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BETTER FINANCIAL SECURITY IN OLD-AGE?
THE PROMISE OF LONGEVITY ANNUITIES

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Opening Remarks:

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Director, Retirement Security Project
The Brookings Institution

Presentation: The Market for Longevity Annuities:

KATHARINE ABRAHAM
Professor, University of Maryland
Former Member, President's Council of Economic Advisers

Panel One: Economics of Longevity Annuities:

DAVID WESSEL, Moderator
Director, Hutchins Center on Fiscal and Monetary Policy
The Brookings Institution

HENRY AARON
Chair, Social Security Advisory Board
Bruce and Virginia MacLaury Senior Fellow, Economic Studies
The Brookings Institution

BENJAMIN HARRIS
Deputy Director and Fellow, Retirement Security Project
The Brookings Institution

DAVID JOHN
Senior Strategic Policy Advisor, Public Policy Institute, AARP
Deputy Director, Retirement Security Project,
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Panel Two: Options for Policy Reform:

HOWARD GLECKMAN, Moderator
Senior Fellow, Urban Institute

J. MARK IWRY
Deputy Assistant Secretary, Retirement and Health Policy
U.S. Department of the Treasury

DONALD FUERST
Distinguished Fellow
American Academy of Actuaries

JAMES MUMFORD
Deputy Insurance Commissioner
Iowa

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P R O C E E D I N G S

MR. GALE: Good morning. Welcome to the Brookings Institution. I'm Bill Gale. I'm head of the RSP, the Retirement Security Project here. RSP is devoted to policies that improve the retirement security of low and middle-income households. There's a saying that you don't really need to worry about old age that much because it doesn't last that long. We reject that saying. We believe you should worry about old age.

I once had the following discussion with a lawyer where he was explaining something -- and not my lawyer, a lawyer at a tax conference -- and he was saying that there was some issue, and he said it's just a timing issue, and I said, "Are you kidding? It's the difference between life and death." And he said, "Yeah, that's just a timing issue." (Laughter)

So, again, that's also an implicit characterization that we reject, but in the past the words "retirement security" have often been used as a euphemism for talking about getting money into the retirement system, getting firms to participate in pensions, getting people to enroll in pensions, getting them to boost their contributions, getting them to invest wisely, and none of that's gone away. Retirement security still has this important component about getting money into the retirement system, but in the last few years, the last decade maybe, there's been a much increased emphasis on how the money comes out of the retirement system as well. The idea is you can save a lot of money until you're 65 or whatever age your retirement, and then if you take it out in the wrong way you've kind of messed up your retirement security even if you did everything right on the input side.

So, the key issue here is that if someone saves a lot of money, even if they save a lot of money they have to figure out how to take the money out when they retire, and the face competing risks. If they take the money out too quickly they risk outliving their resources. I'm aware that this is an economist or insurance company way of saying that people run the risk of living too long. If they take the money out to slowly, then they risk having a lower standard of living while they're alive, and of course, that's the economist's way of saying you end up giving too much to your kids.

So, there are plusses and minuses of both taking the money out too quickly or too slowly, but in either case those are competing risks that a person has to manage. The concept of an annuity then plays into that very nicely. I should be clear. An annuity is a particular item that is only sold by insurance companies and at RSP when Mark Iwry used to be here, he made me put 50 cents in a pizza jar, a jar for a pizza fund, every time I said annuity when I actually meant lifetime income. So, I owe it another 50 cents as of now.

Lifetime income products, of which an annuity is a special case, are meant to help people balance these competing risks. That is, they provide a return that is there at least as long as a person lives. Some of the annuities, of course, have guaranteed 10-year or 20-year payout features as well to the beneficiaries. But in any case, the concept of annuity is meant to balance those risks.

Economic models can tell you all the reason why people should be buying annuities. In the real world there seem to be several groups that don't want to buy annuities and that would be those who might be the demanders of annuities, consumers, and those who might supply annuities, which is the financial service industry.

So, one of the puzzles is in an annuity market is why there's this wide gap between what models say out to happen and what the real world says does happen, and today's paper and our discussion is going to focus in on that. We are delighted to have a presentation of a paper by Katharine Abraham and Ben Harris, and then we'll follow that with two panel discussions.

All the bios are out there I believe, so I will not spend a lot of time introducing people except to say Katharine is currently a professor at the University of

Maryland. She has served as a member of the Council of Economic Advisors in the White House, and was Commissioner of the Bureau of Labor Statistics for many years. Most importantly, in the 1980s she was a research associate here at the Brookings Institution.

Ben Harris wears many hats around here. He's a Fellow in Economic Studies. He's a Policy Director of the Hamilton Project. He's the Deputy Director of RSP along with David John who is here in the front row. In the past he's served as a staff member of the CEA and on the Committee on Budget in the House of Representatives, and he has the unique distinction of being the only person in history to have worked for me on three different occasions.

Anyway, after the presentation we'll have two separate panel discussions and each one will include the chance for questions from the audience, so let me just say thank you all for attending. We're looking forward to a great discussion, and let me turn the podium over to Katharine.

MS. ABRAHAM: We join Bill in thanking you all for coming. I don't think that I need to tell this audience that the retirement landscape has changed a lot in the last 25 years. If you look back to as recently as 1990, something over 40 percent of people still had defined benefit pension plans, mostly fairly traditional defined benefit pension plans.

By last year that landscape had shifted completely. According to data from the Bureau of Labor Statistics only about 13 percent of full-time workers as of last year had traditional defined benefit plans. There were another 6 percent or so had cash-balance plans and in many ways are more like contribution plans, and 40 percent had as their primary source of -- their primary employer-provided plan a defined contribution plan.

As Bill has mentioned there's been a lot of emphasis as this shift has been ongoing in trying to make sure that people were saving adequately for retirement. There have been tax incentives put in place to encourage people to save. Based on what we've learned from behavioral research about what determines whether people put money away or don't, we started to move towards more people being auto-enrolled in these plans towards automatically escalating the percentages that they're contributing, and there's new efforts underway to try to bring people who don't have employer-provided plans into the fold. Those efforts are making the difference.

The shift towards defined contribution plans in conjunction with a number of these efforts has resulted in significant increases in the balances that people have in their retirement savings account at the point when they get to retirement age.

If we look at the right-hand panel here, for people age 55 to 64, for the people at the median and also for people at the 90th percentile of the retirement savings distribution, the amount that people have in their balances now as compared to back in about 1990 has roughly tripled. To the extent that some of the efforts that are currently ongoing to increase retirement savings are successful, Ben and I would expect that these retirement savings balances are going to continue to grow. At this point we don't see a lot of saving at the median or below in these plans, but it seems likely that that is going to change.

As Bill mentioned though, until quite recently there's been less attention paid to what people do with this money once they get to the point of retirement than to encouraging them to save up to that point.

Retirees face a lot of risks when they're thinking about how to manage their retirement savings. We're concerned today primarily with longevity risks, the risk of potentially outliving your assets, but there's other risks. There's the risk that you're going to end up having big expenses for health care. There's risk of unanticipated inflation that erodes the value of your savings. There's the risk that the return on your assets doesn't turn out to be what you hoped that it would be. There's the risk that the value of your home, which for many people is their largest asset, will fall. And our concern is that many people still don't have access to financial instruments that would help them to do a good job of confronting those risks.

As I said, we're concerned primarily, in the paper that we've written for today's session, with longevity risk. Looking at information from the Social Security Administration's 2010 Period Life Table, we've calculated life expectancies for men and for women based on the assumption that we don't see future increases in mortality. For the median man what those period life tables imply is that the median man can expect to live to about age 81, but there's a 30 percent chance that that 60-year-old man would live to age 86, and there's a 10 percent chance that that 60-year-old man would live to age 92, and the figures are similarly spread out for women.

So, you could plan your finances on the assumption that you live to the median age, but there's a good chance that you will live longer than that and in some cases, considerably longer than that, and that's the risk that we're concerned about; the risk of potentially outliving your assets.

That's where a longevity annuity comes in. A longevity annuity is an insurance product that's specifically designed to address the risk of outliving your assets. It's a product that people might buy at age 60, age 65. They could buy it at a younger age. I was talking with Marty Feldstein about this and he said, "You know, I really agree with your thinking that this is something that's worth looking at, but I'd like to see people buying it at 40 or 45," but you buy it at some age, and then it doesn't begin to pay out until later, until age 75, age 80, or 85. The products that are currently on the market are not indexed for inflation, but there's no reason why in principle they couldn't be indexed for inflation.

What this longevity annuity does is to provide sure income for people at advanced ages at a substantially lower cost than insuring that same income at lower ages by buying an immediate annuity. The reasons why the cost of buying that longevity insurance is lower with a longevity annuity product than a conventional annuity product are pretty obvious. One is that the benefit doesn't get paid out until a long time after the person has bought the product, so there's more time for the insurance company to realize returns on the premium payment that was made. The benefits are going to be paid for fewer years, so it's a different type of coverage that you're buying.

And then the third thing that's important is that this is an insurance product, and just like when you buy insurance on your home, only a few people's houses burn down, and the premiums from the ones whose houses don't burn down are used to pay the benefits to the people whose house did burn down. It's the same thing here. Among the set of people why buy a longevity annuity product, some are going to live long enough to collect the benefits and some are not, and the premiums paid by the ones who don't go to help cover the benefits to those who do.

The big advantage of this product is that, as Bill alluded to, is that a retiree can plan on spending down their assets over a period that's certain. They don't have to underspend in order to be sure of leaving money until later. When they get to later, the longevity annuity would kick in, so there are conceptually a lot of advantages to that product.

There's been research that's been done to try to quantify the value of a product like this. One study looking at this concluded that you could end up getting close to the same insurance value as with a conventional annuity at a cost of a seventh or an eighth of buying a conventional annuity.

