problems and particularly  
19 social risks over the last 20 years, Congress and state  
20 level governments have chosen to address through saying,  
21 "Give people more information."

22           And as, again, many speakers have said, we all  
23 now know and there is abundant evidence to say that more  
24 information is not necessarily better information, and  
25 more information does not create more informed choice.





1 all know and maybe in some cases love and in other cases  
2 not, but just to give a sense of when we look at  
3 transparency mandatory disclosure it goes everything from  
4 the ubiquitous nutrition labels that we see on everything  
5 to a more recent example of transparency. As a response  
6 to the number of rollovers, the rollover crisis in the  
7 early part of 2000 to 2001, Congress adopted a  
8 transparency policy which was rollover SUV standards, a  
9 five-star system where every SUV has to have now on its  
10 sticker an assessment of the likelihood of rollover from a  
11 one to a five-star rating.

12 In addition, this is taken from the NTSA site,  
13 but this is also similar to what you would see on a  
14 sticker of an SUV, not only an assessment of where the car  
15 stands, and that is the little black diamond on each of  
16 those, but also where it stands relative to other similar  
17 kinds of cars for consumers to make choices. That star  
18 rating is also associated with an actual probability of a  
19 rollover, though people tend to think and use the sta  
20 system. So, a 2007 Cadillac Escalade is a three-star, a  
21 2007 Ford Explorer is a four-star. If you go to earlier  
22 periods of times, I could have given you examples of  
23 two-star SUVs. But anyway, again, a system that is based  
24 on transparency.

25 You all know this one, our Homeland Security

1 alert system which gives us a transparency-based  
2 assessment of the threat we face. As a public service to  
3 you all, I have looked at the -- this is May 20th, this is  
4 two days old, but we were at an elevated yellow status,  
5 unless you are taking a flight and that is at an orange  
6 status. I always update this before I give a talk. It  
7 may be an ind 00 0.(3)Tj56.6400 0.0000 Ton37000 utilityon3700. tra

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1 and behavior they take.

2 So, one part of any system of consumer choice,  
3 of products or services is about the information they can  
4 get through a voluntary basis in making actions  
5 accordingly. The second part of this sort of action cycle  
6 of activity is the perception of those changes in behavior  
7 by the disclosers have to occur. They have to perceive  
8 that the users are actually responding to some set of  
9 information, make their own judgments and calculations,  
10 and also translate that into some type of behavior change.

11 And the whole notion of a transparency policy is  
12 simply to say there is some argument about a symmetry of  
13 information, other kinds of information problem where the  
14 notion is the voluntary information is not sufficient,  
15 there is other information that should be provided.  
16 Therefore, the mandated information disclosure, similarly,  
17 has to work through that cycle of action and reaction  
18 through user and discloser activity.

19 In particular, the cases that have been the most  
20 effective are where we argue information is embedded. We  
21 use the term "embedded" in terms of user decisions. And  
22 that means that users, by receiving this information, have  
23 the right information at the right time and in the right  
24 form so it has value of them, it is comprehensible, it is  
25 compatible with their decision routines to make choices

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1           Why do the restaurant hygiene quality cards work  
2           so well? There is a wonderful study, if you are  
3           interested in information disclosure systems, by Phil  
4           Leslie and Ginger Jin on the effectiveness of the L.A.  
5           County system, and they find remarkable impacts on that in  
6           both revenue structures and on hospitalizations for  
7           food-borne illnesses from that system over a relatively  
8           short period of time. If you think about having A, B or  
9           C, consumers get that information. We all know what an A  
10          is, a B and a C is, and getting that information at the  
11          point of sale, at the moment you are walking in and  
12          evaluating a restaurant turns out to be incredibly  
13          powerful. Contrast that with the drinking water example I  
14          gave you, and you can see why that very difficult  
15          information to both parse and turn into some kind of risk  
16          assessment is so problematic.

17                 For home mortgage disclosure, let me just  
18                 suggest questions not answers. On the user side, clearly,  
19                 when borrowers receive information is of decisive  
20                 importance, who provides it, the whole issue of agency we  
21                 have discussed a lot at this conference, and then how well  
22                 do they understand it. And I want to make a comment  
23                 specifically about I think a distinction that has not been  
24                 adequately -- it has been hinted at or alluded to in a  
25                 number of presentations, I want to make it more pointed.



1 But how well do they understand it? I want to suggest  
2 there are two its there.



1 kinds of parameters. One is the average credit history of  
2 the person applying for the loan. We have to know  
3 something that you might be very different, and this is a  
4 way to force people, when they are taking out a mortgage,  
5



1           So, in a sense, we have to understand why people  
2 don't think about that as much when making some of these  
3 mortgage decisions. I mean, again, I should pose that  
4 more as a question rather than a statement given my  
5 background. So, I think that is one aspect of what we are  
6 talking about because the other psychological phenomenon I  
7 think we do see in these decisions is the notion that it  
8 will not be me, that this over-optimism that "yes, you  
9 have told me that some poor schmuck is going to pay 14  
10 percent, but it surely will not be me." I think that is  
11 exactly the kind of thing -- we have to give people more  
12 than simply the statement of two interest rates to think  
13 through, or else they are going to be biased in that  
14 direction.

15           And that is why I cite the SUV. The SUV is  
16 actually a very complicated probability assessment that  
17 most SUV buyers actually do not quite know what the  
18 difference between a one and a three-star is. They just  
19 know if they know there are one-star and three-star  
20 vehicles, they sure as hell do not want to put their kids  
21 in a one-star vehicle. And I think that is one of the  
22 ways you can sort of deal with that particular aspect of  
23 cognitive error.

24           MR. WEIL: I will just take a crack at it. So,  
25 there is pretty big literature in consumer behavior about

1 people's biased perception of their own personal risks.  
2 So, basically, for example, if you ask people about their  
3 likelihood of getting sexually transmitted diseases,  
4 people are very accurate in saying what is the base rate  
5 probability, but as you ask about people that are more and  
6 more similar to them getting up to themselves, they become  
7 more and more optimistic. So, that is the case.

8 So, I would say that you probably do not want to  
9 have a system where you leave it to people for their own  
10 self-assessment of risk. I would say in like what I would  
11 envision, you try to collect some information from  
12 somebody about their personal circumstances that would  
13 allow this recommender system to assert to you that  
14 somebody with your profile has this probability of winding  
15 up defaulting on your mortgage if you pick this kind of a  
16 mortgage. So, I would assert to people what their  
17 probabilities were in some way if it was possible rather  
18 than leaving it to their own imaginations.

19 MR. WILLEN: I think I will give you an answer  
20 to a question, which may not be the question that you are  
21 asking. But the way I interpret it is -- so, the way I  
22 envision this, and, again, this is all somewhat  
23 speculative -- is that we have some given distribution of  
24 prices from the data.

25 And, so, just let me remind you in Massachusetts



1 histories, which included dramatic falls in prices.

2 Now, you are right, someone who bought a house  
3 in -- the danger here is then we have to get into the  
4 business of forecasting prices. And what I am saying is  
5 you can take some, and we may even want to do that. You  
6



1 house this 2004, the issue was not would they be able to  
2 make it out of that mortgage, the issue was would they be  
3 able to make it through five more mortgages that it was  
4 going to take them to really be a sustainable homeowner.

5 Just remember about the bubble. In 2003, I  
6 mean, there is a Brookings paper, "Is There a Bubble in  
7 House Prices." That was written in 2003. I think people  
8 thought there was a bubble in 2003. And then we had three  
9 more years of mind-blowing appreciation. So, you know,  
10 calling bubbles is tricky.

11 MS. IPPOLITO: I would like to make a comment on  
12 John Lynch's idea that the retirement situation is a much  
13 simpler issue and we have moved to a system where we try  
14 to give people recommendations, you know, life cycle  
15 funds, if you are 20, here is what experts recommend, sign  
16 up for this, and then when you are 30, we will make  
17 adjustments for you, and it gives you a reasonable saving  
18 plan for retirement.

19 As I have listened to today, I have been struck  
20 by we do not even agree on what it is that we would  
21 disclose. I mean, there is a sense in which if you look  
22 at Alex's form, it is the mortgage written narrowly. If  
23 you look at Jim and Jan's proposal, well, they are  
24 including taxes and insurance and credit insurance and  
25 optional things that are part of the mortgage deal. And

1       then we hear that, well, you really should be thinking  
2       about the housing crisis and whether this is a high price  
3       or a price that is likely to decline because that affects  
4       your risk. And then we know that who you are is an  
5       important determination of the likelihood that you will  
6       have to face foreclosure.

7                     And, so, in thinking about an expert system to  
8

1 important. Yes, I agree.

2 Any other questions?

3 MR. KLEINER: Morris Kleiner, University of  
4 Minnesota. To what extent does the discipline of the  
5 market really take care of these boom and bust cycles? On  
6 the borrower side, certainly Bear Stearns, Citibank, and  
7 other firms have taken real hits and they are not likely  
8 to engage or lend money to individuals with poor credit  
9 histories over long periods of time. And to what extent  
10 does the information disclosure go beyond the discipline  
11 of the market?

