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P R O C E E D I N G S

MR. BUSH: Okay. I think we're going to go ahead and get started.

Thank you all for joining this morning. The top of this panel, which is a new one for this conference is both timely and important. We're hoping to have a lively discussion of some of these areas.

You know, I think unintended consequences abound in financial services regulation and not unique to financial services, but they seem somehow especially problematic when they arise in the area of financial inclusion and access to financial services generally. And probably because the laws and regulations are explicitly designed to help people directly and low-income people in particular. And when they don't have the outcomes that are intended or when they even have perverse outcomes, that seems somehow even more problematic than some of the other areas of financial services regulation.

It may have been because I was brainwashed at the University of Chicago in the early '90s, but I think it was even then almost conventional wisdom that laws like the Community Reinvestment Act had had the opposite

of their intended effects. They were creating disincentives for banks to branch into poorer neighborhoods.

And now this topic has sort of reached a new inflection point it seems. It is the role of technology, the experience of other countries from microlending and developing countries to cellphone technologies in banking in both developing and developed countries. And now the OCC has led the way with an ANPR on CRA reforms and the other banking agencies intending to follow and join the OCC in that rulemaking. And so the debate is reopened.

There's still a pretty serious divide probably between the industry and some community organizations. You can look at the BPI's comment letter and hold it against the letter submitted by a coalition of community groups and see some serious disagreement. On the one hand, suggestions that we take consumer compliance out of CRA evaluations, and on the other hand, suggestions that we put race and communities of color in.

So at the same time, there is a broad consensus that the goals of all of these laws and regulations are right and worth pursuing, and the

discussion is mainly about how to do that, not whether to do that.

So we are fortunate to have a panel of true thought leaders in this area. And I want to start by thanking Bill Nelson, who really organized us and put this together. He did a terrific job with that.

And I'll introduce them briefly. You have their materials in your -- you have their bios in your materials and I would especially recommend googling all of their work because it's really interesting. And I'm sure we're not even going to get a little bit into all that they've written.

So to my immediate right, many of you know Karen Petrou, who is definitely a thought leader across all areas of financial regulation, written and spoken extensively on a variety of topics, including these. You may have seen some of her writing recently on this topic.

And then we have Anna Gincherma, who is vice president for Strategic Partnerships at Women's World Banking, which is a nonprofit -- global nonprofit dedicated to improving the access of women, lower income women to financial services.

And we have Julapa Jagtiani from the Federal Reserve Bank of Philadelphia, who has a deep background in finance and has been working on important supervisory matters at the Philadelphia Fed CCAR and Resolution Planning, although we don't hold that against her.

And Ed Demarco, of course, who has had a distinguished career in public service, including as acting director of the Federal Housing Finance Agency and before that OFHEO. Mortgage regulation is a particularly acronym-challenged area.

And so I think the way we're going to organize this, we're going to talk about -- when I say "we," it's really Bill. We'll talk a little bit about some of the challenges first, and we'll use sort of a Q&A format, and then we'll talk about some potential solutions.

So I think, Karen, maybe I'll start with you to talk a little bit about how you see consumer protection regulations not even promoting but perhaps even hurting income equality.

MS. PETROU: Thinking about this ahead of our panel over the Thanksgiving holiday, and it occurred to me that a really close-knit family is a wonderful thing but not an unmixed blessing. And I think that's true of

the post-crisis regulatory framework. We have repaired many of the problems in the banking sector. Maybe over repaired a bunch of them. But we are redefining the financial system in asymmetric and often unintended ways, and many of these have really significant economic equality consequences. When I think of economic equality I mean income and/or wealth equality. And they're different because income inequality is what you get from what you earn. Wealth equality is what you get to save. And it's a cumulative engine of sorts. You need income to generate income equality to promote the excess resources that permit a family to engage in activities such as save money at a positive rate of return that permits them to accrue a down payment that then permits them to afford a home for which they are able to obtain a sustainable and a nonpredatory mortgage when they can repay without stress on other limited family resources.

So I think for the panel today, as we think about it, it's important to keep income and wealth in mind and then also focus on how that turns into intergenerational mobility so that children are at least as well off as their parents. All of these are huge

problems in the United States.

I'd like to thank BPI and its incarnation as the clearing house for getting me thinking about these when we did a preliminary paper for you all in 2016. And one of the things we look at then were the data on income and wealth inequality. And if you look at that then and now move it forward to 2018, you see in the United States income and wealth inequality, the Piketty book and many others you will have seen in much of the political discussions, income inequality and wealth inequality in the United States got sharply worse starting in 1980.

Then, the 2008 crisis hit and both leveled off because of the stress. And then in about 2010, wealth inequality takes off like a rocket. Income inequality goes up sharply, but wealth inequality goes up sharply. And so when you think about the rules, it's important to bear in mind that we see empirically, and I think it's a combination of post-crisis monetary and regulatory policy, but something happened in 2010, and it's not the somethings that a lot of people talk about, like demographics. We didn't get that much older that much faster. But there's something in the financial policy

framework.

