THE BROOKINGS INSTITUTION

LAW AND MACROECONOMICS: USING REGULATIONS TO COMBAT RECESSIONS

Washington, D.C. Tuesday, September 10, 2019

Welcome and Introduction:

WILLIAM GALE Senior Fellow and Co-Director, Urban-Brookings Tax Policy Center The Brookings Institution

Book Presentation:

YAIR LISTOKIN Shibley Family Fund Professor of Law Yale Law School

Discussion:

WILLIAM GALE, Moderator Senior Fellow and Co-Director, Urban-Brookings Tax Policy Center The Brookings Institution

YAIR LISTOKIN Shibley Family Fund Professor of Law Yale Law School

CLAUDIA SAHM Chief of Consumer and Community Development Research Federal Reserve Board

JAY SHAMBAUGH Senior Fellow and Director, The Hamilton Project The Brookings Institution

* * * * *

PROCEEDINGS

MR. GALE: All right. Good morning, everybody and welcome. I'm Bill Gale, a senior fellow here at the Brookings Institution and the co-director of the Tax Policy Center. We are delighted you are here this morning.

We are here to discuss Yair Listokin's new book it's called "Law and Macroeconomics, Legal Remedies to Recessions." The book is for sale in the back of the room at the great price of 30 percent off. So let me tell you that I have read the book, it's very interesting, very thought provoking.

Sometimes in Washington especially after you have been here a while, you feel like there are no new ideas, just recycled ideas. This book is quite the exception to that and I found it chock full of new ideas and very well written. So I highly recommend the book. I liked the book so much I asked Yair to come here and give a talk about the book.

Yair is the Shibley Family Fund professor of law at the Yale Law School. His education is a landmark in diversity. He got an undergraduate degree from Harvard, got a graduate degree, a Ph.D. in economics from Princeton and then a law degree from Yale. So with that background, he clerked for Richard Posner and he has also served as a Milton Friedman fellow at the University of Chicago and visited at Columbia, Harvard and NYU, so a tremendous background. He teaches courses in law and macro of course as well as contracts, corporate and income taxation and law and business.

He will present the main ideas from his new book arguing that law, meaning law administration and regulation can and should be employed to help fight recessions especially when the traditional tools like monetary and fiscal policy are not working for any of a variety of reasons.

After he speaks we will have two discussants. The first one will be Jay Shambaugh. Jay is my colleague here at Brookings Institution. He is the head of the Hamilton Project. He is also a professor at the Elliott School of International Affairs at George Washington. And before he came here, he served as a member of the Council of

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

Economic Advisors in the Obama administration.

Our second discussant will be Claudia Sahm. She is the chief of the Consumer and Community Development Research Section at the Board of Governors of the Federal Reserve. Before becoming a big wig at the Fed, Claudia has two claims to fame. One is the Sahm rule which you'll hear about later but went in my mind from non-existent to received wisdom in a shorter period of time than any other "fact" that we have in economics.

And of course her other claim to fame is here that she used to be a research assistant here and we love it when our RA's go out and conquer the world and Claudia is the poster child for that.

So after their comments, the four of us will have a discussion and then we will open it for questions from the audience. With that, let me turn it over to Yair and say we are all looking forward to this topic.

MR. LISTOKIN: So first of all thank you to Bill and thank you to all of you for being here and thanks to the Tax Policy Center.

Are we ready for the next recession? I would submit that the answer is no or at least a partial no at a minimum. I don't want to spend too much time on this but our -we have two primary macro policy tools, monetary and fiscal policy.

Monetary policy is constrained because of the zero or the effective lower bound on interest rates and all sorts of other constraints on unconventional monetary policy once we hit the zero bound. A lot of those constrains are legal and institutional. I talk a lot about them in the book but I'm not going to focus on them here.

If monetary doesn't work sort of the textbook response at the zero lower bound is expansionary fiscal policy. That also as we saw during the great recession was constrained by some combination of deficit fears, whether justified or not, and add legal and institutional constraints.

So at the state level where you have balanced budget amendments or in the EU where you have sort of formal, almost constitutional deficit restrictions, these -- it's just

LAW-2019/09/10

hard to run a big deficit during a recession. And so that combination of that -- or at the congressional level where its partisan gridlock. So for some combination thereof which again I spend a lot of time on in the book, fiscal policy was not dormant but fell far short of what was needed during the last recession. Again, there is a lot in the book about that but it's not going to be my focus here.

Instead, I want to start from the point that neither of these policies are working. We're in a deep recession, monetary and fiscal are unavailable. Is there anything we can do to stimulate the economy or are we doomed to wait it out?

And I argue in the book that there are many, many things we can do. In particular, we have an incredibly powerful regulatory state. We also have an incredibly powerful legal system. I argue in the book that we can use that to -- we can use that system to stimulate the economy when the other tools are not available.

And I want to also submit that this is not so unusual at least in theory. If we think of the problem in recessions as what economists sometimes call an aggregate demand externality, so the idea is that spending doesn't just affect the parties to the transaction, it also, there's a multiplier effect onto other parties.

If we take that as like the problem in recessions, then it's very common with other externalities to handle those types of externalists with regulation. That's one of our standard tools. And so if that is the case generically, it is at least not really a theoretical leap to say that law and regulation can be a solution to recessions and aggregate demand externalities.

I would also say that right now, really since the great recession, this is almost the conventional wisdom in financial regulation. So things like countercyclical capital buffers, where financial institutions have higher capital requirements in lending booms and then lower capital requirements in lending busts are now sort of, Basel III sort of envisions them, even encourages them. They haven't been employed that much in practice but they're very much the conventional wisdom in theory.

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

I would argue that what applies in financial regulation can apply more generally. If the idea is we want to use regulation to encourage banks to lend in recessions or to relax their lend-- or to do less lending in booms, we can apply that more generically. A lot, basically every regulation, every law has some effect on spending. We don't think about them much as macro tools but we can and I argue in the book that we should.

I'll give you a couple of examples. I want to emphasize that these are just examples. I think one of the nice things about this approach is that there is an infinite variety of options.

So the first thing I would say is actually a joint state federal level thing which is utility regulation. So how does utility regulation work today to a first approximation? So the current regulatory regime utilities to a first approximation are guaranteed a certain rate of return. Most states use something like 10 percent.

What happens in a recession? In a recession, utility demand, demand for utilities like demand for just about everything else goes down. What happens? The utility goes to the regulator and says we need not raise prices. Why do we need to raise prices? Because we are not earning our targeted 10 percent of rate of return. That tends to work.

So what we have is during recessions, utility prices tend to go up. As you can see in the, in this, if you look at the last two recessions, a pronounced spike in utility prices. I -- this is crazy from a macro perspective.

What is it doing functionally? It is shifting recession risk from utility consumers -- to utility consumers from utility investors. So utility investors are relatively protected. If there is a recession they get to raise prices. Utility consumers are breaking the risk. If things go bad for them, their prices go up.

This functions as a tax increase on utility consumers in a recession and I argue that it reduces spending because the -- I argue and I think there is a lot of evidence for this, that utility consumers have a higher propensity to consume than utility investors.

So the idea -- and this is quantitatively large. Especially if you are poor,

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

utility expenses are a bigger deal than taxes. So just here the average household spends about \$2,000 a year in, on utilities and even the poorest households are spending \$1,000 or more. So there is a substantial amount of stimulus potential.

The idea would be what would counter cyclical utility regulation look like? During recessions, the regulators would hold down utility prices. Let's say they would target a benchmark of zero percent returns or one percent returns or two percent returns to the utility which again if you look at other corporations is not that bad.

And then in order to ensure that utilities earn their cost of capital, prices would have to go up and returns would have to go up during ordinary times in order to give an average return of 10 percent or even more because they're now bearing recession risk. So that's just one example but it's one that has a potentially large impact.

If we started -- we don't think of it as a macro tool now but we absolutely could. These are government controlled prices that are currently being controlled in a pro cyclical matter that we could either control in an acyclical matter or even better would be in a counter cyclical fashion.

Another example is it's just government approvals. So the idea here is that at any given time there are lots and lots of projects that are coming up for government approval. If the government approves them, they are likely to go forward. If the government rejects them then they are likely to not go forward. In fact, they cannot go forward. The -- I would argue that the standards for approval should be adjusted counter cyclically.

So and my example here is in the book is the Keystone Pipeline but there's an infinite number of examples. Keystone -- my argument is not that the Keystone Pipeline, the Keystone extension was good or bad. I just want to say that the case for Keystone which was a \$10 billion construction project was much stronger in 2010 than it is today.

And the argument is that in 2010, if you approve Keystone, you are -- a good chunk of those workers would have been unemployed otherwise. Construction goes forward, it's a private sector stimulus. If we build it today as there is a good chance we will,

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

those workers -- it's unlikely to have much of an effect on unemployment. Instead, we are just reallocating workers to Keystone from whatever else they would have been doing.

So here was a private sector stimulus that we said no to. At -- because in any given time, the government is sitting or evaluating, forget about sitting, tens or hundreds of billions of dollars in construction projects. There's a lot of stimulus potential here. So that's another example and that could be in almost any level of government.

We can imagine zoning regulations shifting with the business cycle at the local level going up to any one of a number of national regulations. The regulations can also be tweaked to require that the spending happened relatively soon. There can be conditional approvals based on timing.

