THE HAMILTON PROJECT
THE BROOKINGS INSTITUTION

MISSING MARKETS:

FOSTERING MARKET-BASED SOLUTIONS TO

MAJOR RISKS FACED BY INDIVIDUALS AND COMMUNITIES

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Welcome and overview:

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The Hamilton Project
The Brookings Institution

PANEL I: HOW MARKETS CAN CREATE NEW OPPORTUNITIES FOR INDIVIDUALS

Moderator:

JASON FURMAN

Presenters:

ANDREW CAPLIN
New York University

LINA WALKER
J. MARK IWRY
The Retirement Security Project

Discussants:

HARVEY BLITZ
AXA Equitable Life Insurance Company

DOUGLAS W. ELMENDORF
The Hamilton Project

J. MARK IWRY
Sullivan and Cromwell

PANEL II: HOW MARKETS CAN HELP COMMUNITIES MANAGE RISK

Moderator:

ZANNY MINTON BEDDOES
The Economist

Presenters:

ROBERT Z. LAWRENCE
Kennedy School of Government
Harvard University;
Peterson Institute for International Economics

KENT SMETTERS
The Wharton School
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Discussants:

NADA EISSA
Georgetown Public Policy Institute

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Congressional Budget Office

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Kennedy School of Government
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P R O C E E D I N G S

MR. FURMAN: Why don't we get started? I'm Jason Furman, the Director of the Hamilton Project. Thank you for coming today to our discussion of missing markets.

I wanted to explain to you a little bit of the theme of today's event and what ties these disparate papers and concepts together as well as a number of other papers that the Hamilton Project has released.

We all know that markets are the central institution of the economy. They allow people to buy and sell in a way that potentially makes everyone better off. One thing that markets allow people to buy and sell is the risks they face, and people who do not want to face risks can sell them off, and the person who buys them can buy a set of uncorrelated risks and pool them so that it does not cost them anything, or in turn sell those risks on to capital markets who do not mind bearing them. A lot of the markets we have today like health insurance, property insurance, life insurance, are very critical to some of the biggest risks we face. But when you look out and ask what really worries people about what they have to deal with day to day in the economy and when do they have to make a financial gamble when really they are just trying to make a life decision and not make a bet on whether something will go up or down in value, you see places where there are substantial risks that people face, potentially substantial opportunities to address those risks, but for various reasons those markets are missing.

Some of our papers are examples of that. For example, if you buy a house, you are attached to the neighborhood, the house, you are not necessarily attached to it as a way to double your money in 2 years although some people were, and you certainly do not want it as a way to lose half or all of your equity over the course of 2 years, so ways to separate out an investment in a house and the risks that that has with ownership. The same thing with how long you live in the course of your retirement. People do not want to make a bet and a gamble that they are going to live a certain amount of time and then if they outlive their assets, end up in poverty. And some of the other risks we will discuss on the second panel that affect communities like if a factory closes or there is a catastrophic hurricane or terrorist attack, are all risks that today people are very exposed to financially.

As we think about these papers, a lot of them can be organized into a few different reasons that these markets are missing. First, in some cases laws or regulations could tilt the playing field against a market that might otherwise come into existence. Andy Caplin is going to talk about how if you borrow money on your house you can deduct the interest, but if you essentially set up an equity type of contract where the lending institution bears some of the risk, you cannot deduct that. That means the government policy favors one type of market over another and something that potentially might be attractive to people does not come into existence.

A second is market failures could impede the creation of the market and these are classic failures like adverse section externalities that we all learn in our introductory economics class, and when we talk about annuities which Lina will talk about, one of the factors we have there is if you know you are going to live a long time, you might buy the annuities. That will mean the payout on the annuities will be lower, making them less attractive to the average person and leading to a potential spiral that makes that whole market less attractive. Adverse selection is obviously also a very important feature of health insurance and why those markets do not function as well as they could, and the Hamilton Project has talked about a number of ideas to make those markets function better.

Finally, those are the classic economic reasons that markets do not exist, but there is a final set that economics are paying increased attention to which you could think of as behavioral obstacles that might impede the creation of valuable markets, ways in which people systematically misunderstand risks, misperceive intertemporal choices, and as a result, something that really would be worth their buying, something that ex post they would have wished they bought, they may not buy in advance. One has to be very careful. It is easy as an economist to say you should buy this, you would be better off, and then the product comes into existence and it does not pass the market test because it turns out people did not really like it. But there are certain systematic biases and this certainly affects the way people save, and some of the ideas that the Retirement Security Project and the Hamilton Project have released on automatic IRAs is a way to address those behavioral obstacles by changing defaults for saving, and the annuities paper we are going to hear about today fits into that category as well.

In conclusion, I do not want to argue that markets are the solution to all the world's problems, and I certainly do not want to argue that free markets are by themselves completely sufficient to solve every problem. In a lot of cases, the government has a very vital role to play to foster those markets, and in particular some of the biggest risks that we face as individuals and communities.

Let me very briefly now introduce the folks on stage. We are going to hear presentations of two papers now. This panel is focused on the risks that individuals face followed by two discussants. Then we will have a break and the second panel talks more about the risks that communities face, although those risks obviously ultimately translate down to individuals as well.

You probably have more detailed bios in your materials, so let me just briefly say that we will start with Andrew Caplin who is a professor of economics at New York University talking about shared equity mortgages. Then Lina Walker on behalf of a team of people at the Retirement Security Project where she serves as Research Director will present an idea about trial annuities. Mark Iwry is a co-author of that paper and will participate in the group discussion and audience Q and A on that paper. Then our two discussants are Harvey Blitz who is Senior Vice President of AXA Equitable Life Insurance Company and can give us a little bit of a market perspective on some of these products. And Doug Elmendorf who is a Senior Fellow in the Economics Studies Program at Brookings. So thank you, and Andy, we can start with you.

MR. CAPLIN: This is the case for shared-equity mortgage with my co-workers, Noel Cummingham, Mich Engler, of NYU Law School, and Fredrick Pollack of Morgan Stanley. This is an idea whose time I believe has come. The idea is in a nutshell incredibly simple which is that when you are talking on a risky investment, you typically have some mix of debt and equity if you are a company if you raise something from people who share the risk with you and you take on a certain amount of the risk yourself in the form of debt. Why not for housing? Why not when you buy a home? It is a risky investment. Why isn't that available? I believe that lack of availability of these mortgages underlies a significant amount of the recent problem in the U.S. and I want to point out why in essence they have been ruled out in the U.S. by fear and how that can be changed.

What is a shared-equity mortgage? Consider you are buying a house and you are going to go along and bring a 10-percent down payment. Typically you would have to get 90-percent mortgage and end up in a very risky situation where you have to pay back all the 90 percent. Here is what you are going to do in the world of shared-equity mortgages. You are going to cut down your borrowing to only 70 percent. The 20 percent that you need in addition will come from something called a shared-equity mortgage. The number here are correct. Don't try reading the ones in the folder. They might confuse you. These ones actually look real. $40,000 for 20 percent of a house initially valued at $200,000. Suppose that 10 years later that house is sold for $300,000. There are two very simple ways that you could make the sharing of equity with the lender. One would be share the appreciation. This is called a shared-appreciation mortgage. Pay back $40,000 plus 50 percent of the gain, say you borrowed 20 percent, you pay back 50 percent of the gain, that is a larger share, you pay back $90,000. A different way is you simply have an incrementing share of the house that you owe over time so that by the time 10 years is up you might owe 30 percent of the house having borrowed 20 percent. All these are in lieu of rent in essence, and again you pay back the same amount. Two different pricing mechanisms, simple, mechanical. You can work out what you own and what you owe.

Why would we do that? Why wouldn't we stick with current mortgage contracts? I think people by now know that the full risk of house price movements in the current market is borne by the borrower, you borrowed 95 percent or 90 percent and the entire margin goes to you. It is very unusual in our financial system to ask somebody who has little cash to go full debt. They typically would find a friend or they find some equity version of starting a company you lose a little bit of equity, not apparently in buying a house.

What would happen? I have to say would. Obviously the first order effect is that you are going to reduce the chance of being underwater because you are not borrowing up to 90 percent, you are only borrowing up to 70 percent in the standard way. If house values go down, the shared-equity techniques mean that your cost of capital as a borrower was lower so as price houses go down, so your costs go down. That is good. That is called diversification. That is why equity is useful. Obviously that reduces the risk of a default-driven housing crisis.

They also lower the down payment, so it is a way of getting a down payment down without increasing systemic risk. Literally there is no other way in the debt market. If you want to get down payments down, you have to increase systemic risk. The crisis is an inevitable result in a world in which is s debt only world. I do not see how you could avoid what just happened as you expand the margins of borrowing and using pure debt instruments. At some point there will be a large number of defaults. That is inevitable given the nature of lending institutions. So you are now being able to lower down payments without raising the risk of borrowers going underway, you have raised affordability without raising risk.

Why is that in the news right now just a little bit? I would like it to be a lot more in the news. I think these are ideas whose time has come. They way it is currently coming in is that Congress has figured out that we are in a crisis. It looks like people holding debt, these debts are not worth what is written on them. Maybe we should write them down. Everybody is being encouraged to write down debt. But if they write down their debt, why should the only beneficiary be the person who has the debt written down for them, that one individual? Why shouldn't if everybody else chipped in, if a Norwegian pension fund chipped in and agreed to take a bit write down, why should it not benefit from the increase in prices later?

These are certain something of interest to home buyers. I have done surveys. I have been thinking about them a while. But let me just give you a little lesson. They were introduced in the U.S. in the 1980s, they are not very unfamiliar instruments, and they failed. There was a reintroduction attempted by Bear Stearns in the 1990s that failed and I would like to argue that history could be very different if they had succeeded. They tried to package them in shared-equity securities.

Why did it fail? There are two tax obstacles in the U.S. First off, in 1980 when first introduced, shared-appreciation mortgages, when it was asked are they debt or are they equity, apparently that is a decision that matters a lot for tax treatment. You are either filing as an individual homeowner or as a partnership. You cannot even file taxes if you do not know debt or equity. So the IRS said we rule debt for a specific instrument. We immediately shift this to the no ruling list. On the no ruling list you will hear absolutely nothing about your product should you innovate. You will not know if it is debt or equity, you will not know how to file. Bear Stearns put warnings saying you have to consult your accountant to decide if you can take this product out so nobody wanted it Tax uncertainties, and if those uncertainties were removed, the likelihood is I found out in communication with Treasury very preliminary that it would be likely negatively treated. So right now what is wrong is all this stuff. Why should we do? Regulatory authority exists with Treasury, legislation, public awareness, change the tax regime.

MR. FURMAN: Thank you. Lina?