When you look at specific rules, you can see those unintended consequences. And I'd just like to mention four of them now to show the scope of what's really happened.

When you think through many of the rules, where you see, in my opinion, is that they were drafted, sometimes by Congress with political intentions, but always with a policy objective designed to prevent banking from doing something that people thought was bad and sometimes was bad for lower moderate income houses, as well as for financial stability.

A good example of that is the Durbin amendment. Whether that was about the low-income people that were supposed to be getting all the savings or about the merchants that got the fees is an interesting discussion.

I was very interested to read a paper recently from the Kansas City Fed that argues that the Federal Reserve should control the payment system because banks couldn't be trusted as evidenced by the need for the Durbin amendment. But what do you look -- Federal Reserve research otherwise shows that after the Durbin

Amendment went into effect, the ability of low and moderate income people to place low-balance checking accounts for free at their banks dropped 50 percent.

Now, that's a really important point because that transaction capability in a checking account and the interest earned, assuming we can get positive real rates of return, are critical for wealth preservation and wealth equality. And an amendment designed for one purpose had profoundly different effects because nobody thought about what banks would do. If they lost all that fee income on one side, were you all just going to just roll over and say, well, you know, that's good for America. No. People are going to change their business strategy. You want to be good for America, but you also have to make money. And I think an unintended consequence really evident in the Durbin Amendment is the incompatibility of many of these policy objectives with actual real-world banking.

The same thing is true with the qualified mortgage rule. That rule you are all familiar with. If you look at new studies, you see significant drops in lending with high debt-to-income ratios. Not through the GSEs and FHA now up 25 percent, that's businesses'

high DTI lending. But it's not going to low and moderate income households. Its credit availability for first-time homeowners has dropped dramatically because of what was thought to be a good consumer protection.

Same thing is true in areas where regulators decided not only did they have good intentions but simple solutions like banning "payday" lending at banks, borrowing initially short-term small dollar lending. That's being corrected. But I think the capital incentives in the current rules need additional attention because it's very hard to make money at small dollar short-term lending. And the regulators still have a risk paradigm that views low and moderate income household finance as high risk.

And it's not always true. A very interesting new study from the San Francisco and Atlanta Federal Reserve Banks finds that the real source of the greatest amount of mortgage risk, default risk after the crisis was not subprime purchase money borrowers. It was prime borrowers who were using their funds for investment or speculative purposes. So now in our post-crisis framework, where we are penalizing "high-risk borrowers," the subprime purchase money borrowers, we're

still feeding the investment boom. We're still lending a lot of money in the "prime" space through the GSEs, even FHA and private sector. But are we really controlling risk? I don't think so. So I fear we're making inequality worse through rules with unintended effects and over-simple solutions and not necessarily even making finance any safer.

MR. BUSH: All right. Thank you.

And maybe it's a good segue to Ed, if you had any sort of perspective on what seems to be banks receding from home mortgage lending or at least lending levels declining or any of the other trends that Karen mentioned, what do you see as some of the either enforcement, supervisory, regulatory factors that are driving that?

MR. DEMARCO: Yeah, thank you, Derek. And Bill, thanks for putting this together. I'm actually pleased to follow Karen's remarks on this. I think she did a great job laying this out.

You know, home ownership remains -- and I think this is one of the points Karen was making -- you know, a very important path to economic opportunity for all Americans, but especially for lower and moderate

income families. And it retains a great deal of both public and private support. But one of the lessons we had to relearn during the crisis is the importance of making sure that mortgage lending is sustainable.

Before focusing though on regulations and regulators, I think, you know, let's face up to the fact that there were some pretty poor risk management and underwriting standards that emerged in the years leading up to the crisis, both among banks and nonbanks. You know, sometimes this was in an effort to serve underserved communities and sometimes it was for other reasons, not necessarily good ones. But certainly, these poor practices and weak risk management contributed to losses for lenders, for investors, and certainly for a lot of families.

If you look at what happened since, I'd like to suggest that, you know, in some ways the private sector's response on the whole seems to have contributed more positively to a correction of past errors and a foundation for future lending than some of the responses we've seen from government. You know, on the private sector side, we had lawsuits, we had put backs, and so on, but these were handled as contractual business

disputes even when they involved the GSEs. But more importantly, they led to changes in business practice. So we've got, you know, a completely overhauled rep and warrant regime with Fannie and Freddie. We've got a different -- a whole different regime for disclosure and mortgage securitization on the private side. And we've seen changes in underwriting practices and so forth, you know, even outside of what the government rules have required.