There are many, many other examples. This is just scratching the surface. They're not always deregulatory. Sometimes a spending mandate can be a good idea.

If you require -- one example I have been thinking about recently is housing quality standards for Section 8 properties. If we required environmental -- investment in environmental efficiency in, during a recession, we probably promote housing investment at a time when housing investment is pretty low.

So there is any one, it's not necessarily deregulatory. It sometimes will be but there is a lot there. Another example I want to mention briefly is really more of agencies making fiscal policy. So this is -- so for example, when the IRS writes a new regulation that raises or lowers -- that raises or lowers tax revenues, they are functionally making fiscal policy. They may not think of it that way.

So I would argue that if the IRS is thinking of a new regulation that is going to increase tax revenues, if we are in a recession, maybe wait a little bit. If we are in a boom, now is a good time. Those kinds of things and going the other way with something that will lower tax revenues.

So many, many other, many other examples. I have just given you them. How about examples? Has anyone ever done this sort of thing? So first I would submit that

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

just about every new deal agency was implemented with some macro purpose. They didn't have aggregate demand so clearly in mind. I wouldn't say it was targeted to stimulate spending necessarily but if you think of something even like what was the NRA? The National Recovery Act.

Basically the idea was and I'm -- the idea was to regulate to reduce a shortage of spending in investment. I don't want to say I think the NIRA was a bridge too far but the idea at least has a very long history.

Another example that I only learned about after the book was -- is China today. In China today, the, I would say counter cyclical regulatory policy, my understanding is one of the primary tools of stimulus. So when I go through things like counter cyclical utility regulation in China, they're already doing it. Counter cyclical sort of land use policy, they're already doing it.

They are -- in fact monetary policy in China is a relatively sort of back end example. Now I, one thing that was really an eye opener from China was I never thought it would be possible to see a place doing too much counter cyclical regulatory policy. I think China is there from what I heard. But I don't think that's at all of a problem over here.

It's just -- but the idea is that they use it, and they're at least so far relatively successful at a macroeconomic management over the last couple of recessions but again, that -- we'll see how that works out. Okay.

Now there are tons of risks and problems associated with this. I don't want to argue for a second that this is a magic bullet. Not at all. So I'll go through a few of the problems but likely we will spend a lot of time talking about this in the discussion and Q and A.

So one problem is just like life is hard enough. Why do you want -regulatory decisions are already hard and complicated. To add something new is a pain. There has to be a big pay off and I would argue that at sometimes there is a big payoff. Bu I don't want to pretend that this is making life easy. It's -- there is a cost associated with that.

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

Another concern is the ability of regulators to time things. That I think is a genuine concern. The regulators are not chosen for -- administrators are not necessarily chosen for their macro expertise. So I'll talk a little later, it's very important to coordinate this. I think that that is possible, I'll talk about ways in which it can be done but we don't want to -- we -- I don't want to undersell that concern.

Things like triggers, like the Sahm trigger, is -- would be a good example of something that proxies that regulators might use. I suggest something like zero interest rates in the book but I am not, I don't want to insist on one trigger. But something that will help people make policy when they're not an expert is a good idea.

Now another concern you might have and this is -- is that the changes might be sticky. So let's take utility regulation. If you hold down utility rates in bad times, it behooves the regulator to raise them in good times, otherwise you'll have a lot of bankrupt utilities. If you have no confidence in the ability of the regulator to allow higher rates, then this is not the idea for you.

And I would say that this is analogous to things like fiscal policy when you introduce the balance budget requirement. You're basically saying like we can't handle it. So if you think that utility regulators can't handle this, then this is not the option for -- this is not the option for you.

I would argue that in many cases, the utilities case for example, I am less worried. I am sure that utilities will be awfully ready to increase rates when things get to normal so I'm not worried necessarily so much about that but there are other analogues worries you may have.

And then another question is which regulatory instruments to use. I would say ones that increase spending, is ultimately an empirical question but the thing is there is a ton all over. That kind of makes things messy. I would say that that is not just a curse, the messiness. It's also a blessing. It makes it robust.

Right now macro policy is interest rate constrained and fiscal policy let's say

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

is congressionally constrained. Counter cyclical regulatory policy is messy but has -- it's going to be hard to say one thing will keep it from working. So there is a robustness and a redundancy that is on the one hand messy but on the other hand means that there likely will be options even when other things are foreclosed.

Now when and how to implement this. So I don't intend for this to usurp monetary or fiscal policy. I actually think we should only use this as a -- when things aren't working but there's a good chance that that will be happening relatively soon. I think a lot of this can be done using existing regulatory discretion.

So utility regulation statutes just for example are written, you know, what is the benchmark rate of return is there is nothing that says 10 percent. Indeed if you benchmark the rate of returns to like the S&P 500 or something like that, you would see a lot of cyclicality. So, you know, and competitive rate of return leaves a lot of room there.

But ideally I don't want to make this sound like this is only Congress could do things like this. Like there is nothing preventing Congress from -- we have talked a decent amount about Congress instituting triggers in fiscal policy to make it more or less simulative based on the business cycle. Congress could introduce triggers into regulatory policy. There is nothing inherently preventing that.

One thing I would like is one way to make this effective is to introduce some sort of coordinating office. We want people thinking about this before the recession so they identify policies that actually will stimulate spending rather than just doing things ad hoc. And that can also, this coordinating office I often imagine would kind of help inform regulators if they're using their discretion when to kind of flip the switch and when not to rather than having each of them do it on their own on an ad hoc basis.

So that's something I think would be an important way of kind of standardizing and making more effective counter cyclical regulatory policy.

So to conclude, I think we need stimulus options in the next recession. I think there is a very good chance that our conventional tools will be constrained. I think

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

regulation and indeed law more generally. I didn't talk about other areas of law like bankruptcy law or something like that but there is a lot of potential there as well. But there are many, many options for stimulus if need be. And I think that this is messy but so are all the -- so are the alternatives and it offers the potential of a, of stimulus when nothing else exists.

So thank you very much and I look forward to your comments and questions. (Applause)

MR. SHAMBAUGH: Great. Well, good morning. I'm Jay Shambaugh here and really happy to be discussing this. Thanks, Bill, for inviting me and most of all thanks Yair for writing a really fascinating book.

So I want to start with some areas of very strong agreement in part just because I want to make sure that these things don't get lost in whatever discussion we have. So I think there are some points that are made in the book that are really important. Things like and I'm going to have a couple slides on these so I'll just tick through them very quickly.

But recessions are terrible, right. And I think tis sometimes we need to talk about that more. I love the line in the book that an apathetic policy response is unwarranted. I think one could say that with more four letter words in there but also I think for a legal text, it's a really good way of phrasing it.

Policy makers should be doing what they can to stop and mitigate recessions and I think it's great to have -- bring a different area of policy into this debate and think about what we could do.

The Fed will have less ammunition next time. I love seeing the zero lower bound or sometimes those in the monetary policy world call it the effective lower bound now in case we could tick a little below zero. But to see that taken out of just a room of a bunch of macro economists and into a broader discussion I think is important, the fact that we should be talking about this now and not trying to think about it on the fly when we are in a recession.

One thing Yair didn't mention but this, the rare sometime sand peoples say well you could have a fiscal fed where you have a bunch of technocrats that just raise and lower fiscal policy all together analogous to the Federal Reserve and I think Yair is correct that that would be really hard to do in terms of the fact that Congress should be setting tax rates and spending decisions.

But what I will say is I think there are a lot of levers we can use and I think Yair has some but I think there are some others that are worth mentioning.

So first of all just recessions are terrible in case you've forgotten. Unemployment rates go up a lot. The darker line there is the under employment rate that brings in a broader definition and you see that getting close to 20 percent. Almost 1 in 5 Americans in the great recession at the peak were really struggling in the labor market. This is the kind of thing policy makers should absolutely be throwing everything they have at to stop. It's all -- the impacts can be long term, you get delayed investment and innovation, graduating in a recession in terrible for your lifetime earnings.

Some people get really hit harder because they wind up long term employed and so the burden of this is very, very unequally shared and it's also unequally shared across groups. So the African American unemployment in the United States is almost always double the white unemployment rate and that means when the white one goes up a lot the African American one is going up a lot more. And at the peak of the recession it was closing in on 20 percent.

So it's really important to think about how bad these things are and why we need to do more but also the point that the Fed will have less space. Just to put it in more concrete terms, this is the Fed funds rate, the rate that the Federal Reserve sets. This you can see what is happening over the last three recessions. They're cutting it over five points. In fact they cut it by more than five points the last seven recessions.

This out here is where it is and this is the line where it was projected to get to a few months ago it's already starting going down again. The point being the Fed is not

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

going to have five points to cut next time. So we better be ready to do something else because the Fed won't have the same ammunition they have had in the past. And I should say they have other tools to help but they're not perfect substitutes and so I think other policy makers need to be thinking really hard here. All right.

So a few polite disagreements and I'm not even sure they're disagreements but probably the biggest is I am less ready to give up on fiscal policy and I don't think it's fair to say necessarily that the book is giving up on fiscal as much as making a case we need other tools which I actually do agree with.

But I just want to say I think it's really important to think that it should be kind of an and conversation that we need to do some of these things Yair is talking about but we really need to fix fiscal policy institutions too. And in particular I think we can improve our automatic stabilizers.