MS. WALKER: Over the next 20 years, about 75 million workers will retire. For a while a lot of the conversation was focused on whether these workers are saving enough for retirement. But when we consider the broader question of the time at security, it is not just whether you are saving enough that matters, but also whether you are drawing down your assets and taking your retirement distribution in a manner that minimizes your risk and is appropriate to your needs.

I think we can all agree that blowing all your savings on a boat when you reach 70 is not a good strategy, but neither is being too conservative and living very meagerly in retirement. I know that these are extreme examples, but they make the point. A retiree's distribution choice will affect his or her retirement outcome and today my co-authors, Bill Gale, Mark Iwry, David John and myself present a proposal that provides retirees with the tools to help them make better more informed distribution choices.

You might ask why are we focusing on this question today. The short answer is that the retirement landscape has changed and retirement planning tools and strategies will have to change as well. We know for instance that there has been a shift from DB to DC coverage and so that has resulted in a decline in lifetime pensions. We know that many workers are saving in 401(k) plans, so future workers will retire with large balances in their accounts and they need to manage these resources. We also know that retirees are living longer, but they do not know exactly how much longer. So they will have to manage these resources over an uncertain lifetime and they risk the possibility of spending too much too soon or too little over time.

Lifetime income products can reduce some of the complexity of retirement planning. The way it works is you exchange a portion of your assets and in return you get guaranteed payments for life. So for the retiree, it mitigates or reduces their chance of outliving their resources. Yet we know that demand is low and the research has pointed to three important reasons why this might be the case. Retirees will receive lifetime income benefits through the Social Security system and so for many this might be sufficient annuitization. We also know that current lifetime income products are priced to reflect the longer lifespan or current buyers. So this means that for the average consumer it is not a very good deal. This is the adverse selection problem. We also know that these products are complicated and consumers do not understand it and they are for various reasons biased against it.

What this means though is that if there is a way to lower prices to mitigate some of that adverse selection, if there is a way to circumvent or correct these biases, consumers will be better off with additional annuitization. It is true that the market has been evolving and there are products on the market that would address some of these biases, but we believe that a market solution alone is not enough. It is not going to help address some of the misunderstandings and misperceptions about these products. And unless it increases substantially, it is not going to mitigate the adverse selection problem and you will still face high prices. So we think some kind of policy intervention will be necessary.

We take at the Retirement Security Project, and all four authors, seriously those three reasons why the market is limited and we build our policy on top of it. So we feel that the best way to help consumers understand these products and to overcome their biases is to give them a chance to try it out temporarily so they can test drive it so to speak. And we also know that it is important to increase the pool of consumers to lower prices. We know that there will be millions of participants in 401(k) plans and so this is the natural launching point for our proposal. But under the current structure of 401(k) plans, it is actually not easy to access lifetime income products and so we are recommending automatic features in the distribution stage to make it easier. We get that not all consumers are the same and that they all have different needs for annuitization so we make the proposals voluntary. Consumers and retirees can opt out if they want to.

Our proposal is the automatic trial income payment. Very simply, when a worker is ready to take distributions, a substantial portion of their 401(k) balance will be automatically defaulted into a 2-year trial income payment. They can opt out if they want to or if they make no selection, they will receive 24 consecutive monthly payments. After 2 years the trial ends and participants can elect a different distribution option or if they do nothing and make no election, they will be automatically defaulted into a permanent income option. The proposal is not a mandate, employees will be encouraged to participate, and they will have discretion over some of the structure and implementation of the payment options.

We want to make the point that the idea behind this proposal is that we want to give retirees the opportunity to experience the benefits of guaranteed monthly payments. A lot of workers under the proposal will be receiving lifetime income payments. It will correct any misperceptions they have about these products. It will reframe the way they think about income distribution. And it levels the playing field for lifetime income products. The goal for us is that during this trial period retirees will be able to acquire more information, they will have more time to evaluate the distribution options, and when it comes time to take final distributions, they will be more informed. And because we believe that retirees have underappreciated the value of lifetime income products, we want to make it easier for them to access these products and we do so with automatic features.

MR. FURMAN: Thank you, Lina.

MS. WALKER: Thank you.

MR. FURMAN: Doug, why don't we start with you for the comments?

MR. ELMENDORF: I am going to talk briefly about the shared-appreciation mortgages and I commend Andrew and his co-authors for their work in this area. Andrew has been advocating shared-appreciation mortgages for I think a dozen years now and has really been a voice in the wilderness for much of that time, but I think we are fortunate that he is not easily deterred because shared-appreciation mortgages I think are a very sensible idea and I hope that the authors are successful in expanding their use.

Having said that, it probably is not very interesting if I just sit here and echo Andrew's positive comments about the benefits of shared-appreciation mortgages. So let me mention briefly a few costs. I do not think these costs should prevent the spread of shared-equity mortgages. They should damp down the speed and extent of that spread.

The first cost is that separating the owner-occupancy of the home from the ownership of the asset to some extent as this proposal does have some disadvantages as well as some advantages. The clear advantage as Andrew points out is that it reduces the risk that homeowners bear. The disadvantage is that by insulating homeowners from the part of the change in the value of the property will be reducing their incentive to make the upkeep and improvements they would otherwise have an incentive to do. The reason that homeownership exists a benefit of collecting together the occupancy and ownership decision is that it removes the landlord-tenant tension about what to do with the property and what care to take of it and the extent to which we separate those we reducing that incentive.

A second issue is that people's ability to refinance mortgages when they choose to affects the risk sharing I think you can get out of shared-equity mortgages. People do not have to sign up for these mortgages and hold them for a long period of time through ups and downs in the market. Where mortgages normally work if applied to these types of mortgages means that homeowners will tend to shift into conventional debt-only mortgage when they expect house prices to go up so that they capture most of the appreciation, then they will look for shared-equity mortgages when home prices are expected to go down so that they can lay off some of that loss on the lenders. Of course the lenders will anticipate that so they will price the mortgages at different points in the house price cycle differently. I cannot do the math to figure out where that will all settle out, I think it is quite complicated, but my presumption is that the outcome would be ultimately less risk sharing than one might otherwise think if people were forced to hold these mortgages for a long period of time without refinancing.

The third complication is that shared-equity mortgages are themselves complicated. One lesson of this mortgage mess and of separate economic research is that people did not understand the more subtle features of their mortgages. I think the appropriate policy response in viewing conventional mortgages is to try to guide people into mortgages that are better for them. And the corresponding issue for shared-equity mortgages is to figure out the sorts of disclosures and education that are needed and to decide what limitations regulators might impose on the terms and structure of these mortgages.

I think the fourth cost I would mention is that American households have traditionally done a considerable share of their lifecycle saving by paying down the mortgage and building up equity in their homes. People have worried that home equity credit lines and other mechanisms for tapping into one's home equity will end up with Americans close to retirement having done less saving than they expected to do. I think a very similar problem arises here by signing over some share of one's home equity or the appreciation of one's home to a lender, homeowners might end up at retirement perhaps selling their homes and ending up with fewer resources than they have anticipated. So I think as we expand shared-equity mortgages, we need to be sure we are finding ways to replace the forced saving of the current mortgages that is essentially being lost.

Just to say at the end, I really hope very much that we expand the role of shared-equity mortgages. My concerns are considerations that we should keep in mind as we do that just to be sure that these mortgages really are a boon for homeowners and they will end up being costly in ways that are not anticipated. Thank you.

MR. FURMAN: Before talking about going back to annuities, do you want to speculate about how you could address any of the challenges that Doug laid out for you?

MR. CAPLIN: Forgetting is a much bigger risk than anything else. I think Doug and I would kind of line up very similarly on this. The idea that 100 percent always forever with a correct equity number is too bizarre to even countenance. There is just an institutional restriction to 100 percent. We do not force entrepreneurs to bear all marginal risks. And if we really believe that you have to face full risk before you had incentives, capitalism would not exist. So it is kind of bringing that level of capitalism down to a smaller level, the level that it is a little bit more what people care about.

Then would prices vary over the cycle? You would expect so, and I think that is an interesting question as to whether you would like to impose constraints and how they would play in.

I do think that for complexity, I am in favor of much education, A, responsibility resting where it must which is both with the individual if they take a product out and with the regulators for setting up a coherent general body of restrictions. It is not about shared-equity mortgages. There are new products every day. You have to be able to understand them, and at the same time there have to be rules about how they are presented. I would not even mind if one insisted on taking a test to take out many financial products. I do not think that is an issue that should stop innovation, it should give us pause about the quality of education, then how do we get to the next level where people actually understand, and how do we prevent people from lying, but those are generic issues.

MR. FURMAN: We will come back to some of that as we discuss and open it up. Harvey?

MR. BLITZ: Thank you. When I was asked to comment on this paper, the Brookings Institution did not ask me what my view of annuitization was, although I imagine that knowing that I worked a life insurance company, they probably thought they were on fairly safe ground, and they were at least in the sense that I agree with the basic principle of the paper which is that more annuitization coming out of 401(k)s is a good idea particularly in today's environment where defined-benefit pension plans which used to provide a lifetime income for lots of people who were working in companies no longer does that. The government sector is about the only one that has a lot of that going forward today. So the idea that 401(k)s become the central retirement depository for employed people is more and more true and the idea that some portion of that, and they cleverly provide only a portion of what is in the 401(k), should turn into lifetime is I think a very good idea. I have a lot of comments on how to make the proposal work better. I am just going to give a few of the highlights this morning, and I will give them privately a few more.

The first thing I want to note is that they focus on 401(k)s which is a good idea, but there are other kinds of pension plans today that have very little in the way of lifetime income distribution like cash balance and hybrid plans which are really even more natural kinds of vehicles in which to put into this kind of proposal. You might want to think about in fact expanding it that way. Another comment up front is this proposal is totally voluntary. That means that unless a plan sponsor chooses on their own to offer this, it simply does not happen.

I am going to support that in a moment, but first I want to say that even before you put in this default option which is the basic principle, that people will default into an annuity, you have to recognize the problem that almost all 401(k) plans today do not even have annuities as an option that they give their participants when they retire. All they do is say you get a lump sum and what you do with your money is your problem, and we might want to think about at least requiring that plans offer an annuity as an option to their participants for two reasons. One of them is that it would help educate the participant about the ideas of annuities before they actually reach retirement and this proposal kicks in. In this proposal, the first time the participant hears about the annuity option is basically when it triggers and it seems to me that if you have an annuity option in the plan from the beginning, all the education they get about how their 401(k) plan works will include annuities as an option.

The second reason has to do with sponsors. I think it is a pretty big leap for sponsors to voluntarily put this in, to go from no annuity option at all to not only is there an annuity option, but you default right into it, and a middle step is at least getting plan sponsors more educated and more familiar with annuities.

The other thing I want to say about voluntary sponsor participation is that based on my experience, we need to do two things. We need to find a way to make plan sponsors comfortable that if they act reasonably in putting this in place, they are not going to end up with legal liability, ERISA sets a very high fiduciary standard, and I do not want to lower the standard, I just want to make it easier for plan sponsors to meet it by creating a regulatory structure that makes that simpler.