But, you know, on the government side though, the enforcement actions that were pursued at both the state and federal level often came across not just as applying pre-established penalties to violations of pre-established guidelines, but often came across as, you know, dealing with not just actual but perceived fouls. And indiscriminately applying sort of without distinction between both major errors and minor and technical shortcomings.

But moreover, the enforcement regime itself and the added rule-making and complexity of those rules we've seen since the crisis, you know, have led to more complexity and more confusion in the marketplace, not to clarity and resolution. So in those ways, you know,

this enforcement and regulatory regime have impeded mortgage lending.

We've got a reluctance by lenders that continues for many, you know, to this day. You know, some of the rules were, you know, as Karen pointed out, really established to deal with past failings. Right? So ruling out pay option arms, for example. But the consequences of the rigidity of these rules not only increased the cost of originating and servicing mortgages, but in unintended ways has impeded the ability to make loans.

I mean, Karen talked a bit about changes in income and wealth inequality. I'd like to add another dimension to that. There's a great deal more income volatility among a lot of families today than a generation or two ago, and yet some of the rules that we've seen written are really sort of structured around an older environment, both in terms of what the sources of income look like and what -- and the stability of those source of income. And we've got to get our rule-making to catch up with the reality of what household financial situations and resources look like.

MR. BUSH: Thanks, Ed.

And just to focus on one particular area there, the FHA Lending Program, that's another area where it appears that banks have reduced the volume of FHA lending that they're doing. Do you have a perspective on that, what the causes might be or --

MR. DEMARCO: Yeah. So clearly, I think, you know, FHA represents actually the most significant area of curtailment by many banks and by some nonbanks. Part of this is definitely attributable to the enforcement regime that the Department of Justice has been pursuing, pursuing triple damage claims under the False Claims Act, and doing this, you know, over what many banks argue are trivial or technical violations and had nothing to do with the loan defaulting. And yet, not only do they lose the insurance coverage but they're facing substantial damage, you know, penalties on top of it.

You know, this view seems to have attracted some attention among the Trump administration; right? I mean, the Trump administration, certainly Secretary Carson has been talking about recognizing this as a challenge and recognizing it as something that is curtailing bank participation in the FHA program. Look,

I mean, that ought to be a problem to us; right? The FHA program is the government's flagship program for first-time homebuyers and low and moderate income households, and yet we've got this challenge that's keeping banks from participating in it. So it's great that the Trump administration is acknowledging these things. We are still waiting on, you know, what the solutions are going to be.

But, you know, there's more than just sort of False Claims Act concerns. There's a richer array of issues with how FHA works with regard to compliance. It's got a defect taxonomy it's developed that is supposed to be akin to what Fannie and Freddie have been doing, but it is really not in a meaningful sense operable for the actual lenders in the program.

So there's a number of explanations for that lack of progress, but I think it's suffice to say that the FHA program has many problems right now and that that is certainly impeding the willingness of banks to make loans through this program.

MR. BUSH: Thanks, Ed.

So Julapa, I guess we'll turn to you and ask you for your perspective on how regulations may affect,

hinder banks and nonbanks from providing financial services to the underserved.

MS. JAGTIANI: So first of all, I would like to thank the organizers, BPI and Bill for inviting me.

As you know, I'm with the Federal Reserve Bank of Philadelphia, so I'm supposed to remind you that everything I say today is my own view. And so I'm not speaking for the Federal Reserve Bank of Philadelphia or the Federal Reserve System or I'll be in trouble.

So I already heard from Karen and Ed a lot about intended consequences, so I'll add a few more examples to that.

So as you heard, the U.S. has a lot of regulatory agencies, and also we have layers and layers of complex regulations. And so that makes it hard to implement, to properly monitor, and also well-intended regulations have sometimes resulted in unintended consequences and end up hurting the people whom they are supposed to protect; right?

So, for example -- I'll add two more examples. The CARD Act, for example, that made it harder for card lenders, issuers, to change the interest rate on the borrowers. But what ended up happening also has been

that these people with low FICO score, less creditworthy consumers, they end up getting a smaller credit limit, harder for them to get credit access because in response with that regulation.

But what I'm going to focus on a little bit more is actually fair lending, consumer protection. So we see that there are -- lenders are not opposed to make ready decisions against say race or gender and several protected classes; right? And so we see that it's reflected in several things. For example, risk score. If you look at FICO scores, it is best on some clear, hard factors, information, whether you actually -- how many cards you have, how many loans you already have, whether you have delinquent on some of the loans, what is your utilization ratio? So it's a very broad measure of creditworthiness that is not good enough as a measure and a lot of people, actually 26 Americans have thin credit files. So they don't even have a FICO score or they may not even have good FICO scores. But at the same time, to be safe, to cover themselves, when you apply for a credit card, what do they look at? They only look at FICO score mainly; right? If you have a good FICO score, you can get a credit card. And if you

don't have a FICO score or you have a thin credit file, it is very hard to get access to credit.