Now in full disclosure, I think that in part because I spent like a year helping organize a whole book project on this and I think there are a bunch of things we could do. Fiscal policy traditionally does a lot in the U.S. It was insufficient in the last recession but I think we can make it better. And I actually think in some spots the overlap is actually very blurred between some of Yair's idea and fiscal policy and I want to highlight a couple of those.

So just as a visual, my colleagues at the Hutchins Center upstairs wrote one of the chapters in our book and what you can see here is the purple line is kind of what they measure fiscal policy was doing at different points in time and the orange line is kind of what you would predict changes on history and based on where economic conditions were.

So what you do see is in -- at certain points it really, we really do throw money at the economy when we are supposed to. The biggest gap was actually kind of after the recession where fiscal policy cut back way too deeply, the purple line going way negative when the orange line said it wouldn't and so that's the kind space where you can see kind of a fear of deficits and things that Yair was talking about. Fiscal policy wasn't

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

doing what it was supposed to do.

We do the green there is the automatic stabilizers. The blue is adding the discretionary. So we have some automatic stabilizers but I think what we can see is we probably need more. So what would we do? I would just say we could automate a lot of what we do on a discretionary basis now. We always cut checks to people at some point in a recession to try to help them out. We always give aid to states. We always do infrastructure spending. We could automate those things instead of waiting for Congress and some of the disagreements we might worry about.

We also and the book actually talks about this a lot, Yair's book. We have these automatic stabilizers in the safety net that are effective and I think we could just really try to make them more and just as the plug, there is a book Recession Ready by the Hamilton Project in Equitable Growth that talks about these.

The other thing I would say is in terms of the some of the debt concerns, you can make these budget neutral over time in the same way you can make the utility regulation changes budget neutral over time. You can make them to kick in automatically. I'm going to leave that to Claudia to talk more about.

The other thing though is that the safety net as I said is great at this. And the last thing I will just say is I think there is no evidence that the U.S. would have trouble funding these types of policies in a recession if it was done in a sensible way.

So I think there may be policy makers who fear that we can't and I think part of it is trying to get across the message that at least in a recession we should be focused on this side of what is going on with fiscal and less our concerns about the deficit.

So more direct comments. I really like the idea of getting macro and cyclical aspects into all sorts of legislation. I think in the book it's referred to as OFRA, the, this Office of Financial and Regulatory Affairs and maybe I mistook what it would be. I was thinking you could do this in a bunch of ways. I think these are so important. I wouldn't wait for someone to create this agency. I would say you could squeeze some of these into the

LAW-2019/09/10

institutions we have now if you can't get an agency like this.

So for example, would love to see tomorrow that CBO now has the responsibility to score the cyclical properties of every bit of legislation. They should do that. And that would be really helpful to highlight not just the budget impact over the 10 year window but is what they are -- is this new law sensible from a cyclical perspective?

Agencies have to do cost benefit analysis. You could require that they include the cyclical aspects. And you could give OIRA, the Office of inter -- Information and Regulatory Affairs a few more macroeconomists to help out in that process or you could create a different agency to do it. I think either way but to me it's almost easier to shoehorn it into what we have got because you've got people who already have a seat at the table and make this their responsibility.

And just as an example, the Trump Administration recently had a rule on changing the work requirements in SNAP or the waivers from work requirements in SNAP or food stamps. It had horrendous cyclical properties. It would have made it really hard for people to get on SNAP when a recession is starting. That's a terrible way to design policy.

But no one felt they had the responsibility to judge it on those grounds. And so I think if the agency was supposed to score the cost benefit, if OIRA were holding their feet to the fire on that, these ideas that Yair is talking about would be really great to force agencies to think about this.

I would say as a friendly amendment on Keystone, it's not my favorite example of where you could use this and maybe that's why you put it in the book to really challenge readers, but I would just say because it's something that has really long term effects, that that might not be the thing you are trading off against the cyclical properties.

You might aim for things that have fewer drastically long term effects.

I will say agencies having been in the administration during the recession, agencies love to talk about jobs and so they do stick this into their cost benefit analysis sometimes but almost always improperly. And I think that's why it's so important to talk

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

LAW-2019/09/10

about these ideas that are in the book is to try to get them put in in the right way.

You can't claim great jobs potential when you are dealing with, you know, a rule that is going to last for 20 years consistently. It, the jobs don't matter always. What you want is to think about the cyclical properties and that's why I really like some of these ideas.

I also love the idea of trying to get agencies to spend every penny they've got in a recession. People may remember the census in 2010 actually came in under budget. There were those of us joking like can't they count something else? I know they're done counting people but please don't fire people in May of 2010. Count the bridges.

But I think this idea in the book of saying everyone needs to think about what they're doing to the cyclical aspect of the economy when they have authority is important. And I agree there is a section of the book talking about take up in the safety net and really pushing that during a recession and I agree. I think that would be fantastic.

Actually I think you could push the tank up at any point in time because then when the recession starts, take up people will be -- you will have kind other policies in place to get take up high during the recession and I think that would be really important.

I would just say in terms of other things, I did notice in the book I thought had less on financial regulatory countercyclical policy and now I think actually I have a better understanding after the talk as to why that if we think many of us agree that this is good policy that's not where you need to push the conversation.

But I agree, there are a ton of areas you could push it. I think student loans is one that blurs this area between regulatory and fiscal in the sense that, you know, you could just suspend student loan payments period during a recession. Things like that could happen.

On the other hand you could also see that policies that are based on income based or payment, you know, if you're comparing that to standard payments, those have fantastic cyclical properties. You lose your job, you quit paying immediately. You don't have to go into a complicated deferral profess. And so those policies would look better if you

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

judge them by what their cyclical properties are.

And I also agree that in the book there is a bunch on housing and I think there is a ton of room, the government has a lot of leverage there and could do more.

So just in conclusion, it's a great book. I highly recommend it if you haven't read it yet. Apparently you can pick it up in the back. It makes a lot of important points about a topic I think we need to be talking about more and I love the creativity of trying to find new ways to bring kind of counter cyclicality into lots of things that we are doing. I would just amend, I don't think we should give up on fiscal because I think it has lot of room to help out. So and I think now I am leaving it to Claudia. (Applause)

MS. SAHM: All right. Good morning. So I am very pleased to have this opportunity to talk with you about what is an extremely interesting book. So I second Jay's advice to pick it up and read it. So before I begin though, I need to make clear that the views that I'm going to share today are my own and should not be ascribed to any of my find colleague at the Federal Reserve. All right.

So I am going to start with emphasizing and underscoring a point that Jay made. Recessions should be avoided.

I began my career as a macro forecaster at the Federal Reserve in the summer of 2007. My focus was on forecasting consumer spending. I started in 2008 really on the forecast. It was rough. So one of the lessons from this is I learned they should be avoided, okay because there are negative effects during the recession. These harm individuals, families, businesses, people that we care about.

In addition, putting on my macro hat, resources in the economy and we have a big dynamic economy are not fully employed. So this is a wasted opportunity. So it's bad during a recession.

The negative effects of a recession persist after the recession. Jay talked about some of these as well. The people who lose their jobs during a recession, the individuals who are so unfortunate to begin their careers in a recession, the people who lose

their homes, lose their businesses, they're affected in the recession but those negative effects last for decades and in many cases lifetimes. So recessions are bad.

If I hear any of you saying we need a recession to, you know, clean up the economy, come talk to me. Okay.

Now, following on that, we should have policies to fight against recessions. They are bad, we need to be ready to fight. We have many tools. We have fiscal policy, we have monetary policy. Yair is bringing a very interesting -- and I think he points out this exists too. We have regulatory, we have legal.

To give a plug on the fiscal there is an excellent volume that came out from Hamilton Project in Equitable Growth on the ways we can make our fiscal policy better, make it more automatic. Yair's book is definitely a great one. I'll leave the plug to monetary policy to others.

Now, I think it is very important that we take an "and" approach to policy, not an "either/or." Every single one of those policy forms should be put to use. Recessions are bad, we need to head them off as much as we can, make them less severe.

Now, as we think about building out these policies, strengthening the polices and the tools we have, we should use and build on the experience that we have. This is not the time to forget the lessons we have learned. Sadly recessions have been a piece of the economy for a very long time. So don't reinvent the wheel. Like we have lessons, lets learn.

Secondly, the economy changes and we need to recognize that. So the technology changes, business practices, the way consumers think about their financial lives. It's really important as policy makers and staff helping design policy that we don't try to fight the last war.

People understand now that house prices can fall, okay. So it's likely that the next time we face a recession the features of it will be different. Okay.

So turning more explicitly to Yair's book and the suggestions and policy suggestions he made. So I want to pose the question is law really a new way to fight

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

LAW-2019/09/10

recessions? Okay. I'm macroeconomist so I've got the one hand and the other.

So on the first I want to say yes. I think and the book argues very convincingly that using regulatory, using law to fight recessions is at least a framing that is more explicit that's not as, it's not as engrained in regulation, we don't bring the macro conditions in as explicitly. So I think that's a big step forward so that we really understand this is a tool to fight a recession.

He also talks about the fact that we need more, we need new institutions. We need to bring macro and legal expertise together. The institution that he talked out was an Office of Fiscal and Regulatory Affairs. I do agree with Jay that we ought to use institutions that are in place to get this started but it may very well be that you want a place where that expertise is really built from the ground up. Okay.