You might be interested to have a sense of what products that are currently on the market you could hope to get if you went out and bought a longevity annuity. We want to thank Huler Associates for sharing this information with us.

What this table shows is that the value of the monthly benefit that you could get as a 60-year-old male or a 60-year-old female if you went out today and purchased a $100,000 policy. What a $100,000 would buy you if you wanted to buy a conventional annuity that started paying out right away would be a benefit of a little over $500 a month, or a little over $6,000 a year, but if you were willing to defer your payments for 20 years, you could get about $30,000 a year. And if you were willing as a 60-year-old male to defer your payments for 25 years until you were age 85, when the benefits started paying it would pay about $54,000 a year.

I should say these are values that are not indexed for inflation. To my knowledge, none of the products that are on the market have an inflation feature, but that is something that you could build in. It would obviously mean that the cost and the payments would be affected.

We think this is a great product. It's not a product that there is a big market for at this point, so one of the things that we've tried to do in our paper is to talk about why that is, and we think there are a number of factors that explain why the market for longevity annuities isn't at this point bigger.

One thing that we're convinced is a factor is that many people really don't understand the nature of the longevity risks that they face. We went back and looked at data from the Help and Retirement Study which interviewed people who were age 51 to 61 back in 1992, so for the older people -- and one of the questions they were asked in the first wave of that study was what they thought the odds of their living to age 75 were.

A lot of those people have now -- enough time has passed that we know for a lot of those people whether they in fact lived that long. People who said that they thought they had a zero percent chance of living to age 75, in fact half of them lived that long. Even people who said that they thought they had a 50, 60, 70 percent chance of living to age 75, among those people the share who actually did so was significantly greater. So, we think that one factor is that people just don't really understand very well the longevity risk that they face.

There's also a lot of the same factors that explain more generally why people don't annuitize probably are relevant here. For some people, it doesn't make sense to buy a product like this. If you're heavily annuitized implicitly through Social Security you might not want to buy this product. People may have a desire to maintain liquidity for other purposes. The advice that they get from their financial advisors may be steering them away from products like this. Those factors may be important.

Employer plans don't have annuities in general, typically as options, and as far as we know, none of them have a longevity annuity option, so that's likely to be a factor as well. If you want to buy a longevity annuity you have to go do something outside the plan.

Minimum distribution requirements that mean that people have to start taking their money out by age 70 don't conform very well with products that don't start paying out till later. That's something the Department of the Treasury has at least partially addressed with the regulations they issued back in July.

And then something that I hear almost every time I end up talking with someone, even very highly-educated people, very sophisticated people, about the idea of a longevity annuity is that they're worried that the insurance company is not going to be there to pay the benefit.

So, there's a number of factors on the consumer side of the market. With respect to employers, employers don't offer these products in their retirement plans. The thing that we consistently hear when we ask about that is concern about the fiduciary requirement that offering such plans imposes on the employers, and then there may be an issue with insurance companies that there's uncertainty about how long people actually are going to live, so if they're selling a product that means that they have liabilities 20 or 25 years down the road and people end of living longer than expected, their liabilities could be greater than expected. So, there's a number of reasons we think why this market hasn't grown despite our belief that this is a wonderful product.

So, we've been thinking about things that you might do to encourage the growth of this market, and I want to lay out five ideas that we have and we're really interested in hearing people's thoughts and comments about these ideas.

One idea addressed the lack of consumer information that we think may be a factor in this market. In the same way that the government has tried to give people better information about nutrition issues through what used to be called the Food Pyramid and is now the My Plate graphic -- I still think of it as the Food Pyramid. You could do the same kind of thing for helping people to think about financial decision-making, more generally maybe, but certainly in the retirement space. So, you can imagine developing a graphic that pointed people towards potentially useful products, not just longevity annuities but other things as well. We have some ideas about candidates to develop this sort of graphic, but we haven't talked to them about whether they'd like to take this on. The government could go even further and certify financial products as meeting standards of reliability, cost and quality, so better consumer education could be a good step.

A second thing that we would like to see happen is to loosen up the rules about what insurance companies are allowed to say about the State Guarantee Associations that operate in every state. For those of you who may not be familiar with these guarantee associations, what they are associations of insurers in each state that pledge to support payment to policyholders of companies that end up going out of business. There are limits on what the insurance companies pledge, how much the insurance company's going to contribute. There are limits on the size of the policies that are covered; usually $250,000 for annuity policies at this point in time. So, these associations are an important backstop on the system. I mention people worry about the insurance companies not being there to pay the benefits that they've promised. The truth is that insurance companies have actually done a really good job of delivering on their promises. Even in the Great Recession there were only a handful of insurance companies that became insolvent. Their assets were sufficient to pay most of what they owed to their policyholders, and the State Guarantee Association funds made up most of the rest, so it seems to us that loosening up the rules on what insurance companies could say about the coverage provided by these funds could help with the market for this product.

The third proposal that we would make is that we revisit the safe harbor that's offered to employers who would like to offer an annuity as an option in their retirement plans. The current safe harbor is pretty demanding. The current safe harbor requirement is that at the time of selection, the employer must determine that the annuity provider is financially able to make all future payments under the annuity contract and the cost of the annuity contract is reasonable, blah-blah-blah.

It's the first part of that that I'm concerned about. I think it's really hard for your average employer to make that determination, and even if the employer thinks they can make a good determination, it's really hard for them to feel confident that at some point down the road they're not going to end up getting sued if something goes wrong, so I think there is a good argument for introducing a safe harbor that's more transparent and more easily verifiable.

A couple of options there would be to go with the recommendation of the American Council of Life Insurers which is that an employer would have a safe harbor if they picked an insurance company that is licensed in at least 26 states. There are alternatives that you could look at but something that's more transparent and more easily verifiable.

A couple of other quick ideas here. One way to jumpstart the market for longevity annuities would be to have a big player start offering them, and something the federal government could do would be to start offering them as part of the Thrift Savings Plan to make a longevity annuity option available to people in that plan. It's a lot of people. It's a lot of retirement assets, and it could, I think, send a useful signal.

And then finally, a last idea targeted toward the concern that insurance companies that offer these products face risk in the form of mortality turning out to be different than expected so that people live longer than expected would be to offer a longevity bond that would be something that insurance companies could buy to hedge against that risk, so this is a little bit more speculative idea but something that we think could help bolster the market with respect to insurance company interest in offering these products.

So, just to conclude, Ben and I do believe that ready access to competitively-priced longevity annuities could contribute in an important way to the financial security of American retirees. We've outlined some possible steps towards bolstering the market for these products, and we are very interested in hearing people's thoughts about these ideas. Thanks. (Applause)

MR. WESSEL: Hi, I'm David Wessel. I'm the Director of the Hutchins Center on Fiscal and Monetary Policy here at Brookings, and I'm going to prove that I can talk and put on a mic at the same time. I have to tell you that if someone told me we were having an event on longevity annuities and we'd have to move to a bigger room and there would be people, not all of whom are employed by Brookings, standing the back, I would have, (a) been shocked, and (b) been worried that people didn't know what the word "annuity" was and thought that this was secret to longevity, that the scholars at Brookings were going to (inaudible). So, if anybody has such a secret, please don't hesitate to share it.

I'm joined here by, at that end, Henry Aaron of Brookings who happens at the moment to also be Chairman of the Social Security Advisory Council? Board?

MR. AARON: Board.

MR. WESSEL: -- Board. Ben Harris who's Brookings, is Katharine's co-author and David John of AARP who's Bill's Co-director of the Retirement Security Project. We're going to have a conversation for about 20 - 25 minutes, then we'll turn to questions, and then there'll be a second panel that comes up around 11:15.

So, Hank, if can start with you, Katharine and Ben make the point that this is a really good product and they apparently think that this ought to be a priority of policymakers to pursue. As I looked at Katharine's chart, for now the people in the bottom half of income distribution have no need for this because they don't have any money when they retire. Thank you for preserving Social Security for those people. You didn't invent it did you? (Laughter)

MR. AARON: I was there when it was created. (Laughter)

MR. WESSEL: And it seems to me --

MR. AARON: Actually, I was born one year after it was created.

MR. WESSEL: Oh, so you're one of the guys that gets all the benefits, and people like me pay?

MR. AARON: Yes.

MR. WESSEL: And if you're really rich, if you retire with five or ten million dollars of retirement savings, it seems to me you can self-insure, so this has to be aimed at the kind of 75 to 90th percentile. You think it's a good idea to spend our time worrying about them?

MR. AARON: I think people in that income range deserve our consideration, the same as the rest of the population does. I think that this is a useful product for some people, but I don't think it scratches where it itches with respect to the real problem of depletion of resources among older Americans.

The primary problem, I think, is for those who are at the income levels below those where these assets would be particularly attractive; people with modest overall resources who need something in addition to Social Security and it's there that the depletion of resources, loss of annuities when the first spouse dies, the threats that can come from health expenditures. That's where I think the problem is serious, and it's in an income range where the accumulation of assets doesn't look like it's going to be sufficient to do a lot.

To the extent that the problem is health care, perhaps a direct solution of the financing of health care is the way to deal with that problem. To the extent that we think annuitized benefits are insufficient, one could make the argument that the first objective would be to make sure that at least currently promised Social Security benefits can be fully paid over the long haul rather than subject to reductions to close projected shortfalls.

So, I like this product. I would look at it personally, but I think it's going to be something of a niche product.

MR. WESSEL: David, so this is a really interesting example of a market that economists think should exist, but as Katharine said, "Neither the buyers or sellers seem to be terribly interested in it."

MR. JOHN: So far.

MR. WESSEL: Now, obviously there have been some government obstacles to it which Mark Iwry is taking apart one brick at a time to Treasury. But what's your sense of the kind of behavioral economics of this? Is this something that people would actually buy?