So this fair lending, which is meant to protect consumers, it ended up making it harder for some consumers. A large number of American consumers who don't have FICO score or don't have a bank account would not be able to get credit. And more broadly, there are statistics that show that about five or six billion consumers around the world that don't have a bank account but they have a mobile phone.

So, there are issues that people don't get credit, but then fintech emerged; right? Fintech lenders now entered the space to identify this invisible prime, what they call invisible prime. These are people who may be having a low FICO score or don't even have FICO scores but they are actually not risky; right? And I have some examples that I would like to show that makes some pictures who show, it makes it clearer.

MR. BUSH: Proving how spontaneous these questions were.

MS. JAGTIANI: Yeah, we knew the questions in advance.

So I'm just going to show this. This is my

own study that looks at data from Lending Club consumer platform. And so we can see that the correlation between FICO score and the rating that Lending Club assigned, which includes additional information other than what's already in the FICO score or something that's not correlated with the FICO score.

So when it was initially set up, founded in 2007, it pretty much depended on FICO score in assigning rating and credit decisions and pricing. But when we look at loans that were originated in 2015, we can see that the correlation went down from 80-85 percent to only about 30-35 percent. So a lot of additional information has been incorporated into the rating and credit decision, which improved credit access for a lot of people which I'm going to show.

So if you look at the right-most panel, you can see that these are loans that were originated in 2015. And we can see that some of the below prime -- actually, the majority of American consumers are below prime, right, as we know. So about eight percent of the top rating, A rated loans, rating by Lending Club, actually are people who are below prime. And 28 percent of the B-rated, which is the second best rating,

actually come from the below-prime consumers, less than 680.

And so we actually -- so we followed these people over the two year period after they got the loan, and this is what we find. So on the left-hand side you can see that everyone on the left-hand side are actually below prime. But they have a different rating from A to G. And we can see that that default probably actually is highly related. It rises with the rating A to G.

So we can see that additional information, a lot more people are able to access credit; right? And so this alternative data could be used and we can't rely on just the official credit rating, like FICO score. And so we considered the pricing also has changed, has actually -- consumers get access to credit but also they get it at a much lower cost than what they would have had to pay otherwise.

Now, maybe you wanted to (inaudible)? So there is -- this solves some of the problems but it also creates new problems and new types of risk which I'm going to talk about later.

MR. BUSH: Good. Thank you.

And Anna, so what are some of the special

issues that affect women's access to financial services?

MS. GINCHERMAN: Thank you very much. And it's a privilege to be here. And thank you so much, Bill, for inviting us to kind of present in a conference. And I was just sharing with Karen, it's very unusual for me to be in a room where I really don't know many people, any people, mostly with unfamiliar faces. So this is not fully kind of my world. My world, the world of emerging economies where we are still solving for the access challenge. I mean, as you've mentioned, billions of people, exactly 1.7 billion people around the world still don't have access to financial services. The good news, the situation is improving. In the last 60 years, about 1.2 billion people gained access to financial services. About 600 million women. The bad news is that the gender gap remained. Remained at nine percent. So it has not changed in the last 10 years. In developed economies it's about seven percent.

So what are some of the reasons why women don't have the same access to financial services as men? So we know that, again, in emerging economies, women tend to be less literate, less educated than their male

counterparts. Women are time poor due to competing household and business priorities. Women are less mobile. There are a number of studies in developing countries saying that women spend 85 percent of their time in the two kilometer radius of their household, so mobility is a huge issues. Women are less likely to have IDs or other legal documentation to open accounts. About 60 percent of women have IDs in Africa versus about 85 percent men. Women are less likely to have property titles. That limits, of course, their access to credit. Women mostly work in the informal sector, have regular sources of income, don't have registered businesses, so of course, limiting their access to business credit. And what we see overall, women tend to exhibit steep adoption curves as it comes to technology. And we know there's this kind of 1.2 million gain in new accounts is really driven by digital financial services. So namely mobile banking. And mostly mobile payments where we see -- which we see as an important kind of on-ramp to further financial inclusion. We see that like 40 percent of women in Egypt first opened their bank account to receive a government payment or agricultural payment. So this is kind of the world I live in.

And what are some of the ways to address this challenge is really through minimizing barriers to account opening, through lowered-tiered KYC policies, leveraging ID databases, scene registration, along biometric or face recognition verification policies. Bringing the bank to her through instant and remote account opening in the field doorstep banking. Interoperability between kind of bank and nonbank system creates, of course, additional convenience and options. Providing services in her community, so use of agents, third-party agents at just the retail shops has been really driving the uptake of financial services in more remote communities.

