

**SESSION D: DISCLOSURE RESEARCH**

**MODERATOR: JOE MULHOLLAND, FTC**

**PRESENTERS: JAMES LACKO AND JAN PAPPALARDO, FTC**

**DISCUSSANT: ERIC J. JOHNSON, Columbia**

**PRESENTER: JUSTIN SYDNOR, Case Western**

**DISCUSSANT: ERIC DURBIN, FTC**

MR. MULHOLLAND: Good afternoon. I'm Joe Mulholland. I organized this conference, and first and foremost I would like to express my sincere thanks to all the participants who took the time to come here and provide their input. I would especially like to thank Colin Camerer and David Laibson who were the first guys to buy into my concept for a conference, which in turn helped to attract the outstanding collection of researchers you see here today.

My objective for the conference was to create a useful dialogue between the various branches of the economic research that analyze consumer behavior. In this regard I have high hopes for the next panel, which will discuss research into a very important element in the regulation of information: Mandated disclosures.

Reading over the presentations, it is clear that this kind of information regulation has a potential to create significant benefits for consumers, but that getting it right can be quite

difficult with many potential pitfalls along the way.

The complex aspects of mandated disclosure are well illustrated in the work of our first two panelists, Jim Lacko and Jan Pappalardo, who will discuss their important work on mortgage disclosures.

Jim is an economist and Deputy Assistant Director in the Division of Consumer Protection in economics at the FTC. He has had 25 years of experience analyzing a wide range of consumer information and disclosure issues at the FTC.

Jan is also an economist at the FTC and has concentrated her research on the effect of information on consumer behavior and market outcomes. She has helped draft the FTC advocacy comments on regulations pertaining to health claims for foods, direct to consumer advertising of prescription drugs, the First Amendment and the Real Estate Settlement Procedures Act Reform.

Jim and Jan have worked on both sides of the consumer research street, conducting surveys of how consumers perceive information, and also analyzing market outcome data regarding the kinds of decisions consumers make. Today they'll talk about their market survey research.

Ms. PAPPALARDO: Thanks, Joe. While my colleague Jim who is much better at technology than I am gets this stuff started, I'll say right off, I think we're going to display some optimism bias

here. I'm optimistic that we will get through 34 slides in 15 minutes. Now, I'm from New Jersey. I can talk very fast so we'll see how this goes.

Disclosure policy is tricky. If you remember nothing else from what we say today, that's our bottom line. Getting information policy right and disclosure policy right is tricky indeed. We say this based on our experience as staff economists working on cases and analyzing broader regulations.

Mandatory disclosures are everywhere. You see them on appliances, and in fact we just did a study on appliance labels. You can go to our FTC web site and see how we looked at various label alternatives in there. Food products, you see all kinds of labels, labels on motor vehicles, prescription drugs and financial transactions.

Within financial transactions there are many types of disclosures. The ones we focused most on are those in the good faith estimate, which gives you closing cost information, and the Truth in Lending disclosure which gives you some information about your mortgage.

Potential benefits of mandatory disclosures are substantial. You can educate consumers through disclosures and potentially prevent deception. You can reduce search costs and facilitate comparison shopping, hopefully improving consumer decisions and

hopefully promoting efficient markets, but disclosure policy is tricky.

There are many questions one has to ask before thinking about mandating a disclosure. The very first question obviously is: Is the disclosure really needed? Would the information really improve consumer decisions? And if we don't see the information being provided, why is that? Why isn't the market voluntarily supplying the information? Is there some sort of a failure?

The second question is: Is the disclosure feasible? Does a valid metric exist to impart the information? Oftentimes when we deal with disclosures we have to think, Well, what information should people have? Is there a simple metric that you can give to consumers that would summarize the information in a simple way that people can understand?

And when you start to deal with the nuts and bolts of the disclosures, you often find that trying to find the simple metrics that work in most cases is harder than one might think, and finally the question we focus on in most of our research is: Will the disclosure work as intended? How will consumers interpret and understand the disclosure? Then how will it affect consumer decisions? Will it help some consumers but harm others? And can the intent of the disclosure be circumvented by very



to look at the potential cost and benefits of the disclosure.

After implementation, it's important to look at how actually

called yield spread premium, which is a payment made by the lender to the mortgage broker for loans that are originated at above par interest rates where the par rate is the rate that the lender would have been willing to make a loan at given the risk characteristics of the borrower.

So if the mortgage broker gets a higher rate on a loan, he gets compensation from the lender, and one important point about the regulation would have been that direct lenders would not have had to make a similar disclosure if they had made a similar loan at the same rate. It would have only been required of mortgage brokers.