I asked one of the RAs here to look up how many people who have kids under 18 have life insurance, and it's only about -- he's found and this may be off. It's like we just put two numbers together and divided them, but well over a third of Americans who have kids under 18 don't have life insurance, and that seems to me like a generally wise thing to do; buy life insurance if you have kids. So, is this a problem to a solution that economists see but consumers are likely to never want?

MR. JOHN: Well, I think it depends on the context as to how this is offered. One of the things we know now is that in the current situation most people don't buy annuities of any sort. The U.K. is currently eliminating as of next April its mandatory annuity purchase plan, and the advance purchases of annuities has just plunged. On the other hand --

MR. WESSEL: U.K. used to require you to buy one?

MR. JOHN: Yes, in the U.K. and currently you must pay at least 75 percent of your retirement savings into an annuity by the age of 75, and realistically most people do so at the time that they retire. It's just an easier transition time there.

We know in the U.S. currently that a significant number of people who have defined benefit pension plans will trade that in for a lump sum, sort of a startling lack of intelligence in the long run in there.

This is a niche product perhaps depending on how it's structured and how it's presented to people. I know as I get older the concept of writing a $100,000-plus check in return for $550 or $575 a month is kind of daunting even for me, and I know the longevity tables and the like.

But on the other hand, if it were presented in a way similar to -- a few years ago we were sitting in this very room talking about automatic enrollment and automatic escalation, and at the time that was more of a concept rather than a reality, so I see this as being a reality assuming that it's offered in a way that people can understand it and can take it easily.

MR. WESSEL: I think one point in the paper -- I can't remember if Katharine mentioned this in her presentation was the suggestion that the first thing that ought to be done is be renamed "longevity insurance," because annuity sounds like some fly-by-night guy who's trying to rip you off with high commissions and fees, I think.

MR. AARON: Yeah, as Bill pointed out, Mark Iwry became partially rich due to the jar that whatever people used the word annuity and the like.

MR. WESSEL: And I want to make one point that -- I want you to confirm one point that someone asked me about and then ask you to respond to Hank's comments. So, when I posted the little thing on Twitter about this about a week ago, I provoked some argument with some person who I'd never met and never intend to meet (laughter), or frankly to correspond with, who had the mistaken idea that what you were proposing was that one generation insure another generation against longevity, and correct me if I'm wrong, the beauty of this product is that it's basically within cohort; that the people who are between 50 and 60 would share the risk that half of them are going to live a long time. That's right, right?

MR. HARRIS: That's exactly right, so you can imagine 60-year olds buy -- there's a pool of 60-year-olds. They all pool their risk for this product, and some live to age 85. Some live to 90, 95, and those that live for a long time get the payments and those that don't, don't. And it works the same way that other insurance markets work where there's some state the world which is realized for some people. Some people's houses burn down. Some people get in car accidents, and they're the ones who get the payments, and the ones who don't have that state of the world, their premiums go to pay for the people who do realize that. So, this is not a generational issue. This is an insurance issue within the same cohort.

MR. WESSEL: And so, what made you and Katharine decide that this was worth spending your time on when Hank's worried about the three quarters of the population who are retiring without any money anyways?

MR. HARRIS: So, if I can just sort of -- let me disagree that this is a niche product. Katharine showed the trends for the accumulation of assets in 401(k)s over the past 20 - 25 years, but we didn't show projections, right. So, we're in the middle of an ongoing trend. 2013 at the median we have about $15,000 in defined contribution accounts, but there's reasons for optimism for seeing there's some movement at the bottom part of the income distribution.

At the state level right now we're talking about putting in wide-spread automatic enrollment programs that would get people saving more. We have automatic enrollment programs in corporate accounts, so there's a lot of reason to think that we'll not be talking about the median saver anymore.

We'll see people at the 30th, 35th part of the income distribution actually accumulating money, and the question is what do you do with that? And right now we have this sort of retirement saving paradigm where we say, "Look, the plan is for you to save like hell during your working years and hope you don't live too long," and we can do much, much better than that.

I think what we need fundamentally is a new paradigm and the paradigm should be look, for most people who have assets in defined contribution accounts which will continue to grow over time, the paradigm should be look, buy a longevity annuity. Take care of this longevity risk after you reach age 80 or 85, and then use your own personal circumstances to get there. That could be working longer if you have the capacity and interest in doing so. That could be drawing down your housing equity in your home. That could be relying on your offspring if you have support of children. That could be de-cumulating your other financial assets. So, I think we need a new paradigm. It can't just be, "Just hope you don't get old and save like hell during working years."

MR. JOHN: So, part of the economic argument here is that people who are unable to buy longevity insurance are going to have to consume less in their 60 to 85 years because they're going to worry about not having enough money at age 90, right? So that your point is if you bought longevity insurance you could feel more comfortable about running down your savings in your earlier retirement years?

MR. HARRIS: Exactly. So, we're asking retirees to do the impossible. We're asking retirees at the cusp of retirement to look over the next 40 years or so, face this remarkable -- there are two big risks you face in retirement. One is longevity, so Katharine showed the distribution of potential mortality at age 60 through 100. This is an incredible risk. This is like telling someone, "Look, you're going camping tomorrow. You might be gone from anywhere between one day and six months. You'll pack accordingly." It's an impossible question. (Laughter)

The second big risk is long-term care spending, and catastrophic long-term care spending or out-of-pocket health spending which Hank mentioned, and because you don't know how long you're going to live and because you have this decent probability that you'll have these really big expenditures, you have to accumulate a lot of money. EBRI has done great work on this. Jonathan Skinner at Dartmouth has done great work on this. A lot of people have made this point that, "Look, if you don't want to be in a situation where you are pressed for money for your medical needs, you have to accumulate an enormous amount of money," so given these two risks what a person can do is use roughly 1/8th of their financial assets to purchase a longevity annuity and then use the other 7/8ths to either pay for potential long-term care to accumulate to get yourself to age 80 or 85, but it takes a way a big part of the risk.

MR. WESSEL: David, we haven't wanted in this country for financial innovation. In fact, we've probably had more than enough. So, I understand that one of the reasons that insurance companies might be reluctant to offer this is that it's hard to hedge the risk, but you would think that there would be a market for some kind of derivative or something that would allow them to do this. I saw that in Europe there was some European investment bank, (inaudible) actually did a longevity bond. So, what's your sense of why on the seller side the wizards of Wall Street haven't found a way to allow these companies to hedge this? Lack of interest?

MR. JOHN: I think it may be a matter also of lack of size of the accounts or lack of size of the market at this point. And one of the things I expect to see as we go forward -- I mean I figure in five years' time we'll be sitting in a room talking about some other innovation wondering, well, how could we ever have doubted that longevity insurance was the way to go? At that point I expect to see the market come up with some sort of reaction.

I mean David Blake in London has been talking about longevity bonds forever and a day, and the problem with those are that they are incredibly technical and the ones that have been issued -- the U.K. issued a few years ago -- was a 10-year life, and of course that doesn't really deal with longevity in the long run.

The problem is going to be, as we discovered in 2008, that the wizards of Wall Street are exceptionally good at developing incredibly complex derivatives, et cetera, and they're pretty good at valuing them in a normal market, but when the normal market is not there, which inevitably it won't be at some point or another, at that point they're lost. It's too complex, so one of the things that's going to be necessary as this develops organically is to make sure that what we've got is something that actually meets a need as opposed to something that has a really cool model.

MR. WESSEL: Hank, what's the role for public policy here? I mean Ben makes the point that there are a lot of people -- say a third of the population or 40 percent have defined contribution plans. A lot of them don't have any money in them, but Ben makes a point that there will be more people with more money. We have shifted to a defined contribution system. What is the role of public policy here to help people manage the dilemma that Ben described?

MR. AARON: Let me be clear. On a qualitative sense I don't disagree with anything that Ben has said. Where I think we disagree is the likely size of this market if it's a voluntary purchase kind of arrangement. There are some statistics in the paper that indicate a breathtaking smallness of the current size of the market, certainly with respect to the purchase of bonds that would start paying two decades or so into the future. There are a whole host of reasons why that would be the case. Myopia on the part of purchasers, and that is subject to education that could be modified in some degree. Adverse selection in those who walk in the door and hence the need for the insurance company actuaries to tell their bosses you better price this high or you may lose your shirts. That exact phrase was incidentally used by a well-known actuary who I discussed this with.

Mentioned in the paper but not analyzed fully is inflation risk, and the prices that were shown in that table were based on ordinary market interest rates. I don't know exactly what it was, but let's suppose that built into those interest rates was 3 percent inflation. That means the payback 25 years hence is approximately half in real purchasing power what was shown in the tables. So, there are a host of reasons why I think this market on a voluntary basis is going to be small.

So, that then raises the question, "Well, maybe one could add to the rules with respect to IRAs and Keogh Plans, and when you take out funds a certain proportion on a mandatory basis has to be taken out in the form of these annuities?" Well, that's certainly possible, but note what one is doing is saying, "Hey, we've engineered this great revolution into defined contribution, and we are going to recreate defined benefit benefits through this mechanism." If that's where you're heading, I'm not sure targeting the population that is going to have sufficient assets for this to make a difference is the public policy questions that's at the top of the current concerns or the top of what I would think should be the list of concerns.

MR. WESSEL: Can you speak to the adverse selection point? So, the fear, of course, is that the only people who buy these are people who have reason to believe they're going to live to 100, so the insurance companies will make it very expensive, and the people who live to 85 or 90 won't be able to afford them.