So kind of what in the financial inclusion world we see kind of four key regulatory enablers which are truly around the ability for the nonbank money issuances. So again, the inclusion has been driven very much by nonbank players. Use of agents, both by banks and nonbanks, those third-party agents, very often kind of mom and pop shops in communities. Race-based customer due diligence or KYC policies. So a really proportionate anti-money laundering framework along with 725 KYC and consumer protection that kind of spans

across different providers and products being offered.

MR. BUSH: Thank you.

It sounds like one thing in common is the role of data and information in improving access. Julapa, you touched on this, too. And so maybe I'll turn back to Julapa to see if, you know, you have thoughts on just how, or is it the public sector, private sector, how data can be improved, the role of banks in that to solve some of these problems.

MS. JAGTIANI: Sure, yes. So with the advanced technology in fintech and also the big data that -- a lot of data -- I heard somebody say it at a conference that like 80-90 percent of all the data we have now were collected two years ago, like within the last two years. Right? So a lot more data, transaction data.

And so a lot of alternative data now have been used, incorporated into different things, for fraud detection, for marketing purposes, but also for credit decisions. Many data aggregators, for example, like you've heard of Yardley, Pratt, Cuovo that have access to our bank account transactions, credit card transactions, investment account transactions, and

that's basically very close to your loan performance. So that's kind of reasonable. But it's scary because they pretty much have information about your entire life, that when you get up, what time, when you take the train and all your transactions, your alimony or your fixed payments, your rent, and whether you actually withdraw all your cash right after your salary gets in. So a lot of information could be useful actually for decisions. It basically aggregated all the information and spits out some scores and some report. And lenders can then use it. And a lot of lenders subscribe to this, different data aggregators and AI vendors.

What's more scary though is like your online shopping, your online footprint, shopping habit, your first book account, your insurance claim, your medical payment. That's something very personal. Or even some -- I've heard if you actually pay with your credit card for marriage counseling, that also is right there, so it could be used. So people get divorced, people lose their job. It's there reflected in all this information.

So what I wanted to show here, actually what you see here is an example of one of the windows. This

is a real example that has more than 400 members. And along with these 400 members there are over 6,000 websites. And so that includes First Book, eBay, Walmart, TIAA, MasterCard, Equifax, everything. All the large firms. So all this consortium of data from all these 400 companies is there actually for this vendor to manage and also to serve these 400 members.

So it is scary to see how much information about us is out there and we don't even know about it. We don't know who is using it and for what purposes. So every time you log into First Book for (inaudible) for example, any of their 6,000 websites, they collect 800 variables about us. Right? And so all this, every time you log into this, any website, a lot of information is there. It's collected and it's all there in this big pool.

So this can be useful for fraud detection and it can be used for marketing, but it also could be used for credit decisions. It's useful for loan stacking. It will be out there. So that's useful, but also it could be used against you but you don't even know about it. So that's one problem that emerged. Consumer privacy is a big issue now.

So do you want me to continue?

MR. BUSH: Sure. Yeah, please. Yes.

MS. JAGTIANI: So this data aggregate -- so now, several lenders, not just fintech lenders, but traditional lenders, nonbanks, everyone basically has to subscribe to this service, and many of them actually subscribe to the same -- many vendors, right. So they basically have many different black boxes that they get the results from, and so some of the lenders may not even understand how they actually made the credit decisions because they basically rely on these different vendors' black boxes or the data aggregators.

So we, as regulators, we have to learn about what's inside the black box and how actually whether it's fair. And if they don't know how they made the decision, it's very hard for us to actually -- they can't document and it's hard for us to really monitor their compliance, failure and compliance.

So should we --

MR. BUSH: Yeah. So we can -- maybe I'll turn it to Karen next just to ask, you know, I think several of you have highlighted some specific regulations that have created obstacles. And sort of, what would be your

priorities for regulations that should be changed to improve equality or access to financial services?

MS. PETROU: I think it's a combination of factors. And the rules need to be looked at for unintended consequences. And I think the capital rules require particular attention in that regard. But I think we also need to get past the rules and look at the business of finance, the business of banking, and the business of investing, and determine, what are the broader solutions? Because although I think it's past time to refine the risk weightings for certain loans and CCAR, I think the clearing house and BPI, Bill Nelson and Francisco have done great work showing unintended consequences there. Those make a big difference, but it's a more fundamental structural problem of incentive alignments so that companies do well and do good.

One approach to that I think is thinking through public policy solutions. When Anna was talking about using retail agents and so forth, it reminds me of postal banking. And there are a lot of issues. And I'm not an allied supporter of postal banking, but I think it's worth thinking about. Are there inclusion and access products that are fundamentally uneconomic but

yet a big enough social good that they need to be delivered? And is it the postal service or some other governmental function to do that?