This slide just shows what the disclosure would have looked like in both a mortgage broker loan and a direct lender loan with the mortgage broker loan on top and the direct lender loan on the bottom. For identical origination charge on the loan, the direct lender would have just disclosed the \$1,500 origination charge to be paid by the borrower, whereas the mortgage broker, in addition to that, would have had to disclose in this case we were assuming a \$2,500 compensation received from the lender, which is disclosed in the middle figure, and then they would have to add that to what would be paid by the borrower and disclose that as a gross origination charge, on top, of \$4,000.

So consumers getting the same loan would get these different

disclosures depending on which segment of the market they went to.

We have a number of concerns about this disclosure, first off, whether it's even necessary in the first place, given that the compensation was being paid by the lender, not directly by the borrower, and what the borrower was paying was already encompassed in the higher interest rate, which was being disclosed to them.

And we also had some concern that the disclosure might end up confusing consumers and leading them to worse choices than they otherwise would have made, and also disadvantage one section of the mortgage market.

So we conducted a test to look at the potential impact of the proposed disclosure and we basically set up a little experimental study where we had test subjects, and we gave them disclosures for two mortgage loans and then asked them to look at those two loans, and then we asked them two key questions: First, which of the two loans could cost them less, and if they're shopping for a mortgage, which of the two loans would they choose?

When we gave them the two loans, we treated -- both loans would be in the same disclosure format but one loan would be treated as a broker loan and one as a direct lender loan and

follow the proposed disclosure requirements that HUD had put fourth, and so the compensation disclosure would be in the broker loan but not in the lender loan, and we wouldn't identify the loan as brokers or lenders to avoid any bias with the consumer on those terms.

We did the test twice with each Respondent. We were using different loan cost scenarios. In one scenario the broker loan was less expensive than a direct lender loan. The broker loan had a \$1,200 net origination fee whereas the direct lender loan had a \$1,500 fee, \$300 higher.

In another scenario, we did it with both loans having the exact same fees. We did the tests with five different groups of consumers. We tested three different versions of the wording of the compensation disclosure using two different formats for the disclosure form, and then we used two control groups, one for each of the two formats. We had about a little more than 500 recent mortgage customers as our sample divided across the five groups in eight locations across the country.

The results showed a clear significant impact of the disclosure. Here's one of the results where in the one scenario where the broker loan was less expensive than the direct lender loan, when we asked the Respondents which loan was less expensive, in the control groups 89 to 90 percent of the

respondents correctly identified the less expensive loan. In the compensation disclosure groups, that dropped to 63 to 72 percent.

Similarly when we asked them which of the two loans they would choose if they were shopping for a mortgage, in the control groups without a compensation disclosure, 85 to 94 percent of the Respondents choose the loan that was actually less expensive, whereas in the compensation disclosure groups, the accuracy there was only 60 to 70 percent choosing the less expensive loan.

The results are even more stark when we examined the scenario where the two loans had identical costs except one loan had this compensation disclosure added. In the control groups, 95 to 99 percent of the Respondents correctly responded that both loans cost the same whereas in the compensation disclosure groups, that dropped to only about half the Respondents, and we had about 30 to 45 percent that thought the direct lender loan was less expensive even though all the out of pocket cost to the consumer would have been identical.

Again similar results when we asked which loan they would choose if they were shopping for a mortgage. In the control groups without the disclosure, 78 to 83 percent said that they would choose either loan because both were the same and the few Respondents there that actually picked one of the loans were fairly evenly between the two whereas in the compensation

disclosure groups, only 25 to 30 percent said that they would choose either loan because they're the same.

We had basically 50 percent of the sample chose the direct lender loan as opposed to broker loan, and the conclusions of that study are fairly straightforward from those results: That the compensation disclosures reduced the proportion of consumers that could accurately identify the least expensive loan, and were likely to reduce the proportion that would choose a less expensive loan while they're shopping and also led to a significant bias against one segment of the market.

The results illustrate a lot of what Jan was talking about earlier in the talk. The intention of the disclosures was to help consumers understand their loan costs and help them obtain less expensive loans, but in our study, at least in the could accurate the talk. Tn tmakejT(tdeciudy ar thant--hat)TjTT(help conle

cannot work. In fact, we think that the study shows that simple clear disclosures can be very effective in displaying important information to consumers, and that's illustrated by our control groups where we had 90 plus percent of the consumers getting the questions correct.

But it does illustrate that it can be tricky to formally have disclosure policy and requires careful consideration of what you exactly disclose and how you want to disclosure it.

I'll turn it back over to Jan.

MS. PAPPALARDO: I'll spend a few minutes talking about a current project that we've been working on for some time. An official report is not out there, but we can tell you about the methodology and what we're doing and some preliminary findings.