The second thing is the authors have put on the plan sponsor the responsibility for deciding a lot of details about this program. For instance, they say the portion of the 401(k) that is going to end up involved in this default annuity can range from in their paper 33 percent to 75 percent which is a very, very broad range, and then they say and the plan sponsor will pick the number. Plan sponsors are not going to want to try to pick a number out of the 33- to 75-percent range. You will probably want to think, A, about narrowing the range or maybe even mandating it at some number like 40 percent or some number that in fact will accomplish a lot of the purpose without adding a lot of complexity in plan-sponsored choice, and you can give the plan sponsor the right to change that number, but at least if you give them guidance as to what a normal number would be, it is going to get easier to do this. For large plan sponsors maybe it will not matter, but they want to apply this across a fairly broad range of 401(k)s, there are proposals to not include very small employers which I support, but if you are going to have a broad range of sponsors covered by this, you need to make it simple.

There is some discussion in the paper and in the presentation this morning about the provider marketplace and how today it is I guess they would call it inadequate. I do not want to characterize whether that is true or not. I think the market is clearly not robust enough today to cover this proposal. What I do want to say is that if this proposal were in effect, I am highly confident that the provider marketplace would become robust enough to offer a fair and efficient solution to what is being designed here. I say that not just based on speculation. I say that based first of all on the fact that in group life and group disability you have very, very large competitive and efficient marketplaces that work and so if more people in fact were annuitizing, this would in fact happen. Beyond that, I know that many companies today, mine included, are actually looking at ways independent of this paper of working with plan sponsors in 401(k)s to provide distribution annuity options to their employees outside the plan structure, sort of an advisory kind of rollover vehicle. So it has happened already and it certainly would be accelerated significantly by this proposal.

The final point I want to make, there are two actually, the penultimate point I want to make has to do with the 2-year trial. I think the 2-year trial is brilliant. It gives people a chance to see whether or not their lifetime income without locking into a vehicle for the rest of their live, and at the end of the 2 years it gives them the opportunity to opt out. That structure creates very difficult problems for the provider in terms of the investment philosophy that they are going to use for this product. If you think about it, you are making an investment day one, but you can walk away at the end of 2 years. That is a very difficult mediation problem people will not lightly take on and I think the way you actually fix that problem which is suggested at least in a footnote in the paper is to think about the 2-year trial period as not really being a life annuity, it is really going to be some kind of distribution option out of the account balance which converts into a lifetime annuity only at the end of the 2-year period.

The final point I want to make is there is an important discussion in the paper about guarantees. The authors are concerned that we are going to put all these people into annuity contracts provided by private providers and if those providers fail, people will not get their money. That is a bona fide concern. I think personally that it is a little overstated in the sense that there is a current program for guaranteeing insurance company obligations. It is a state-run program that in fact has worked extremely well. When even large failures occurred like Executive Life a while ago, the guarantee program stepped up and actually handled the problem in a way that was very satisfactory for the people who had insurance and annuity contracts from Executive Life. There needs to be a solution to this problem, but I think it can in fact be a relatively simple one. The authors had suggested a prefunded solution sort of like FDIC. I think in this case you do not have to be prefunded. One of the important things is that the payments that have to be made if a provider failed are being paid over a long period of time. So unlike a bank account where when the bank goes bankrupt you have to be able to give every nickel of that fund, here what you are guaranteeing are the benefits so you actually have some time to accumulate the funds you need, you do not necessarily have to prefund it, and there is a proposal mentioned in the article for creating an optional federal charter for insurers, insurers today are in fact state regulated and there is a proposal in Congress now to make this federal regulation and I believe that federal regulation would in fact make finding a solution to the guarantee problem much simpler. Thank you.

MR. FURMAN: Mark and Lina, those were mostly in the form of friendly amendments. But if you want to amend the amendments --

MR. IWRY: How could we resist? First of all, we are heartened by Harvey's central point that he likes the concept of the 2-year trial income arrangement. And particularly given his prominent role in the provider industry, that he thinks that instituting that could promote a significant expansion of the market, the group market for lifetime income products, that this would help develop the market, and we very much recognize what Harvey was saying that there is a very dynamic, creative locus of activity now in terms of new annuity products in the 401(k) space, that industry is developing annuities that are being considered and adopted by employers sponsoring 401(k) plans. This is just starting out but it is definitely on an upward curve.

Harvey mentioned outside the plan. Many of these employers that are starting to offer an annuity option in their 401(k)s are doing it with a platform that in effect tells people when you retire, when you leave, here are some annuity options that the employer has effectively vetted and that are being presented in a reasonably comparable apples to apples simple way so folks can compare different options, kind of bringing a simplified marketplace to the individual.

Our 2-year trial approach actually works in the first instance inside the plan so that before the person retires or at the time they retire, they are given this 2-year trial. It is not necessarily outside the scope of the plan because after the 2 years they have another election administered by the plan sponsor where they could opt out of the insurance or annuity product altogether.

The thought of requiring 401(k)s to have an annuity option is an interesting one and we should all think about that further. I think two issues I would raise that I am looking forward to talking about --

MR. BLITZ: He is a discussant on my paper.

MR. IWRY: -- are that if you require an annuity be introduced in a 401(k), you do not necessarily get education of participants if it is just an option. We had more annuities in 401(k)s until the Treasury, and I'll fess up, I've made this decision in the federal government 10 years ago, allowed people to get rid of their annuities in 401(k) plans. For my sins, I am a co-author of this proposal. We found that the result of having an annuity that no one elected because we were not thinking behaviorally, we were not thinking strategically about how to encourage it in the plan, was that they did not get education about the annuity, it was ignored, and implanting the annuity option in the plan did not endear the annuity to the plan sponsor. Plan sponsors wanted it out in the interest of simplification. So we should talk about that further and figure out whether there is a way to do that.

Finally I would note I think it is a great idea that Harvey mentioned of taking the trial income concept into the defined-benefit space. Defined-benefit, particularly cash-balance hybrid plans, already have the annuity option, so I think our point is extremely well taken that that is a fertile ground for introducing such a behavioral strategy and one of our two subsequent papers in progress is actually going to be trying that idea out.

MR. FURMAN: Thank you. Let's start with some questions. One of the first questions an economist should always ask when you see a proposal like this is if it is such a great idea, why doesn't it exist already. The authors have identified some of those reasons and some of those obstacles, but I think what I want to probe a little bit is whether those reasons and obstacles are sufficient. In the case of annuities, first of all, there is just the whole set of administrative costs associated with it. So even if you got rid of all the adverse selection, you turn over $100 of annuity, you will get back the equivalent of $90 in present value or give or take, you tell me the exact number, in the course of the rest of your life and you obviously get something in exchange for that in terms of this insurance. But is that purely administrative cost and set of transaction costs enough to be a decent reason that people do not get something especially when people might want to keep a big lump sum of money around in case of a catastrophic medical event or for many of the other reasons.

Then the reason that might make one worry is that you would then maybe be defaulting someone into something that actually might be a good idea for them and people would get stuck in something that would make them worse off. When it comes to 401(k)s, you have a little bit of confidence because when people are forced to make a decision, they make about the same decision as if they are automatically enrolled in a 401(k) as opposed to the opposite, so you sort of feel like maybe that is the right decision and have a corresponding thing here.

Then the second question related to that is, and all of our papers are vetted by discussants in a closed-door small meeting, and one of the ones in that, Jeff Brown, argued very strongly that the market in this area is particularly innovative in coming up with new ideas to make annuities look more attractive and actually be more attractive and address some of the worries and concerns people have with them like they are losing any chance of the upside appreciation of these lump sums of money they might need if something really big comes up.

Do you think that innovation would be sufficient? Do you think there is any tradeoff between your type of plan and a plan that could stifle that form of innovation or could it foster it, and how do you think of this plan in a really dynamic marketplace?

MS. WALKER: You had two questions. I will address the second question first which is the question about market innovation and would it be reasonable to let the market evolve on its own or do we need some kind of intervention. I think that it is true that a lot of individuals have some kind of biases about annuities. They might be worried that they will get hit by a bus the day after they buy the product and you are right that a lot of these products have addressed some of these biases. So you have death benefits or you have guarantees. But a lot of consumers are not that savvy and are not cognizant of the changes that are happening in the annuity market today. So when they make the decision about whether or not to annuitize their retirement assets, a lot of it will be based on what they perceive the value of the product to be rather than what it actually is or is available to them. So in that sense I think that there is a lag in their perception of what is happening and that they are more likely to still consider it a bad value even though there are better products available. And because of that it will take a while for them to start appreciating the value of lifetime income products, and unless you have sufficient volume, you are not going to mitigate the adverse-selection problem. Prices would still be high. You would still have a very select group of individuals who would be buying these products and for the average person with average or less-than-average life expectancy, it is not going to be a good value.

The first question relates to administrative cost. So even if we were to mitigate completely the adverse section, we have a very large pool of consumers, there would still be administrative costs and would that still be a good value for consumers. I think it is important to remember that we are proposing that this product be administered through 401(k) plans so it is a group market and there is a lot of benefit to having group pricing and there are economies of scale associated with that that would reduce the administrative cost. In fact, in the conversation with Harvey earlier he talked about how efficient the life group market is and I think that with sufficient competition, sufficient volume, you would get an annuity or lifetime income market that is as efficient as the life group market.

SPEAKER: I had two comments on point Lina actually did not discuss in your comments. One was you mentioned in passing upside appreciation and I think it is worthwhile at least putting on the table that there is the opportunity here to have a variable lifetime payout with a floor guarantee which is a common kind of product that is being offered today as well as a fixed one. So in fact people who would like to see upside appreciation or people who want inflation kind of protection, there will in fact be vehicles like that.

But the thing that fascinated me about what you said most was the comment about default, that maybe we are going to default somebody into where they do not want to be. It seems to me it is all a question of perspective. It is true that today the 401(k) has a lump-sum option as the general form of payment. But think about defined-benefit plans. In a traditional defined-benefit plan, you have defaulted everybody by rule, if you like, if you do not have a lump-sum option into exactly this kind of benefit. So if you think about 401(k)s now as the whole underlying theoretical premise of this paper is that we need to take at least a part of the 401(k) balance and say it is replacing the defined-benefit plan kind of structure that no longer exists, then in fact defaulting everybody into a lump-sum payment may not be the right choice and in fact some mix between lump-sum and lifetime payout as this paper proposes might make much more sense.