Are there sources of investment that are so important to social good, public welfare, and equality? One that I've highlighted with my husband, Basel, is speeding treatments and cures for disease and disability. There is nothing less equalizing than a disease or disability. Eighty percent of visually impaired Americans with blindness or severe impairment are unemployment adults. It's very hard for a lower income household to get a hold when they have large medical bills and their healthcare issues, healthcare policies issues. But fundamentally, as I think you all know, being sick is really no fun. And having a loved one with a significant illness is a household tragedy.

So we've worked hard to think about -- and there's tremendous science. I sit on the board of one of the largest medical foundations in the country, and what's really frustrating to us is the scientists keep coming in with this great stuff that will cure blindness, sometimes very fast, and we can't afford it all. We can only, say out of 10 good projects, fund

two.

But this is a tremendous social need. So we thought this through and tried to come up with a structure that would bring institutional investors, long-term, lower-risk tolerant investors, not the venture capitalists who pick up the successful projects at the end, but how do you get private capital in at the beginning in what's called phase one, phase two, translational medicine? And Basel and I have spent a lot of time thinking this through, working with folks in various academic centers.

And legislation was just introduced in this Congress I'd like to draw to your attention. It's H.R. 6421. It's called the Foster Treatments and Cures for Blindness Act. And what it does is it provides up to a 50 percent guarantee for investments in projects that the National Eye Institute, part of the National Institutes of Health, would pick. And we think this would bring in sidelined institutional money, long-term money, and bring those treatments and cures, many of which never get developed because there's no money. It's not the science; it's the money. And if we can do that for blindness, then we can do it more generally.

And you all are familiar with Green Bonds, which is one effort, very important effort to align an important social good, environmental sustainability, with private capital incentives. We'd like to build something we're calling a bio bond market. And we really think once you do that you won't need the guarantee. But we need the Federal government involved first to prove the principle.

And there are other examples like that. You all know other critical issues. So I think we have to look to the incentive alignment.

And then we need as an industry to change the incentives through creative action. I've talked a bit about something called an equality bank. And I'm very excited that some of you here have gotten excited by that idea, and some others, such as the independent community bankers are also looking at ways to build new charters, whether it's using the bankers' bank charter, the OCC's new special purpose charters, other opportunities under current law to change the incentives. Some of those charters, like bankers bank, are allowed under the law to have significant differences in regulation.

So back to your question, Derek. We look at the capital rules and we see a capital rule that's a problem for critical economic equality financing product and either the equality bank or the bankers bank, we can go to the agencies and say, change it. You have the legal authority to do that.

So we're trying to think through some creative approaches to problem-solving that don't require changes in some of the rules that you all know are incredibly difficult to change through the Dodd-Frank process and coming up with solutions that I'd love to talk to any of you interested in either of the ideas. The ibonds and bio bonds or the equality bank, we are trying to make those happen as quickly as we can.

MR. BUSH: I guess one question is whether the rules should be evaluated differently when they're written, you know, rather than just simply evaluate them on the basis of whether they achieve financial stability, safety, and soundness, the usual norms.

In a hypothetical world where banking agencies do a meaning cost-benefit analysis, what do you think about making part of that equation on the benefit side access to financial services or income equality?

MS. PETROU: I'm very strongly for it. I think the major issues with each of the rules, we've done a lot of work with some of you looking at it. If you look at the capital rules, the cost-benefit analyses are aggregate. They're, I think, often inaccurate. And they pay no heed, first of all, to the other rules. They have their capital rules, or liquidity rules, their resolution rules. There's an intersecting body of rules that all combine. When your CFO says, where are we putting the money? And I think that's a first order priority of cost-benefit analysis, not to come up with - - as you just see right now, in the, you know, stress capital buffer or some of these other rules, we're making this giant rule but Congress shouldn't worry because it makes absolutely no difference. It's \$432 million of capital, you know, four basis points. Well, then what's the point? That cannot be true. I think we need to fix that and then we do need to add that equality criteria. And it's not a government investing, directing investment policy. It's not saying you must invest in low-income housing. It says you need to know what this does for the most vulnerable Americans, and only do it on purpose. I think that's the really

important criterion.

MR. BUSH: Thank you.

You know, you mentioned postal banking, and there's probably not a lot of supporters of postal banking in this room. But maybe I'll ask Anna. In the world as you see it, you have a lot of experience in other countries that do have postal banks and some that maybe don't. What is your perspective on that question?

MS. GINCHERMAN: Well, if you were to ask me that question five years ago I would be been there, done that, tried, very difficult, change management in those kind of super bureaucratic institutions, next to impossible. However, now, with kind of new digital technology we see a lot of progress. Egypt Postal Bank becoming one of the major players in the kind of finance -- in the financial services space and kind of mass market banking, retail banking in Egypt, while getting very positive about the role of postal bank in Pakistan. So, again, yeah, there is progress, you know, because there is a lot of recognition that is, again, trying to solve forward the kind of challenge of access. You know, postal banks have their offices in the most remote areas. They also have the trust of the population. You

know, that's where -- I mean, which is super important for, well, on the bank population but also particularly women that don't really have experience with formal financial services but most of them have experience with the postal system. So again, the regulatory challenge in those developing countries that most postal systems have a very limited mandate in financial services. They can only, you know, kind of deal with savings accounts, cannot intermediate. So what we see, where we see the progress, postal becoming agents of larger commercial state banks and providing a set of services.