So but my other opinion in reading the book and reflecting on the policies that Yair is suggesting is that in some ways this is not new and he did talk about examples. There are current regulations that use macro in their application, okay. Not just in the way they're formulated but in their application.

So I spent two years working on the staffs macro forecast. Two years ago I moved to the Division of Consumer and Community Affairs at the Board. I manage, I'm a section chief of the research section so I manage economists. In this division though, the Community Reinvestment Act was really the reason this divisions exists and in the implantation, in the supervision of banks to see if they're fulfilling this duty to serve the credit needs of the communities from which they take deposits.

Part of those exams look at what's called performance context. They take into account the conditions that are in those communities. So we really understand what are banks facing, how credit worthy, I mean, should they be lending?

So, I'm living the dream of Yair's book in the sense that I have seen how difficult that can be. I mean, it is in that regulation this idea of performance context. I have talked to examiners, supervisory individuals. It's, I mean, it's not necessarily hard to bring

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

macro data together and they're also looking at local economic conditions.

I don't want to just say macro, but they have to be able to draw inferences. What does that mean if the unemployment rates goes up? How do I think about that in terms of bank lending? And that's a challenge.

And I will say so these last two years, I have had many more attorneys as colleagues. In the research division it's all economists. It's a little frightening. Now, in working, I think this goes to the idea of bringing macro and legal expertise together.

I learned very early on that as an economist, my definition of disparate is very different than my attorney colleagues who work on fair lending. So we had a few times where I would say these words and they're like oh wow, that means something, you know, very different than the way you're casually saying it.

And I will say I have been in conversations about the Community Reinvestment Act where I have heard attorney colleagues or others that don't have macro expertise say things that kind of made my skin crawl as a macro economist. So there is definitely learning on both sides and that is not trivial.

So and that will take time and a real emphasis on why it's worth it. Why you want to bring these two groups together and you want to form a combined consistent approach. All right.

So I'm going to turn to the end of my remarks to when should these regulatory fiscal or monetary -- well, actually more lets stat in fiscal and regulatory. When should these tools be deployed?

So I think of this as my recession indicator. It has become lovingly named the Sahm rule. Christy Romer told me that I have to own this because individuals maybe of a different gender would do it so here is the Sahm rule.

And I very specifically went about this in the most simple, straightforward way that I could. My proposal in the Recession Ready book was about making individual payments, stimulus payments to households, making them automatic. So as Jay said we

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

have in the last recessions we have cut a check to households and I said let's get this on the books, this is going to happen in terms of fiscal policy.

Now to have something like that, an automatic stabilizer, there has to be a trigger. When do you turn this on?

So in thinking about this, I wanted something straightforward. I would argue that Yair in his discussion and he said he's agnostic about how you would do this, I would not use the zero lower bound as a way to turn on regulatory or fiscal policy. That simply gives too much control to an institution that is not elected, is not accountable in the way that Congress would be and frankly a lot of regulatory -- it's different but I just yeah, I don't and I don't think in my view the Fed would want that responsibility.

So what do I do here? So what I think about is the three month average in the national unemployment rate. Why I'm averaging, there are little bumps and wiggles, we don't want to get excited about those. And then what I do is I look back over the prior 12 months and assess whether the current unemployment rate is a half a percentage point more than its low over the past 12 months. And that's what you see in this chart.

Now, as a macro economist and having a birth by fire at the Fed forecasting, I knew that a very small rise in the unemployment rate is bad news. Like it just doesn't happen outside of recessions or rolling into one. So a half a percentage point, that's the orange dashed line, we are in a recession. And there hasn't, there haven't been false positives. A couple times after a big recession it kind of hangs around in there.

So and it turns on within two to five months of a recession starting. The National Bureau of Economic Research who are the official recession daters, never call a recession in less than a year after it started. They want to see more of the data. So I would argue that the changes in the unemployment rate unlike the level which is used in say the unemployment insurance, the extension of those benefits, I would argue that the change is the way we want to do this.

Now, we talked about a lot about making these automatic. I think the

argument and I think this is really important and we've -- in the way we fight recessions is our best response is to get in there early with policy, and go big. So and that was, those were features of the stimulus proposal that I made. I think they could be arguments especially the early piece for the regulatory and law response.

Now, some of the examples in the book I have a hard time with. I agree with Jay. The Keystone example and then I think it's probably true, that's a challenging one. That's one I would have a hard time with just because of the long term effects and I think there could be public backlash from various parts of the economy to that kind of a rule.

But what I do think would be very useful is to have regulatory policy set up so that if this trigger is met or whatever trigger, I mean, I'm also agnostic. Then you roll it out. Like and we have created it, we have outside of a recession is much better time to figure out policy than in the midst of it. We do it when we have to but that I don't think is the right approach.

So you could have regulatory policies set up, you could agree on what the triggers are and then you could roll them out when you get into a recession, early in a recession.

There are examples in this Recession Ready book of fiscal policy in addition to the one I designed which not surprisingly I am partial too. But there are discussions about infrastructure.

So that was something in the great recession. Infrastructure can be big, right. So you can go do things and it's very visible. I think it's important the public sees that we are on it. That policy makers recognize how harmful recessions are.

So in the Recession Ready book, one of the proposals was to set up and have infrastructure projects all queued up and then, you know, and they would be sequenced and then as you get into a recession, you would start rolling them out. So I feel like that there are regulatory policies that could have that same feature.

I love the example of the utilities prices being counter cyclical. It's really

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

important to understand how negatively consumers are affected in recessions. So I think this is a super interesting book. I am all on board with having as many tools as we can, being as creative in a responsible way as we can and yeah, I mean, this, these kind of policies to have them in place would make me feel better and I think make people in general feel better that we have taken seriously a very bad recession that people have experienced and we are ready to do more next time. Thank you. (Applause)

MR. GALE: All right, thank you all for wonderful presentations. Very thought provoking and stimulating. In the spirit of the comments we have had, I want to limit our discussion to monetary policy, fiscal policy, regulatory policy and the business cycle. (Laughter) So within that narrow range, I think we can find a couple of things to talk about.

And, Yair, I just want to start it with a question that as a tax guy when I read this, my heart started beating a little faster on page 13 where it says tax collection agencies such as the IRS implicitly make fiscal policy. When the IRS interprets an income tax code in a way that lower tax revenues it stimulates aggregate demand. At the zero lower bound, the IRS should exercise its policy discretion in favor of rulings that stimulate the economy by lowering tax collections.

I just -- there is kind of a general theme and I just worry that we are sort of telling the IRS to go soft on tax enforcement and I wonder this -- I'm going to have the same comments about several things but one is are there long run impacts? You talked about whether the polices were sticky.

And two, is this the best place to try to enact a counter cyclical policy in the, I'll just ay in the IRS in the tax world, the facts are that tax evasion is enormous, its \$600 billion a year, three percentage GDP and suggesting that we ease up on that during a recession is, you know, gets me worried.

I'm sure every other example you think of has a constituency in that area too that has the same concern but let's start wish taxes. How much leeway would you give the IRS to soften up on revenue collections?

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

MR. LISTOKIN: So first of all, there are going to be limits on how much discretion they have and they can't, they're, you know, there is a certain region where they can make their own choices and then there are places where they just can't. So only within that region we could probably argue about the edges of that region but somewhere in the region of discretion.

And just, you know, if that is, if making new rules is not a good idea, let's say you think that's a bridge too far and I understand that. Then again, you know, if you were about to institute like the IRS has a certain amount of resources at any one time like to focus on enforcement. Being -- it strikes me as being aware of where we are in the business cycle to use that unless you think that that is -- you're creating a rule that can never be changed.

But so long as you can move things around, realistically not just legally but also in practice, then I think that that's a place especially, you know, with let's say like auditing.

I think and the -- Jay, all of you may know more than me, you know, auditing may have really negative effects on consumption or something like that. I don't know if that is a, there are some headshaking that it's not true. Okay like ultimately these are empirical questions. I don't want to, you know, but the idea is that there is some room, you know, exactly how aggressively or not you want to push it.

But I think to ignore it all together is they are implicitly making fiscal policy and it does make life complicated. But every macro policy makes complicated, you know, the, you know, when you have a balanced budget amendment you're basically saying like don't make my life so complicated. We can't make macro policy.

The argument is that there is some room here, we should consider using it. I don't want to take a hard stand on exactly how far to go but I do think that the right answer is not zero and my impression is that right now at least in terms of the rhetoric it is zero.

MR. GALE: All right. Thank you. And, Jay and Claudia, jump in on this one

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

too as well as Yair. The utility loan example I think is quite telling. On the one hand it makes a lot of sense to me in terms of reducing prices during the recession.

On the other hand I was thinking about well, you've got the utility company basically acting as a banker, making loans that are bigger or smaller to people based on how much they spend on utilities. It seems like it would be much more sense to have the government be the lender and make the loan to people either on an equal per capita basis or on a basis of their income loss.

And so I'm wondering this sort of turns into an issue of well the perfect policy might be the second one I mentioned or the good policy might be the utility making the loan to the, as you described.

But then it hits up this against this constraint in all these cases it sort of like if we can't do the good policy which is often a straight fiscal policy, why do we think we can do the -- if we can't do the perfect policy which we think is the generalized fiscal policy, why do we think we can do the good policy which would be the regulatory substitute? I mean, just for a political economy perspective? Why will it -- how do we make that happen?