MR. ELMENDORF: I think we should be a little careful about describing the world as one in which people are sort of being moved from what had been annuitized wealth into unannuitized wealth. That is true this shift from defined-benefit to defined-contribution pension plans, but simultaneously we are having a rising share of health spending in people's retirement consumption bundles and that health spending is largely paid for and ever more paid for by the government through Medicare and what is in essentially annuitized form. It is certainly true that the shift of the cash income and the availability to buy other things has moved away from annuitization. I think it is worth pushing that back. The thing is just to be careful not describe it -- the only thing which is going is just a headlong dash away from annuitization because there is another rather important feature I think that we are seeing.

MR. FURMAN: I want to move on and we will come back to some of these issues. If you take my typology at the beginning that some markets do not exist because regulations get in their way, and your paper is very much in that some because of market failures and some because of behavioral obstacles. If we got rid of all the regulations and made this on a level playing field with debt mortgages, would you be concerned that there are any market failures that would get in the way? And would you be concerned especially about whether there are any behavioral obstacles? Or put another way, would this take off like wildfire because it is the best product ever and it is just disadvantaged right now? And if it would not, what else would we need to do to make this work or would we conclude that it actually was not so great because it failed the market test on a level playing field?

MR. CAPLIN: It is a great question and it is the heart of the matter as seeing this, that in a level world you just get this opportunity or new option to take out a mortgage, investors are sitting there waiting, somehow is it just going to fly. My own take is that you need the design phase to be very careful and the it will fly. Let me give you the simplest of examples. The ultimate investor in this product should be me. I am the one who should be investing. I have got two daughters. I want them to be able to buy homes in Manhattan. That is looking difficult. If you said to me I could put some money into an investment that was guaranteed to stay ahead of New York real estate because it is an investment in New York real estate, I would be there in a flash. How you write the rules so that that form of market set up is subtle, you have to sit down and do that, what you are looking for is a long-term investor in this form of residential real estate. You also need an education process, and that will not be instantaneous, around the advantages for large institutions and diversifying into real estate. So here is the type of investment that takes off in 10 minutes, by this, it will give you a 200-percent return tomorrow. That is the prospectus that wins.

The prospectus that does not win is diversify into this nice spinach-like asset that is good for you. The nature of this long-term is spinach, it is good for you. The nature of it short-term has to be a sharp knee that somebody feels. One of the reasons you need the playing field to have been opened up very wide is that you need exploration and you need thought given to all the different types of market this could become. It would be very intricate set of markets. It also would form the basis for house price insurance. One of the troubles with current schemes in house price insurance is that as they say there is no primary asset and nobody knows exactly what they are bundling on the other side. So now you have got all these mortgages coming together, they are very much tied to local house prices, you can now start investing in them and shorting them and doing all kinds of fancy things with them, and now you can create house price insurance just from the fact that the fundamentals are out there in the marketplace.

MR. FURMAN: When you talk about getting the details right in the educational campaign, are you saying there will be five different competing and the one that gets the details right and has the best advertising campaign will make the biggest profits and thrive and so the market will establish itself? Or are you saying we would need a government education campaign to set the parameters of the policy exactly right?

MR. CAPLIN: The mix would be that early days a lot of thought has to be given in essence by governmental institutions because the ability to do this, I understand the line that the problems that we have been facing come from underregulation, but anybody who has ever tried to introduce a consumer financial product knows that is not the whole truth. Every single product you would design will run into 4,000 types of block and which investors will be allowed to invest in it will be decided by a committee that does not understand the project. Excuse me. The first stage has to be clearing away of a lot of minefields. With the minefields cleared away, open a competitive market and it will fly.

MR. FURMAN: One obstacle that has come on both sides today and will come up on our next panel in terms of catastrophic insurance and will come up in August when we release papers on infrastructure including pay-as-you-drive insurance by Jason Bordoff and Pascal Milal is state-charted insurance companies and the way in those state regulations can sometimes act as an obstacle to these products and the option of creating a national charter and allowing things to be done under that. I don't know if any of you want to comment more broadly on that idea, how important you think it is, what you think the argument for the existing system is.

MR. BLITZ: I would be happy to say that I do not know it affects your particular -- the point I was going to make is that in a general sense if you want to have a national marketplace, this kind of an idea which would need to be implemented in a national way, to the extent there is an insurance element, the process of getting 50 state approvals guarantees to slow it down, and I can tell you from my company that we are selling in 44 states a product that we brought out a year ago and in six states we are selling the generation of the product that came before, and in New York we are still selling the product we brought out in 2001 because they will not approve any of the ones that came thereafter, so it is a guarantee for difficulty in getting a single nationwide standard.

MR. CAPLIN: I have run into this. In Syracuse, New York, I participated in the design of a home price insurance scheme where the first thing the regulators told us is that it was done for public policy reasons, the first thing that the regulators told us you have misnamed your product, basically you do not want to meet us. What can we call it? Maybe assurance. So now it has been called home price assurance and maybe we can actually issue it and the answer is no. So why couldn't we issue the product we were thinking of issuing? The product would have said roughly you owe less money back if home prices fall in your district. It is a mortgage where the balance due depends on what happens in the district and it has direct insurance written in relative to house price falls in your area. You would think that would be a good idea and one that would be approved, but in New York State, first off we had to steer by the insurance, they said stay out of our office, we are worrying. Then we went to find out what other financial product this might be called and we found out that it would be described as a price level adjusted mortgage. If it is a price level adjusted mortgage, it is already illegal in New York State. Why? Because something happened in 1980 that got somebody worried and they wrote (inaudible) if you have to go around every single office to find out what your product is going to be called, you will probably after the event be told you misclassified it. It is fairly difficult.

MR. FURMAN: And there is a question of whether you would have confidence that the national (inaudible) would get all of that right.

MR. CAPLIN: Yes. Why don't we open it up to audience questions? Some people have microphones, so identify your name and your institution and if you are directing it to a particular person.

MR. WYAN: Mike Wyan with BNA Pension and Benefits. This question is directed to Harvey. Yesterday I covered an event at which an individual who was there and has significant responsibilities associated with profit sharing and 401(k) plans, and I asked this individual the question of what makes people think after living a lifetime on a monthly paycheck that they can all of a sudden take out all this money and manage it themselves? Why don't they annuitize? His response was in a word or in two words, no trust. I think that your suggestion of some sort of guarantee mechanism may go toward assisting in that effort. Do you agree?

MR. BLITZ: Yes, I certainly do. If we are going to create a system like this through law then we need to make sure that people have very, very high confidence that these payments are going to be made. The best form of that guarantee needs to be thought through and I think maybe one of your succeeding papers can in fact focus on that. But the idea of having some kind of certainty for these people is very, very important.

MR. IWRY: Mike, I would just suggest as a follow-up to Harvey's answer that it is not only no trust in the insurance provider. We know that in fact there have not been very many failures of major insurance carriers and there are some safeguards, guarantee tools, et cetera, though we think that the trust does need to be enhanced and that is why we discussed that additional safety as an objective and talk about ways to do that.

But it is also the framing. If humor is all about timing, choice is all about framing, and the framing of the lump sum versus annuity decision is heavily tilted away from the annuity for a whole raft of reasons which we do not have time to go into. But the trust or the mistrust is just one of them, and there are another nine or ten factors that all tilt individuals in favor of that lump sum including the wealth illusion, the sense that you have got your $100,000 or $500,000 balance, and when they tell you how much of an annuity that would by, it sounds like a pittance on a monthly basis compared to this large sum of money. People are not used to having the decision framed effectively and our proposal seeks to both frame it in advance which is giving people a monthly income, pension paycheck statement of what they have got and not just an account balance, but more importantly, framing it in an actual action-oriented way, learn by doing, feels what it feels like to have 2 years of regular monthly payments coming to you and whether that reframes the decision for people and then give them the option to go ahead with it for life or not.

MR. FURMAN: Is there another question?

MR. CHEN: Chow Chen -- my question is for Dr. Walker. Harvey mentioned the word comfortable and then we heard in the questions and answers -- in other words confidence and also we heard trust. I think the importance of all this is monthly payment, a monthly payment also to help the consumer to spend. I would like to know what are the criteria to decide on a monthly payment either in the 2-year period or after the 2-year period. I think you probably have those in your paper. Could you just briefly talk about that? And also more important is what is the difference between these two periods? Thank you.

MS. WALKER: Thank you for your question. Let me clarify your question a little bit. You are asking what are the criteria for establishing the trigger for the trial period? Is that correct? And then how the trial period is different from the permanent period, the subsequent period? Thanks. I just needed to clear it up. We set it up so that some portion of the 401(k) balances would be automatically converted into an income stream. As Harvey mentioned, we have not defined exactly what that portion would be, but in subsequent discussion we will narrow down that range. The trigger will be if you are allowed to take some portion of those assets as a lump sum you can withdraw it over time, but when it hits a certain amount, say $10,000 or 10 percent of the value of the total assets in your 401(k), then their trial payment will be triggered. There will be exceptions. One of the exceptions will be if it is a very small account, if the plan sponsor participates in the trial, that account will not be subject to the trial income payment because it would not make sense. If it is a small balance, the monthly amounts will be very small. So one of the criteria might be if it is above $100,000, for instance, then maybe half of those assets could be automatically defaulted into this income payment. There are also other exceptions. For instance, if you decide from the outset that you want to buy a lifetime income, then in spirit of you have met the idea of fulfilling this trial period, so then you can just go ahead and purchase your trial income payment.

The difference between the trial and the permanent income option, one is temporary and one is permanent, but there are other differences and it might depend on what the plan sponsor or the employer decides to offer for those two periods. Harvey mentioned that there might be some pricing issue. If you are going to have to cash out or stop the payments after 2 years, it might not be a good value to offer a plan that has this longevity insurance included in it. It might just be too expensive. So one possibility would be that during this trial period it would be some kind of managed payout recalculated balance and then when you get to the end of the trial period they can automatically convert into a longevity insurance product or a lifetime income product with longevity protection.

MS. RAFAEL: I am Helen Rafael from Resources for the Future. If one elects a lifetime annuity and unfortunately dies within a couple of years, is there any capital left for one's estate? What does one do in that case?

SPEAKER: The scenario you refer to is a critical one to address. As Mike Wyan was saying, no trust is one concern, but no trust that you will actually get the money even if you can trust the provider is a major concern, will I get hit by a bus soon after I purchase this, will it all go to the insurance company? That is a risk that these products nowadays are helping people mitigate. That is, there are a lot of death benefit products either taking the form of a cash payment, cash surrender value, if you will, to the heirs of the deceased annuitant for the balance of the annuity value, or a life and X years certain pattern where if the person dies early the annuity continues to pay out for at least 10 years or at least 15 years. We would encourage those kinds of flexible features that the market is in fact providing now increasingly because otherwise we are going to get people stopping at the threshold and not willing to go with lifetime income.

There is obviously a basic tradeoff here between the more death benefit protection you build in and the size of what the monthly payments are going to be so you need to try to find some kind of a reasonable balance with giving the participant a fair amount of choice, but you are helped in this proposal by the fact that only a portion of the 401(k) balance is going into this vehicle anyway so that combined with a reasonable amount of death benefit protection should give you a product that people would want.