Well, getting more optimistic at this point with how that network can be leveraged because they have the most impressive reach in remote areas, yeah, and the trust and confidence of the population.

MR. BUSH: Ed, we'll pass the magic wand down to you and ask you, what are some of the things you'd like to see changed that would address some of the problems we've talked about?

MR. DEMARCO: Yeah. Well, let me start with FHA. You know, banks need to know what the rules are in the FHA program and have greater certainty about whether they're in compliance or not. If you're making a loan

and you can't tell in making that loan, you can't judge your risk, you can't acknowledge or have a sense of whether you've originated that loan in compliance with the rules or not, chances are you aren't going to make that loan

So, you know, we talked earlier about the False Claims Act liability issue. It's not just that that needs to be fixed, it needs to be fixed in a way that's lasting. It's got to be perceived by lenders as not something that will be undone in the next administration.

Related to that, defect taxonomy changes. Again, just to give certainty about, you know, how do I know if I'm in compliance or not? We've got a lot of banks that, you know, cannot certify each year in terms of their compliance. Well, what kind of certification is that or what kind of program is that if you're regularly unable to certify compliance with the program.

But, you know, let me say one other thing about FHA. Getting away from sort of all the rules and compliance stuff, let's just acknowledge FHA is itself a huge mortgage insurance company. It's the biggest one in the world and it needs to run more like a company.

It's got to have control over its resources, control over its program, and it's got to have a greater capacity to invest in technology to keep up with its counterparties which are the lenders. The lenders are trying to drive towards much more use of data and digital information to originate a mortgage, but if your insurance counterparty is not keeping up technologically, you know, that's going to be another -- a real challenge. Fortunately, I do think that current administration, the leadership at HUD and FHA understand these issues and are trying to work towards it.

More generally, in terms of creating greater opportunity in mortgage lending, you know, there are quite a number of approaches that both legislators and regulators could be pursuing, and I just want to touch on a couple. First, there's a real critical role in housing for state and local officials. Local zoning, land use restrictions, building code requirements, these things limit the production of new housing and drive up the cost of units that are produced. So in terms of thinking about the supply side of housing, and especially increasing a more affordable supply, there's a lot to be done at the state and local level to make it

easier to bring that supply on board.

Second, we've had some discussion here on this panel about, you know, the regulatory sandboxes to encourage new technologies and so forth. I think this ought to include, you know, new lending approaches designed to make mortgage lending more sustainable without running afoul of consumer protection or other lending rules that tend to stifle innovation.

Third, we tend to deliver a lot of subsidy for housing through credit, but the purpose, the public policy purpose we're driving towards is long-term wealth building. So maybe we ought to think a little bit harder about how we deliver our support and is it actually encouraging households to take on excessive leverage or does it actually help to build wealth over time?

And then finally, I've just got to say, it's been over 10 years since Fannie Mae and Freddie Mac have been in conservatorship. Look, that stifles innovation in the mortgage space and it certainly is adding, not subtracting, to systemic risk in our housing finance system and it's long past time for that to be taken seriously.

MR. BUSH: Then I can't help ask for your prognosis odds of that happening before the youngest person in this room is still alive.

MR. DEMARCO: Well, now there is a low bar. You know, Herb Stein says, "If something can't go on forever, it won't." Well, I'm not sure conservatorship can go on forever, so it won't, but it sure seems to be able to go on for a long time.

MR. BUSH: Good.

I do want to open it up for questions but I want to give Julapa the last chance if there's anything else you wanted to touch on.

MS. JAGTIANI: Sure. So yeah, in terms of regulations, so we have heard a lot of lenders complaining about a lack of clarity on which alternative they could use and what could not be used. And basically, we can't treat all alternative data equally. They're not all the same. So using cash flow data, using credit card information may be okay but there are some that actually go far out of outreach. It's like looking at the number of exclamation marks that you use on Facebook, for example, and some people even said that actually women use an exclamation mark more than men, so

it's also related to gender.

And when you give them access to your mobile phone, also they can tell when you charge your phone, how often your phone is out of battery and you're more likely to default, what time you get up. So you will get up -- I've heard that if you get up late you are actually more likely to default. So that's kind of, you know, not all the same. So we have to actually -- it needs more clarity and even related to gender.

Actually, Aaron Kline -- I saw Aaron somewhere earlier. So we had a FinTech conference at the Philadelphia Fed last week, and so Aaron mentioned that actually, is it a bad thing to include gender in credit decisions because we actually allow insurance companies who charge the car insurance premium based on gender; right? And if that can be done, why can't we use that to price a loan?