12 MR. POLLOCK: Well, I think information  
13 disclosure done right should make the market work better.  
14 You want people to be generally free to enter into  
15 contracts. But if one side does not understand what the  
16 contract means, you do not have good market discipline.

17 MR. WILLEN: One thing, we have thought about  
18 this a lot and a lot of people brought this up. When we  
19 showed these pictures about foreclosures, a lot of  
20 economists said, "Who cares, the borrowers knew what they  
21 were getting into, the lenders knew what they were getting  
22 into. So, what business is it of ours?"

23 So, obviously, one of the things that we are  
24 getting at here is it is not clear that the borrowers knew  
25 what they were getting into. I do not think borrowers



1 from the government, the government is encouraging them to  
2 do this, the government is making this possible, then they  
3 are going to think, "well, this is not going to go wrong,  
4 and if this does go wrong, someone will help me out."

5 MR. LYNCH: So, are you envisioning that the  
6 adjustment for the market forces would come from the  
7 consumers' response or from the sellers' response? The  
8 sellers would then decide not to offer these products.

9 MR. WILLEN: The sellers, which they have  
10 already done. So, let's just get it straight, we do not  
11 have any subprime mortgage problem any more going forward  
12 because we do not have any subprime lenders anymore. So,  
13 that works.

14 On this whole issue of whether, you know, when  
15 they originate the distribute model, whether the  
16 intermediaries -- they thought they had no skin in the  
17 game. They may have thought they had no skin in the game,  
18 but as any employee of Bear Stearns can tell you, in the  
19 end, they did have a lot of skin in the game. So, they  
20 may have been -- if someone made a mistake, if someone did  
21 not have full disclosure, it was the Bear Stearns  
22 employees who thought that somehow because they were not  
23 holding these mortgage -- well, okay.

24 First, that they were actually holding the  
25 mortgages and, second, that just because you are an

1 intermediary in this business does not mean you are not  
2 hugely exposed. I mean, every single one of the subprime  
3 lenders in Massachusetts is out of business. So, anybody  
4 who worked there is looking for work.

5 MR. POLLOCK: I think we get adjustment. People  
6 are smart. They see what happens, they experience it  
7 themselves or see it in their family or their friends or  
8 they read the paper, so you are going to definitely get  
9 adjustment on both sides of the market.

10 In terms of the information, one of the things  
11 to think about is the role of the mortgage broker.  
12 Brokers had about 60 percent or so of the American  
13 mortgage market. Now, there was someone, who once the  
14 mortgage was closed had no continuing exposure, unlike, as  
15 you point out, many of the other intermediaries.

16 When we talk about who you are getting advice  
17 from, well, of course, to some extent you are getting  
18 advice from the same broker about what loan is good for  
19 you. This is one reason I think it is important, in terms  
20 of the disclosures which would help people understand  
21 better their ability to pay, what they are signing up to  
22 pay, is to have them come from the lender, who is actually  
23 making the credit decision.

24 MS. IPPOLITO: I guess I would add one final  
25 comment to close it out. That if we do currently have

1       federally required disclosures on mortgages, if we are  
2       going to require disclosures, we should at least make them  
3       better, it seems.

4                   On that note, thank you all. We will take a  
5       short break.

6                   **(Applause.)**

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1 will be Jeanne Hogarth. She is an economist at the  
2 Federal Reserve Board and she is the manager of the  
3 Consumer Education and Research Section in the Division of  
4 Consumer and Community Affairs. She does research on  
5 consumer behavior in mortgage markets and she is also  
6 responsible for the Board's consumer information materials  
7 on financial services. Jeanne?

8 MS. HOGARTH: Thank you, Jesse. And I also want  
9 to extend my thanks to Jan and Jim and Micah for all their  
10 hand-holding and help on this.

11 I thought it would be helpful, at this point in  
12 the proceedings, to actually bring in the voices of real  
13 consumers. I also have to say that everything I learned  
14 about PowerPoint I learned from Susan Kleimann.

15 This quote happens to be from a project that  
16 Susan and a cast of thousands did on mortgage privacy  
17 notices. Next to mortgage notices, your favorite notice  
18 is your privacy notice that you get from your bank. "The  
19 design is nice, easy-to-read, nicely set up, the whole  
20 italic, bold, lines, easy-to-read, not confusing, you do  
21 not have to plow through it." "It is good if you were  
22 going to compare them," because that is what we want  
23 consumers to do right. "You can go put this one to the  
24 next one. You can go yes, yes, no, no, very symmetrical."

25 So, what do we mean when we are talking about

1 disclosures for real consumers, and where do we go from  
2 here? I am afraid that my presentation is going to  
3 probably raise more questions than it answers. So, I just  
4 want to set that level of expectation. And just like  
5 every other good Federal Government worker has issued  
6 their disclaimer, I need to issue mine, especially because  
7 some of the things I am going to say I know do not reflect  
8 the views of the Board, the banks or their staffs. It is  
9 just Jeanne up here.

10 So, what do we want consumers to do? And, as  
11 somebody mentioned what are your goals for these  
12 disclosures, what do you want them to do?

13 Number one, what I want consumers to do is shop  
14 around, and that means how do they access information,  
15 what is the timing of that information. A lot of our  
16 disclosures, no offense to Mr. Pollock, but giving them at  
17 the time the loan is approved, is not helpful. How does  
18 that help me know that this is the right loan for me? So,  
19 I want to know about timing. I think channel is  
20 important. How do consumers access this information? Are  
21 they going to brokers or lenders? Are they getting ideas  
22 through their junk mail, or their e-mail, or their phone  
23 solicitations?

24 The issue about shopping around is nontrivial,  
25 but that is one of the things I want consumers to do. I

1 want them to compare features -- prepayment penalties,  
2 APRs, fees.

3 But the real question is what do consumers look  
4 for versus what should they look for? Again, no  
5 disrespect to Mr. Pollock, but we have struggled mightily  
6 in the consumer education arena to get people to focus on  
7 interest rates and not the low, low monthly payment.  
8 Payment is important, but rates are what determine the  
9 payment. So, what do they look for? They look for the  
10 payment. What should they look for? My answer is they  
11 should look for the interest rate. Now, whether or not  
12 that is the APR or the contract rate, I don't know.

13 I want them, in the end, to optimize their  
14 financial well-being, and the reason this picture is here  
15 is notice that healthy market basket that that woman has.  
16 You will notice a lot of my slides have to do with food  
17 because food is much more visual than mortgages. But I  
18 want them to optimize their financial well-being and  
19 security, and that means I want them to be a homeowner,  
20 not just a home buyer.

21 A couple other people today talked about the  
22 long-term, being able to stay in your home. Are you  
23 going to refinance a couple more times, but stay in the  
24 same house? So, I think it is really important that what  
25 I want out of mortgage disclosures enable people to be

1 homeowners, not just home buyers.

2           The problem for us, as regulators, is how can we  
3 simplify an inherently complicated transaction? And this  
4 is where I break from the Federal Reserve, so this is just  
5 Jeanne Hogarth speaking right now. Is there a way we  
6 could think about other models that we could bring to this  
7 kind of decision? And I think Dr. Lynch and Dr. Weil did  
8 a really good job there of exposing us to some other  
9 models.

10           Can we think about a tier of mortgage products  
11 that is analogous to over-the-counter drugs? For example,  
12 aspirin; I get a headache, I take an aspirin. Is the 30-  
13 year fixed rate mortgage the aspirin of the mortgage  
14 market? And then is there a layer of prescription drugs,  
15 so that maybe by going to one of Dr. Lynch's  
16 "recommendation agents," I can get access to these  
17 prescription mortgage products -- that might be a hybrid  
18 ARM, it might be something a little bit more  
19 sophisticated. But because of somebody helping me analyze  
20 my financial situation, I get that recommendation agent to  
21 help me through.

22           And then, finally, is there a tier of controlled  
23 substances? And, in my mind, those are perhaps payment  
24 option mortgages. Now, I want to say I am not talking  
25 about banning anything here. So, this is not like

1 marijuana where you take it off the market, but you do  
2 strictly control access to it.

3           And I will give you an example of a real estate  
4 agent who is a friend of mine from church. You can  
5 imagine what her income stream is like over the last  
6 couple years. A payment option mortgage would have been  
7 perfect for her because she could have kept on making  
8 those minimum payments during the low sales months and  
9 then added to her payments during the higher sales months.  
10 So there is a perfectly good reason for products like  
11 that, but it is, for many consumers, in the category of a  
12 controlled substance.

13           So, then, the issue is then where do we draw the  
14 line -- what is over-the-counter, what is prescription,  
15 what are controlled substances, and are there other models  
16 out there that we can draw upon to help us make those  
17 definitional terms, those decisions?

18           What makes a disclosure effective? Well, we  
19 know that consumers have to be exposed to it. They have  
20 to be aware that it is out there. They have to pay  
21 attention to it. They have to understand it. They have  
22 to remember it when they need it. And they can use it to  
23 act on in making a decision. So, it has to actually  
24 provide effective, reasonable information for consumers.