We are not suggesting it is costless. On the contrary, the whole point of the annuity or a large part of it is the longevity risk pooling and you are diluting that to the extent that you have some of these bells and whistles. But if we cannot get people into the pure form, we do not want the proverbial perfect to be the enemy of the good.

MR. FURMAN: Are there any other questions? If not, I want to thank anyone. I should say Andy Caplin's is a PowerPoint at this stage and the fully developed paper will be released in September or October, so we should certainly look out for that, and RSP is doing more work on this topic as well. So at this point thank you for this discussion of individual risk and now we will shift to communities and some of the catastrophic risks they face. If I could ask those authors and discussants to come up on stage. Our next moderator is meant to be Zanny Minton Beddoes who is the international economics editor of "The Economist," and I am sure she will be here in a moment. Why don't we just take a short break and then start off again?

(Recess)

MR. FURMAN: Well, why don’t we get started now and I will fill in until our moderator joins us. And I’ll just -- as I said -- this is about risks facing communities and how that filters down to individuals. And the first paper we’re going to hear is about community tax base. And it’s co-written by Robert Lawrence who is doing the presentation who is a professor of international trade and investment at Harvard University, and a non-resident senior fellow at the Peterson Institute and alumni of The Brookings Institution. And that paper is co-written with Akash Deep who is a senior lecturer at the Kennedy School. Commenting on it will be Kim Rueben who’s a senior research associate from the Urban Institute.

Then following that paper, we’re going to talk about catastrophic risks and it’s a paper by Kent Smetters of Wharton and David Torregrosa of the Congressional Budget Office, but he’s doing this in his personal capacity and it doesn’t represent the views of the Congressional Budget Office. And Neda Eissa, who is a professor -- an associate professor of public policy at Georgetown Public Policy Institute, will be commenting on that paper.

MR. LAWRENCE: Well, thank you. You might wonder why someone who works on international trade is working on this particular question. But it turns out that I've become conscious of the fact that people experience change today, not only as individuals, but also as members of communities. And perceptions about the way in which people approach change are heavily influenced by how their local communities are doing. And this is very significant because local communities are hit by a large number of idiosyncratic shocks; plants close, crops fail, and there are natural disasters. We know about the housing market crises. All of these hit communities in a very dispersed way and actually cause significant problems for their finances. And in particular the responses to these financial crises are heavily constrained because communities are typically expected or have pledged to balance their budgets. And so what that actually means is that when these shocks hit at the time when spending is most needed, the response is exactly the opposite. There is a destabilizing effect. In deed, in the *Week In Review* last week, Lou Uchitelle had a piece in which he describes the imminent shock that is going to hit us as state governments cut back to balance their budgets in response to the shortfalls in revenue which they have just experienced as a consequence of the slowdown in the economy at large.

Now if you think about it, what options are available to communities to deal with these difficulties? Well, basically there are two fundamental ones. One is what are called "rainy day funds." And, in deed, many states do accumulate reserves in order to save for those rainy days when they might need to draw on them. But these are not exactly without difficulties. States in particular often have problems as to how they should draw down those funds. We know about the difficulties, for instance, with our strategic petroleum reserve and whether we ought to use it today or tomorrow, keep it perhaps for an even rainier day. So there are all kinds of political problems associated with the expenditures in these rainy day funds. And in any case, you know, we don't all save for the event that our house might burn down. There are surely risk-pooling advantages. If states could find some way of pooling their risks, each of them could feel more secure at a lower cost.

The second option is to rely on assistance from elsewhere, perhaps from the central government. If it's a local community, it could be the state government. If it's a county -- if it's a state, it could be the federal government.

But one of the things that we do in the paper is to explore how reliable a support is of central governments. And it turns out they're not very good. Firstly, they're lethargic in their responses. If you look typically at the way the federal government has responded, it's geared to the unemployment rate. By definition, we know the unemployment rate is a lagging indicator, so the money often comes too late. Secondly, the federal government, when it grants funds to states and local communities, goes through a very highly politicized process. And, therefore, these funds are rarely targeted to where people need them. We see grants being given on the basis of population, and so on. So there are a lot of problems associated with the central government's disbursements. In fact, we find they generally add insult to injury. That precisely at the times, and we have some pictures in our paper, if anything grants typically come, and we had two samples, to states. States will find themselves being cut off and getting less money during periods when they experience shortfalls. And, in fact, we saw within California, the same phenomenon was true of the state government, cutting back for their local communities. So it appears then that both of these mechanisms are unreliable, and that is the basic motivation for our proposal, a proposal of tax-based insurance that would allow local communities to insure their tax bases. This gives an advantage in terms of the risk sharing. The way it would work would be on an annual basis or a regular basis, premiums would be paid. And then in the event that a state or a local government -- and we have in mind all local communities participating in this, all local governments participating in it -- in the event that they experienced a tax revenue shortfall of a certain magnitude, the fund would then pay in and they would receive money that would make up the difference.

Now we, of course, recognize that states themselves influence their tax revenues by changes in their own taxes. And so what we would do would be to run the program on a neutral basis, on a tax neutral basis, where we would take out the effects of the communities' own changes in taxation, and they would be compensated on a residual. Now the beauty of this program is that it actually captures many many different kinds of disturbances in one variable, basically in tax revenues. So we don't have to pre-specify where the shock is coming from, we're simply stabilizing the revenue. We also think it has numerous virtues. Firstly, in our simulations -- and what we did was to use a couple of simulations, but in one case we took all 50 states and we ran a program over a 13-14 year period in which basically we compensated states for any time their tax neutral revenues fell, we made up the difference from the program. And what we saw was that it appeared to be imminently affordable. Basically, we could fund this for something on the order of 7/10 of a percent of their total tax incomes.

Secondly, we also believe it would have widespread appeal. If you look at -- because every -- because the payments are made when you experience a shortfall in revenue, and even if you're a very wealthy community, you're going to have revenue volatility. And, in deed, we do find that in our simulation most states dip in once and many a couple of times. But we don't think you'd have the kind of adverse selection that you might get in other formulations.

Thirdly, and critically, it would be reliable. Since communities would have an established property right, they would have prepaid, there isn't a problem of targeting that you run into, it would be clear as to what they were entitled to. By and large, it would also involve moral hazard because in principle you would have paid up front and, therefore, you get what you paid for, assuming the premiums could be set correctly. So let me just say, look, this is not a panacea. In fact, it's not designed for community redevelopment. It's not designed to deal with long-run structural problems. What it's designed to do is to allow communities to cushion themselves in the event of transitory and temporary shocks and, in deed, to prevent those temporary shocks from cascading and becoming permanent decline. Thanks.

MS BEDDOES: Thank you very much Robert. First of all, my apologies for being late; there's really no excuse for a moderator to appear after a panel has started. I assume everybody's been introduced, so Kent, let's have your paper next.

MR. SMETTERS: Okay, thank you. I'm Kent Smetters with The Wharton School, and to reemphasize what Jason said about my co-author on this paper, he's on his own time and he's not making statements or proposals for the CBO.

So what this paper is about is the issue of how to insure catastrophic risks. The federal government is playing more and more of a role in insuring kind of large mega disasters. I mean, in the area of natural catastrophes, it already plays a role through the National Fund Insurance Program, through FEMA, and through ad hoc legislation like Katrina after that like Katrina. In the area of terror, it's playing a greater role through the Terrorism Risk Insurance Act and now there's lots of proposals to formalize the government's role even more in the area of catastrophes.

And so, you know, why is the government kind of involved? In essence, providing cheap reinsurance to lots of the primary insurers that are out there. The industry has kind of stated some motivations why they actually want a federal government backdrop. In the case of like TRIA, the Terrorism Risk Insurance Act, the government's in essence providing cheap reinsurance for private insurers, and that's all explained in the paper. The industry says, well gee, you know, these mega losses, that's not what we're really set up to do. These are big losses, they're correlated shocks, it's difficult to estimate something like a terror shock, a terror risk, because as a complicated game theory problem, things like that. And the government also plays a role in creating losses through its foreign policy actions and things like that. All these motivations are not super compelling because there's ample examples of other markets where, for example, the IPO market where it's new type of losses, or the credit derivatives market which is about $60 trillion at risk, bigger than the entire stock market, where you have asymmetric payoffs, lots of uncertainty. In the role -- in terms of the government playing a role in creating losses, liability insurance has persisted even though the government, through changing legal standards over time, has pretty enormous losses, much larger than 9/11 and Katrina for insurance companies. And so what this paper really tries to hit at is what factors currently impede the private insurers from amassing more capital against some of these bigger losses. And what current barriers prevent the larger securities markets, so if you think about a 9/11-type loss or a Katrina-type loss, very small relative to capital markets in general. During our conversation right here today, the S&P 500 probably moved a 9/11-type loss one way or the other; 9/11 losses are like daily movements in the S&P 500, very small for the larger markets. So how to actually get the larger markets engaged and what types of policy changes could be implemented to reduce some of these impediments?

So our punch line of this paper is not really written up here, but the punch line is basically government policy itself is playing a large role in providing this convergence between insurance and capital markets and also preventing insurance markets from amassing more capital. Here are the five ones that we identified: State rates suppressed and other restrictions and, in particular, insurance is regulated at the state level and all states, in fact, do regulate in pricing in one aspect or another of insurance markets. In the old days, you would have to file a state's approval in order to get approval to increase your insurance prices. Some of those have backed off in recent years. Sometimes you only have to let the state know what you're charging in some areas. But the big area of workers' compensation, all states, in fact, regulate that price and all states say you have to, in fact, provide insurance for that. And so as a result of that, a lot of -- because insurers can't charge competitive market rates, there's lots of compression in supply of those rates.

The second issue is accounting and legal regulation, which really plays a strong role of why the largest securities market has a hard time getting into the insurance business. In particular, the current accounting standard basically says that you can -- if you -- if a primary insurer goes out and buys reinsurance, they cannot count that reinsurance as what's called a recoverable asset, it's for the purpose of underwriting, unless that reinsurance is basically indemnity based. And what that means is it pays off based on that primary insurer's actual loss. However, if you had a security that actually didn't, say, pay off the actual loss, but actually paid off, say, on the industry losses in that particular geographic region. That's what we call an indemnity contract. There's lots of rationales for doing that. It deals with moral hazard problems, but more importantly, it allows the capital market to have what's called a "pure play." They don't have to take bets anymore. One particular insurance company's underwriting portfolio and how good they are at loss adjusting and all that type of stuff, they can take more of a pure play about what the weather's going to be like in a particular area, what they think the probable terrorist strike will be in a particular area. And these are -- regulations make this more complicated.