MR. HARRIS: So, let me speak to adverse selection and give reasons why we should be optimistic that people will actually buy these. When it comes to adverse selection, people are not great at predicting their mortality when there's a lag, and as Katharine mentioned we looked at the HRS, and HRS asked 60-year olds what's the likelihood you'll live to age 75. So, you have a 15-year lag which is roughly the lag that you would expect for the standard longevity annuity. And people could give their answers in 10 percentage point increments. They could say I have a zero percent chance of living to age 75, 10 percent, 20, 30, all the way up to 100. Of the people who said there was no chance, zero percent chance that they would live to age 75, exactly half did. So, maybe those are just ill-informed people.

Looking up the scale with the responses you would expect that, for example, you look at all the people who say they have a 20 percent chance of living to age 75, and as a pool 20 percent should, right, if they have a good idea. They were off. They were horribly wrong. They were horribly pessimistic about their longevity, and this is only asking to make it to age 75. Some of these people clearly lived well past there, so people are not great about predicting their own mortality, which makes me not so concerned about the adverse selection.

MR. WESSEL: So, do you imagine that the insurance companies underwrite this, and they ask have you ever smoked, how long did your parents live?

MR. HARRIS: I don't know. I'm not sure. I sort of trust the insurance companies to do what makes sense for them. I think --

MR. WESSEL: That's going to be hard for your marketing. That's not a good slogan. (Laughter)

MR. HARRIS: So, let me answer the question I want to answer which is why people will buy these. I used to talk about longevity annuities and I'd start off talking about bad marketing by saying, "Look, this is a product for which there is no supply and no demand," which was an awful way to start. And now a few years later this is a product for which there is almost no supply and almost no demand.

We saw over two years the purchase of deferred annuities go from about a $50 million market to a $2 billion market in a short period of time, and let me say this is not an example of a product which has been offered to people and rejected. This is an example of a product which people have not yet considered, and there's a difference, right?

So, standard annuities have been around for a long time. I think that people have rejected this. But people haven't been exposed to this, to the concept of a longevity annuity. They haven't had a chance to reject it yet. AARP did some work, some experimental work where they compared a lump-sum distribution to a longevity annuity, and it was very popular. People took it up. People's attitudes can change. Right while I was sitting here I was trying to think of an example which went from being unpopular to being very popular: Greek yogurt. So, overnight we decided as a country we loved Greek yogurt --

MR. AARON: That's a good product. (Laughter)

MR. HARRIS: -- so the sales of Greek yogurt went up 2500 percent in five years, and I can kind of see that from a -- sort of being a tipping point once you've become more familiar with the product, once your neighbors start buying longevity annuities, once your employer sort of implicitly endorses it by offering it in their account, once you see a My-Plate type graphic for retirees with a government agency saying, "Look, consider this or talk to your financial about this." Once you get all these sort of implicit endorsements, is it at least worth considering? You might see an uptake in the consumer behavior.

MR. WESSEL: David, are there any lessons here from long-term care insurance? I mean long-term care insurance is a product which sounds like it makes sense, but the market has evolved in a way that many people find it unattractive. Now, it has a certain amount of things that don't apply to this one, like we don't have to worry about health care costs going up when you sell longevity, but is there something about either the marketing or evolution of long-term care that's relevant to this product?

MR. JOHN: I think there is something that is relevant. I think there is a difference. An old employer of mine used to say that talking about living a long time is actually a somewhat popular thing. Talking about coming up with a mortal illness at age X is really not great cocktail party conversation.

If it is structured, if it is offered in a way that people can understand it, I think there is a lesson there. And one of the things that we have to look at is that we can look at these mortality tables, and the mortality tables don't apply to everyone. They differ according to race, obviously gender, but also income levels and things like that, so one of the things we're going to have to look at is to see whether this is an appropriate product for a particular individual, and that means that any sort of default mechanism that the employer puts in here has got to be a little bit more complex than if (a), then (b). Or if not (a), then not (b), or something along that line.

MR. WESSEL: You mean -- let me be sure I've got this right. Basically if you're an African American male and low income, your chances of making it to the right end of that mortality table are much less than a white male who's college educated and makes $200,000 a year.

MR. JOHN: Absolutely, or especially an upper-income white female.

MR. WESSEL: Right, so if you default everybody in you could be really unfair to the people whose chances of living a long time are --

MR. JOHN: Yes, and I think that's definitely a serious problem.

MR. WESSEL: Have you thought about that one?

MR. HARRIS: So, you know, that's a good question about whether or not it should be a default product. I see a lot of value in the default approach, but on the savings side and the accumulation side -- you know, we have Social Security which is not fair to everyone either, and Social Security still has a lot of social value, and so I'd would say we'd take the same approach which is that even though some people will benefit differently they'll still probably benefit. And also if it's not for you, you can opt out. That's the great thing about defaults.

MR. WESSEL: Do you think it can work if it's voluntary? Can you get a big enough market? So, it's hard to argue that people shouldn't have this option when they cash out when they retire, right? That when you go to your 401(k) at Fidelity or Vanguard or something, it seems reasonable -- or the federal government program -- that you ought to be able to buy an immediate annuity if you want one, and I'll take your advice and it would be much more economically efficient for me to buy a longevity. What Hank is saying is that it's going to be hard to make it work if it's not a default or mandatory because you'll never get enough people to do it.

MR. HARRIS: I think you will get enough people. I'm not arguing for a mandatory component. We already have Social Security. It's a terrific program. It's the bedrock of retirement security.

People still worry about outliving their assets, and like I said the answer cannot just be just hope you don't live too long, and the sort of old adage about how to get rich is to find a problem and solve it. Well, these products solve a problem. You can see the advertisements for some of the big financial companies are not saying get rich in retirement. The advertisements, if you turn on football on Sunday, you're seeing them say, "Look, are you worried about outliving your assets?" This is a real concern, and it's a product that solves a concern. It does it cheaply, and the one nice thing about longevity annuities relative to standard annuities is it solves a lot of the problems with the annuity puzzle.

So, for decades economists have said, "Look, theoretically people should put all their money into immediate annuities." And there's been all these studies sort of showing why people don't do that. Well, longevity annuities solved that problem. You're not putting all of your money in a longevity annuity. You're putting about an eighth, and so you still maintain liquidity. You can still give bequests to your children. It gets around this sort of financial hurdle of saying, "Look, I've saved my whole life. I'm writing one check to a financial company." So, I think it solves the annuity problem.

MR. WESSEL: I'm ready to turn to questions if there are any. I think we have a mic. I hope we have a mic. We do. I want to start here in the front. If you could tell us who you are and remember there are a lot of hands, so keep them brief, and questions end with question marks.

MS. YOUNG: My name is (inaudible) Young. Thanks for your presentation, but I think for the benefit of the beneficiaries or retiree, I just wonder if you have looked into the problem the retiree didn't have a chance to collect those benefit, retiree or their survivors or their siblings or their children? Whatever they think they can (inaudible) the benefit was if they are dead?

MR. WESSEL: You mean that people want to leave money to their kids? Is that what you mean?

MS. YOUNG: Yes, or automatically making (inaudible) the problem is the system work this way. There may be accidental death or murder or whatever and they don't have a chance to get (inaudible). Just like pension they don't have a chance to

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MR. WESSEL: Right, I think the question goes to this problem that you describe in the paper which is that people have this visceral gut reaction that if I buy insurance annuity -- buy longevity insurance I don't make it to 85, but somehow the insurance companies won and I have lost, which seems to me a constant puzzle, and as Katharine pointed out we don't think that about fire insurance like, "Oh, I didn't have a fire this year. The property and casualty company made out like bandits." But it does seem to be a big psychological hurdle.

MR. HARRIS: There's a massive failure in marketing with annuities. Longevity annuities are insurance products. They're not financial products. And just like you said, I have car insurance and I'm not upset that I don't get a payoff because I didn't get in a car accident. It's a good thing. So, this is a question of framing. These are insurance products. They're not financial products.

MR. JOHN: And it's actually possible, as the paper points out, to put in a return of premiums; that if you sign the paper and walk out and get hit by a bus. The interesting thing is going to be how it's framed at the time of choice.

In the U.K. you have a variety of different ways or different options you can have with your insurance or your annuity purchase; return of premiums, certain other inflation protections and the like. And what most people do is just go down the table and say what's going to pay me the most a week, so you can actually put this sort of thing in, but it needs to be something that's folded into the product itself.

MR. WESSEL: All right, --

MR. HARRIS: Could I just say one thing? If you're worried about your heirs there's a simple solution. It's called life insurance.

MR. SANG: James Sang -- a framing question. When I first looked at these kind of products in 2006 which was a good age for me to look at it, they were wonderful products. When it was time to pull the trigger it was 2011, and it was an awful time, and even right now it doesn't look very good, and I'm running out of time. So, isn't it (inaudible) some real interesting questions about interest rates and yields and when they make sense and when they don't make sense for these products?

MR. HARRIS: Yes. I mean you're right. Interest rates matter when it comes to buying an annuity, and I don't know what to do about that. I still think it offers incredible protection as far as insurance value even when there are (inaudible) interest rate environment.

I thought you were going in a different direction with the question. I thought you were going to say, and Katharine brought this up during her presentation. I thought you were going to say "We had a financial crisis. Shouldn't we be worried about the financial health of the major life insurance companies?" And the answer is there's no historical precedent to think you should be. I mean life insurance companies -- I sound like I work for a life insurance company sometimes. I've never taken any money from a life insurance company, but they have a terrific track record. We go back for the past -- looking through -- we had this incredible financial recession, and life insurance companies weathered it with hardly a hiccup.

MR. WESSEL: One answer to this question is if you think interest rates are going to be at zero forever, this is never going to take off. It seems highly unlikely it will be at zero forever, but I thought the annuity business tried to solve that problem with variable annuities and they weren't all tied to interest rates. Is there some room for that here or that just nuts?