25           There are some problems. How do we get



1 So, even the junk food as well as the nutritional food has  
2 those nutrition labels. We want to think about financial  
3 product labels across the range of financial products that  
4 consumers interact with in order to get the most effect  
5 out of the learning effects.

6 Plain language in disclosures is necessary but  
7 it is certainly not sufficient. We need more than plain  
8 language. We have to frame the disclosure in the context,  
9 and we have talked about opt-in versus opt-out. We have  
10 seen Dick Thaler's "Nudge." We know that defaults are  
11 important, and I have to mention Jan's "is it a fee or a  
12 discount fee?" It is a classic problem.

13 And then there is the issue of looking at the  
14 little parts but also looking at the whole, and I know  
15 Susan is going to talk about that. But the whole in  
16 disclosures really is more than just the sum of its parts.  
17 And, so, there is this organizational structure I think we  
18 have to grapple with in disclosures.

19 I told you this is going to be more questions  
20 than answers. How do consumers process that information?  
21 And, boy, you know, Dr. Weil and Dr. Lynch really helped  
22 us, titillated us a little bit with that. What is in it  
23 for me? Am I a person who looks at fees or APR or monthly  
24 payment? What is it for me?

25 I would finally like to close with saying that

1 disclosures are an important tool, but financial products  
2 have become much more complex. Not all problems can be  
3 solved by disclosures. Just because you have a hammer  
4 does not mean that every problem is a nail.

5 I think we have to look at our toolbox. I think  
6 that disclosures are important, but we need education; we  
7 also need access to counseling and coaching and advice,  
8 those recommendation agents. I think we have to think  
9 about policy and regulation and substantive prohibition.  
10 The Fed now has proposals out for comment that would, in  
11 fact, make some substantive prohibitions in the mortgage  
12 arena as well as in the credit card arena. And I think  
13 that that is an okay thing sometimes.

14 Sometimes controlled substances do need to be  
15 removed from the marketplace. We need more than just  
16 prescriptions.

17 The other thing I would ask us to consider is  
18 how big of a toolbox do we really, really need. I mean,  
19 is it the toolbox stack-on or is it the gigantic Sears  
20 Craftsman? Because there are different audiences, there  
21 are different topics, there are different stages of  
22 behavior change for consumers and there are different  
23 learning styles. Some people are visual or auditory  
24 learners. I would challenge us to think about how do you  
25 make an audio disclosure, how do you make a video



1 disclosure? Could you put a disclosure on YouTube? I do  
2 not know.

3 And then, finally, where do we go from here?

4 Where can we draw the disclosure policy lines? What

5 content do we consider really essential? What is really

6 too complicated for most consumers and, therefore, what

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1 as important as what is in the fine print. And, so, I  
2 think it might be useful for us to think about some of  
3 these big picture issues that consumers, real consumers  
4 face. By "big picture," I am talking about the decision  
5 that people actually come to the tables focused on.

6 So, those decisions include thinking about the  
7 new house or thinking about the new kitchen or perhaps, in  
8 the subprime context, thinking about other debt burdens  
9 that many consumers actually struggle with. And these  
10 issues provide a sort of frame or context for the choice  
11 of a loan product. And, so, I think that it is important  
12 for us to keep that in mind.

13 Here is a quote from the FTC: "misleading  
14 mortgage advertising depends upon exactly what they say,  
15 how they say it, how big and how bold things are titled,  
16 what they try to hide in the small print." I love this  
17 quote. But this quote really focuses a lot on advertising  
18 that is sort of defective in nature. What I think is  
19 interesting is sort of how they say it because that speaks  
20 to the way information and the problem gets framed for  
21 consumers as they go into a situation where they are  
22 choosing a loan.

23 So, the question is how do consumers interpret  
24 advertising message content? And while some of that I  
25 cannot answer for you, I hope to, at least, demonstrate

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1 print, TV, radio and Internet advertisements promoting  
2 home mortgage products in 95 markets, actually these data  
3 were collected from the year 2004 to the end of 2007, we  
4 found the following patterns in the messages simply by  
5 analyzing the content of the advertising messages. Ads  
6 for prime mortgage products tend to emphasize the American  
7 dream, the American dream of home ownership, and they also  
8 tend to emphasize lower rates and tend to go into detail  
9 about the terms of the loans, the terms and the  
10 exceptions. So, this is where we get fine print.

11 On the other hand, ads for subprime mortgages,

1 One simple call will make your dream come true. So, these  
2 messages provide a very positive frame that help a  
3 consumer form an emotional bond, almost, by linking the  
4 loan product and the lender with this American dream. The  
5 safety, the sense of security, et cetera.

6 Many of the subprime slogans and tag lines evoke  
7 anxiety or fear among consumers, and you can tell that  
8 they are intended to do so. Here is one: "My bills were  
9 keeping me up at night, I just lie there worrying. I  
10 found help at Home Equity Mortgage. They helped me to  
11 consolidate my debt into one manageable monthly payment."  
12 Again, this is very negative. There is nothing dreamy  
13 about that particular message.

14 Other ads stress building a relationship between  
15 the consumer and lender built upon trust. Well, if you  
16 have scared someone and convince them that they need help,  
17 of course, it is probably a lot easier to persuade them  
18 into getting help from that particular lending  
19 institution. "Let us fix your broken ARM." I like that,  
20 that is kind of catchy.

21 Here is a print ad which very much emphasizes  
22 this dream theme that we are talking about. And,  
23 actually, the bottom is cut off, but there is the fine  
24 print there in extraordinary detail about what your credit  
25 score needed to be in order to qualify for the loan, et

1       cetera, et cetera.

2               Here is a sort of subprime counterpart. Here is  
3 a guy saying, we are here to help you. "Worried about  
4 your ARM, save a leg, call today." Now, I purposely  
5 picked one of the cheesier ad examples to prove my point.  
6 But here is a very sort of negative approach. Again,  
7 negative information carries more weight, but could  
8 actually discourage consumers from seeking the kind of  
9 specific information they need to make an informed choice.

10              "Many of you with adjustable rate mortgages are  
11 confused or anxious but you are not alone." Wow, that is  
12 uplifting. Yet, this sort of positively framed  
13 counterpart, here is a rate alert for June 2007: "slower  
14 economic growth has caused the Fed to keep interest rates  
15 flat and the market has responded with some of the lowest  
16 mortgage rates in years." It is not the case that a  
17 borrower in a subprime kind of market would not be able to  
18 benefit from that same situation. Yet those are not the  
19 kind of messages that you see in those ads.

20              So, the big picture and the fine print. Bottom  
21 line shows -- we know that previous research shows us  
22 decisions depend on the way they are framed, the kind of  
23 language that is used, the context that Jeanne talked  
24 about, that John Lynch talked about in his comments. We  
25 also know that negatively framed information carries more

1 weight, but it can reduce decision quality. And that is  
2 important when we are trying to encourage people to shop  
3 around and make informed decisions.

4 This issue also applies to disclosure content,  
5 which is something, again, that Jeanne mentioned in her  
6 presentation. And, finally, I want to point out the  
7 importance, the critical importance of consumer research,  
8 not just my research, but others, there are many others  
9 who have a great deal of experience in actually  
10 understanding or informing the research and policy  
11 community about how consumers use information in  
12





1 and I think that is a fundamental question that we really  
2 do have to be thinking about because we are all over the  
3 place on this. Some of us want it to educate, some of us  
4 want it to warn, some of us want it to inform.

5 But we have to be able to think about it and  
6 really come to some conclusion, at least, in each  
7 disclosure what our intent is going to be, because I do  
8 think that this picture illustrates something about  
9 disclosure documents and that is that for consumers that  
10 is the only way they see the policy. They do not see it  
11 written up in a law. They do not see it written up in  
12 policies and procedures. They see it in that disclosure  
13 document that comes to them and they do see it as a trust  
14 relationship between them and whoever is disclosing to  
15 them, and it is a fragile relationship and one that can be  
16 easily broken.

17 And when we start thinking about what are we  
18 trying to do in some of these disclosures and we try to  
19 think about what is the effect of plain language or clear  
20 disclosures, one of them has to deal with what is the  
21 relationship of the consumer's perception of trust with  
22 that organization. And I do not think we want to  
23 undersell or under-think about that kind of an idea.

24 So, part of what we are thinking about is how do  
25 we translate this information. So, I think confusing is

1 easy, it just surrounds us -- every time we turn around we  
2 have it.

3 **(Laughter.)**

4 MS. KLEIMANN: Unclear is relatively easy. This  
5 is an IRS form that is sent out to roughly three million  
6 people a year. Again, this is easy. Dense is easy.  
7 Garbled is easy. Notice I chose somebody I was sure would  
8 not be here.