Federal tax treatment is particularly biased against amassing reserves for large catastrophic funds. In particular, if you actually had two types of risk and both had the same expected outcome, but one is a low probability/high severity event, like a catastrophic loss, the tax treatment's much more punitive for that scenario than for a much more high probability/loss severity loss, like for car insurance and things like that.

And the legal environment, there's issues there about lots of examples. Recently in Mississippi and others where certain policies clearly excluded damages from flood, and they were, in fact, nonetheless triggered by courts and laws to cover that even though they were intended to exclude that. And the federal government and states play a big role in excluding lots of types of insurance because they currently dominate the market.

So my time is up, so I'll go with the -- one minute here. The punch line for reform options that we consider, one is to basically say there's too much politics going on at the state level. I could go into the motivations there, and so the first idea is to address each of these problems head on. It's not going to happen at the state level for various reasons, but if we have an optional federal charter, that will actually address a lot of these issues. And proven the regulatory treatment of alternative asset classes that could be used as reinsurance substitutes, and in particular this optional federal charter, or even the states if they chose to do so, could define a role of what's called "hedge effectiveness." That is to actually say certain securities, even if they actually have, are not indemnity based, will still qualify and that will allow for this more pure play. There's a certain irony about this that's worth 15 seconds to devote to this, and that is the irony is that these separate alternative contracts actually are more effective than traditional insurance at hedging risk. And they actually have lower credit risk than traditional insurance. Traditional insurance you'd never -- reinsure would never indemnify for the whole loss because that creates huge moral hazard problems. These types of alternative contracts, since they're not exposed to moral hazard, you can actually load up on these completely and, in essence, the primary insurer can pass more of its losses and diversified to the capital markets.

We have to talk about tax reform. And the last proposal that we talked about is the samaritan's dilemma thing, and I'll end here. I won't go into the next slide. The idea here is the federal government's already on the hook for potentially large losses, and so what the private market kind of do, what it can do, but when we're talking about losses say above $500 billion or a couple of hundred billion, actually, instead of leaving it up to the U.S. Congress kind of discretion, actually formalize a program for dealing with those losses through a federal reinsurance auction that would be conducted by Treasury.

MS. BEDDOES: Thank you. Since I didn't get my five seconds of introduction, I'm going to have it now, which is that both of these papers that we've had summarized show different ways of dealing with the financial, the mitigating financial risks, from catastrophes, short-term catastrophes. And the striking thing I think when you hear the two presentations, one after the other, is that one is focused on how communities and local governments can deal with this. It's essentially a public sector solution. The other one, Kent's presentation, shows that government involvement appears to have distorted this market quite considerably, and that having less government seems to be the direction to go.

So with that thought, I'm going to open it to our two discussants. Let's start with Kim Rueben, who will be discussing -- do you want to go to the podium for the first paper or from here?

MS. RUEBEN: I'll do it from here. First I'd like to say that I think anytime in Washington people are thinking about differences across states, and the fact that there is not one national economic circumstance going on is always good, as a state and local person. It is clear that, when we think about the current recession that we are in, might be in, may not be going into, that it's really different if you think about different places throughout the country. It is clear that there are parts of Florida, parts of Michigan and Ohio, parts of California, are in a recession. Their basically -- their economies aren't doing well, and there are also places where their economies are booming, Wyoming, some of the farm states, are all doing pretty well and we talk about the slowdown and their governments are doing great. They have money coming in and they're not really feeling it. So when we're talking about what's going on right now, and what's going to be going on in the next couple of years, thinking about the fact that there are differences across states and that there might be a way to mitigate what we do, but it isn't necessarily one size fits all, is a really good idea. It should be sort of obvious that there should be some way of shifting some of the risk across places and across states, because we aren't all in the same place, and it would be easier to do that than actually cutting spending in the places that most need some sort of stimulus going forward. But the problem with this -- and part of the reason that the federal government seems to have done such a bad job of this, and in general you would think intuitively that this would be a role for the federal government, right? We have money. We're going to redistribute it across different places, the federal government could do this, they could see which places are hurting and get money there. In the last recession, they gave it out based on population. That doesn't really do very much good. In general, federal money sort of is uncorrelated with need. I did a study on fiscal capacity, and we actually found that when you add up all the money, the places that need money compared to the amount of revenues that come in, in terms of meeting their expenditure needs, is totally uncorrelated with federal payments. So the federal government isn't really doing the job, but I'm not sure we should say that they shouldn't do the job going forward. So then I think it's a good idea to do some sort of insurance, whether it's done privately for states versus having the federal government do it, is a question open for interpretation. So the big question comes down to how do you get the details right? If we're going to actually let states offset things across places, it's not like a hurricane comes, or a tornado comes. States actually have a certain amount of control over the amount of tax monies that come in, and so while the authors try and measure revenue neutral, i.e., revenues that are without taking into account taxes, that's a really tough thing to do. We actually don't do that very well. I've used the same data that they try and use, and you're just sort of missing some of the big changes in policy. And some of the figures in Figure 3 in the paper, if you look at it, there are big jumps up in the amount of money that New Hampshire and Vermont get at a state level in a couple of years. Well, where's that coming from? Did New Hampshire really go against its anti-tax history and rhetoric to actually raise taxes? No, what ended up happening is a year before they actually had a court decision that meant that school finance had to be more centralized. And so what ended up happening was there's a lot of local revenues that got reallocated to the state, and while they picked it up in the year that it happened, the fact that some of the tax increases happened the year after, was lost. And so we don't necessarily care that it's a revenue increase rather than a revenue decrease, but if you were trying to give money to local governments in those same years, you would suddenly see that New Hampshire and Vermont local governments had a 50 percent hit in the amount of revenues they had coming in. And it wasn't actually anything real, and it had nothing to do with the economy, it basically just had to do with the fact that the state had to reallocate money between different levels of government. So when we're trying to do this, actually being able to measure the tax base and being able to measure what revenue hits look like that aren't being caused by government action, is incredibly difficult if not impossible to do.

The other issue with getting these insurance markets right, if we did this on a private basis, would be setting the premiums. We've lived through a period where there were very low premiums set for insurance in all sorts of areas. We have a ton of floods, we have a ton of disasters going on, and we have insurance companies going bankrupt. Well, the period that they're using in the paper actually is a period where there's only one really bad year and that's right at the beginning of this decade when there was the recession caused by the stock, by the decline in the stock market. So most states needed money that year, and if you look at the figures in the paper, you actually see that most of the payments, if you look at the dollars, are all being paid out in one year. I think it's 2001. And so we're not really getting an appropriate level and if we set those premiums wrong and they bankrupt it, if we set the premiums up a level that they were set in the paper, I think -- and we had done this for the last couple of years -- I'm guessing that that system would be bankrupt and most of the money would be going to California. And that's not something that other states are going to find sustainable. California has a huge amount of money coming in, it's a $100 billion general fund, so it's going to be paying in a lot of money. But it's also incredibly volatile. And so the fact is all you need is California, New York, to bankrupt the system once or may be a couple of times, and all the other states are going to opt out. If we do it on a voluntary basis, if you do it on a mandatory basis, there's going to be some screaming if you don't get those incentives right. So what can you do? If you actually want to mitigate the risk, the first thing would be to move away from actual revenues. You could do this, not perfectly, but if we go into something that Kent's suggesting in his paper, you can use imperfect measures that don't directly affect -- look at -- the tax revenues, but are pretty good proxies. If you use economic variables that states have less short-term control over, if we use unemployment, if we use personal income, if we use house prices, we could do a pretty good job of proxying and estimating which states are in trouble right now and which states we're going to think are going to be in trouble in the next couple of years. And so that would move it away from anything that you would actually have to measure that we're not measuring. There is this lag if you use unemployment. But in some ways I kind of think that the lag in payments is actually kind of good in that it gives states an incentive to maintain their rainy day funds. In the last recession, states actually did pretty well. They actually had a big hit, they spent down their rainy day funds, then they ended up getting federal money in 2003. It isn't necessarily the timeliness you want -- they also ended up shifting a lot of their revenue responsibilities to local governments that were doing really well because house prices were booming. Not going to happen this time, so getting the timing right -- if we're off by a year, I don't think it's that big a deal for most states because they do, in general, after a period of good times, have this money built up. So then it's a question of making sure we get the details right and is this really a role for insurance markets? Or should we be trying to figure out if there's a way that the federal government can do assistance better? And there have been a couple of proposals put out -- there was one put out by the Center of Budget and Policy Priority, there's been a proposal put out by GAO, and the Urban Institute talking about how we can trigger things based on Medicaid payments that would actually say that instead of having some ad hoc policy that needs to get passed every year, if we actually had a system set us where the federal government makes payments to specific states or for specific programs based on economic indicators. This is something that I think was discussed at an earlier Hamilton Project meeting, by Bob Rubin I think, where this whole idea that we can do indicators and federal stimulus better and have it targeted in a way. I think it is a role for the federal government to play. I think if we're going to do it with private insurance markets, it's going to be much trickier to do because I'm not sure state and local governments will pay into it. I do think there is this role for trying to get rid of a lot of the risk because there are these idiosyncratic ways of cross places, so I think that that's really a good idea. It's just getting the details right that's critical for this period forward.

MS. BEDDOES: Thanks, Kim. That's -- you've raised a lot of questions which I'm sure Robert's going to want to answer, but first let's have Neda discuss Kent's paper.

MS. EISSA: I don't have slides, but I'm too short so I'm going to stand up. Thank you very much for the opportunity to comment on this paper. This is a nice paper that presents a very clear review of the impediments in the insurance market -- in the impediments to the development of the catastrophic risk insurance market. So the authors draw several proposals from these impediments, and so in that sense it's a nice tie-in. They don't really lean out and choose a particular proposal, but they do a nice job of talking about the tradeoffs. So what I'm going to do is really step back a little bit from their discussion. I have one comment on their underlying assumption in some of their proposals. And then I want to talk a little bit about some principles for how we should think about reforming the insurance market.

So my main comment about the actual proposals is really a question, and that is to think -- to talk about -- to think about to the 2004-2005 hurricane season and ask how the insurance markets actually responded to that loss. And if you look back at that period, the evidence suggests that the markets responded fairly well. The insurance cycle that we see post every disaster was far less severe. That's in large part because the industry was able to draw in capital. And so we see losses paid out with fewer insolvencies and new capital coming in. Some of that capital came in the form of these alternative risk transfer mechanisms -- that is through the capital markets. And so one question is whether there really is -- whether these impediments are material to the development of that market, and I think there are different views about that. *Comments* has anecdotal evidence from industry experts that would argue that accounting and regulatory issues are not material to the development of these alternative risk transfer mechanisms. That basically the market has developed -- has gone as far as it can go today. Now I think their point is a little bit more subtle because they're arguing -- their argument is a bit more subtle because I think what they're saying is that it may impede innovation, and that's a little bit harder to assess. There's also evidence from others in the market that would basically say that this market's growing. It's growing fairly well. So I think they need to show a little bit more evidence to suggest that these impediments are material. I think there's a strong argument in favor of addressing them on efficiency grounds until we can -- that's not much of a -- there's not much of an argument there. But whether they're going to have an important impact on the supply of capital I think is somewhat of an open question.