MR. SHAMBAUGH: I'll try to respond quickly. I agree that there is a strong element on all of this that it's second best but that, you know, in an ideal world, we might do everything through the government. But I do think and I don't think that there is no political economy in utility regulation. I just think that it's different and for whatever reason, I think there is a concern about having -- about sort of putting all our eggs in one basket. I think like fears of deficit whether they're rational or not, they're a reality.

And in that case, you know, utility investors and I don't think by the way utility investors are a terrible place to put some recession risks, some recession risks. Right now, you know, we have created a program where we are protecting them of all people.

So part of the response is like it's -- we are not on some neutral level. Right now like we are protecting them in a way that we don't protect lots of other people including other investors. But on top of that, I think this just, it's a different set of political economy

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

constraints that may be open to some movement.

MS. SAHM: So and one thing that I wanted to add to this and utilities may not be the right example, I'm not as familiar with how the regulation works. And Jay had talked about in the recession we ought to be, we have got fiscal space, there is a reason to put the money out there. State and local government have a balanced budget requirement.

The fiscal stimulus that Jay had shown, there was a pullback in fiscal support that one could credibly argue was too soon too much but in the recession, there was a pullback at the state and local level because they had to balance their budgets and tax collections came down and so I think if you looked for some kind of policy that could be implemented at the state level or, you know, even just protect consumers so they're in a better place, I think that has a lot of potential upside.

And another thing that you see in the United States is we have the capacity to do experiments quote unquote in different states, different parts of the country so that we are not running the whole economy out on some untested though reasonable policy change. So I think there is a lot of potential both to help use the shifting of risk from consumers to firm, to investors. I think that could be really good policy.

MR. LISTOKIN: I'm glad you raised this, Bill, because it was one of the things I meant to touch on but kind of forgot to. I would just say one thing which is that I think in your order of like shouldn't just, you know, in some sense the government has the biggest pocket so it should be the insurer against recession risk. I guess I would say to some extent on that second best question I have in the last few years taken the view that we should build counter cyclicality into anything we can. And so if this is a post we can, like we don't do it enough basically anywhere. So anywhere we can add a little bit more, that might be a good thing.

And I was very struck by the figure and because I think it shows just the extent to which utilities are earning profits in a way that is very different from the rest of the market and so I thought actually because I don't think this was in the book but you

mentioned from the state something about well, you could just instead of guaranteeing them a flat rate, say it tracks with returns in the S&P or for that matter you could do like the prime lending rate plus X or something like that that would have some sort of cyclicality to it that might not be a bad idea.

But then to Claudia's point, I mean, I was thinking about the thousand dollars the lower income household is spending on utilities. A non-trivial amount of that is taxes actually. Your utility bill has a ton of taxes built into it. So before you even hit the utility investors, if you wanted, you could simply build counter cyclicality into the taxes that are embedded into the utility bill.

Because that would in some sense be a blend between and this is between Bill's point and yours and this is where I was saying I actually think in a lot of spots the line between fiscal policy and this law in macroeconomics is really, really close. And that's to me like why not say you have slightly higher utility taxes that builds the rainy day fund during booms and then in a recession you just cut your utility taxes to zero? And then you build them back up over time. That's kind of one of these many ways I think we can build the counter cyclicality into places.

MR. GALE: So there are interesting public finance implications here. Basically having the utility company issue the loan as in the lower rates now, higher rates later, is basically hiding the budget deficit that's being created. And cutting the utility taxes is essentially a federal revenue sharing program or cyclicality, cyclical (inaudible) revenue sharing program.

And neither of these comments is a criticism of the policies, it's just there are alternate ways to characterize these things. The utility loan sort of sounds like a free lunch but it's actually having -- its asking the utility company to run a deficit on behalf of the - run a lending program on behalf of the economy.

So then you get as if we didn't have enough on the subject matter then you get into the notion of business mandates and asking businesses to do things besides

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

actually run their business and stuff like that. So any comments on that before we move on?

MR. LISTOKIN: I just want to push back a little bit on the idea, you know, with utilities there, it's hard to say like what is their natural level of profits? Like they really are -- like government regulation of utilities is not an afterthought. It's oh no that's, like that's at the heart of their business model.

So I just don't think that like the current, you know, it's not like the, there is some natural level right now. If anything like again, we have sort of created a regulatory system that protects them from all that risk. Much more so than any other company.

So I think again asking them to bear risks that every other company bears doesn't seem at least as like a public finance -- like I guess just to repeat my first sentence was really the primary point here.

Just that there is -- when you are a fully government regulated industry, it's hard to see, you know, what is your baseline. And I think they're, the -- if I just shifted the baseline from you I wouldn't say we are borrowing from utilities. I would say that they're bearing recession risks like everyone else is.

MR. SHAMBAUGH: If I could just add one quick thing is I think on your point where you mentioned recent (inaudible) to some extent that's an empirical question. I actually think in this one we might be able to check in a sense that there are some utility markets that are somewhat more deregulated depending on the state and I would be really curious to see if in the less regulated electricity markets if prices were operating differently than the highly regulated ones because I think that would be some symptom of or some sign of, you know, what is the natural thing for utility rates to be doing the more market oriented one might be more what you are talking about.

> MR. LISTOKIN: So just --MS. SAHM: And -- oh. MR. LISTOKIN: Please.

> > ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

MS. SAHM: Sorry. I just wanted to actually jump in in a way that I saw you argue in the book, some of these points on regulatory stimulus. Bringing in the macro perspective here.

So again, taking this example of the utilities and the fact that we know this is a large share of household or consumer budgets, if those prices don't change, you still want to keep the lights on. Although people may adjust, right, and I think it's in the utilities best interest, they want to keep energy usage up.

But the piece I wanted to focus on is if that part of the budget doesn't change much, and household income is not going up and for lot of households, it's decreasing because hours are cut, someone loses their job, they're going to have to adjust somewhere. They may not be able to borrow, this is not a time that banks are all excited to lend, so they're going to cut their spending.

Again, going back to my state and local examples, sales tax are an important piece of revenue so this gets to the idea of a regulatory policy like this and I agree, like a lot of them don't have market prices so, you know, change the regulation. Is going to have these multiplier effects, that Yair talks a lot about in the book and the idea here is just they're second round effects, right.

So if consumers have to cut back, the sales tax goes down, the state governments have less, they're going to have to, I mean, there were like school teacher, I mean, there were cuts that happened in the recession that frankly we are still very much having the negative after effects of that.

So you might be able to get into this or these second round effects which I agree with Yair in the book, those are not a natural way for most regulatory law making like in terms of law to think about and I think they should.

MR. LISTOKIN: Just a couple of things. First of all on Jay's question, wholesale electricity prices like just in deregulated markets tend to go down on average. Now there is a lot of noise so I don't want to, you know, there is obviously input costs are

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

incredibly important but demand goes down and prices tend to go down.

And then to Claudia's more general point, I think it's hard to appreciate if you're not in a law school or in a narrowly legal world how little macro dawns on people in a law school. It's just no, no, it's the typical response is like not my problem is the, you know, my life is hard enough. You handle it. You, Fed, or you fiscal policy, handle it.

That's just the way things are structured to the point where you just and I talk about this a little in the book. You could easily go through law school without hearing a word about business cycles. That's probably the norm. While it's impossible to go to law school now without hearing about dead weight loss or something like that. Or if you don't call it dead weight loss, something that is equivalent.

So I think that that's a problem. People when they've never heard about it, they may do things unwittingly that are a really bad idea not because they -- not because of any intent or anything like that, just because -- just never dawned on them and when someone starts talking about it, they're like, you know, no thank you. I never heard about that.

So I think that that is something that's probably less of an issue here. Less -- much less of an issue in fiscal policy and obviously a non-issue in monetary policy but in law and regulation, I think it's that more than any one policy is the thing that I'm trying to push against.

MS. SAHM: Yeah. And I would like to reinforce or complement Yair's point that for the typical economist particularly a macro economist going through their doctoral program, their studies, in talking about regulatory policy is not something I was exposed to.

I mean, we understand it's in the economy but it's all taken as given, you know, so we learned a lot about monetary policy. It didn't like turn out the way that I was taught in graduate school. We learn about fiscal policy. Particularly the study public of finance, dead weight loss, the inefficiencies of, you know, doing tax policy, doing regulatory policy.

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

But as a macroeconomist, this was not something that we talked about. So I think there is this gap in knowledge on both sides and I think was like now working in a part of the board that does supervisory work. I mean, that's not my work but just being exposed to it I was like wow, there's a lot here in terms of tools and so I think the connection is on both sides, like I don't want to pin it just on our legal experts.

MR. SHAMBAUGH: If I could just real quick just one other thing. It's, I should say it's not just the legal, it's also when I mentioned this role about work requirements, some people in the advocate community knew that we at the Hamilton Project had some research on work requirements so they came to us and said what do you guys think of this?

And my response was I think this has terrible counter cyclical properties. And they gave me this dense stare like what on earth are you talking about? Like this is just bad for poor people. I'm like yes, it's bad for people and I don't like it for that reason but it also has god awful macroeconomic counter cyclical properties. And that is not the way people thinking about that question were even beginning to contemplate.