9 **(Laughter.)**

10 MS. KLEIMANN: Neat and tidy, but still  
11 fundamentally unclear is easy. They can make it look  
12 good, but making it look good is not what we are really  
13 talking about. Short can be easy. Layout is easy. But  
14 simple, easy-to-read, visually compelling neutral, which I  
15 believe is one of our key elements, understandable and  
16 clear -- that is not so easy. And it is possible to get  
17 disclosures that work better, that really move from the  
18 idea of data to information to knowledge or stuff to stuff  
19

1 they care about and they will not necessarily match ours.  
2 That is perhaps a different task.

3 So, it is not easy. But it is possible. And I  
4 will come back to some of these just to look at what are  
5 the elements in some of these that made them easier and  
6 allowed us to actually get documentation, data that shows  
7 consumers are processing these and they are affecting  
8 their decisions in very measurable ways.

9 So, the question is going to be how are we going  
10 to do this, how do we get disclosures that do work? And,  
11 again, I want to remind you, I am talking about assuming  
12 the best of intent because it is so complicated to do,  
13 that if we start adding in that somebody is intentionally  
14 trying to mislead, we are in a whole different world and I  
15 have to simplify my world, too. So, I am going to assume  
16 good intent.

17 You have seen this, lurking in there is that  
18 definition of insanity. And really the idea that we do  
19 know how to create disclosures, we just do not do it very  
20 well right now. So, what is it that we are going to have  
21 to do that really allows us to create disclosures that are  
22 different, that are more effective? And I am going to  
23 suggest that if we want to get to, to follow up on that  
24 baseball metaphor we had earlier, the little sweet spot of  
25 a disclosure, a really good disclosure, we need to think

1 about these three elements.

2 And I am going to be talking very quickly now.

3 So, first, collaborate. We have to build the right team.

4 No lawyer, economist, consumer advocate, industry group,

5 consumer or even consultant can get it right on their own.

6 We have to build that mixture of expertise if we really,

7 really want to get it. If we do not do it at the

8 beginning, we will be doing it in the review cycle. And I

9 have lots of things on review cycles that we will show

10 you, not a good place to do it. We can build a

11 collaborative team up-front.

12 Clarity. What is the purpose of this? Again,

13 are we educating? Are we informing? Are we helping them

14 shop? Are we trying to warn them? There is only one

15 thing we can be absolutely sure that is not a disclosure's

16 purpose and that is to tell the consumer everything and

17 believe that you have now communicated. That is not going

18 to work. But trying to decide what is critical is going

19 to be important. We have to decide on what the desired

20 action for the document is because until we know what we

21 want the consumer to do with this information, we are

22 going to be muddling around all over the place -- let's

23 add this, let's add this, et cetera.

24 Once we know what we are trying to get the

25 consumer to do, from all of that will come all the details

1 we should include, what we should exclude, how to present  
2 it, what to emphasize, what to design even, because then  
3 we have a clarity around our purpose.

4 We have to commit. We must use a rigorous  
5 process. And that is going to include consumer testing.  
6 This process is about creating hypotheses and then going  
7 out to consumers collecting data that shows us we got it  
8 right, unlikely, we got it closer, quite likely, until we  
9 are close enough that we think we have a disclosure that  
10 does no harm and, in fact, leads us to be able to do the  
11 kinds of things that we want it to do. We have to build  
12 these on consumers' needs, not on our policy needs of what  
13 it is we want to tell them. We have to be thinking from  
14 the consumers and we have to blast our own assumptions  
15 such as what does policy mean because consumers do not  
16 think of policy in the same way we do.

17 We have to innovate. I do not know if you are  
18 familiar with the National Assessment of Adult Literacy.  
19 This is a definition of a high level of literacy: "reading  
20 lengthy, complex abstract prose/text as well as  
21 synthesizing information and making complex inferences."  
22 I think that is what most of our disclosures ask consumers  
23 to do. Only 13 percent of the U.S. population, adult  
24 population, is capable, scores at that level. That gives  
25 us a whole lot of people who are not there right now and

1 we do have to think about disclosures that can do  
2 something different. We have to innovate.

3 What Jeanne was talking about, thinking about  
4 different models, we have to think about that whole-to-  
5 part, not just what is a little bit that we can tell  
6 consumers, but how do they see it integrated, the context,  
7 visual, keeping it simple. We have to go for neutral,  
8 giving them the information clearly, but respecting what  
9 it is that they will do. And we can have results.

10 This is that IRS form. The original message  
11 says we are proposing a change to your 2002 tax return.  
12 That simple message change resulted in a 227 percent  
13 increase in the responses that they got. Consumers got  
14 it. They knew how to take an action on it.

15 It could be something like this where consumers,  
16 this is out of the proposed good faith estimate. With  
17 those three choices in number two, there was great concern  
18 about neutrality from mortgage brokers that consumers  
19 would see the disclosure of the YSP and that that would  
20 immediately make them flee. In one of our rounds of  
21 testing when the broker cost was lower, 92 percent  
22 identified it as lower and 87 percent chose it. When the  
23 lender cost was lower, 92 percent identified it as lower  
24 and 89 percent chose it. That is close enough. We are  
25 not introducing bias here and, again, we do not care. We,

1 KCG, do not care [which they choose].

2 In this one, whole-to-part, again, consumers can  
3 see, they can understand, here is all the range of  
4 possibilities, and here is what this bank does. Not here  
5 is what we do. Because unless you have the context of the  
6 larger picture, you are not going to be able to understand  
7 what is really going on here.

8 What is the impact of this type of approach? We  
9 can have understanding, we can have clarity, we can have  
10 trust, a sense of honesty and even simplicity, and it  
11 seems to me that that is exactly what it is we are trying  
12 to gain when we put together disclosures for consumers.  
13 Thanks.

14 **(Applause.)**

15 MR. LEARY: Thank you, Susan. Next up is  
16 Annamaria Lusardi. She is Professor of Economics at  
17 Dartmouth College and a Research Associate at NBER. Some  
18 of her main areas of research include savings, financial  
19 literacy, and financial decision-making.

20 MS. LUSARDI: Thank you very much. Thank you,  
21 Jan, for inviting me to the Federal Trade Commission and  
22 for organizing this important conference.

23 What I would like to do today is document the  
24 state of financial literacy, and I am going to do it by  
25 actually taking you through a tour of several studies I



1 have done in a span of several years and, actually, to  
2 document what is the barrier we face when we are really  
3 considering information or informing the consumer and  
4 making a disclosure.

5 This is clearly an important topic. I used to  
6 have to justify this when I started working on financial  
7 literacy many years ago, and now I do not have to spend as  
8 much time doing that. But let me actually describe that  
9 when we first started this project and we proposed a  
10 module on literacy for the (inaudible) retirement study --  
11 and we started this around 2002 -- we actually had to  
12 think about the question, but what is it the consumer  
13 needs to know when we are asking, you know, what is the  
14 financial literacy? Do they need to know the black shoal  
15 formulas given that there are several instruments which  
16 require option pricing to be fully appreciated or do they  
17 need something simpler?

18 Since we did not have a lot of room for  
19 questions, only three, we went actually for some of the  
20 basic concepts such as numeracy, can people do  
21 calculations. In financial decisions, you have to make  
22 calculations. And we went for the basic and fundamental  
23 concept like inflation and risk diversification. And I  
24 actually want to show you the exact question because I  
25 want first to document how simple these questions are and

1 also because this question now has been inserted in  
2 several -- actually more than ten surveys now -- both in  
3 the U.S. and abroad. So, we will be able eventually to do  
4 some international comparisons.

5 So, here is the wording of the question we put  
6 in the (inaudible) retirement study. Suppose you had \$100  
7 in a savings account and the interest rate was two percent  
8 per year. After five years, how much would you have in  
9 the account if you left the money to grow? This is  
10 actually a phone interview. Usually the person who asks  
11 does not have an Italian accent, so the question would be  
12 very clear to them and also release the questions. Of  
13 course, you also need to leave people to say I do not know  
14 or I refuse to answer.

15 The second question which is about inflation is  
16 equally simple, at least for economists, perhaps, and we  
17 ask, imagine that the interest rate on your savings  
18 account was 1 percent per year, the inflation was 2  
19 percent. After one year would you be able to buy with the  
20 money more than today, exactly the same or less than  
21 today?

22 And, third, we ask about risk diversification.  
23 Some of these questions -- and this particular one was  
24 actually taken from a survey done at the vanguard. And we  
25 ask, "Do you think the following statement is true or

1 false: buying a single company stock usually provides a  
2 safer return than a stock mutual fund." We do not ask  
3 people only to do calculation, but we also ask for some  
4 concept, and we also tried to assess financial knowledge.  
5 But as you can imagine, we are picking up a variety of  
6 things, something I will come back to in a moment.

7 So, let me turn to the results, and this is  
8 actually a sample of people which are 50 and older. This

9

1 the correct responses.

2 We also see a very sharp decline of literacy and  
3 knowledge with age, or at least with generation, and as  
4 you can see here, as people age, the share of correct  
5 responses actually falls quite substantially.