So let me just step back -- that's my main question on their presumption in their proposal -- let me just step back and say something about the different types of risks in this market and where they fit in. And so one could classify risk along a spectrum from what some would call "locally insurable risk," that's the type of risk that's easily diversifiable, and that's what insurance companies do pretty well. They're not talking about that obviously. On the other end of the spectrum is truly "non-diversifiable risk," the tsunami or a cyclone. And there's -- I think that there's general agreement that that really is truly non-diversifiable and that's where you need the government, you need some kind of public support. What's more interesting and less easy to sort of assess are what might be "globally insurable risks." Now that's where their paper is really structured. These would be risks that are not locally insurable, but globally insurable in the sense that with reinsurance, you could cover it. So that would be the traditional insurance model. They're talking about also "globally diversifiable risks" where the capital markets basically would provide that diversification.

Now when we think about risk transfer mechanisms and economic welfare, they're really two different effects. The first effect is on the efficient allocation of risk. And that's where their paper is, that you want insurance because you can then spread out diversifiable risk and allocate the systemic risks to those parties that are willing to bear it. But there's also a second effect on economic welfare and that's the efficient amount of economic activity. Do the incentives that are created lead to the optimal behavioral responses? Do we get the right amount of construction in high-risk areas? Do we get the right amount of mitigation? And so one could think about very different ways of allocating that risk. We could argue that the risk should be borne entirely by people who choose to engage in risky activities, live in risky areas, but that's inefficient. We could also argue that it should be up to -- it should be all done through post-disaster relief and we recognize that's inefficient. But I think we also have to recognize that it's very hard to get over a feature of these catastrophic risks, which is that the federal government or the government in general is the insurer of last resort. And I think Kent toward the end spoke to that, arguing that perhaps auctions could address some of that. I think that's questionable. So we think -- so those two extremes of allocation of risk are not efficient, obviously insurance is going to be efficient, if it's appropriately priced. And this is the big issue in insurance markets. That's where Kent started, that it's rate suppression and compression by state regulators -- that really creates a lot of the distortions. Now they propose an optional federal charter, but they don't specify what the -- whether they -- for example, they're going to risk-based premiums in that. They do say that if they're risk-based premiums and they become unaffordable for some, that you can address that through cash transfers, through vouchers. I think that's a fundamentally important issue that may be should be drawn out a little bit more. That one of the most important results we have in public economics is that you should let the market operate efficiently, that is not distort prices, and if there are equity concerns or fairness concerns, that you address those through lump-sum transfers. That's their voucher proposal so I think that's a great thing to put in there. I would draw it out a little bit more.

But we also have to recognize, as I said before, that the government is the insurer of last resort, so another principle should be that we should minimize taxpayer exposure in any kind of proposal. I think that obviously is in a lot of what they're talking about. I bring it out as sort of missing an underlying in some -- not brought out explicitly in some of their discussions.

The last point that I want to make is one that's largely because of price suppression in cross subsidies in the insurance market, and that's that homeowners don't mitigate against risk. And let me just give you some -- a survey of approximately 1000 adults, living in the Atlantic and Gulf Coasts, in May of 2006, just five months after Katrina, Rita, and Wilma, found that 83 percent had taken no steps to fortify their homes, 68 percent had no hurricane survival kit, and 60 percent had no family disaster plan. Now there are many reasons why people may not adopt mitigation measures. It could be that they have short-time horizons; it could be that they misperceive the risk if fairly pricing is a feature of that. Regardless of what we think the reason is, I think that we need to think hard about mitigation and its role in this market. Simulations -- some simulations would suggest that if the private market could charge risk-based premiums, insurance would be able to cover most, if not all, losses from severe hurricanes. And so that may be one dimension that's not explicit, along which we could think about policy proposals that would shore up this market.

But in general I thought this was a great paper and a great discussion of the potential of reforms in this market.

MS. BEDDOES: Thank you, Neda. I think we should give the two presenters a chance because both discussions raised some quite specific questions before we broaden it then I think to try and have a broader discussion about the two of them. But Kent, let's start with you and particularly if you could address the question of how much of an impediment are these concerns you've raised, both you know, on efficiency grounds and in terms of innovation? And then perhaps just to press you a bit more on the proposals you make, the federal charter, the tax reform, the auction of federal reinsurance contracts. Can you give some kind of hierarchy of which is actually going to make the most difference, and if you -- if this was a concrete policy proposal, which one should we be pushing most?

MR. SMETTERS: Sure, and I'll let Dave jump in when appropriate. Let's start where Neda started, which I think is exactly right. The 2004-05 hurricane season did not seem to impart many impediments and the insurance market seemed to work pretty well. In fact, parts seemed to say hey, you should work even better and retroactively pay for stuff that you weren't actually covering. And the insurance companies were, in deed, paying even that stuff. What happened with that, though, is that it motivated a bunch of legislation that's currently in Congress. People -- insurers are saying what if this thing has actually hit downtown Miami? This would be a loss that would be $200-$300 billion. We need help. And what I'm -- what this paper is saying is that actually may be we don't need so much help from the federal government if the federal government actually dealt with the problems that are current impediments.

So the one issue that I didn't really have time to go into is that there is this issue about the accounting and legal treatment. So if you rewind five, six, seven years ago, we were saying gee, there's this accounting problem and that is if a contract is not pure indemnity based, then what's going to happen is that it's not -- the primary insurer can't count that contract, this alternative risk transfer contract, as part of their underwriting. So therefore that really excludes lots of capital markets. So what happened is there is this backdoor innovation in which people came up with what's called "dual trigger" contracts. And these are these parametric contracts I was talking about earlier, but they slap on an indemnity-type trigger to satisfy the accounting rules. And the ideal is that well, gee, this backdoor trigger will actually allow -- the accounting issue's not a problem anymore. I believe that's incorrect. And I -- in particular if it's done correctly to satisfy gap and these other things, this dual trigger, this backdoor trigger -- which some people are actually setting that $1 just to have it technically there -- what it does is that it actually reintroduces this complexity in terms of what capital markets need to know in order to make an investment. In particular, this indemnity trigger that they slap on, for it to be legit, it actually has to equal the entire loss of the -- let me step back. The person who's getting the payment has to show that that payment is at least as big as the actual loss that they've suffered in order to satisfy gap. That just reintroduces things -- the problem that the capital market participants now have to do all this underwriting again, which is a problem if they want to do pure-play type contracts which is what they're more comfortable with. And so if you ask some capital market participants who are currently doing cat bonds and things like that, they say oh no, it's not a problem. Well that's because they're specialists in that area already. They're the ones who are already going to be rewriting these indemnity contracts. If you look at the size of these contracts, they're small, puny, small, relative to the entire reinsurance contracts that are at risk. And so it's really confusing where we are today with the potential to really grow this market, and the pricing of these things are six times expected losses in some cases. And so the pricing is actually still very high, which suggests that there's a lot of room for improvement. And so I actually do think that there are impediments, even in the accounting and legal areas.

MS. BEDDOES: Is there -- would you like to discuss a bit which of the other proposals, the concrete proposals, you make that you think should be top of the priority list?

MR. TORREGROSA: Yes, the optional federal charter has the advantage of the proposals that are currently before Congress would preempt all rate regulation. So that would remove the -- to the extent that insurers opted for a federal charter -- that would remove the rate distortion issue and that could be very beneficial. I'll mention one of the drawbacks of this approach. Larry Summers had an article in the *Financial Times* earlier this week and in the context of banking, talked about the danger of forum shopping where you look for the most lenient regulators. So there are some downsides to this.

I'll also mention on the capital markets the need for -- the traders have expressed to us, the investment bankers, all of these cat bonds, which are catastrophe bonds are very similar to reinsurance if there's a specified event, there's no payout, you lose your interest and principle and that essentially is a transfer back to the insurer. So it's effectively reinsurance, but all these are offshore vehicles. They're done through special purpose vehicles and for tax reasons, they're done offshore in part because there's a question of whether they're debt or equity, which goes back to the mortgage issue, the shared mortgage question, shared appreciation question. If that could be cleared up, that would remove an impediment to the cat bond market.

MS. BEDDOES: Do you have a sense if these impediments were removed, how quickly the cat bond market would grow and how big a deal it could become? I mean, are we talking about a change in the margin or are we talking about a really substantive huge change in this market?

MR. SMETTERS: If you look at the mortgage-backed security market, which I know is not something you're probably supposed to look at in the recent last year, but if you look at it 15 years ago, it basically didn't exist. And then if you look at your early 2000, just a huge amount at issue, it's over $100 billion. That mainly -- there's debate about what grew that market, what deregulation clearly played a big role in growing that market. In terms of this type of contract, given that the payoffs of these contracts are what we call a "pure alpha play," even a "portable alpha," and that is that they are uncorrelated for the most part with the rest of the market. And everybody's, you know, -- all the hedge funds in the world and their sisters are trying to find a portable alpha these days. Nobody seems able to find it. But if they could invest in something like this with high liquidity, this should actually be very attractive. And so I think it's one of those things that would actually explode if lots of this kind of legal landscape are very clarified. The upside, the payoff, of this is potentially quite huge.

MS. BEDDOES: Let's turn now to the other paper, which is a very different kind of approach in dealing with short-term risk to a community. I guess I should -- can you comment on some of the things that Kim raised, one is the practicalities of actually how you calculate the tax base, and secondly, something that struck me when I read the paper, how do you, in a political economy context, really effectively differentiate between the short-term shock and the long-term structural decline? I mean, if Flint, Michigan, applies for this, I mean, Flint, Michigan, has at least a medium-term problem. So how does that fit into this idea?

MR. DEEP: Let me emphasize what the main problem that we agree upon is that different regions experience idiosyncratic shocks and the tools that are available as of now are the attempts that have been made in the past have been by and large been blunt. And what we need is some kind of sort of locally targeted contingent fiscal intervention. And what we are trying to propose in the form of insurance is sort of a predetermined eligibility, predetermined compensation scheme. And I think we agree on the need for doing that. And insurance brings in the logic of risk pooling.