And so I just think it highlights how useful it would be to have the cost benefit analysis, OIRA, CBO, all of these people who are in charge of thinking about what rules and regulations and laws look like to have them have some responsibility to say, I mean, there is a ton of stuff that has zero counter cyclical properties and probably shouldn't. And that's fine.

And so lots of them, they would just check this box like it has no counter cyclical effects, done. But there are some that do and we should be talking about those.

MR. GALE: And Yair and I would be remiss if we did not mention that the one thing that we have done together was look at the 2017 tax act and argue that it has bad counter cyclical properties.

Again that was not just building on what Jay said, that was not part of the debate, the debate was about the tax cuts and jobs and growth and stuff like that but a

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

number of the features of the law actually will reduce the automatic stabilization function of the tax system and hence will weaken the automatic stabilization revenue response in the next recession. Okay.

So let me change topics slightly. Debt forgiveness. If we -- isn't -- I'm going to ask this as a question but isn't it the case that if we broadcast that we will forgive debts during recessions that that will raise lending standards and raise interest rates when people originate loans in non-recession times? And how do we balance that?

MR. LISTOKIN: So this is going to the more just pure old legal rather than regulatory side of things. Although, you know, when it's like government administered loans, then we can be -- then we are again on the borderlines.

Yes, there is a chance that it will raise interest rates. My impression is that that there is a couple of things. One is, you know, this is any such policy, a lot of recession era policies of debt forgiveness certainly are -- have this natural rejoinder that they're going to raise interest rates.

I would -- here I'll cite the, you know, James Tobin's famous line that it takes a lot of Harberger triangles to make up one output gap. That the -- that that's an inefficiency but it's only a joke for people really in the know. But if you find people really in the know they really like it.

But anyway, the problem more than -- so I would say one, that and two, I can even imagine -- I can even imagine situations where there are certain things like I talk about in the book. The standard for forgiveness of student loans which is very, very hard to discharge student loans in bankruptcy is incredibly difficult. The standard is undue hardship.

I would argue that in a recession a lot more people are likely to be suffering from undue hardship. If you're a recent grad, it is harder to find a job. Undue hardship is happening just much more widely and then it becomes hard to say, you know, are we shifting the -- are we shifting the standard or is, are the conditions shifting such that we are applying the same standard we always were. We are just forgiving a lot more debt.

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

MS. SAHM: So one point that I would like to make here. I think for debt forgiveness, the optics are very challenging. Not just the market response, the interest rates. This was something I was very focused on in my proposal to have these individual stimulus payments because they go out to everybody.

And my argument was just make a lump sum, everybody gets the same thing and it's big. So that creates a space of the governments got everybody's back in a recession because a recession is affecting everybody in some ways. Some people are more affected, unemployment insurance is very important debt forgiveness and, I mean, in the housing crisis, I was in a small meeting with someone who dumped policy after the fact and I had said as an economist, they don't let me out in public to talk like this, but as an economist, I would have just told people mail the keys back.

Like a lot of these loans came in -- people who took out loans that were never going to be worth what they were, walk away. Like this is just and frankly if there's a whole bunch of people defaulting, credit scores kind of have this relative aspect.

Now, there was a look of horror in the persons face that I said this to but I mean, frankly, like as an economist, I don't get this like attachment to home. It's a physical asset. But I get it that a lot of people have that attachment. I rent, you know.

Anyways, but I think there was serious political optics of that person took out the loan, they should have known better. I have heard this for student loans too. They got to pay it back, I paid my loan back. So I think debt forgiveness has a very difficult implementation issue.

Now, I think there are some ways we could help households or in businesses for that matter. So I think looking at bankruptcy law is a really productive way to think about this because in states there are different, you know, the protection depending on how you file of your home, there could be reasons to really encourage states in a recession to make the home a protected asset in general.

You could also think about how quickly a bankruptcy flag comes off your

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

credit file. Like you could make an argument that in a recession individuals who file for bankruptcy, whether it's a business or an individual, that their timeline to have the flag come off is less than someone else's.

So you're not, I mean, there is a pain to bankruptcy that is unavoidable but that kind of equity, that kind of adjustment I think would be easier to sell broadly. And I do think the optics are really important for this to go forward and be successful and then used again.

MR. SHAMBAUGH: The only thing I would add is that I think the idea that you might force banks to take underwriting more seriously during credit booms is, I mean, because that's effectively what you're saying. I'm okay with that, right. Like and I think my recollection is that states that actually have non-recourse I think that's the right phrasing, non-recourse loans, experience less of a housing bubble.

Because the banks knew they could go after the house necessarily, they were less willing to lend to terrible credit risks. And that's, you know, maybe that's the right way for it to be set up.

MR. LISTOKIN: Just as a general idea, it's kind of interesting that right now bankruptcy law ignores like what is happening in like the credit cycle or the asset cycle. It's invariant while the credit cycle of course is highly variant.

There are a foreclosure at -- in 2010 had different effects on the housing market, on vacancies, on abandonment than it would at any other time. The bankruptcy code just ignores all this.

So, you know, this appearance of being of not -- of being the same at all times, it, the world changes. So not changing is in some sense a perverse way of handling the world rather than something natural let's say.

MR. GALE: All right. So as I'm -- as we are discussing and hearing all these good points, my overriding thought is that this is quite complicated. There is a lot going on here.

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

Let me ask Jay and Claudia first as seasoned Washington observers and then, Yair, jump in as well. What are the political prospects for not enacting the whole agenda because that will never happen? It's not even clear what whole agenda is. But what are the political prospects for moving in this direction either on a discretionary or an automatic basis?

MR. SHAMBAUGH: I don't know about the more seasoned but I guess what I would say is it, I mean, this is the -- it depends, right. So I think there is some of these things that what's abdicated in the book is just for people who currently have authority to use the authority a little differently. Right. That they can do. Right.

I think the -- this is where I was suggesting it might be easier to use existing institutions. I don't think, I mean, honestly I'm pretty sure it's just an executive order that mandates the way the cost benefit analysis is done currently, right. Like you literally could have a president just say part of cost benefit analysis includes the counter cyclical properties of the rule. Done. Its, it would be -- it would happen.

OIRA would enforce it, every agency when considering rules and regulations. Again the overwhelming majority of which they would check a box and say this doesn't matter. But some it would. And you would have -- and OIRA would hire three extra macro economists who would help with that type of analysis.

And I think that like really could happen and for CBO, again, there you would need Congress to say so but since it doesn't cost Congress any money to say so it might not be the hardest thing for them to say hey, well CBO in addition to weighing in on the 10 year budget window costs of everything should say whether this has a reasonable counter cyclical property.

Again, a lot of things they just say it doesn't do anything, it doesn't matter. The most recent tax cut, CBO would have been on record saying this is a disaster from a counter cyclical perspective. And so I don't know. The broader agenda I think there might be some people worrying about usurpation of power, about unelected officials taking too

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

much a roll.

But in some sense, I think the conversation around it would be the right conversation to have if for no other reason that it would force Congress to say all right, if I don't like this, and then I better do the stuff in the other one.

And I am all for someone figuring out how to build more countercyclicality somewhere and so if this forces them to say I don't like this, I better do that, that would be good too.

MR. GALE: So, Yair, the thing Jay likes about, most about your book is that it makes his polices look reasonable. (Laughter) Maybe you, Claudia, did you want to jump into that?

MS. SAHM: Yeah. So I wanted to I guess reinforce a point that Jay made and then shows up in Yair's book. I think the benefit here even if all these automatic stabilizers, the getting the law and regulations ready and then a, you know, reacting to recessions, even if we didn't go there, and frankly we are probably not going to right away. I mean, this, you know, changes like this take time.

We could start building institutional design that serves many purposes. Like one purpose could be thinking about recessions. There are other arguments like we talked about the IRS before. Enforcement, auditing has other constituencies that are all on board with that. So you could have a multiple pronged approach for building out an agency like that.

That is just one example so that you have more staff, more individuals on the ground to deal in just the regular day to day, year to year auditing but also have them start thinking about recession impacts, how to react.

And the other piece that fits in this and this was something I learned working on this Hamilton Project because I came to it very much as a research. Like I thought I was just going to like do a lit review and they're like no actually you are going to put a policy together which was a complete eye opening to me and I had lot of support in doing that.

One of the things when we had an author's conference, Heather Boushey who was one of the editors on the volume said that she had been a Hill staffer as the recession broke loose. So I, you know, had jumped into macro forecasting, she was on the Hill.

And she said having a volume like Recession Ready, having a book like Yair's at the ready, you can just pull of the bookshelf would have been really helpful. Because again designing policies in a crisis is tough. Right.

So even if these policies were put in place as automatic, ready to go in the next recession, there is an opportunity right now to think as experts and we are hearing a lot of it today like what would you do? How would you work it out? That expertise -- in some cases those institutions could be in place so it wouldn't take as much time to turn it on.

MR. SHAMBAUGH: And just really quick to add on that. I agree completely with what Claudia said about the helping future staffers out when they're dealing with the next recession. If nothing happens in the next few years and hopefully its few years before the next recession, but if the next time they're trying to figure out what to do in a recession, someone has read the book.

They might say hey, you know a lever that we didn't use last time is utility prices and whether its utility taxes or prices, there is real money here and we could do something better. And I just think that's an important contribution.

MR. LISTOKIN: And I would also just when we talk, let's say you say just fiscal policy. That's the way to do things.