6 You might think that we got these responses  
7 because we are mostly interviewing grandpa, but actually  
8 we have looked at this question for people which are 51 to  
9 56. So, they are really in their prime years, and these  
10 are actually the early baby boomer. We did not devise the  
11 questions, but I think these questions are pretty  
12 important because they, again, get at the capacity of  
13 people to do some analytical thinking and also to do some  
14 calculation. Again, the question, you know, can you  
15 calculate 10 percent. If the chance of getting a disease  
16 is 10 percent, how many people out of 1,000 would you  
17 expect to get a disease? If five people have the winning  
18 number in the lottery and the price is two million, how  
19 much would they get?

20 And then, actually, another question which has,  
21 again, to do about interest compounding, which I think is  
22 really fundamental, when we speak about that is, let's say  
23 you have \$200 in a savings account, the account earns 10  
24 percent, how much would you have at the end of two years?

25 Since actually we are in Washington, I actually

1 thought that I should report another question which is  
2 asked in this survey which is, of course, important for  
3 taxes, and I will call it political literacy: "Who is the  
4 President and the Vice President of the U.S.?" And I  
5 thought we should provide two smiling pictures and,  
6 actually, I want to show you that even in this question  
7 not just people do not do very well on calculations, but  
8 20 percent do not know about the President and the Vice  
9 President of the U.S.

10 So, we are up against tough obstacles here.  
11 Financial literacy should not be taken for granted. But  
12 also, it is something that was also emphasized this  
13 morning. Financial literacy is not just widespread, it is  
14 particularly severe in some demographic groups, and that  
15 is why the idea of this education, which has a  
16 one-size-fits-all, I think is potentially ineffective  
17 because different groups have really different needs. I  
18 think it is important to highlight these differences as  
19 well.

20 I also want to show that financial illiteracy is  
21 so severe that some of the programs we have seen so far in  
22 my view are very much equivalent to giving an aspirin to  
23 some people who have pneumonia. If the person does not  
24 get better, it does not mean that conventional medicine  
25 does not work.

1           The most important question is, of course, not  
2 just whether people know, but whether knowledge matters.  
3 So, we spent a lot of time -- and this is actually the  
4 difficult part of our paper, the first was kind of fun,  
5 the second one is way more difficult and more challenging.  
6 It is to show whether or not financial literacy matters.  
7 And what we show in several other papers, and this is a  
8 lot of collaborative work with a variety of collaborators,  
9 is that actually financial literacy does matter, and I  
10 think matters quite a bit. People who are less literate  
11 are less likely to plan for retirement, less likely to  
12 accumulate wealth, and less likely to participate in the  
13 stock market.

14           But since the conference is about that,  
15 actually, let me turn to that now, and this is actually  
16 the project I have been doing this term at Harvard  
17 Business School. It is a project with Peter Tufano where  
18 we were able to devise questions for a representative  
19 sample now of the U.S. households.

20           So, I can show you now a figure which is  
21 representative, and it is a really great advantage and a  
22 great opportunity to be able to devise these questions.  
23 We were very fortunate, and Peter has been brilliant, in  
24 being able to partner with his market research firm, which  
25 has allowed us to put these questions -- and I have to add

1 for free -- and not only were we able to do this and add a  
2 variety of questions about credit and borrowing behavior,  
3 but we also got the data very quickly, which hardly  
4 happens when you put this question in a national survey.  
5 You know, we devised the question previously in 2002, got  
6 the data in 2005, published the paper in 2010. So, you  
7 know, it is not that fun.

8 **(Laughter.)**

9 MS. LUSARDI: So, what we do here, we have  
10 actually added a variety of questions, including  
11 mortgages, not subprime mortgages. This is a  
12 representative sample, so we would not have a large group  
13 for that.

14 But I want to focus, again, on the questions  
15 about interest compounding which we were able to now  
16 devise, I think, in a more elegant way. So, the question  
17 we ask is, "Suppose you have \$1,000 on your credit card,  
18 the interest rate you are charged is 20 percent compounded  
19 annually. If you did not pay anything off, how many years  
20 would it take for the amount you owe to double?" And we  
21 have also listed the question so we can see whether people  
22 underestimate or overestimate the power of interest  
23 compounding. And, also, we can rank, in a sense, how  
24 wrong you are on this answer, and we can use that type of  
25 information.

1           And I think there are actually several important  
2 findings. This is actually a sample representative of the  
3 population. So, what you can see here is in the  
4 population, only 36 percent got this question right. And,  
5 in addition, like almost -- and more than 30 percent  
6 actually underestimate the number of years it takes for  
7 the amount to double. So, we have more error on the  
8 overestimate side than the underestimate. But the other,  
9 and I think, equally worrisome figure, is the percentage  
10 of people who simply say, "I do not know the answer to  
11 this question."

12           We then add another question, which I think is  
13 particularly important as you talk of mortgages, and we  
14 actually ask people to compare two methods of payment both  
15 to see whether they are financially savvy and can  
16 calculate, but also to see whether or how much they are  
17 attracted by this constant stream of payments that are  
18 offered. And, again, we were talking earlier about the  
19 fact that people might actually look at the payment per se  
20 or prefer to add the payment rather than the interest  
21 rate.

22           So, we actually ask, again, "You purchase an  
23 appliance, it costs \$1,000, to pay for this appliance you  
24 are given two options. Pay 12 installments or borrow at a  
25 20 percent annual interest rate." So, this is clearly a



1       tricky question, and I know it is tricky because only six  
2       percent actually got it, and it is interesting to see that  
3       not only a lot of people chose option A, but also many  
4       thought that these options were the same. So, basically,  
5       they are not really considering or not doing any  
6       discounting.

7                We actually then link this information to that.  
8       That information about whether people had too much debt,  
9       just the right amount of debt and they have difficulties  
10      paying it, or just they do not know. And in the sample,  
11      26 percent of the population say they have too much debt,  
12      and a good 11 percent simply they do not know the amount  
13      of debt they have. But what we can do? We can actually  
14      link mistakes to basically adding too much debt.

15               So, it is really the people who grossly  
16      underestimate interest compounding which end up with too  
17      much debt and those that were given a free loan  
18      (inaudible) which end up with too much debt.

19               So, let me say very briefly since this is  
20      actually what perhaps I should have been talking about,  
21      that there are, of course, a lot of ways to help  
22

1 both being Italian drivers, we were struck by how much we  
2 accept restriction in an area and perhaps how little we  
3 are sensitive to restriction in another. You know, what I  
4 think might just be important here is to think about the  
5 fact that, you know, accidents can happen, of course.

6 And the idea that you do not require even a  
7 minimum amount before you let people on the road has the  
8 potential, of course, of creating so many accidents that  
9 the roads might be closed down down the road, and so we  
10 might actually have to think a little bit about the risk.  
11 And, of course, I am talking about externalities here, and  
12 the fact that if people have no information and perhaps no  
13 literacy, the potential for making mistakes are, of  
14 course, high.

15 But I also actually want to speak about the  
16 financial driving license because not actually to  
17 necessarily have this mandatory financial literacy, but to  
18 also think about the fact that we have to devise a  
19 financial driving license, we would have to think really  
20 hard about, first of all, what people need to know.  
21 Second, we would actually have to write a financial  
22 literacy manual that actually described what people have  
23 to read so that we would have people not browse 2,000  
24 webpages or a lot of books in the bookstore where, you  
25 know, we do not know whether they are right or wrong.

1           I think that really making progress on this  
2 topic certainly requires collaboration, and I am very glad  
3 that the conference as well really has a variety of  
4 speakers from different fields, and I think this is  
5 actually very important. We can learn a lot not just from  
6 the economics, but, for example, another field where we  
7 actually know a lot more about how to persuade consumers.  
8 And just to tell you that I am still not giving up on  
9 financial location, I have just finished editing a book,  
10 which is titled, "How to Increase the Effectiveness of  
11 Financial Location and Savings Programs." It is out in  
12 the fall and I hope you will find it of interest.

13           **(Applause.)**

14           MR. LEARY: Thank you. Our next speaker is  
15 Sumit Agarwal. He is an economist at the Chicago Fed and  
16 he also has a background in industry. Before joining the  
17 Chicago Fed, he was at Bank of America where he worked on  
18 risk management. And I am sure it is not his fault what  
19 is going on now.

20           **(Laughter.)**

21           MR. AGARWAL: I would also like to thank Jan and  
22 Jim for organizing the conference.

23           So, I am going to talk about credit counseling  
24 and home ownership. This is joint work with Gene  
25 Amromin, Zahi Ben-David, and Doug Evanoff. As all Fed

1 employees, I should point out the disclaimer, these are my  
2 opinions, not of the Federal Reserve System or the Federal  
3 Reserve Bank of Chicago.

4 So, I am going to talk about two polar  
5 opposites. Credit counseling programs. The first one in  
6 Cook County, Illinois, and the second one in Indianapolis,  
7 Indiana. So, let me kind of set them up. The first one,  
8 after all these anti-predatory lending laws were  
9 implemented across various states in the 1990s and 2000,  
10 Illinois lawmakers also implemented an anti-predatory  
11 lending law, which had a pilot program implemented across  
12 10 zip codes in Cook County.