MR. JOHN: There's another alternative actually. The variable annuity, of course, is more of an investment product, but one of the things if you look at the second of the Treasury actions recently, you could hypothetically build a longevity annuity into the QDIA, the target-date fund, so you actually purchase slices of your longevity annuity over time and therefore dealing with your interest rate risk in that way.

Now, I actually slightly disagree with Ben on the question of the safety of the insurance companies. One of the big problems as Katharine pointed out is that the guarantee funds are not -- they're as obscure as the dickens. I mean sitting down trying to explain them and understand them plus market them is something else, so if you're going to make an assumption that the insurance company is going to be there, there have to be some very definite steps taken to make sure that the guarantee associations and how they work and how they're funded is very clear, it's very public, and it's also reviewed by outside experts to make sure that these things actually work.

MR. WESSEL: In the back there? The guy in the blue shirt, wave your hand. Stand up. Okay, oh, the mics coming from the other direction. Sorry. Wait for the mic please.

MR. WEBB: It's Anthony Webb here from the Center for Retirement Research at Boston College. I've a question about whether these are appropriate products to default people into? Now, we know that longevity varies a lot with the socio-economic status, but a lot of low socio-economic status people don't have any assets and are therefore not at risk of having an inappropriate default. Do you have any idea of how longevity varies amongst people who actually have sort of 401(k) plan balances in the range where these products might be appropriate?

MR. HARRIS: Let me just first say that Anthony wrote sort of what I consider to be the paper on the insurance value of longevity annuities, and just I'll tell you, your paper's really influential for how I think about these. To answer your question about default, I think you sort of have a few different options for default. One is not to default anyone into them. A second is to do what David talked about in QDIAs and have them to be purchased incrementally along a person's lifecycle, so you purchase them throughout your life along with other investments, and maybe for every dollar that is contributed to a QDIA you have about an eighth go to a longevity annuity, the remaining 7/8ths go to typical mutual funds and then eventually bonds later on.

Another thing to do is just sort of default people into purchasing a default contract in one sort of lump sum as they leave the company. I think it makes more sense to do the QDIA approach which is gradual. It spreads risk out, and again, the great thing about defaults is that if it doesn't work for people, they can always opt out.

MR. AARON: I'm trying to find --

MR. WESSEL: Wasn't there a footnote here somewhere that someone did some funny study that people who bought annuities tend to live longer or something?

MR. AARON: Yes, they do.

MR. JOHN: Could I answer the question directly that you posed which was if you limited the default to those with substantial assets, would the variance in life expectancy be substantially smaller than for the general population? And I think the answer to that is a clear no. There is a strong difference between longevity associated with various measures; education, income, for example. But the vast majority of the variance in life expectancy occurs within cells, not across them, and consequently the problem that's concerning you would not be substantially reduced by the solution you're proposing. Oh, I'm sorry. I misunderstood that.

MR. WESSEL: Can you give the mic back?

MR. WEBB: Sorry, I was getting the facts that the average life expectancy of low socio-economic status groups is obviously less, and these people would be harmed by being defaulted into an order, but these people are unlikely --

MR. AARON: On the average.

MR. WEBB: -- yes, on average, but these people are unlikely to have any assets in the first place. Now, the people who are likely to buy these will have higher life expectancy --

MR. AARON: On the average.

MR. WEBB: Undoubtedly some will die young just as some people who purchase automobile insurance and don't crash their car. The concern is that the risk pool is relatively -- the concern is that you're not defaulting people in who are at low risk of ever claiming.

MR. WESSEL: Right. So, I think we discussed that. There's some reservation about default in this given that it may not be a good deal. There's one in the back there? Can you wait for the mic?

MR. MC GREAVY: Bill McGreavy. I teach at Georgetown. I used to work in the World Bank so I have a pension. Lucky me. (Laughter) I'm curious about a source of information. I and many of my friends go onto Google and say "How long will I live?" or "What is my life expectancy?" and you can put in the information you smoke or don't or you drink or don't and X, Y, and Z. Is that information valid or is it still like we still don't know quite what's going to happen, and how will that knowledge that individuals can have effect the issue of adverse selection since usually we have sort of unbalanced information between the insurance company and the person who thinks of buying the insurance? But now we have information, or do we?

MR. WESSEL: Go ahead.

MR. HARRIS: Well, first, you're asking the wrong question. The question should be what's the likelihood I'll live past age 90 or 95. So, the question is -- people ask about life expectancy and then they plan to it. That's not the right question.

MR. WESSEL: Because life expectancy is the median.

MR. HARRIS: Yes.

MR. WESSEL: Half the people live longer than the median.

MR. HARRIS: Roughly speaking, and so the question is what's the likelihood I'll live a long time. Certainly your behaviors and your demographic characteristics matter, and the point is that people don't have very good sense about the distribution of the possible outcomes, right. It's not just about life expectancy. It's not about planning to life expectancy. It's about planning for a range of outcomes which is why we need insurance products.

MR. WESSEL: Your answer to his question is don't type into Google or Ask Siri "What's my life expectancy?" Ask "What are the odds that somebody like me would live past 80?" or something like that in a question. You want to say something? Oh.

I asked Ben a question which I won't ask now because neither of us know enough science to know the answer. It struck me that one of problems here is this is a very far-looking product. As David said, it could be another decade before the market actually gets going, and by then people might actually have a lot more information, human genome kind of information. And so, the whole notion of these insurance and risk pooling is going to have a big problem if people really do have a lot of information and it may be asymmetric on the other side.

You may not want to get the test to discover whether you have this cancer gene that you know you might have because of what you know from your sister, but as a result the insurance company will be reluctant to give you the product.

I mean when I first moved to the District I wanted to buy life insurance, and I had to buy it in Maryland because in the District they were refusing to let life insurance companies give AIDS tests, and the insurance company I was dealing with made me take the test six feet over the border in Maryland.

The gentlemen standing in the back?

MR. COVINGTON: Good morning. It's Lee Covington with the (inaudible) Retirement Institute. Just some recent news. We believe that the Treasury Department's RMD rule this summer was really a watershed moment for these products.

Already we know that seven of our member companies are developing these products, and we expect more, and there's been an unprecedented amount of tension in the financial advisor magazines about how to use this product, so we think this product's going to be very, very popular.

MR. WESSEL: Can you just explain for people -- we'll probably get to this later -- but explain to people what is the change in the law, in the regulations at Treasury, that made this difference?

MR. COVINGTON: Mark may be going to explain that. I don't want to take his thunder.

MR. WESSEL: Believe me, after what you just said, there's nothing you could say that would possibly (laughter).

MR. COVINGTON: But I hope I get this right to the details to the changes that someone can exempt from RMD requirements 120,000 --

MR. WESSEL: Required minimum distribution.

MR. COVINGTON: Yes, required minimum distribution, $120,000 or 25 percent of their account balance, whichever one is less.

MR. WESSEL: So, it used to be if you took the money out to buy one of these annuities, you had to pay taxes on it right away. Now you can take some of it out and put it in the annuity and you won't trigger the taxes. The woman in the middle there and Sandy next to her and then we have time for a couple more after that if the questions are short.

MS. TURNUNZEE: Hi, I'm Marty Turnunzee and my company is Financial Standards. I work in derivatives product development. I'm very interested in knowing whether you published an index, a mortality index, that could be sliced and diced into various sub-categories and thereby we can build derivative products from them?

MR. HARRIS: So, we had five pillars or so of different ideas that would make this market more robust. Let me backtrack for a second on what Lee said. Look, this is not something which may or may not -- this is not a slow moving product. A lot has happened in three or four years in this product. The sales, like I said earlier, went from 50 million to 2 billion, and Treasury had two pieces of regulatory moments which were described as watershed and they were. There is real movement in this market over the past few years.

To answer your question directly, one of the five pillars for possible reforms was to allow for insurance companies to better hedge against (inaudible) mortality risk. Going off a paper by Jeff Brown who's a very well respected retirement expert and Peter Orszag who is -- I can't say. He's done a lot of things. (Laughter) So, they -- including being former director of RSP. So, one idea is to say, "Look, we could have a government agency go ahead and publish mortality index to permit this type of market to take place." David mentioned that a mortality bond which was issued by --

MR. JOHN: European Investment Bank.

MR. HARRIS: European Investment Bank, but they've been few and far between. This only happened four or five times that I count over the past 15 years or so, so the two sort of strategies that Katharine talked about, one was just going to have Treasury issue mortality index bonds. I don't think Treasury wants to do this. It's just an idea. And then another idea that Peter and Jeff had was so say, "Look, in the absence of that, maybe go ahead and issue this index." Maybe SSA could do it. Maybe Treasury could do it, but this is just information to allow for a private-sector market to develop.

MR. WESSEL: The gentleman next to her, last question, and then Josh here.

MR. MC KENZIE: Sandy McKenzie, editor, *Journal of Retirement*. I had a technical question on the relationship between immediate annuities and longevity annuities or longevity insurance. Every immediate annuity has two annuities embedded within it. It has a longevity annuity embedded in it and then an annuity that pays until the longevity annuity kicks in or until you die, whichever comes first. And my question is when should you pick the longevity annuity that's embedded, and when should you have your (inaudible)?

MR. WESSEL: Is your question when should you buy an immediate annuity versus a longevity annuity?

MR. MC KENZIE: Effectively (inaudible).

MR. HARRIS: I think it makes very little sense, and this is where you will trust me that I don't work for life insurance company, to buy an immediate annuity in the current retirement landscape given all the potential shocks which could occur. Let's say you have no bequest motive, still there's a real chance that you'll need a lot of money at one point in time. And the existence of potentially high shocks, particularly of long-term care, means that no one should buy an immediate annuity. You should buy a longevity annuity.

MR. AARON: No, he said 1/8th of your money in a longevity.