The question that we're asking is: How do consumers shop for mortgages? What do they know about their current mortgage disclosures, and is it possible to make disclosures, even disclosures written by two staff economists at the FTC, that might be even more understandable for consumers.

We used two complimentary methodologies in this study. Onee

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the YSP study, the mortgage broker compensation study, and again both with recent mortgage customers.

In the in-depth interviews we wanted to obtain a picture of the consumer shopping experience, trying to get some real understanding of consumer knowledge about terms of their own recent mortgages, and the key to this part of the study was to ask people to bring their own loan documents to the interview. In addition we wanted to obtain some general reaction to various versions of a prototype disclosure that two economists at the FTC were working on developing with the help of some wonderful attorneys as well.

Consumer testing again cites the mortgage broker study. It's an experimental setting, with a large sample, and it's quantitative testing to look at consumer ability to understand and use mortgage disclosure forms. We looked at current forms, a

of mortgage costs.

So bottom line: Where our are conclusions? The bottom line as we said earlier is designing factual information disclosures that people comprehend as intended is tricky and probably trickier than most academics and policy makers probably realize. In addition, if we know one thing from consumer research, it's that careful consumer testing is often required to predict the likely effects of information policy and to assess the ultimate effects of information regulation. You can't just ask a group of experts how consumers will respond because often they don't know.

What are of the implications for behavioral research? We are not experts on behavior research. We've tried to look at some literature and keep up a little bit. I think there are two points that we take away from the literature and how it might pertain to our study.

The first is that consumer decisions that may appear irrational in response to disclosures might be explained by a poorly designed disclosure, which is actually misunderstood rather than a faulty decision-making rule, and I would like to see perhaps in future research people asking somehow: What did you understand about the disclosure or the offer to get some sense of debriefing of where were people really when they were making the decision.

And the second point is that given the difficulty of designing strictly factual disclosures because that's the world that we're living in, the difficulties of designing information policies that are intended to fine-tune and counteract behavioral biases may be even trickier.

Thank you very much.

(Applause.)

MR. MULHOLLAND: Our discussant for Jan and Jim's paper will be Eric Johnson. Eric's a professor in the Columbia School of Business at Columbia University. Before moving to Columbia he was professor of marketing and professor of psychology and operations information management at Wharton.

Professor Johnson brings a unique perspective to this conference with his expertise in both psychology and in marketing, and Professor Johnson has been involved in understanding the nature and origin of preferences, and I recently found out that he also had an FTC connection. He had spent time here as I think an assistant to then-commissioner Dennis Yao.

PROFESSOR JOHNSON: Actually just a very good friend. I remember I bought him a beer the day before he was tenured, and about a week later he was a Federal Trade Commission Commissioner. What a great investment.



defaults whether or not you're going to be an organ donor, and as some friends remarked, you don't need any statistics here, no econometrics need apply. This is essentially the number of people willing to be a donor in countries which on the green side are opt-in countries, on the blue side opt-out countries.

And of course there is nice econometric work that's been done subsequently which shows these differences are substantial, but you'll see this is quite large.

Now, the interesting question I want to ask how is: How about if people have to make the decision have a cost, and in fact is this a right default? This doesn't tell you anything about what default is right. Maybe you would want to be paternalistic and say, we need more organs, let's change the default.

But it doesn't say what is the right default for preferences. Really often the overlooked part of this study is we did an experiment where we asked people: What would you do in one case in an opt-in regime and the second case, the second part of the opt-out regime.

The third bar is the interesting one, the third bar is one where you are forced to make a choice without a default. They basically went to the web page and kept saying, what do you want to do. They went out to know, What do you want to do, we really

want to know what you did.

The interesting here thing is you'll see the opt out condition and the forced choice condition are almost identical. We've replicated this quite a bit, so I just want to pose a question about the cost of thinking here. If consumers have a cost of thinking, don't we want to chose the default that is the closest, all other things being equal, to the one that most people would impose.

I think the argument here is basically all other things being equal. I'm not claiming they are in this case, but you want to get the defaults right. We're doing work, for example, with a large auto manufacturer, and on web sites of course there are defaults for auto attributes. Do you want to pick the ones that are the most expensive, do you pick the ones that are cheapest or do you want to pick the ones that are the smart defaults, the one that people would choose if they were forced to make a decision? If you think there's a cost of thinking, this is the right thing to do, and if you don't do it, there's a failure in welfare.

Now, I think this actually generates tesoke a,ensight inos

that's a net negative effect.

In fact basically from this perspective what a disclosure should aim to do is be as sufficient as possible, give me the information I need to have to improve my decisions at the minimal thinking cost. In fact if we stop being theorists and I get back to my roots of being a psychologist, the data is actually less discouraging.