13 So, I should say we intend to study -- we have  
14 collected a whole lot of data, we have not yet got to  
15 actually running the regressions and giving you some  
16 results. I might give you some preliminary results which  
17 I have. With the cameras here, I am a little reluctant to  
18 show you. They could be proven wrong later.

19 So, we want to study the impact of this  
20 counseling on home ownership across the zip codes, and we  
21 want to compare them to the neighboring zip codes. We  
22 also want to study what happened to credit supply pricing  
23 and the default behavior of these borrowers compared to  
24 the people who were not treated.

25 The second experiment was in Indianapolis where

1 the Indianapolis Neighborhood Housing Partnership actually  
2 helps underprivileged households get home ownership. So,  
3 here we want to study, again, the impact of the financial  
4 management classes and the subsequent home ownership  
5 experience of these clients. We also want to study the  
6 people who actually dropped out of these classes and see  
7 what happened to them. And then we want to track the  
8 performance of these graduates, about whom we have already  
9 collected performance data.

10 Finally, we are working with the organization to  
11 actually conduct randomized trials and follow-up surveys  
12 to ask both the dropouts and the actual graduates on what  
13 have they learned, how are they managing credit cards and  
14 other mortgage payments.

15 So, let me kind of get into both these studies  
16 to describe how they are -- as I said, they are polar  
17 opposites -- actually how both these credit counseling  
18 programs are implemented. In the Illinois program, it was  
19 mandatory. It was loan counseling mandatory for these ten  
20 zip codes. It applied regardless of the loan product. I  
21 mean, earlier in the day we were taking about various loan  
22 products. Here it did not matter. If your FICO score was  
23 below 620, you had to go through this one hour of credit  
24 counseling. If your score was between 620 to 650, then  
25 the counseling was conditioned if you had an interest-

1 only, low doc, or the exploding ARMs and various criteria,  
2 especially if the points and fees were greater than 5  
3 percent of the loan amount. But if your FICO score was  
4 above 650, you did not need to go through credit  
5 counseling.

6 Again, this is important because this is in  
7 stark contrast with all the other legislations that were  
8 passed by other states because those depended on the loan  
9 product itself. This is, in a way, unique on how they  
10 implemented this.

11 Also, there are lots of other messy issues with  
12 how this program in Illinois was implemented. First, it  
13 was this zip code selection. It was this contiguous block  
14 of south side zip codes in Chicago. The contract  
15 enforcement, there was no good faith provision -- if there  
16 was a mistake made by the HUD approved counselors and the  
17 lender actually approved the loan and there was a mistake,  
18 then they could not foreclose on the house. So, there  
19 were no provisions for the lenders to back out. So, this  
20 had credit supply concerns.

21 There was also asymmetric treatment of these  
22 lenders. It only applied to the state licensed mortgage  
23 brokers and banks and not to national banks, credit  
24 unions, and others. So, effectively, we can actually  
25 study who actually left the areas in supplying credit.

1                   Now, what the counselors were actually doing in  
2 this one-hour session, they would ask them, why do you  
3 want the loan, what we are doing. And they could give any  
4 of these recommendations: borrower does not understand  
5 cost, borrower does not understand the transaction. And  
6 they would give a certification that says the borrower is  
7 denied and should not get the loan. They could still go  
8 and get the loan even after the HUD certification came  
9 back they should not be getting the loan. But loan rate  
10 is above market rate, so all those were the various  
11 options that the credit counseling would provide them.

12                   Now, what we expect out of this is that credit  
13 supply should dry out. I mean, there were highly  
14 publicized withdrawals from these 10 zip codes of lenders.  
15 Lenders claimed this would raise cost from ensuring  
16 compliance of these counseling programs. There were also  
17 these legal uncertainties because data entry could  
18 invalidate all these contracts as I mentioned a minute  
19 ago.

20                   Just preliminary evidence suggests that there  
21 was this shrinking of credit supply. Twenty-eight percent  
22 of supply shrunk.

23                   So, there was also this outcry by various  
24 groups. Borrowers and selectors in these affected zip  
25 codes were saying "why us," especially the sellers. There

1 was this higher lock-in cost, and fewer lenders were  
2 there. Mortgage brokers and real estate agents also were  
3 not happy with this. Outside parties, I mean, minority  
4 groups -- everybody was thinking this was discriminatory  
5 because once they could not sell their properties, it had  
6 an adverse effect on people who were buying it as well.  
7 And this also had impacts on the house prices and sale  
8 volume. Both declined disproportionately in this  
9 community.

10 So, we want to look a little bit beyond just  
11 that these -- some of these statistics. We want to  
12 actually get into the details of these loan contracts  
13 because what we have is actually extensive data of the  
14 people who were treated and people outside the  
15 neighborhood who were not treated, outside these ten zip  
16 codes. So, we only access what happened to accepted loan  
17 contracts, especially things like interest rates and  
18 prepayment penalties. Were they paying higher or lower  
19 prepayment penalties compared to the zip codes outside  
20 because now they have been through this credit counseling.

21 We also want to look at what happened to  
22 foreclosures and delinquency rates of the people who went  
23 through the credit counseling. Did it effectively change  
24 the borrower pools in this -- because credit worthiness,  
25 now all of a sudden you are only getting higher FICO score



1 borrowers who are taking out loans.

2 Time on the market. Because half the people now  
3 have to go through credit counseling, this could delay  
4 them buying the house. Did that affect time on the market  
5 and also prices? Did it also shift lender composition in  
6 some sense?

7 We are also working with them to actually  
8 collect the actual counseling data to see if we can look  
9 at who was rejected and can we look at why they were  
10 rejected for the loans.

11 Now, a very simple analysis of what we have done  
12 is looking at the zip codes that were treated versus the  
13 control zip codes, what we found is interest rates are  
14 lower for borrowers who had below 80 percent leverage in  
15 the treated group or in these ten zip codes.

16 Again, I would rather maybe just skip these  
17 because we just ran these regressions yesterday.

18 **(Laughter.)**

19 MR. AGARWAL: So, they are really fresh.  
20 Tomorrow they might change.

21 **(Laughter.)**

22 MR. AGARWAL: So, let me kind of talk a little  
23 bit about this second program that was by this  
24 Indianapolis Neighborhood Housing Partnership, which is a  
25 nonprofit providing financial education to



1 looking at the performance of their first class, how well  
2 have they been able to cut down on credit cards, credit  
3 card debt, and how their FICO score is doing. So, they  
4 have been able to collect a lot of this data on the  
5 initial FICO score that was recorded, the final FICO score  
6 when they bought the house, the people who dropped out,  
7 the demographics of a lot of the people who dropped out  
8 and who stayed in the program and, obviously, we know a  
9 lot of the data from data sets of the people who did not  
10 actually participate at all in this program. So, we want  
11 to actually compare and contrast these.

12 Just to kind of give you some summary steps --  
13 who was in this program, who actually even took advantage  
14 of this. Mostly minorities, low to moderate income  
15 families, 59 percent are African Americans, 79 percent of  
16 the people who actually took advantage of the program were  
17 females. Again, about 50 percent are between ages 30 and  
18 50. What is striking is 32 percent actually have no high  
19 school education, or a high school education or less. And  
20 43 percent have income which is below \$24,000. So,  
21 just to look at it in 2007, they actually graduated 1,100  
22 families and 303 of those actually closed on a home loan.  
23 So, we are looking at the data for five to six years, so  
24 it is quite a large sample to study how these consumers  
25 were doing. So, here what we are trying to measure is the

1 magnitude and the longevity of the effects of financial  
2 education. Did they just get into home ownership? After  
3 six months, did they actually end up defaulting or was  
4 their home is foreclosed upon, or are there long-lasting  
5 impacts of this financial education?

6 I mean, this is a self-selected group. Whoever  
7 graduates, I would expect they should do well. So, the  
8 hurdle is a little higher for us to see the comparison  
9 group. If they did not go look at the zip codes, they did  
10 not go through this program, how did they do compared to  
11 these people who self-selected themselves into this  
12 program?

13 We also want to look -- again, match this to  
14 loan performance data from McDash and look at these other  
15 comparable houses or families. We are also conducting  
16 follow-up surveys with these people to understand how well  
17 they understood financial education. The follow-up  
18 surveys, in effect, will allow us to control for lots of  
19 demographics and negative shots that might have made them  
20 get out of the house or get foreclosed upon.

21 So, preliminaries, though, suggest just of the  
22 people who are in the program and who graduated from this  
23 program, that their FICO scores actually went up by more  
24 than 20 points. There was an increase in savings -- these  
25 are numbers of around \$300. And a decrease in debt --



1 deal of help, I certainly could not have done this study  
2 by myself. The study just became live on the HUD website,  
3 this is the URL for it. It is not for today, it is for  
4 future reference.

5 The data we began with was for about 7,500 FHA  
6 insured loans. They are all 30-year fixed-rate purchase  
7 loans. All FHA insured, no ARMs, no refis. They were all  
8 originated in the same six-week period in May to June of  
9 2001, a period that was blessedly free of interest rate  
10 fluctuations, and that was part of the reason why we chose  
11 that period.