One of the parts of the book that I didn't really talk about is fiscal policy goes through law and regulation. So government procurement rules are if you're trying to build infrastructure, allocating the money is necessary but not sufficient.

So in 2008 for example or 9, in the ARRA, the, you know, there was money for infrastructure and the question was why wasn't shovel ready possible when the money was there? And that's a legal and regulatory thing.

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

One thing that's very interesting, we did not change our procurement rules in 2009. If anything we made them harder. We had like prevailing wage standards that DOL had to figure out what prevailing wages were before money could be spent because the product couldn't start until you knew what prevailing wages were.

Contrast that with Germany for example in their 2009 stimulus. They waived a decent number of procurement rules or modified them to make it easier. That was a way, you know, that was -- it had nothing to do with the headline number Germany is spending, you know, X billion or X tens of billions but it seems like there, they got their shovels in the ground more quickly than we did.

So here is where something that Jay emphasized I very much agree with. You know, the line between fiscal and regulatory is very blurry so it's kind of weird to speak of them as two fully distinct policy proposals.

Mr. GALE: And given all the discussion of financial regulation and prudential regulation, the line between regulation and monetary is pretty blurry too.

Yair, before we turn to the audience, I wonder if you could say couple words about the conception in the writing of the book. Was there an "ah-ha!" movement when you saw something and you said oh, I've got to lay this out or was it just sort of a gradual thing you fell into?

Was it, was there something particular that you learned in the process of rewriting the book that really stands out? Just talk about that for a little bit.

MR. LISTOKIN: So first of all I, in my Ph.D. program, I took like the macro field and then I went to law school. And I was convinced that boy was that a waste of time. I really just felt like I've moved on from that.

And then I in 2008 or so, I was teaching tax from an almost exclusively micro perspective, tax law. And I was like hmm, this is not really -- I'm not really talking about the things that my students are reading about for how tax law is being made.

So then -- so I started with just saying that macro should be a bigger part of

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

the way we talk about tax law, taking a few examples that of tax law that lawyers talk about. Tax expenditures being one which I won't go into here.

And then just as I started hearing about other areas of law, it was like hmm, maybe this is not just about tax. With financial regulation it was relatively straight forward but then there were a lot of these like sort of public benefits law. Things like that, bankruptcy law, just areas and it just started creeping and snowballing to the point where rather than writing an article about tax, I figured why not just try to put this on agendas more broadly and shift law and economics which is my sort of natural home within law school which is historically since the -- since its founding rally in the 50's or 60's, was exclusively micro oriented. And incredibly influential to maybe at least periodically consider macro.

MR. GALE: Great, thank you. And thank you for this wonderful book. Let's turn to questions from the audience. Please state your name, where you're from and please be sure you have a question. (Laughter)

QUESTIONER: Thank you. I'm Dave (inaudible) I'm retired. And Claudia mentioned that policy should be created during non-recessional times so that they're in place. And Jay said that these polices can be made budget neutral. And I'm just wondering if that's politically feasible.

Politicians don't like to worry about patching the roof when it's not raining and if you look for example when Bill Clinton left office, the budget was running a surplus and immediately the next administration cuts taxes and suddenly there is no way to build up a reserve.

In 2017, or the years leading up to 2017, the deficit has fallen every year and then the next administration comes in and cuts taxes again. And there is no way to build up any kind of reserve fund. Is any rational economic policy politically feasible in this country? (Laughter)

MR. SHAMBAUGH: I'll take, real quick I would say I think it can be. One example I would just give that Claudia mentioned, we had one proposal in the book about

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

counter cyclical infrastructure spending.

It's, it would basically this doesn't require you to build reserves, it would just as, you know, through a certain program we are going to spend \$5 billion a year unless the Sahm rule triggers in which case we are going to spend 15 and if we do that, then for the next couple years after that, we are going to drop it down to one for a years.

My point being, you could build it into the structure. It wouldn't be building up a reserve of tax surplus that it's just too tempting for someone not to take. You could do it through how you authorize the spending. I'm not saying it's easy.

My own view is that our deficit concerns are real but when we are in a recession we, that's not the first order of thing to think about. If I had my preference, I would design it in a way that it's, that we could make more rational over longer horizons but in, you know, the middle of the fight I'd take what I could get but so I do think it could be done. Do I think it's likely? I leave that to people at the other end of Pennsylvania Avenue.

MS. SAHM: Yeah, I think, let me really just quickly add one piece on and this is a point that hasn't come up yet because we have been very focused on fighting recessions and I don't want anyone to think I'm just like free lunch, I'm an economist, right.

But there is an aspect of government spending that is not just about fighting a recession. It can be very effective then but there is also an issue of long run growth. Now I think whether it's regulatory, fiscal, I mean, these things should -- need to be deployed in a sensible way where they're cost effective.

There is research and this is a -- there is debate about this that in the recession, in the great recession, one of the costs was a lack of business investment, not building up new capital, productivity which is so important to the economy. The rate of productivity growth took a real hit and that kept on for a while.

I mean, part of how the output gap closed is because output growth went down. I mean, that is a horrible way to close a gap. One could argue that a more robust response on all dimensions to the great recession could have helped us avoid or mitigate

that effect.

And frankly government spending done well outside of a recession has the potential to improve the productivity, the resources we have on the economy. I'm not saying it's going to pay for everything, I think these budget concerns are very real but we have to keep them in perspective.

MR. LISTOKIN: Two very quick thoughts. One is on your concerns. One reason why I like the creation of a new office rather than sort of adding it to existing responsibilities, it's much more feasible to do it with adding to our existing responsibilities.

I think it's very important to have someone whose job it is to always think about these thing and only these things. That it's -- that OIRA, my fear would be that they'll only think about it in recessions. And then you have the concern that you mentioned.

The -- another way to avoid the fears you have is to think about the political economy where I think our ability to unwind some of these things is much greater if there is some sort of concentrated interest that we will be screaming about it outside of recessions, that we will try to unwind it.

So that's why with utility regulation, the utility is not going to forget after the recession is over that rates should be higher. And so I have more confidence that that can be unwound than I might with some other -- in some other context.

QUESTIONER: So I really liked your discussion and I really appreciate the fact that you mentioned the political economy and the dangers involved in allowing the heads of for example the IRS to interpret legal regulations more liberally. Appreciate that.

I love the idea about targeting utilities and I wanted to ask you a question about whether you gave any thought to the organizational structure of these utility companies because I thought it would be great to attack your idea through utility cooperatives.

And in a very, I think that would be a very democratic way to introduce counter cyclical policies through utility companies. Have you thought about that at all?

MR. LISTOKIN: I have not thought about it at all but I'm curious if you could say a little more about what you mean by -- I know what a utility cooperative is.

QUESTIONER: Right.

MR. LISTOKIN: But it would be that they would kind of unilaterally just adopt this because they're being run in the interest of their consumers.

QUESTIONER: Well, you know, they could adopt as a part of their mission, you know, to conduct counter cyclical policy because I know in my hometown, we had a utility company that would literally issue a check to all of its members at the end of the year based on the profits that they took in. And so it would be great if they could maybe save those checks for a recession.

MR. LISTOKIN: I think it's an excellent idea. I think and there, you know, it's -- you -- it's part of the mission rather than kind of exposed -- imposed externally so I think that that's a maybe a quick and easy way to start implementing some of these things.

QUESTIONER: Thank you. Hi, Carl (inaudible). I'm a retired criminal investigator so I intend to try to follow the money or figure out what the money is in achieving a solution.

And your example of the electric utility, I would suggest why not just substitute the monetary utility, the Federal Reserve in your equation because the shareholders, the members the Federal Reserve, their capital investment in the shares they hold that would assist them they have a guaranteed return in dividends of six percent per year. That's gone on for 100 years. So maybe the dividends of those Federal Reserve members, maybe making should be guaranteed profitability.

So briefly, two opposing monetary perspectives. Andrew Jackson's farewell address in 1837. He thought there was no basis legally and constitutionally for a central bank just circulating gold and silver money will present cyclicality.

At the opposing view point founder of the American Monetary Institute, Stephen Zarlenga wrote a book in 2002 the Lost History or the Lost Science of Money. And

he argued that usury interest in the creation of money, borrowing of all money into existence as credit through the privately held Federal Reserve is at the root of everything and that simply the Fed -- he gave a speech at the Treasury saying the Fed should be nationalized and the U.S. Treasury should simply issue U.S. notes into the economy as Lincoln did the greenbacks and hence it creates stability and interest. It ceases to be the eating away forever at stability. Thank you.

MR. SHAMBAUGH: I would just say the -- whether the return to the shareholders at the Fed I'll -- I actually would have to look more into how much they're getting on an average, like I think it is six percent but I think the bigger point there to me though is advocating taking anything away -- I think the Fed makes plenty of mistakes and has plenty of constraints on it and I think reducing the Feds ability to do counter cyclical monetary policy would not be a good idea.

And I think I would worry that we have seen when central banks are less independent, they do less counter cyclical policy. That's been true in the United States, been true across history and around the world.

So my general view is if you want this very powerful institution to do counter cyclical policy which I very much do and I think all of us do actually, I think the whole point here is we are saying they can't do it all so we should find other avenues. I think removing their ability to do it would be a mistake. So that's where I am.