MR. HARRIS: Don't put all your money in a longevity annuity. Believe the research from the Boston College Retirement Center. Put about an eighth or maybe a quarter depending on your risk preference, or maybe 5 percent depending on how much your assets, but don't put more than a quarter in one.

MR. WESSEL: Josh?

SPEAKER: Josh (inaudible), now of Brookings. I understand the arguments for lack of demand. I'm having some trouble understanding the basis for concluding that there is no supply and that you need a bond to hedge when one would think that a company that has a life insurance portfolio could offer an annuity product and in effect have a natural hedge, so I guess part of the reason I'm asking the question is are the insurance companies the ones telling you that they need this, or are they mostly saying lack of demand?

MR. HARRIS: So, the reason -- the driver behind us including this pillar in the paper -- that's a great question -- is academic research saying, "Look, it's not the insurance companies necessarily." But we've asked the insurance companies, and the people we've spoken with have said that's not our department, so we got ambiguous answer.

But the reason why you can't hedge arrogant mortality risk with life insurance is because life insurance is typically sold to people maybe in their working years with children. Arrogant mortality risk is -- and Hank and I -- on one of my first papers as an economist was working with Hank for a book called *Coping with Methuselah*. Arrogant mortality risk is happening at the older ages. These are not good offsetting risks. You are worried about people living from 80 to 90. You're not worried about risk that's going on during the working years, so I don't think insurance companies really have great options for offsetting risk. I don't know whether that's holding up the supply.

MR. AARON: Part of it problem is going to be as this market expands, it's one thing if your portfolio is that much in longevity insurance. It's another thing if it's that much, and it then has actually a risk of potentially to the entire company.

MR. WESSEL: I think with that we need to stop and take up the other panel, but there will be time for questions after that one, so if you didn't get a chance, you get priority the next round, but I (inaudible). (Applause)

MR. GLECKMAN: My name is Howard Gleckman. I'm a Resident Fellow at the Urban Brookings Tax Policy Center where I edit the blog TaxVox. And if the first panel was looking at this at 50,000 feet we have a panel now that's going to look at this really at ground level and really from a number of different perspectives.

Don Fuerst is a Distinguished Fellow at the American Academy of

Actuaries, Mark Iwry is the Deputy Assistant Secretary of the Treasury for Retirement and Health, and Jim Mumford is with the Iowa Insurance Commission and does a lot of work with the NAIC around these issues.

I want to start off really by asking Mark if he could give us a little bit of a perspective here. Give us a sense of what was the logic at Treasury when they issued these rules last summer and the additional guidance which they issued last week.

MR. IWRY: Howard, you may be expecting a lengthy answer to this question. I'm going to give you a short answer.

MR. GLECKMAN: Short's always better.

MR. IWRY: Katharine and Ben summed it up in their paper. They have written a terrific explanation of the theory and the rationale. A number of others in this room have contributed very much to that and I'd actually like to acknowledge when Katharine and Ben were -- Katharine a member of the CEA, Ben a key senior staffer at the CEA, we worked together on this concept and they did a lot to flesh out the rationale and to help build support for it. And they have had an opportunity to lay that out. It's hard to improve on what they've said here and in their paper. Also my former Brookings colleagues, Retirement Security Project colleagues, Bill Gale and David John, have really been key in helping to develop our whole approach to annuities, to lifetime income, and more broadly than guaranteed annuities with their systematic withdrawals or other things. The Hamilton Project was involved. There's a paper on trial annuitization that four of us co-authored that's part of this effort to plant a variety of ideas and let the market use its creativity on them.

The example and inspiration of Henry Aaron as a policy thinker role model for me and so many of us more broadly been important here as in many other areas. And a variety of other people both in this room and elsewhere have really been key to this, Jodie Strakosch, Melissa Kahn. Don Fuerst who counsels us and who submitted terrific comments on behalf of the American Academy of Actuaries with his colleagues that have helped us shape this. Josh Gotbaum who partnered with me on thinking about lifetime income when he was at the PBGC, and John Turner, my co-author, Jim Mumford for your encouragement and periodic advice on these issues, and a variety of other people. So I can't improve on the statement of the rationale, but I can very much share the credit. This is a broad based movement with -- in a sense this is a case study to me of what Brookings can do and what more broadly research and analysis can do to shape policy and to improve people's lives.

MR. GLECKMAN: Mark, thanks. We got earlier a description from someone in the audience about the Treasury guidance from last -- the Treasury regs from last summer. You issued some new guidance last week that people may not be familiar with, so I wonder if you could just take a minute and describe how you expanded the longevity assurance proposal.

MR. IWRY: Sure. So this builds off of what David John was saying in the previous panel. What we wanted to do was put another piece on the table to allow employers -- this is part of the rationale -- to allow employers, plan sponsors, to insert or embed an annuity in their target date funds. And starting from the proposition, as we all know, that much of the work that many of us have been doing for a long time now to get the 401K plan from a do-it-yourself model to a more effective retirement security vehicle. Introducing lifetime income, even disability insurance as we did recently, most importantly automatic enrollment, escalation of contributions, moving the 401K up to a new generation of more effective plan especially for saving by moderate and lower income people who are often left out as part of all that. We know that automatic investing, that is a default investment that's generally asset allocated like the QDIAs, the qualified default investment alternatives that the Labor Department has blessed. That is an integral part of making the 401K more effective and restoring a little bit of the virtues of the defined benefit plan into the 401K system. So this guidance that you're referring to, Howard, from two weeks ago essentially says that if a plan such as 401K has a QDIA, has a default investment that is a target date fund -- and this could likewise work for the managed account default investment as well -- it could put an annuity into the fixed income portion. So the target date fund consisting of diversified stocks, of bonds typically, or other fixed income, it could have some of that fixed income do double duty as not only a fixed income asset risk exposure, but an income annuity. So as the individual goes through the accumulation phase, the active part of their career, contributions go into that target date fund which has been so predominantly the default investment of choice in 401K plans. You could have part of the fund invested in an accumulating lifetime income vehicle, like deferred income annuity. While it's accumulating the interest rate can lock in periodically so you get the dollar cost averaging over time that David and I think, Ben, that you were talking about earlier. So even if rates are low now they'll get over time a reasonable average of purchase rates over the years. You also get the behavioral power of overcoming the all or nothing choice that often confronts people and discourages them from taking annuities. It's just drip, drip, drip; a little investment each pay period in this long-term annuity. If the person decides it's not for them, opt-out, they can opt-out of the target date. There might be another target date without an annuity in it, or other investments in the plan. But over time our hope is that this would be a gradual way, letting an annuity be embedded in a target date fund. A gradual way of defaulting people in. Ben, to your point earlier, you could default people in cold turkey all at once, when they're at retirement age, say do you want to put a chunk of your benefit into this if you don't want to opt out of this default or you could do it gradually. And this is an illustration of how it could be done in an incremental gradual way. And of course it can be done without a default. You can have a target date fund that has an annuity embedded in it that's just an investment option.

So that's the idea in a nutshell. Employers of course have the bargaining power to deal with the price issue that people often raise when it comes to annuities. The transparency issue, how do I know, how does the consumer know they're getting a good deal. The bargaining power from the plan sponsor and the fiduciary responsibility that the plan sponsor has to make sure that individuals are getting a good deal. That's the guidance.

MR. GLECKMAN: Great, thanks. Don, the actuaries have talked a lot over the last few years about variable annuities and there was some discussion in the first panel about it. There's been a lot of talk about how you get at this inflation risk. One obvious way to do it -- talk a little bit about what you have in mind, why a variable annuity would be a good option here as well.

MR. FUERST: Thank you. I would like to talk about that. I do want to first complement Ben and Katharine on an excellent paper, and Mark on great regulations that -- you paid attention to our letter. We appreciate that. In most areas. But the variable annuity is one that they essentially deferred. They said we're not going to authorize this right now, but they left room for rulings or other things in the future that might do it. I'd like to perhaps frame that discussion by having a minor disagreement with Ben on how we frame these things. Ben mentioned earlier that this is pure longevity insurance, it's an insurance product, not a financial product. And I take a little bit of issue with that because what it's doing is delivering financial resources to people say 20 years in the future. You can't do that without a financial product of some sort. I would characterize the longevity annuity as we're currently looking at them as a combination of pure longevity insurance and a 20 year certificate of deposit at a relatively low interest rate, at least in today's interest rate market. So the insurance company is guaranteeing two things -- three things really. First of all the longevity risk obviously. Secondly an investment risk over quite a few years, and third, expenses associated with the contract.

That's the relatively minor one. But then investment risk over 20 years is a big issue. Now if you could frame it just a little bit differently you'd recognize that the insurance company is going to be investing most of those assets in high quality bonds and they're going to build a margin in on the expected return so that they're pretty confident they're going to have enough money to pay this. If you framed it a little bit differently and said we're going to give you a longevity guarantee and an expense guarantee, but we're not going to give you any investment guarantee at all, we're simply going to take the money and invest it in high quality fixed income instruments. And if it earns the return we think it will you'll get this specific amount. If over those 20 years it earns a little bit more, you're going to get a higher income. And if it earns less you're going to get a little less. Now what that is a longevity guarantee without an investment guarantee. And it doesn't have to build in that extra margin on the investment return. If it's truly in high quality fixed income investments it's pretty likely that it's going to provide that income you're expecting. Even if doesn't it's only going to be a little bit less, okay. That's the very low risk way to handle it.