There's a set of nice studies in George Lowenstein's work, actually he does disclosure in a very different setting. The setting is doctors disclosing they have an interest in a lab, and the basic two results there are one. First, for consumers they often misunderstood the disclosure as an endorsement: This doctor who I'm going to endorse this lab that's actually a problem.

They've second thing the doctors feel like they've already disclosed the information. In fact they're not being biased and they often take the cough as being more serious than the people who didn't disclose, so even independent of information processing costs, there's a whole sort of understanding issues that I think are very important to understand.

These leave us with basically sort of three alternatives. The first alternative, and this was actually, as I was talking to George yesterday, basically simply prevents the conflict from

occurring, legislate against the conflict. Not everyone thinks it's a good idea, and there's obviously a cost of doing this, but if consumers can't be informed meaningfully of the conflict, let's prevent it from occurring.

Another which is sort of coming from my research is have people opt-in to the regime that had potential conflicts. We have two kinds of offers for you, those without conflicts, those with conflicts. If you want to see the ones with conflicts, that's fine, but you have to opt-in to see them. That's another third possibility?

The other one which I think is more realistic is basically the hardest one of all to implement, not politically but in terms of the amount of work. It's basically to think about making better disclosures, and I don't have enough time, but the real problem is I don't have answers to the questions: How we design disclosures well, but I'll say three things.

One is one false belief is that more information is always better, and that is actually a very strong I think number 1 rule in good disclosure design. I see lots of economists now saying, Oh, we've published a database on toxic waste sites in the U.S. and look, it doesn't have an effect on real estate prices. I could have told them that. More information is not better. Second is we must reflect the heterogeneity in consumers. Colin

mentioned Shane Fredericks. There's a very nice study by a woman named Ellen Peters who looks at numerosity, basically how competent are people looking at numbers.

She finds it basically that a lot of framing effects are limited to those people who are low numerate, and I think that's a very important result and sort of to your point earlier about some consumers being helped, others being hurt. I think one of the nice things about the energy efficiency labels is they tend to have multiple representations of the information. There's numeric representations plus graphic, and that's probably good for people who have different ways of making decisions.

Finally I think the bottom line is I know that we all tend to be overconfident, but I think we can all be particularly overconfident when it comes to designing disclosures. We think something that will work and the data will tell us it's not. If we're going to think about marketing a new product, and as someone who teaches marketing I can say this with some authority, we would never launch a product, never launch a product without enormous amounts of research.

In fact the FTC regulation of doing pre-test and then only after market limits what would be the way a marketer would do the introduction, which is let's do pre-test, let's do partial roll-out. No one does national roll-outs of new products. Maybe I

know that's not legally possible, but small pilot tests of regulations might be a very good thing to do.

The one thing that is true, it is tricky. It's hard I think just hopefully the perspective not more information being better and perhaps thinking about heterogeneity to be two sort of small pieces of what I think will eventually be an answer to the puzzle: How do we organize these tricks? Thank you.

(Applause.)

MR. MULHOLLAND: Thanks. Our next speaker is Justin Sydnor who is an assistant professor in the economics department of the Weatherhead School of Management at Case Western Reserve University. His primary fields of research are psychology and economics, industrial organization and applied microeconomics.

Some of us at the FTC got to know Justin quite well last year when we tried real hard to hire him after his graduation from Berkeley. We obviously failed, but it's good to have you back.

MR. SYDNOR: Thank you very much. So I should lead off by saying that when Joe initially asked me to do this, I was hoping to be able to present some new research that was actually more sort of on line with disclosure things. I'm trying to work with a new insurance company. That's moving at glacial pace, so what you get instead are some of my musings on what we might be able

to learn about disclosure implications from some of my dissertation research.

But I'll lead off the bat here and say that I think for the most part the approach that Jan talked about here of sort of direct analysis of disclosure is probably the first order way that we want to go if we're thinking about disclosure policies, but I'll give you what I think we can learn from the type of study I've done, and then also give you a few musings on what I think prospect theory and reference dependent preferences more generally and might have to say about disclosure implications.

So to give you a quick overview of the dissertation research I'm talking about, what I did is I looked at homeowners' insurance and how people choose their deductibles, so what I had was a sample of 50,000 home improvement insurance policies from a standard home insurance company, so these are standard policies, and all the research I've been able to do is it makes it look like these really do look like kind of industry norms here, and what I saw was choices people made from the available deductibles. So people could chose for their insurance contract deductibles of a thousand dollars, 500 or 250 or a hundred. Neither fixed deductibles paid for claims.

This is fairly standard as well in the industry, so what I observed was if you look at their choices, 83 percent of the full

sample choose 500 or lower, so don't choose the highest one available, 61 percent of new customers. I'll come back it to that difference, so why should we care about that?