MR. LISTOKIN: I mean, I kind of conceive of the book as trying to protect the Fed from having to -- one thing that happens is once you hit the effective lower bound is momentary policy starts getting much more legally interesting and controversial and allencompassing.

And it kind of, my fear is that the Fed having to do it all loses the ability to or has -- introduces some constraints and backlash on its ability to do the things that it does really, really well. And that's sort of some of the backdrop for what I'm writing very much along the lines of what Jay is saying.

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

MS. SAHM: And I do want to add one point in a very neutral sense here. So I think a lot of the discussion about monetary policy we are thinking about this lever of interest rates or money supply. I mean, the way we have done this has changed over time, right.

I think one of the important roles of the Fed and it actually goes back to founding of the Fed and I'll use Ben Bernanke backing me up here in terms of his book and public writing. A really important function of the Fed is to step in in a financial crisis and be the lender of last resort. That was very important in 2008.

There is debate about it, I mean, the Fed is not an elected body. There were differences of opinion between Congress and the Fed about who active they should be and frankly, those regulations have changed and the Fed is more constrained. Could not do exactly what they did.

In partnership with Treasury they could do this so we're not like adrift but that's a piece of the Feds mission that I think we should keep in mind and that was important in the great recession.

MR. GALE: And let me just add, it was important in the great recession because the Fed actually acted as a lender of last resort but it can be in principle important in other times even if the Fed doesn't have to act as the lender of last resort, just knowing that it would if the situation arose it can be -- can have a positive effect as well.

QUESTIONER: Thank you. Thank you for this stimulating discussion. My name is Carl Pozer and I have a project call the Center on Capital and Social Equity and what I look at is the bottom half and distributional issues and increasing inequality.

So I'm going to ask my question first because I have a couple comments. What I'm going to talk about what's possible and what's missing. So what's possible to me is all this will -- to regulate, you know, to have preset rules for regulators, has to be done through the legislative function. It all devolves to that. I mean, if you are going to bind yourself in the future in some way and it could probably with all that's possible is guidelines.

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

And I think the guideline what's missing in the conversation is distribution. Its -- most of the discussion is about average price. Well, you have these inelastic demand goods like energy, this is the same issue as in carbon taxes. You know, the -- if you try to -in your example you're trying to increase carbon use. In the carbon tax you're trying to reduce carbon use but it really hits the poor.

So in a recession, you're trying to affect the utility company who is basically under the legislature in some way in terms of their rules and their regulation. They need to have investment money to build the Keystone Pipeline or if you want to make it more relevant, wind farms.

So how do they -- so that -- those two examples actually go together very well. But that's a fixed cost that they don't want to incur. So the answer -- so why not have a general guidelines that says, you know, if we have are recession the bottom half cannot spend more than 10 percent on -- we will consider this as legislators if the bottom half wouldn't spend more than 10 percent of their income on, you know, this inelastic good, energy, and, you know, let the top half pay the money to give to the utility to invest in Keystone or wind farms. So it all, you know, anyway, I just think that you're not going to get past the general.

MR. GALE: Thank you. Do you want to --

MS. SAHM: Can I jump in with macro and then I will give this to Yair, I'm sure he has opinions on this. So I did think in his discussion of the utility companies and this is very compelling to me as someone who has researched consumer spending for several years now.

The marginal propensity to consume or like every dollar you get is going to be hire for lower income consumers. We already talked about, I mean, we can't, you can only shut the lights off so much. This is going to be share of their budget and a substantial share.

The investors in utility companies have got more in their bank account and

every dollar that you take away from them, they're going to cut their spending back less particularly because they can, technical term here is smooth, but they can move money around over time. You know, they can let the savings account go up and down.

The sad fact is there are many low and even moderate income families that just do not have financial buffers. So that and that's part of why they spend, you know, their spending cuts back more when they lose income than there would be the case for the investors.

So I think that an important -- I think the discussion here talked about, I mean, that really does have this benefit, disproportionate benefit to lower income individuals. And I do agree, that is very important to think about distributions.

MR. LISTOKIN: Just also framing the project as Jay and Claudia both did, recessions are a disaster but they're not an evenly distributed disasters. They really, really hit if you saw those numbers, the poorly educated, minorities. Things -- people who have less on average.

So I, even if there is not an -- much of an explicit distributional frame, I think anyone who is talking about recessions is if you're, you know, unemployment almost by definition if you retain employment the rescission is unpleasant but not worse than that.

If you're unemployed, you may -- we may see its effects decades later. So I think sort of encouraging regulators to think about macro is a way of in some sense bringing a distributional lens, maybe not as explicit as you might not -- as you might want but its functionality a distributional lens on what they reading.

MR. SHAMBAUGH: I would just like to echo that for the simple reason I don't think it can be said enough that anti recessionary policy is important for distributional concerns. And that its just people often don't think it is because maybe the way it's being used don't look quite as focused on distribution but anything we can do to reduce the impact of the recessions is most important for the most vulnerable because they are the ones who bear the weight of recessions. And so I think that is important and I think that's why what we

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

are talking about here is important.

The only other thing I would add to some of your comments is it did occur to me and I didn't flag when we were talking about -- when -- because the books talks some about environmental policy, that you could also depending on how you're doing your environmental policy make it counter cyclical.

As you mentioned your carbon tax which you raise, you could have a carbon tax that's counter cyclical. You could make the gas tax right now counter cyclical. Those things would be easy. It actually did occur to me when I was writing the book that I hadn't thought of this much before but it is actually an advantage of things like cap and trade or tradable performance standards that they themselves are automatically counter cyclical because when demand in the economy falls, the prices for permits fall which actually makes it easier to have activity.

So I think there again there are lot of ways to build these things in and I think again, they wind up having the bigger impact on the most vulnerable because things like the carbon tax or the gas tax or things like that hit those people harder and as do recessions and so having those things come down during recessions is helpful.

MS. SAHM: So and one more quick regulatory example so a tax enforcement that just occurred to me. So in research that I have been done recently, we have looked at the earned income tax credit which is now three years ago there was a delay put in place. I mean, this had been legislation so again this is the legislation and tax enforcement coming together. The idea of this was to hold EITC refunds or if you got any EITC your whole tax refund was held for an additional like four weeks so that the IRS could go in and make sure that, you know, the income that you're claiming really happened and, you know, the family is not double counting kids.

The sad fact is that they actually didn't staff up the IRS so it's not clear that there was a lot more enforcement going on and frankly fraud in this group is not -- is -- in any case thought so I'll get my editorializing off.

But what we saw in the research was that households that are getting the EITC they need the money. So when it comes in, they are spending it. And what we are able to see in these delays, I mean, people were delaying their grocery spending. I mean, it was everywhere. It's in your durables like, you know, put the car in anyways but its and that was an example where that's a tax enforcement one could argue broadly might revisit that tax enforcement but in a recession where more people are qualifying for EITC, their household is more binding constraint, the would be another example. I mean as Yair pointed out like there is tons of these examples that we could think about.

MR. GALE: All right. Let's take one last question.

QUESTIONER: Hi. My name is Elliot Horowitz. I just want to thank the panel for an excellent discussion. I'm a retired person, a retired economist and national security analyst. Would anyone in the panel like to speak about the implications of the federal debt?

MR. GALE: I'll say something about it, having written a book on that. I think it's important but I agree with what Jay and Claudia and Yair were saying that when you're fighting a recession, the debt amounts involved are relatively small compared to the debt problem. But they're relative big compared to solving the counter cyclical problems.

So especially with interest rates as low as they are right now, we should not hesitate to use fiscal possibility or by extension law and administrative regulatory policy to fight a recession. That would not -- we have plenty -- we don't have plenty of room but we have room to fight recessions with all the tools we need even though we do have a long term fiscal concern.

MR. SHAMBAUGH: The only thing I would add is I think if you're concerned about the debt, it is even more a reason to look at the ideas in Yair's book or make automatic stabilizers better because I think in both cases what you're trying to do is limit counter cyclical policy to the legitimate uses of counter cyclical policy and not have someone say I'm doing this because the recession and then pass some sort of permanent kind of

> ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

destruction of the long run budget.

I think that's where you find yourselves getting in trouble not, you know, \$800 billion is a lot of money but (inaudible) is not what causes the national debt. What causes the national debt are large, long term unfunded things.

MR. GALE: All right. Yair, as the author and the guest of honor, you get the last world.

MR. LISTOKIN: So first, just thanks to everyone for really great discussion. Thanks to the commentators, thanks to Bill and the Tax Policy Center for hosting this.

And I just want to empathize that more than any one particular proposal, it's really a -- it's sort of way of thinking. So like when Jay was thinking about oh, cap and trade is different from a carbon tax from a counter cyclical perspective, those are exactly the things that I think we should just be thinking about as a matter of course. That it's not obvious.

And I'm not saying that that's going to shift the day from one to other but it often comes out, there are pro cyclical or counter cyclical properties all over the place that we haven't spent enough time thinking about and we need to. And it's that sort of frame of mind especially as applied to like the regulatory and legal framework that I'm trying to promote with the book. So thanks so much for coming, everyone.

MR. GALE: All right, thank you everyone. (Applause)

* * * * *

CERTIFICATE OF NOTARY PUBLIC

I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

Carleton J. Anderson, III

(Signature and Seal on File) Notary Public in and for the Commonwealth of Virginia Commission No. 351998 Expires: November 30, 2020