You can do the same thing with a diversified portfolio. So if an individual is concerned about the inflation risk over the next 20 years you might say instead of putting the funds into high quality fixed income, if you do that you have -- well, here I'll characterize that in the preamble of the regulations that Mark issued they talked about this issue and as I say left a little bit of room open for future changes, but they said part of the reason they weren't doing it right now was because they felt that people need a predictable source of income in these later years. And that's where I take issue. I'd say it's not really a predictable source of income you need, it's purchasing power that you need. And if you have a predictable source of income and inflation is two percent over twenty years, you're going to lose a third of your purchasing power. And if it happens to be three percent you're going to lose almost half your purchasing power. Now if you can invest in a diversified portfolio you have a potential for exceeding those fixed income rate and having the income be higher. So we think that providing that kind of flexibility in what we might call a variable income annuity or an investment indexed annuity would protect people against another risk, and that's the inflation risk. It's not a guarantee, but a guarantee is -- I'd like to make the point -- are very expensive and that's why these margins are built in and that's why the investment return doesn't look like a terribly attractive investment. So I think these options of providing some diversification, stripping out part of the guarantee, could actually improve the product and deliver even more income.

MR. GLECKMAN: So, Jim, let me ask you, from the perspective of a regulator, but also from the perspective of a consumer, it the consumer going to understand what Don just said? (Laughter)

MR. MUMFORD: I'm not even sure a regulator would understand what he says. (Laughter) I think Katharine and Ben's paper is a great starting point for a discussion of this issue because this issue is an important piece. As I get older I don't worry about living too long. I don't get up in the morning and say my god, I better live longer than I thought I was going to live. What I really worry about is am I going to be able to feed, clothe myself. I don't even think I need to keep my standard of living because I think as you get older your standard of living changes somewhat, your views change somewhat, but I look and say what kind of burden am I going to be on my family if I run out of assets. What's going to happen to me? Am I going to be stuck in a room with somebody else to live out the rest of my life? I don't think we focused enough on what happens when you don't have enough assets, not when you live too long because I don't see anything wrong with living longer at all.

So I think the longevity insurance is a solution. I understand how daunting it is for somebody to take $100,000 and pay it to a company that you hope may be around 20-25-30 years from now to make those payments to me. That's a pretty daunting sale that a salesperson has to make. I think when the Department of Labor came to NAIC -- and I have to point out I am not a spokesman for the NAIC, I'm not speaking for the auto insurance department I'm really speaking because I'm an old guy that's been around the block a long time and a lot of blocks. So if you take it from the Department of Labor's viewpoint, the safe harbor, what's a fiduciary have to look at to make sure that that company is going to be around 20-30 years from now? I took a group over to the Department of Labor and the Treasurer was there and the economic advisor was there from the White House, and we spent 90 minutes -- I had the experts from not only insurance regulators, from the NAIC staff and we spent 90 minutes at the Department of Labor going through all the financial oversight that happens on insurance companies. Insurance companies are probably the only industry companies that undergo such a deep analysis of the financial strength of the company. I had never met an insurance commissioner or an insurance department employee that said oh, I wish we had an insolvency to work on. Insurance departments' main focus is on making sure that insurance company can pay its claims, not only today but tomorrow, et cetera. I think we've talked about the history -- been talking about the history; the history on insurance companies has been good, been strong, but we want to make sure that the future is strong or stronger than the present. I just made a list here of things that insurance companies have to comply with on insurance regulators to make sure that financial strength is there. And some of these insurance companies have been around for over 100 years, so they've been pretty strong because they can pay their claims. There's an accreditation program at the NAIC which says you have to have these minimum financial standards of staff in your department before your state can be accredited under the NAIC rules. If you're not accredited then there are ramifications because other states don't have to accept your annual statements from domestic companies on those states. So states have incentive to raise their financial level to a certain degree. And it's continuing to be strengthened. There's 50+ jurisdictions that look at if you're a multistate company in 50+ jurisdictions those 50 jurisdictions are going to look at your financials. They're going to rely on the domestic state quite a bit, but some of the states review everything closely. The Federal Reserve now is involved in oversight on some of the capital standards on some of the larger companies. There's reserving requirements that the actuaries keep looking at constantly to make sure that the companies' reserves are adequate to make sure those claims are paid. There's capital requirements, there's tests that are being developed such as risk based capital that categorize the assets at a company and put scores on those. There's annual reports that the companies have to file and those are reviewed. There's a three and five year financial exams that companies have to -- that the states have to undertake mandatory on-site examinations. There's strict investment laws about how much and what you can invest in. And those are fairly strict on what risk you can take. There's a FAWG group, a financial risk analysis working group at the NAIC and it's made up of financial experts, insurance financial experts. It's a confidential working group and if they see states or companies taking risks that they believe are not good risks they have to answer to the FAWG committee. And I can tell you from experience I've in some of the FAWG meetings where they've called in companies that are doing some risky investments for example and not only do the companies have to justify what they're doing, but also the regulator. There's a lot of peer pressure from that group alone.

We're now at a -- after the 2008 recession and the international and national interest in financial strength of the insurance companies, we now have added ORSA which is a self analysis that the companies have to provide starting in 2016 -- some of them are doing it now on a test basis-- to do a self analysis of how they look at the risk within their companies. There's an annual risk disclosure report now that's being part of corporate governance. There are supervisory colleges for cross-border companies. If you have a holding company, you have an insurance company, the insurance regulators only looked at that legal insurance entity. Now they look at the entire enterprise, so they have the enterprise risk managements that they're looking at. And the supervisory colleges, all the regulators from all the different areas meet and talk about the risks they see in the various entities in that holding company group.

So you can see it's always evolving, but I would say that after 2008 even though the insurance regulators and insurance industry said we came off pretty good, the insurance regulators are really starting to take a closer look because they understand that the risk is not only in the insurance companies but also in the entire enterprise. So think you're going to see stronger companies out there just based on what's happening. It's an education I think that we have to provide to the public that if you are going to spend your money on a longevity insurance or annuity product that company has got to be able to pay your claims 20-30-40 years from now.

MR. GLECKMAN: Thanks. Mark, let me ask you about this variable annuity question. What's your take on it?

MR. IWRY: Well, first of all I agree with Don that really protecting purchasing power of course, real income is what we're talking about. But to give a little more color on what we've been thinking in order to explain why the variable annuities have not been concluded in the longevity annuity regulation thus far. The responsibility we see ourselves having is -- very much includes consumer protection. And that of course involves reasonable comprehensibility, easy of comprehension, transparency, price considerations, value for the dollar the consumer puts in, and sensitivity to just simplicity. Now variable annuities could meet all of those criteria and more, I'm not suggesting otherwise. But the objective function because it includes consumer protection as well as promoting savings, suggests a careful step by step approach. So part of what we're doing is to try to be methodical about it and to address the less simple approaches with greater care, and the ones that might present more challenges for individuals in understanding how the product works and in doing price comparisons of different products, apples to apples, in order to ensure that they're getting a good deal, especially where the individual doesn't have a plan fiduciary acting on their behalf. So we need to proceed cautiously in this area and that is in the context of recognizing that this longevity annuity regulation relaxes the normally applicable rules up to 15-20-25 percent of the account balance; 75-80-85 percent, maybe 90 percent of the account balance is still free to be invested in the most aggressive way if the individual wants to and if it's consistent with ERISA's prudence and diversification.

We're thinking of the longevity annuity as a new element here that we want people to be able to understand and relate to. We don't want to overcomplicate right off the bat. So the ability to invest in a variable way in the markets, the vast majority of one's account balance -- this is true of an IRA as well as a 401K -- performs much of that function. And the asset allocated nature of a target date fund or other similar kinds of asset allocated modern portfolio theory inspired approaches to investing suggest you have some fixed income. And this could perform that task of providing the fixed income while letting people potentially be even more aggressive in protecting against inflation risks by investing the rest of their portfolio that's not in the annuity as they wish.

Now we also accommodated explicitly inflation indexed annuities. So we quite explicitly in this regulation put on the table the desirability of protecting against inflation. And of course if the industry is able to the extent the industry is able to do that and to some degree they have been, or to approximate it with annuities that ratchet up, increase two percent each year regardless of what inflation actually is in an effort to really kind of in a very simple way take a bite out of the inflation risk, that too is permissible under this.

We are as Don said still working on all of this. And so we did very much leave the door open to other approaches that could be permitted in the lifetime income longevity annuity space. So we appreciate the comments, we agree really with most of what you're saying and in no way is the limitation of this initial regulation to -- this is a final reg, but this is not a final step in this whole process of regulation. In no way is this intended to suggest that variable products or indexed annuities don't have a potentially important and very constructive place to play, nor to suggest that they would not be part of similar guidance that's issued in the future.

MR. MUMFORD: Howard, could I just add? Because I can understand where you're coming from, Mark, on the market conduct side. But if the focus is on making sure you have assets at a certain age to carry you through life, a plain vanilla variable annuity doesn't do that because you have your investor risk that goes up and down on the customer. But there are new products coming out and I think I told Mark that I thought this was just the tip of the iceberg; actually he's opened up the floodgates. And industry will start coming up with products that do solve the inflation side, but also will give the opportunity to have more than just an interest credit go on which the index linked variable annuities being discussed now, we see collared annuities, fixed annuities that have an upside and a downside guardrail. So I think there are products coming out that you will look at in the future and say well this one works to get to our -- I understand exactly where you've come from on the complex products because industry has to keep them simple.

MR. IWRY: And, Jim, you're absolutely right; we're already looking at these things. And we've gotten very helpful input from a variety of people in this room and outside of this room, both from industry, from independent experts such as the Academy of Actuaries and Retirement Security Project, and Brookings and others, and from all quarters. And we're actively looking at the issues presented here. We're not suggesting that any of the products or approaches that haven't yet been included in this particular attempt are unduly complex or not consumer friendly, but we're trying to take it carefully and make sure that we look not just at a label, variable annuities, but at particular characteristics and particular attributes of the product.

MR. GLECKMAN: I'd like to ask -- and let going to start with you, at what asset level, at what minimal asset level is something like this (audio interruption)? Everybody's been talking around it and I think it would be very helpful (audio interruption).