Well the prototypical homeowner had choose this \$500 deductible and had roughly a 4 percent claim rate, so among those who chose the \$500 deductible, they had roughly a 4 percent claim rate, which says the expected value of that extra insurance relative to the higher deductible they could have had, the thousand dollar deductible is somewhere in the neighborhood of \$20. It should be less than \$20.

They paid on average \$95 more for that insurance, relative to what they would have paid if they had had the thousand dollars deductible, so this is sort of the baseline finding that I see, how people are choosing, and we can do some back of the envelope calculations, so if you take that over the course of 30 years of home ownership with very low interest rates, you could save on average \$6,000 by holding a thousand dollar deductible instead of a \$500, and more importantly there would be a negligible chance that you would lose money with that strategy, okay?

Now, for the most part that's not the hugest puzzle in the world. Insurance is supposed to cost more on average than it's worth to you. What it does say though is we can look at it in the context of preferences and what we sort of standardly look at

in preferences, so what I did was I looked at two models.

So maybe not surprisingly, looking at those numbers, if you plug this into a standard expected utility of wealth model, what you see is people look implausibly risk averse, so for those who deal in coefficients of relative risk aversion, they're off the charts, in the 2,000s, and they don't line up with what we see people doing in sort of larger scale decisions, and they imply implausible behavior if you were going to take these preferences seriously and extrapolate them elsewhere.

I won't talk too much about that, but what I did look at then is taking a variant of prospect theory, which has been calibrated in a bunch of laboratory experiments and rests on the foundations of the ideas of loss aversion and probability weighting, and probability weighting here is relevant because what we found is people in labs tend to systematically overweight in their decision-making process low probability events.

So I'll come back and talk a bit on that, but what I find is that taking those pre-existing parameters from the lab, it looks like we can get roughly close to predicting this \$95 overpayment, so where do we go from that for disclosure? That's essentially just the highlight of what that dissertation research was, and I think there are a couple things we can get at for disclosures, so I want to talk about these in turn.

So the first is I want to talk about renewal disclosures, so I see people who have been with the company for different lengths of time, and I want to talk a bit about what I think might be going on in terms of consumer inertia. Then I want to talk about the presentation of the initial menu to new customers, and finally I want to come back, step away from my research a bit and talk a bit on framing and focussing effects and places I think that we might be able to get a bit of sort of a prediction from prospect theory and that sort of literature.

Okay. So the renewal notices. What we have is this is standard homeowner's insurance stuff, so you buy your homeowner's insurance contract. They mail your renewal notice at the end of the year, tell you what your new rate is and you send in a check. Increasingly in these markets you're actually seeing negative option contracts or automatic renewal contracts. Here this wasn't the case.

So what we have and I think might be relevant for disclosure implications is we have a case where the renewal notice don't list the current menu, so what you know is the deductible you had before when you initially choose and how much they're charging you now overall, but you don't know the available options, and as it so happens for sort of reasons in the industry that we could get into later if people have questions, these spreads in the

deductibles. This \$95 extra payment has been increasing over time, okay.

Well, what we see is if you go back and look at people over time, so what I am doing now is on the X axis, I say how long have you been with this company as of the time I take my snapshot, and what you see are people who are just joined chose the thousand dollar deductible roughly 50 percent of the time. White is the thousand dollars, and then they choose -- most of the rest of them choose the \$500 deductible.

If you look back in time a little bit, it looks like people are holding lower and lower deductibles, so people have been insured with the company have lower deductibles than the people that are choosing now.

So the way I interpret this is a consumer inertia story, and the story goes something like this. When these people initially choose, so let's say two or three years ago, these lower deductibles were cheaper. They're cheaper for two reasons. The first is low deductibles or high deductibles where a bigger percentage of income 20 years ago than they are now, so a thousand dollars was bigger longer ago. I think that's a more minor effect. The bigger effect is these prices, this price gap between deductibles increased rather rapidly over this time frame.

So what we see here I think is people responding to that and newer customers choose higher deductibles, so people have been insured with this company for a particularly long time as opposed to learning perhaps, if we think this is a mistake, and I'm not sure we want to think of it that way, but they're paying more.

They could be saving more by switching to higher deductibles, and another sort of bit of evidence on this, on the X axis here, I have how much more you had to pay for the different deductible, and there's heterogeneity based on your home value and some other factors, and what you see is the blue line are relatively new customers, customers who have been with this company for three years or less, okay?

So what you can think of this is essentially like a demand curve. The X axis I'm showing you, the price of holding a lower deductible, and on the Y axis I'm showing you a fraction of people that hold that lower deductible, and what you see is it's much steeper for the people that have been there more recently, and I think that reflects the fact that what we're observing is that people who have been insured by this company for a long time it is not an active choice on the current menu but a choice they made in the past when this menu was different for them.