12 The data that we collected for these loans was  
13 from the HUD-1 settlement statements, which FHA has for  
14 every loan that it insures; the FHA electronic records,  
15 which gave us superior information about the borrowers and  
16 their addresses and the interest rates on the loans and  
17 the amounts of the loans; census data for each borrower  
18 census tract; and then HMDA data, which is related to  
19 census tract also but is specifically addressing loan  
20 applications, rejections, approvals, and originations.

21 So, the first thing we learned is that the  
22 aggregate numbers are themselves interesting. Closing  
23 costs are not small. On loans averaging about \$105,000,  
24 the total lender broker fees averaged about \$3,400 and  
25 that broke down to about \$1,500 in up-front cash and

1       \$1,900 in yield spread premium.

2               Now, the way we came about these yield spread  
3 premiums was that the brokered loans were reported; in  
4 fact, the only way we could identify the brokered loans  
5 was that a YSP was reported. Then we used the  
6 relationship between interest rate and yield spread  
7 premium for the brokered loans to estimate yield spread  
8 premiums for the rest of the loans. The standard  
9 deviation is big, about \$2,000 around that mean of \$3,400.

10              Title fees on these loans, and this is all  
11 payments to the title company because it is very difficult  
12 to break out pure insurance from everything else, averaged  
13 about \$1,200 with a standard deviation of \$600.

14              We find that price discrimination is  
15 substantial. First, by education. Borrowers with a  
16 college education pay about \$1,100 less, other things  
17 equal -- other things being loan amount, credit score,  
18 house value, income, et cetera -- than borrowers without a  
19 college education. And, of course, we are measuring  
20 education here at the census tract level. So, what we are  
21 really observing is the fraction of adults in the census  
22 tract that have a college education not the education of  
23 the individual borrower, and those of who have studied too  
24 much econometrics probably know that when you measure a  
25 variable with error, you are likely to get a coefficient

1 that is biased downward. So, that \$1,100 might be too  
2 small.

3 But it is also consistent, I will point out,  
4 with the similar measure I got for educational differences  
5 in a single lender set of data that I studied prior to the  
6 time when I studied this data.

7 There is also some price discrimination by race;  
8 the minority borrowers pay roughly \$350 to \$400 more than  
9 non-minority borrowers, notably smaller than the education  
10 coefficient.

11 Now, we also looked at complexities in the loans  
12 and how the borrowers did in dealing with these  
13 complexities. One question, of course, was the yield  
14 spread premium because anybody who has been paying  
15 attention to the mortgage market knows that there has been  
16 a lot of litigation over yield spread premiums over the  
17 last five years, that yield spread premiums have been  
18 alleged in some camps to be illegal kickbacks under RESPA,  
19 and in some of the studies it looks like borrowers get  
20 substantial benefits from the yield spread premium. I am  
21 thinking, in particular, of the single lender data that I  
22 looked at five years ago, which included not just FHA  
23 insured loans but also conventional and jumbo loans.

24 But in the FHA data, we do not find very much  
25 benefit. For each hundred dollars that borrowers pay in a



1 yield spread premium, which is implicitly paid by the  
2 borrower but explicitly paid by the wholesale lender to  
3 the mortgage broker, the up-front saving to the borrower  
4 is only about \$20. So, the idea is the borrower pays a  
5 higher interest rate. Because the borrower pays a higher  
6 interest rate, the wholesale lender makes a payment to the  
7 mortgage broker.

8 Now, in principal, there could be a one-for-one  
9 trade-off here. You could see the borrowers paying \$100  
10 less in up-front cash for their \$100 of additional present  
11 value coming from the higher interest rate or you could  
12 see something else. What we see is a trade-off that is  
13 far different from the one-for-one trade-off that would be  
14 ideal, what you would expect in a competitive and  
15 transparent market. This market is not very transparent;  
16 the borrowers are getting a benefit of about \$20 for each  
17 \$100 that they pay in YSP.

18 Same thing with points paid on a mortgage. I  
19 think there is probably only a handful of people in the  
20 world who really understand what points are on mortgages  
21 and I think they are all economists who study the mortgage  
22 market. And here, again, the average present value of  
23 benefits was for each \$100 in points paid the -- and this  
24 is cash in exchange for a lower interest rate -- the  
25 amount by which the interest rate was lowered had a

1 present value of about \$20.

2 Now, another one is seller contribution. Now,  
3 you would think this one would be easier because this one  
4 is not logarithms and exponents -- this one is adding and  
5 subtracting. The seller is making a contribution to the  
6 borrower's closing cost and, so, the question is how much  
7 lower are the borrower's closing costs, that is the  
8 borrower's part, when the seller makes a contribution of  
9 \$100. And the answer is, on average, about \$50.

10 Now, what that means, of course, is that when  
11 the seller makes a contribution of \$100 to the mortgage  
12 closing, that the total closing costs go up by \$50. They  
13 do not stay the same.

14 So, in all three cases what we would like to see  
15 in a competitive transparent market is a one-for-one  
16 trade-off. The dollar value for the yield spread premium,  
17 a dollar of value for the points, and a dollar value for  
18 the seller contribution, and we do not see anything close.

19 What's more, we see quite different treatment  
20 depending on the type of lender with whom the borrower is  
21 dealing. When the borrowers are dealing with depositories  
22 and large mortgage banks, they see a benefit of about \$25  
23 for each \$100 of yield spread premium that they pay. If  
24 they get their loan from a mortgage broker, it is only  
25 seven. Are those numbers different? Yeah, they are five

1 or six standard errors apart.

2 How about points? Points we have -- I think the  
3 biggest difference in how the different kinds of  
4 originators use them. Borrowers who go to depositories in  
5 large mortgage banks get a benefit of about \$50 for each  
6 \$100 that they pay in points. When they deal with  
7 mortgage brokers, not only do they not see a benefit, but  
8 each \$100 that they pay in points is associated with \$110  
9 of additional cost. In other words, there is no benefit,  
10 there is a negative benefit to paying points to the  
11 mortgage broker.

12 Seller contribution, again, we see a difference  
13 that is substantial by type institution -- \$70 benefit to  
14 the borrower through depositories and large mortgage banks  
15 and only \$40 when we deal with brokers.

16 Now, but in the data there is also a hopeful  
17 sign, and that is the sign of what comes along when the  
18 borrowers, in some way, opt for simplicity. The  
19 simplicity loans are the no-cost loans. Now, what we mean  
20 by no-cost loans is not really no cost, this is a  
21 misnomer. What we mean is that there are no up-front cash  
22 payments to the lender or the broker. Now, the interest  
23 rates on these loans are higher, and they should be  
24 higher, but when we take all things into account, the  
25 differential in the interest rate plus the loan amount,

1 the credit score, race and education, the no-cost  
2 borrowers save \$1,200 compared to the borrowers who pay a  
3 mix of cash and interest rate. And, so, the simplicity  
4 that is introduced by being able to shop on one number is  
5 big, it's a big number not a small number.

6 More importantly, among the no-cost loans there  
7 are essentially no education effects and no race effects.  
8 When we look at all the loans overall where we have the  
9 borrowers predominantly struggling with a rate point  
10 trade-off, about 6,300 of the loans are not subsidized and  
11 those are primarily the ones we are studying, 500 of those  
12 are no-cost loans. Five hundred is a big enough set to be  
13 able to get a read on the size of the race and education  
14 effects in this particular niche of the market, and it  
15 appears that this segment of the market is working in a  
16 much more competitive way for the borrowers than the part  
17 of the market where they are having to struggle with the  
18 rate point trade-off because not only do we see lower  
19 prices, we see less price discrimination.

20 There are two things that are different about  
21 the no-cost loans. It is not just that the borrowers can  
22 shop on rate alone, though I think that is an important  
23 part of it because all they need is one number to compare  
24 the loans if the loans are for the same amount of money:  
25 the interest rate. If the interest rate is lower, the



1        have a college education, the rejection rate is only a  
2        little bit higher, five percent. But the walk-away rate  
3        is a lot higher, 25 percent. And, so, what we are seeing  
4        is that in the less well-educated neighborhoods, 25  
5        percent of the borrowers are getting a quote and rejecting  
6        it. And, so, we cannot conclude that the less well-  
7        educated borrowers are failing to shop because a quarter  
8        of them are getting a quote; they are looking at the deal  
9

1 credit score and borrower income.

2 Second, the dry hole cost is somewhere between  
3 \$150 and \$400 because we can look at the fall-through  
4 rates across the census tracts. Third, not listed here,  
5 very interesting little detail when we look at the number  
6 of items that a borrower paid off as part of a closing  
7 because obvious -- sometimes in a loan closing, the  
8 borrower is obligated to pay off certain loans,  
9 consolidate debts and whatnot, and these numbers vary from  
10 zero to a dozen. Would you think that those people would  
11 have a higher likelihood of defaulting or a lower  
12 likelihood of defaulting? Could be a behavioral story or  
13 it could be a "get rid of your debt" story. It turns out  
14 that the higher number of payoffs, the higher the  
15 likelihood of default on the loan, not lower.