MR. FUERST: Well, that's a question without a good answer to it because it depends entirely on individual circumstances and their financial situation. There are questions that come in as to, you know, when. At very small amounts it's not efficient to create such a contract, so the expenses rule it out. The point at which that does become meaningful, I think we're going to have to see in the insurance marketplace, you know, what type of minimums insurance companies put on these products. I would expect there to be minimum premium requirements in order to have something like this. I don't know what the marketplace is going to develop on that. It's -- speculating on that amount, I don't have any particular expertise or ability to do that, but it -- I do think that there's a big relatively large market for this. Some of the earlier discussions are absolutely right that people in low income groups are going to have a very difficult time meeting the minimum premium requirements or handling anything like that. But there are a lot of people approaching retirement that have meaningful balances in 401K plans and in savings and I think -- I agree with Ben, I think there's going to be a reasonably good market for this. It depends on how it's developed and communicated to people in the future. I think the communication is a very key aspect and there's areas of that that I'd like to see improve.

Let me mention a couple of things along that line. The notice that people get when they receive a distribution from a 401K plan now, it's a little hard to read, you know, there's a lot of tax information in there. But now there's a new category of distribution that's available. I think we need to think about does this opportunity for a special tax advantage from a qualified longevity annuity necessitate revising that statement that goes to people? Frankly I think it should be. I'd like to see every summary plan description of a 401K plan have more information about the distribution options that are available when you take your money out, including this type of longevity option being there. I'd like to go even further and say one of the areas that we suggested for change that I think Mark and his colleagues are considering but have deferred somewhat is allowing these type of annuities to be provided by defined benefit plans rather than simply by insurance companies. And there's a number of good reasons for that. First of all there still are a lot of people covered by these plans; 20 percent of the workforce was commented earlier. It's even larger than that when you consider the people that have benefits in closed or frozen plans that are coming for distribution in the future. If you think about those people that have worked for say 20 years or so with an employer, they trust the employer. They get a lot of information about retirement plans from the employer. If that included information about this type of annuity that would be very beneficial. Let's take a look at some of the things that are going on now with de-risking of plans. There are a lot of organizations that offer lump sum distributions in their plans, and it's usually all or nothing. Take this lump sum distribution or you take the entire lifetime annuity. What if the plan could offer a qualified longevity annuity? Instead of taking an entire lump sum you would take a partial lump sum that would represent the present value of the benefits between your retirement age -- let's say that's 65, and an age that you pick in the future that can't be more than 85. So you might pick -- I want a present value of the first 15 or 20 years of benefits as a lump sum and then provide the rest as essentially a longevity annuity from the defined benefit plan. That would accomplish an employer's objective f significant de-risking and it would also provide assurance of continued lifetime income when the individual was older. Similarly if you extend that just a little bit, if the defined benefit can do it in that fashion you could expand this even a little bit more and say for the many employers that have both defined benefit and defined contribution plans, maybe the defined benefit's been closed for a few years and if the benefit is not as large as you'd like, but you'd like to take some of that money from the 401K and transfer it through a rollover into the defined benefit just to buy the longevity annuity that starts at 80 or 85. Again some real advantages to this. First of all it's from a trusted source that the employee knows. The communications about it can be included in the summary plan descriptions and what you send to retirees. So there's much greater awareness. You don't have to depend upon external marketers coming to the individuals to see the benefits. The benefit can be provided as one check from the retirement plan. It eases that administration. And you can create some real efficiencies in pricing because the pricing if it's done that way it would be gender neutral, same rates for males and females, it would be not less favorable I think than the 417E rates -- that's the requirement for how you determine some of these things under the code -- which would be relatively favorable. It wouldn't have to include a lot of expenses for marketing, commissions to agents providing and selling these benefits.

So there are a number of efficiencies that could be created by providing these benefits through these plans and we'd very much like to see, you know, progress on that front.

MR. IWRY: Don, I think those are great points and just to flesh out one or two of them, we've already done a number of those things as you know, but this hasn't gotten that much attention. We've allowed explicitly as part of this whole movement to promote more lifetime income options in the private pension systems. We've allowed explicitly what Don was just talking about, that is 401K sponsored by an employer that also sponsors a defined benefit plan. Even a frozen defined benefit plan could if the employer wants to do this let people take their lump sum distribution out of the 401K and roll it over into the defined benefit plan to purchase an annuity from the defined benefit plan. Another alternative to using the 401K to purchase an annuity from a commercial carrier with various advantages that Don referred to. Some companies are already doing this, that is allowing people to essentially buy an annuity from their defined benefit plan using their 401K account balance.

Another thing that we're doing that Don has just mentioned is to encourage the partial annuity in qualified plans. So the defined benefit plan that too often these days presents an all or nothing choice to the individual could have a much more participant friendly choice architecture; frame the question not as do you want your benefit as an annuity or a lump sum, which is how most of our people take it by the way, but rather how much of your benefit do you want an annuity form and how much do you want in lump sum form. Could be all of one, all of the other, but any mix that you consider optimal of the two. We've eliminated some impediments in the regulatory framework to that mixed choice, that combination choice. Defined benefit plans will be able to more readily offer that. They can today; they'll be able to do it more readily shortly when we finalize our proposed regulation to encourage partial annuities. The whole longevity insurance that we've been talking about that Ben and Katharine have written about today is a partial annuity. It's intended to be as you were saying, Ben, maybe an eighth of your account balance, maybe a quarter or your account balance in a given plan. And that's something that we think behaviorally has a lot of promise.

Finally, just to allude to the risk, what you called the de-risking, that is the offer of lump sums in defined benefit plans to individuals not who are retiring, but who are already retired and may be already receiving an annuity, that risk transfer is really not in our view de-risking so much as transferring the risk from the plan to the individual to bear the longevity risk herself. That risk transfer is something that interestingly employers I think are getting more concerned about from a policy standpoint in terms of what's good for their employees. If the inertia that we all talk about, have talked about for so long as a powerful force that can be enlisted in favor of saving, in favor of retirement security through automatic enrollment, automatic escalation of contributions, automatic investments, default rollovers, default annuities perhaps, if that inertia is turned off when someone is receiving a lifetime guaranteed income and they're tempted to step off of that guaranteed income and cash it out with the consequence often that they're then going to a financial advisor in the private sector who says, you know, you really ought to put a quarter or a third of that into an annuity. I can get a good price for you on an annuity on the market. Well, they've sold their plan sponsor an essentially free annuity. It's bought it back from the individual in order to "de-risk" the plan or the company really. But they've up-risked the individual, often a retiree who may be fairly well along in years. And so that is a phenomenon I think we need to very closely scrutinize. And I think it makes sense that employers have been starting to question the practice of offering a lump sum to someone who's receiving retirement payments and has been receiving them in many cases for years. Asking them essentially to sell back their annuity to the employer and then often go on the market and be encourage to buy the annuity again and pay new fees and commissions for it.

MR. GLECKMAN: We have just a couple of minutes. Let me give the audience a chance to ask maybe just one or two very quick questions. Yes, ma'am.

MS. FEINBERG: I'm Victoria Feinberg; I am a federal employee and if the GSP had offered such annuity with the federal level guarantee I would have bought it. For as long as it is guaranteed by states I'm not interested because I live in one state now, I will move to another one later, if I become disabled my children will take me to a different state. And a related point is that these annuities are compared to the defined benefit plan. Defined benefit plans are protected by the pension benefit during (inaudible) which is the federal level as opposed to state level. So again if this is a live annuity I would like it to be centrally guaranteed as opposed to state by state.

MR. GLECKMAN: Jim, you want a quick response to that?

MR. MUMFORD: Yeah. The product is probably going to be pretty similar throughout the states. I think -- exempt the guarantee funds though because they will differ from state to state on coverage and limits, although the limits are fairly uniform across all the states now. But that is a problem, but one of the things that the NAIC works at is trying to get uniformity among the states so when you do cross state lines you're not giving something up. But you're right, if you do cross state lines you're going to have a different ball game in one state than another.

MR. GLECKMAN: One more quick question. Yes, sir, in the back.

SPEAKER: Just a quick question for Mr. Fuerst. There was some discussion in the previous panel about adverse election and other issues preventing development of the market of longevity. Can you speak to the pricing of those instruments that are out there now as to whether they are priced in line with immediate life annuities now or whether they're greater loads on these kind of products in terms of -- or you can talk to the -- are there additional risks that the providers of these annuities perceive out there?

MR. FUERST: I really can't speak to the actual rates that are being charged. I haven't examined those so I don't know the experience, but I can tell you about some of the different risks. The risks in some cases are more leverage, okay. So because of the long deferral period and the investment guarantee that you're making for a long period of time, and the fact that there aren't a lot financial instruments that have that long a duration, so it's a very long duration liability. There's going to be more volatility in that for the insurance company that they're going to have to hedge against. They are going to have to in some way build margins in for that and address that risk that they're taking.

With respect to the mortality risk and the element there I think it's been commented earlier that there's a lot of correlation between extended longevity with income levels, education levels, and a number of factors that the people who buy these annuities are likely to have longer longevity than the general public. That's pretty clear. The real element on adverse selection though I think is a lot less likely to happen on an individual basis because adverse selection has a reasonably significant impact for a limited time period. Generally it's thought to not exceed much more than five years. Your health status can change significantly over 20 years. It's very difficult to predict today what you're health status is going to be like 20 years from now. And that's where the longevity risk is coming in. So I think that the idea of adverse experience or adverse selection on the longevity risk is probably overstated in these cases. I don't think it's going to be so severe.

MR. GLECKMAN: Okay. Thank you all very much. We're out of time. Thank you to Don and to Mark and to Jim, and for all you for coming. Thank you.

(Applause)

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