So I think this has two lessons. The first is that these people probably aren't making the choice they would if they were

choosing today, and the second would be that if we go and we look at this market data without taking into account those sort of things, we may miss the fact that people choose at a different time, and that we're not looking at current decisions.

So what might this say? Oh, the last little piece of evidence, I do observe some switching in the deductibles and all of the switching is up. People don't go from high to low. They only go from low to high, and it's much more likely the longer you're insured with the company.

So possible disclosure implications, and I don't want to push any of this too hard. As I said I think the right way to do a lot of this is the way that the people at the FTC are doing this. You want to study this directly, but I think one sort of obvious thing is that renewal notices could list the current menu available.

We could also make there be, you know, some what we might call "you have to choose" sort of option so you may not automatically enroll people in what their past deductible was, but that may have some more cost associated with it.

Now, the one caution here is for more of the theoretical side of things. Even if this is a consumer inertia effect, I think we do have a genuine lack of information that could be solved from disclosure but the problem is that this may also be

interacting with present bias, so even if they were informed

lower deductibles, to conceal the menu, perhaps not show you all of the available options, and they may be able to create some sort of default effect.

So I think actually that this turns out to be a relatively small factor in what's going on, so let me whip real quickly through my four reasons why I think that's not the big thing, okay? The first is that I can see that these choices do seem to fit with decisions and decision-making utility functions that we parameterized in labs, so it's not an absolute surprise that people might behave this way.

Second would be that we see these patterns of price responsiveness in the data that I just showed you in the past two graphs and a few others, and I also wanted to quickly show, I came across the following survey evidence, so in this marketing study, people gave subjects, admittedly no incentives here -- gave them various deductible levels, listed the annual premium very sort of openly, and what we see is that their choices -- they actually look slightly more risk averse than what I actually see in my field data.

So we see that despite again having very costly insurance for the lower deductibles, you can see that you would need a 30 percent risk neutral claim rate when we know it's really more like four or five to go from the 500 to the 250. We see that 30

percent of people choose that, and you would need a 42 percent risk neutral claim rate. It looks like when we do that, that people are potentially going to choose what we see.

The list bit, I've talked to the insurance company. They now have an online purchase ability where you have these drop down menus. They're getting the same patterns of deductible choice, so it doesn't appear to be an ancient effect.

So disclosure implications. I think the disclosure implications here are that we need a controlled study to really know what we have here, but that we shouldn't be shocked if we find out that that's not the story in this market, okay.

So I'm pretty much out of time, but let me give you just one or two quick things here on what I think might be some implications that we might draw from sort of behavioral economics more generally or the literature on reference dependent risk preferences.

So the first is: How do people use probabilities so this is a big open question for insurance, and for most of the studies, most of the either expected utility or prospect theory, we assume that people have something like rational expectations as their first pass, and that's what I did in my paper. Whether or not that's particularly correct and how we integrate that into our thinking is a little difficult.

And so what we might need to do is some more studies of that, and we should also worry a bit about how people are going to process this information we give them. We don't really know what would happen if I told you there's a 5 percent chance of a claim rate here, and I think that would be the type of study that might be useful and the sort of disclosures that we could imagine putting into markets in insurance more broadly.

Another thing is time horizons, so there's a prediction from reference dependent models that if you make people broadly bracket, so think of your life in 30 year terms when we're talking about \$6,000 as opposed to a hundred, people may choose differently, and that's a different prediction so they may look less risk averse. That's a different prediction than you would get from standard expected utility of wealth models so that's something we could think about looking for.

And the last one I'll mention is sort of menu and framing issues, and in particular the online things make me wonder about this, so you see in the online cases it's much easier to give people instead of a menu where I show you like I did in the survey evidence, I show you all the annual premiums and I just ask you to choose. I can create one that has a cost and all the others are pluses and minuses from that.

If that's effective it may play into the way people frame

loss aversion, so we have may be able to create for you a reference point and that may be fairly powerful in changing the way you behave. That's something we may want to study more.

I think that's what I've got.

(Applause.)

MR. MULHOLLAND: Thanks, Justin. Discussing the paper is Eric Durbin. Eric is the Deputy Assistant Director for Consumer Protection in the FTC's Bureau of Economics. Before joining the FTC, he was assistant professor of economics at Washington University in St. Louis.

At the FTC Eric has worked on a range of consumer protection matters related to information disclosure, credit reporting and identity theft.

MR. DURBIN: Thanks. I just have a little bit of time here, and I wanted to make essentially one point and then hopefully get some reaction from the panel and from the audience.