About specifics on the mechanism, let me first talk about the use of tax revenues as such. Why did we propose that? The first reason for using that was simply that is what we are trying to stabilize. And the reason we are trying to stabilize that is because shortfalls in that have immediate impact on the states in terms of forcing either quick expenditure cuts or quick tax increases. In fact, a paper by Jim Pertaba estimates that states, in response to deficits, or for every dollar of deficit, they cut expenditure by 40 cents and raise taxes by 90 cents within two years of that happening. So -- and we feel like this requirement is -- because of the immediacy of having to make these, they tend to happen in areas which are discretionary, they tend to be cuts that are, that can be regressive and, therefore, there is a need to alleviate that. That partially answers two of the questions you raise, why tax revenues? And, also, what about long-term decline? So we want to be very clear that we do not want to prevent long-term decline. If the economic logic of the community has vanished, sooner or later it will drop into decline. If we don't want to prop up this community instantly and as proposed, we have this proposal only for one year, so it is support for shortfall of one year's revenue compared to the prior year. One could think about say two years or three years, but it could be some kind of a dampening intervention.

Tax revenue, as I said, since that's what we're trying to stabilize, we chose that. It is perfectly possible to use other proxies, for example unemployment, such as personal income or housing prices, but let me try to defend tax revenue for a moment. One -- remember that what we need for an insurance team to work is some proxy, imperfect as it might be, as long as we want it to read that this is something that is observable to some degree or the impact is estimable in some manner that we agree upon. And the fiscal survey of states estimates the immediate impact of policy changes. So there's some degree of agreement on those, and all that we need is to agree on that. So it's the least imperfect option available.

The other benefit which is probably more important is -- and here I sort of, you know, disagree -- and this is the one that is really the most -- weakened there is value on this being available very quickly, because the budget constraint is going to bind within the fiscal year. So any other measure that takes a long time to observe and then respond to, in deed, we would propose that support should be provided on a quarterly basis so that these quick adjustments that states and local communities have to do to balance their budgets do not arise. And then if we need to make adjustments -- and so we think that the benefits of this number being available quickly --

MS. RUEBEN: It's really not that the tax -- the actual tax number isn't really available that much before. It's the next year the fiscal survey comes out, so we're not going to actually know what these actual tax numbers are until next October when they release them.

MR. DEEP: We don't know the policy impact that the fiscal surveys -- but what we do know is that collections are known on the first day of the next quarter. We know, in deed, that's probably the indicator that we are all looking at most closely these days because on the first of April I pretty much know what the collections have been for the first quarter. So -- and to us, that benefit of it being quick is important.

Let me just say one other point about the bankrupting the system issue that you raised. You see, the problem with any insurance is that it works well for idiosyncratic risks. And if risks turn out to be systematic, then obviously there's a point when insurance is not going to work. There are two ways that one can address that. One is to say, well, if we had a bad year in 2002, remember that this fund is financed by receivables from the states, which are in turn are backed by tax revenue, so we can securitize that and still fund the fund, right, so that the fund doesn't have to go bankrupt. The other thing that can happen is that the federal government can step in and say, look, this is not an idiosyncratic shock, this is a systematic shock. It calls for a national fiscal policy intervention and we are going to step in and through this fund provide support. Which is -- in the year 2002 that you pointed out, 20 states experienced a decline in their revenues. So, this is to address primarily idiosyncratic shocks and not to replace a national fiscal policy to be able to address shortfalls in --

MS. BEDDOES: I've got -- one second. I've got Robert who has scrawled huge amounts of stuff on his paper and then Kim. How about we let Robert come in and then you get on.

MR. LAWRENCE: You know Kim made the point that a large state could somehow bankrupt the system. But then she also advocated an alternative system which was going to use a metric and use unemployment and some other variables. At least the benefit of ours is that we've collected a lot money up front, so we have financing. We have a secure property right that we have established. Simply saying that the federal government is going to -- should have a policy isn't going to make it happen. And it isn't going to make it reliable. And we've seen the history in the past that the federal government, you know, isn't always going to do the right thing, and in fact is torn by the distributional effects of these policies, effectively to be unable to prioritize. And so I think this makes it clear that you have a program where eligibility is predetermined and I think it's a great advantage.

And then the second point is that we actually did experiment with alternative variables. We tried unemployment -- state incomes for instance as a basis because of our concerns about the (inaudible) problems. And we found it's very imperfectly related to tax revenues and tax revenue fluctuations. I agree that there are problems in the measurement of the tax base and, to be sure, there are also problems in simulating and setting the premiums. We don't think we've done the greatest work on this subject and in the kind of a program that we would have, obviously a lot more work would have to be done before we went into this. And perhaps a conclusion would be you need to insure specific kinds of taxes. You could insure the sales tax base where I don't think you'd have these problems. You could have a property tax base. By the way, we also don't envision this purely as a state-level approach. And perhaps if you used a county-level approach, you could get more diversification and less concern about large defaults actually bankrupting the system.

MS. RUEBEN: Again, I don't mean to beat on it, but I think it's really naive not to think that if you use tax revenues as your metric, that you're not going to have states play with that. You're talking about a number and something that is actually controlled by the people who you are trying to insure. And I think the fact people can take actions -- we already see that states play all sorts of games, right? The reason that your county numbers for California go all over the place is because California redefines what its sales taxes versus what the county sales tax was back and forth throughout the period of the last six, seven years to make up its fiscal shortfall. So I think if you're using any specific set of tax revenues, you're going to have to be really careful that you can actually measure it in trying to get out whatever actions the government can take and what its bigger government can take. And I think just saying that you can measure it quarterly doesn't get you really where you need to go. And if we think about property taxes, the federal government doesn't even collect anymore property tax bases. We don't even have a way of measuring what's happening with the base of property taxes really. And so I think, again, I think moving to something that isn't gainable by the people who you are trying to insure is going to be critical if you're going to try and get this. The part of having states voluntarily or mandatorily pay in we can talk about back and forth, but we haven't really seen a lot of cooperation on the parts of states in trying to do these things. Thank you.

MS. BEDDOES: Thank you and I can see you're itching to respond, but I'm actually going to open it to questions now because we're running a bit out of time. So are there questions from any of you? The gentleman in the back there, and could you introduce yourself please?

QUESTIONER: Sure. I'm Lou Pearlman. I'm with the Institute for Regulatory Science. I'm a big picture kind of guy; I tend to see a larger framework. But I'm just struck in listening to this conversation that there's a functional relationship between the subjects of these two papers, which for reasons that I don't blame anybody for, really haven't been brought out. I'm kind of following up on some of Kim's observations, also not as -- along the Gulf Coast for example -- or let's say California. I was just reading about California's brushfire season starting earlier this year because of a dry winter and spring. The reason we see more and more losses, property losses, to brushfires in California is not because there's more fires or the environment is changing through global warming. It's because they're building more and more property in places people shouldn't build more and more property. Along the Gulf Coast, stricken by hurricanes a couple of year ago, a very interesting paper by a lady named Anna Pushkin Chevlin, who was at the Florida International University about a year ago, she studied the Gulf Coast along the southern tip of Florida. And what happened there after the hurricane assault, onslaught, was that local governments -- we all understand this, their way of insuring against the loss of property value is to encourage the building and development of more property value. And that's what they've all done along the Gulf Coast is to encourage more higher priced development of condominiums and mansions and casinos and hotels that actually increase the property value exposed to the natural geological risk of hurricanes and floods and storms, or in California of fires and earthquakes and mudslides. That's the cycle that we've got going now. That's the normal condition we have. These two things are functionally related to each other, but we really haven't brought that out.

MS. BEDDOES: Thank you. That's a very interesting comment. Do you have a comment?

MS. RUEBEN: I think that's exactly right. And in California, the fact that local governments decide zoning and the state government has to, you know, provide flood insurance is one of the mismatches that you see when you have different levels of government trying to decide who does what and who bears the risk for that.

MS. BEDDOES: Do we have any more questions? The gentleman here.

QUESTIONER: Yeah. I think -- so pragmatically speaking, I think it's very hard to get people to listen before a tragedy, so I would propose the best way of encouraging a missing market to develop -- I mean I've been the beneficiary of a tragedy -- I've been pushing shared equity mortgages and then the mortgage market collapses, it's great. I think basically the most likely thing we have to do is position ourselves ahead of time for the ambulance; otherwise we're ambulance chasers like me. I think you should anticipate the next major hurricane, go over the absurdity that will follow, and lay out a path that would have cost about 1/6th as much had it been pursued. And then basically -- and then people will come to you the day after and say, where's that paper you were writing? I couldn't quite attend at the time, but now I think I got it.

MS. BEDDOES: Any more questions from the floor? Would you like to respond to that? I mean, that gets back -- I think if you were going to write the paper that is on the shelf at the Hamilton Project, ready for the next catastrophe, it begs even more the question of prioritizing your policy proposals.

MS. EISSA: I was just going to say, as I was saying to Kent, to do that you'd really need to figure out how much, how significant moral hazard is. So that's the hard -- that's where we really don't have much evidence -- we kind of know it because we see it, we see the construction along these very high-risk areas. In fact, if you look construction in the U.S. over the last six years, the coasts, the Gulf Coast and the Pacific Coast, there's some -- have the fastest growth. So it goes exactly against sort of what you would -- so the question if we had risk-based pricing, how much of that would not have taken place? And that's the hard thing to -- but I think your suggestion is --

COMMENT FROM THE AUDIENCE: The study will be commissioned after the next hurricane.

MR. TORREGROSA: I'll just add very quickly and also address the gentleman's comment in back, that in Florida and in other Gulf states, the state now is bearing much of this hurricane risk through their residual markets. The Citizens Insurers Group in Florida, created by the state, is taking on most of that risk. They're charging rates that are far lower than the actual risk, and after an event, they're going to end up assessing -- what they call assessing, but it's a tax on policyholders throughout the state, plus in the last go round, they had a tax passed on general revenues to make the fund whole. And this has led to proposals for greater federal involvement, an explicit federal program either with loans, federal loans, before and after an event or federal reinsurance. And so from an economic standpoint, one -- the first -- the most efficient remedy is probably to remove the distortion on prices and then create a bigger role for private insurance and not the state.

MS. BEDDOES: Robert, you have one --

MR. LAWRENCE: Well, I just want to react to the point about gaming the system. Insurance always faces problems. It's always the case that people are -- insurance -- the provision of insurance itself changes incentives and people will gain assistance. And we know there are two key responses to that. The first is deductibles, co-payment, "co-" so that in a sense you don't fully insure. And in our case, we could specify our policies so that in a sense the local communities bear some of the risk. In fact, they would. But the second issue is, the second way you do this, is you stipulate behavior. Certain kinds of things are insured, other types are not. And it may well be the case that for certain local communities, if they're to be eligible, they may have to change some of their financing practices in order to conform. So that I think is -- it's certainly a valid point and it has to be considered, and in deed any scheme that works has to take it into account, but I don't feel it's a reason to reject the whole idea. I think it's a reason to work on it.

MS. BEDDOES: Thank you. I see that it's 12:00. We haven't reached any conclusions. I'm still struck by the two very different directions these papers take, but they're both responding extremely creatively to the missing markets is the title of this whole session is. I think they're both extremely useful contributions. Thank you all very much.

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