16 There is a whole chapter on title services that  
17 sees the same patterns of price discrimination, and my  
18 personal favorite result, which is taking account of  
19 everything else, is when either the real estate agent or  
20 the lender makes more on the loan than the title company.  
21 It gives a whole new color to what the fights over  
22 referral fees are about. And there is, of course,  
23 enormous variation by state in both lending fees and title  
24 fees. And state law is priced. In non-recourse states,  
25 you pay more because the likelihood of default is higher,

1 and in the large homestead exemption states, you pay less  
2 because the likelihood of default is lower.

3 Implications? The borrowers are confused,  
4 simplicity helps them, the disclosures could be better.  
5 Surely HUD's new disclosure will be an improvement. The  
6 FTC's suggestions would be an improvement, too, and we can  
7 probably do even better than this with more research.  
8 Non-economists and non-lawyers need to be involved in the  
9 disclosure design process. Thank you.

10 **(Applause.)**

11 MR. LEARY: Thank you very much. I am very  
12 tempted to abuse my power up here at the front and take  
13 the rest of the time asking my own questions, but I want  
14 to give folks in the audience the chance first. So, if  
15 anyone has any questions for our panel, please raise your  
16 hand and we will get a microphone to you. Please identify  
17 yourself before asking your question.

18 MR. VANGAURD: Chris Vanguard with the OCC.  
19 This is a question for Susan. Just a quick question. You  
20 discussed the price discrimination on the basis of  
21 education level of the census tract. With the price  
22 discrimination for race, is that race of census tract or  
23 race of the borrower?



1 large mortgage banks, it is only priced by census tract,  
2 not by individual. And when you go to the brokers, it is  
3 more priced by individual and less by census tract.

4 MR. LYNCH: I have a question. What is the  
5 right dependent variable for the effectiveness of  
6 disclosure? So, in some case it is percent of people  
7 getting the right answer. Is it that they choose the  
8 right product? What is it?

9 MS. WOODWARD: Ultimately, it would be how good  
10 a deal they get. And, so, my dependent variable is  
11 essentially the up-front cash plus the present value  
12 represented by the yield spread premium. But, of course,  
13 you have to step back in testing your disclosures to see  
14 what the borrowers would choose. So, I would say give  
15 them hypothetical loans and let them select among the  
16 hypothetical loans, and if the disclosures help them  
17 choose the one that is lowest cost, then the disclosures  
18 are good.

19 MR. LYNCH: Then what about the sort of things  
20 we were talking in the earlier sessions about choosing  
21 something that might look good in the moment, but if  
22 economic conditions or house change or house prices --

23 MS. WOODWARD: That is a harder question and I  
24 cannot answer that one for you.

25 MS. KLEIMANN: And if I could add to Susan, if

1 you would hand me the report.

2 MS. WOODWARD: Yes.

3 MS. KLEIMANN: What Susan was talking about,  
4 there is the HUD report on the testing for the development  
5 of the good faith estimate, and that is up on its website  
6 as well. It is not just one round of testing -- it was  
7 multiple rounds of testing. So, some information is going  
8 to be in that as well. And we were using exactly the  
9 measure that Susan's talking about. Could they identify  
10 the lowest cost, and what they could choose?

11 MS. WOODWARD: Right. But Professor Lynch's  
12 question is different. Suppose you had a fixed rate loan  
13 and an ARM loan.

14 MS. KLEIMANN: No, I understand.

15 MS. WOODWARD: And they had exactly the same  
16 expected cost. It is like, how do you guide the borrower  
17 to the one that is best for the borrower? How does the  
18 borrower decide which is the best for her?

19 MS. KLEIMANN: And I agree. That is a more  
20 complicated question, much more.

21 MR. LEARY: And it goes to how gnostic do we  
22 want to be about our decision-making, and how much do we  
23 think we know what the right answer is, and do we want to  
24 push people into what we think is the right answer.

25 MS. PAPPALARDO: Jan Pappalardo, FTC. Susan, I



1 presenters at 2:00 a.m. So, I am not going to take very  
2 long.

3 First of all, I just wanted to say thank you.  
4 Thank you to all of our presenters today. A conference  
5 like this just does not happen; it requires people to be  
6 willing to participate and to step up to the plate with

7

1 will find out about your data and your analysis by going  
2 to our website and trying to follow up on some of the  
3 findings that were presented today.

4 In trying to step back and think about what we  
5 have learned today and thinking of a theme, I am reminded  
6 of my dad. My dad always tells the story about his  
7 favorite professor, a philosophy professor. And the first  
8 day of class he walked in and said, "Gentlemen, this  
9 course is very simple. Do good and avoid evil. The only  
10 problem is what is good and what is evil."

11 And I think we are faced with these types of  
12 questions in trying to decide what is good policy and what  
13 is bad policy in this area. This morning we heard  
14 presentations that cast doubt on some common wisdom about  
15 what has gone wrong in the mortgage market and why. In  
16 the mortgage area of disclosures we know that disclosures  
17 that have been designed with the best of intentions have  
18 failed. So, it is very difficult to decide what is good  
19 and what is evil, what will help consumers and what will  
20 harm consumers in the long run. And this is the type of  
21 question that economists are always asking. They are  
22 always trying to analyze what the net long run effects of  
23 policy are.

24 I cannot begin to answer that question today. I  
25 thought one thing that I could do at 2:00 in the morning

1 was ask our speakers to take a little survey. Our  
2 speakers were asked to take a little survey during  
3 lunchtime today and this was the question they were asked:  
4 "Assume that you are a philosopher king or queen with the  
5 power to change one consumer policy to improve the  
6 mortgage market, what, if anything, would you change?"

7 And a follow-up question: "On a scale of zero to  
8 100, with zero being not at all certain and 100 being  
9 absolutely certain, how certain are you that benefits of  
10 this change would outweigh the costs?"

11 I thought we should ask our panelists what they  
12 think because they know more about this than I do. I have  
13 the results here, not tallied in any systematic way, but  
14 the one thing that strikes me is that by far a majority of  
15 the responses have to do with improving disclosures.

16 Before I read the disclosure responses, however,  
17 let me read a few other responses that I got. One person  
18 said that they would improve public property and

19 18

1 typical borrower scenarios expressed in dollars. Great  
2 idea, but the question with that is, can you put all that  
3 information in an advertisement? And one would have to  
4 think about the role of advertising in the overall  
5 information process, but certainly worthwhile to think  
6 about. Ninety percent chance of success as an estimate.

7 Improve consumer financial education levels.  
8 Forty percent chance, this speaker gave as having net  
9 benefits. One person suggested more of an approach where  
10 you would use some of the behavioral research findings,  
11 and they would suggest having a 30-year fixed rate, no-fee  
12 mortgage as the default mortgage, and consumers would need  
13 to opt out of that mortgage if that is what they wanted to  
14 do. And the speaker estimated 80 percent chance of  
15 success in terms of net benefits being positive.

16 But the remainder of the comments had to do with  
17 disclosures. So, my take-away from this is that if there  
18 is one thing we know that we can fix, it is federally  
19 mandated disclosures.

20 I will read you some responses: "Depending on  
21 the type of mortgage and the particular features included,  
22 especially prepayment penalty, rate changes, et cetera, I  
23 would make consumers" -- oh, this is a driver's license  
24 test for a product selected. I am sorry, this is also  
25 more of a consumer education response. Depending on the





1 consumer versus another. Yeah, it seems like a great idea  
2 to consider, and this respondent gave it an 80 percent  
3 chance of success.

4 "Simplify, simplify, simplify as much as  
5 possible. People need simplification and mild guidance."  
6 Eighty percent chance of success.

7 "Do not let any policy disclosure into the  
8 market without consumer testing. Multiple rounds to make  
9 sure the document works and multiple riders to create a  
10 better idea of what to do." One hundred percent chance of  
11 success is the estimate.

12 "Improve financial disclosure," this respondent  
13 says, and they are also talking about improving  
14 underwriting and financial literacy.

15 This response was adopt a one-page form, 95  
16 percent chance of passing cost benefit test.

17 "Combine the truth-in-lending form with a good  
18 faith estimate," which is one thing that all these  
19 simplification form suggestions have included. This  
20 respondent said 98 percent chance of success.

21 "Better disclosure of broker fees including  
22 providing means of trading off discount points and yield  
23 spread premiums that might help." Given Susan's findings  
24 that no out-of-pocket mortgage options are the easiest to  
25 shop, you wonder how successful that would be, but it is

1 certainly worth thinking about.

2 One is a recommendation tool to sort different

1                   There is so much food for thought today, it will  
2 take days of going through the transcript to try to  
3 appreciate all the work that went into it. I thank you  
4 again for coming, and please check into our website.  
5 Thank you.

6                   **(Applause.)**

7                   **(At. 4:42 p.m., the workshop was concluded.)**

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