I really like the paper. I think this type of research focusing on market decisions with matters that really matters to consumers is the sort of thing that is going to convince not just economists but policy makers that these are issues we should be paying attention to.

The one thing, when I first read the basic result that Justin has, that people are paying a hundred dollars to ensure

against a potential \$500 loss in a homeowner's insurance claim, my first reaction was that consumers must be making a mistake persistently here, and one thing that I found really interesting in the discussion of prospect theory is that the possibility, and I think Justin makes a good argument that consumers aren't necessarily making a mistake here.

They're making a choice based on the way they perceive the risk in this situation, which bothered me a little bit just because it made me think maybe I've been making a mistake when I've been telling everybody that I know that buying extended warranties for consumer electronics is a really bad deal.

Those are contracts that look very similar to these deductible choices where you might be paying say \$50 to guarantee against loss of a consumer electronic product that might be worth \$200. Based on the probability of loss there, that seems like a really unfair gamble, and yet it looks very much like the situation we have here.

I found that when I explained to people, do you really think it's worth paying \$50 in order to insure yourself or make sure you're not going to lose \$200, is that a good deal people tend to say, "Well, when you put it that way, no, now I understand why that's a bad choice," and that at least brings up the possibility that framing is playing an important role here.

Justin cites a study, and I'm not familiar with the work, but I'm just going to say what he says in the paper, Slovic, Fischhoff and Lichtenstein did a study where they just asked people: First would you be willing to spend \$50 to insure against a 25 percent chance of losing \$200? 65 percent of consumers said they would when it's framed as an insurance contract, but when it's framed as which would you prefer, a 25 percent of chance losing \$200 or a certain loss of \$50, 80 percent of consumers said they would take the gamble.

And I think that tends to be the way I frame the extended warranty problem is to say, "Well, do you want to give up \$50 for sure or do you want to take a gamble that your Walkman is going to break down?" or whatnot, and so the policy question that comes out of that is, suppose it's true, and as Justin points out, I think the way to determine whether that's true is through the sort of research that Jim and Jan are doing, asking consumers directly is probably going to answer the question of whether framing effects are driving these types of choices.

But then if it is true, what do you do about it? Is there an implication for disclosure policy because there is nothing in that choice that says one or the other decision is necessarily better, and I think I know that Eric Johnson made the same kind of point so how do you pick the default in a world where there's

no way to observe from consumer choices which of those choices is going to be the one that the consumer would in some sense really prefer to make.

So that's sort of open question that I would want to throw out to the panelists and to the audience if it turns out that revealed preferences are not necessarily demonstrating what consumers truly prefer and what maximizes their welfare. How do you make a decision about whether some sort of mandatory disclosure or other disclosure policy is appropriate?

So I'll leave it there and I believe we'll have a few minutes here for questions.

(Applause.) MR. CRANE: Jeff Crane from Brookingside. I was interested in the end of the story about the HUD disclosure, so what happened?

MS. PAPPALARDO: Well, that's an interesting question. HUD decided to withdraw where it was in the rulemaking process. This was a letter that's on the public record that was sent to HUD from O&B, and the letter as I recall essentially said something like: If you want to re-propose this rule including this particular disclosure, there are certain things you want to think about and one of the things you might want to think about is the findings from the FTC. Is that right?

MR. SYDNOR: Yeah, but there's a lot of other people

concerned about other aspects of the whole --

MR. LACKO: There's more to it also. There was lots of other industry groups and so forth that were concerned about other aspects of the proposal so they were kind of getting it from a lot of different directions, yes.

MR. SYDNOR: Maybe I can take one sec and just respond to the issue that Eric brought up at the end about extended warranties and whether we think of this as a mistake. I think this is an interesting question in this context. The way I -- actually that there is a consistency here. There's a consistency from the lab, the way people respond to extended warranties, the way they purchase deductibles.

So I think it is reflecting potentially a consistent decision-making process. Whether that decision-making process is optimal or not depends on whether people can project sort of the experienced utility of this stuff so I think the distinctions between a decision utility and an experienced utility are important here.

One little anecdote I'll share, I'm probably the world's leading expert on don't pay too much for small insurance, and I went with my wife to purchase a car, and we sat down and had the extended warranty spiel for the car, and being a researcher I asked the guy for the give me your spiel and pretended like I

might be interested, and then I calmly told him no.

After we left my wife, who lives with me, says if you hadn't been there, I would have bought it from him, and so I think this is one of the things where you can teach people not to do this, but I'm not sure that you're not fighting against some natural instinct on this. So yes?

(INAUDIBLE QUESTION FROM THE AUDIENCE.) Mr. SYDNOR: I can repeat the question from Alan, which is whether people know the claim frequencies and whether they can repeat them in any way. That's something I don't know the answer to, and I want to survey some people and ask them.

MR. SCHWARTZ: People respond much more to scenario information than probability information. It might be when you talk to them about deductibles the scenario that's triggered in their mind is an accident, and that might make them push towards buying it, and the question I would have is whether disclosing a claim frequency could overcome that scenario.

MR. SYDNOR: I think that's exactly right, and I think that's an open question that we just kind of need to try to figure out: Is this going to change the way they behave on this or not because the other problem with disclosing a claim is we have to do it in the right way so it's not just a cuing of the probability just highlighting a cuing on the probabilities and

sort of highlighting the claim portion of things. Yes, I agree.

MR. GLASSMAN: Mark Glassman with the FTC. How does the analysis differ when you've looked at whether a disclosure on the one hand educates consumers, and on the other hand prevents deception? Is that something you've looked into?

MS. PAPPALARDO: Well, they're kind related, right, so if you understand the terms of the offer, then you will not be deceived, so I guess I don't understand the question. I'm sorry.

MR. RABIN: I just wanted to comment on the risk aversion. It won't be very independent on Justin's response. It will be a couple comments. One is for those of who work in the areas, it's everyone's best guess. You're given exactly the right advice on the extended warranties.

There's some really subtle issues that most of us interpret exactly as Justin said. Prospect theory is the right model, sort of the decision utility, very consistent choice, shows up robustly depending on -- more frame dependent than other theories of preferences, but very consistent choice that seems not to match their bits of evidence on this and ways you can get at this, not to match people's sort of experienced utility.

A very interesting thing to do with framing, this isn't quite conclusive, but it's come up a couple of times. If you explain something, in old tests people have had for rational

choice, is something a preference or is it rational choice. If you explain it to them, do they change their mind whereas a lot of things that economists always thought were rational like self-interest, you can explain to people over and over and over again why, but doing that you're giving up \$2. That's not rational, and they'll stare at you like you're from Mars because you are from Mars.

They're doing exactly what they intend to do. They're implementing their own preferences, whereas other things, if you explain them, will change their mind. You have to be careful because you can talk people out of doing the right thing and into the wrong thing as well and Tursky (phonetic) and others had nice experiments where economists were always saying, "oh, well, people depart from expected utility, but if you sit them down and explain it to them, then they do the right thing" and Tursky said, "Okay, let's take people who are maximizing expected utilities, sit them down and explain to them how to not do expected utility," and they also changed their mind, so you need to be careful about what education means and sort of what learning means.

In this particular case, I think it passes one test which isn't quite conclusive, which is if you take the average behavior of people towards extended warranties, and you take different

framings and you give me a half hour with somebody and you give the marketer a half hour with that same person, I think there's a predictable direction people will move; that is to say people are too risk averse for -- if you give a fair shot at trying to talk people into being less risk averse over small stakes and more risk averse over small stakes, on average they will be less risk averse.

So you can offer a friend to sort of talk them back into the extended warranty and I think you'll still have an influence, so competing frames is sort of an interesting way to think about some of these framing effects. If you try all the possible framings and you observe a net effect, that may be a very interesting way to go to sort of figure out what's the real preference. It doesn't prove it necessarily, but it's I think a different perspective.

MR. SYDNOR: Though my wife might disagree with that.

MR. RABIN: Tell her I said you're right.

I forgot to say my name. I'm Matthew Rabin from U.C. Berkeley, Justin's advisor. That's a disclosure.

MR. CALFEE: Jack Calfee, formerly of the FTC. You know, I have not read the shrouded attributes paper, but I'm reminded that this is another example of -- these are products that look like they're bundled, but often they're not, and it looks like

another example of where the more or less naive consumers are subsidizing the more sophisticated ones.

I'm not sure what the proportion is of auto dealers' profits that come from auto warranties, but I think it's a pretty large proportion. I think that my understanding is that Circuit City, when they sell a PC or a DVD player, that they don't make a dime on their product to sell.

The only money they make is on the extended warranties, and so we're talking about more or less personal sales here. The people who don't get these extended warranties are in a sense probably getting a bargain, and then there's the movie theater situation. My understanding is the movie theaters, at least for 193 most movies these days, they don't make any money on the movies. They only make money on the candy and popcorn and that kind of stuff, all of which are new opportunities for people to get a bargain by just avoiding these different things, just an interesting twist on this stuff.

MR. JOHNSON: May I? The insurance example is beautiful. I very much like Matt's idea. A way of putting it too is you ask people things in different frames. This is a real preference, there's a sensitivity, a robust analysis so that can give you the same answer, and I love the idea of taking a lifetime cost of insurance and seeing if that changes.