So there are a lot of questions around and, you know, it's a difficult question, how do we strike the right balance to allow alternative data to be used to expand credit to, you know, thin credit file consumers, but at the same time we need to protect consumer privacy.

MR. BUSH: That's a good segue to Anna.

Do you have a perspective on that last question?

MS. GINCHERMAN: So digital credit has been expanding tremendously due to the use of alternative data in developing countries. And kind of the backlash that we are seeing is that a country that has about 35 digital kind of lenders is Kenya. And now about 2.5 million people have been blacklisted because they are past due on a loan of like \$10. Right? So they've made the access very easy but at the same time have not educated the population fast enough. And therefore, again, the consequence, unintended consequence, now those people are blacklisted and don't have access. Forget about \$11 loans but, you know, mortgage, any type of loans or financial services. So that's, again, the use of alternative data, I mean, and some of their kind of data points you've used, you know, by allowing or downloading applications on your phone you're basically allowing lots of those platforms to scratch your phone, so they know everything about you. The clicking, you know, kind of the behavioral kind of on other platforms, et cetera, but it does have lots of unintended consequences.

And kind of one other data point I didn't mention, the financial inclusion around the world is growing, and it's about 70 percent, financial literacy globally is at 35 percent. Right? And what we also know, less than half of the population that have accounts are actually financially literate, and that's where the public policy and the role of the government needs to focus on, bringing people up to speed on digital literacy and financial literacy.

MS. JAGTIANI: Just one more thing.

So another question is who owns the data; right? Aggregate data, consortium data is out there, and the consumer has no access to it. We produce the data but we don't know what's out there. We have no chance to actually know what is in there and whether it's accurate and how we actually correct the information. So that's the one thing that regulators have to think about.

We actually have seen that actually one of the consortium data, think tank data, was sold to a single fintech lender. And so basically now one lender owns everyone's data. Is that fair? Can they sell our information?

MR. BUSH: Good.

Do we have questions from the audience?

Yes?

SPEAKER: This might be directed to Mr.

Demarco, but what do you think about electronic mortgages, as in growth of electronic mortgages and what the growth and path is to that? Will that help any (inaudible)?

MR. BUSH: Did everyone hear the question about electronic -- okay.

MR. DEMARCO: It had to do with the growth of electronic mortgages and the opportunity that that might create.

I think that's where we're headed and I think that it should help. It should speed the process. It should improve the accuracy of underwriting. And you know, so I think that all in all is a good thing. But there do need to be standards around it and some of these data issues we were just hearing about in terms of, you know, how the data is going to be protected and so forth become legitimate questions. But, you know, one has to sort of assume that these standards are developed and put in place. But it should be a

positive.

MR. BUSH: Other questions?

I'll ask one more, which is I want to pick up something that Julapa mentioned because I think it's an intriguing issue, this question of whether data, if used even for making good business decisions, ended up creating disparate effects, you know, higher priced loans for women or minorities, any class of people, is that a problem? Should banks be protected from say discrimination litigation or supervisory action? Or is it something that should be prohibited, prevented?

MS. JAGTIANI: So I can give some examples. The CFPB has issued a no-action letter allowing alternative data to be used by one of the fintech lenders, Upstart; right? And so a lot of -- we kind of know a lot of information around your education, your college major, have been used, and it's okay to use as long as you use it properly. And so now the thing is, so, this alternative data currently can be used to expand credit. So if you run someone through the traditional model and the person fails the model, you can swab that person and use alternative data and see if that person actually could end up getting credit using

alternative data. But it cannot be used to deny credit. So if you actually get credit through the traditional channel, because some of the earlier data scraps that I showed you, there are some super prime consumers who actually were rated by Lincup as very poorly with a F or G-rating, the lowest rating. And they actually default a lot within the two-year period following that. So people get divorced, people lose their job or they have a serious illness. It doesn't show in the FICO score until you are actually delinquent on something, but actually, it immediately shows this alternative data is reflecting real-time information. So, yeah. But we cannot use it to deny credit currently. Should it be that way? I'm not sure. It's something that we need to think about.

MR. BUSH: Good. Yes, another question.

SPEAKER: Just following up on that. You say that you use the alternative data to qualify somebody but not disqualify them, but you could still have a disparate impact in that it just happens the ones who qualify are (inaudible), you know.

MS. JAGTIANI: Sure. Yeah, so exactly.

SPEAKER: And then you've also got -- I mean,

how are you helping the banks to overcome the safety and soundness requirement that they show that is convicted before you use it, sort of a chicken and egg. I think that's another inhibitor.

MS. JAGTIANI: Yeah. So that's related to the use, not just alternative data but the AI, the data that enters the model. Governor Brainard and I talked about this at the Fintech conference at Philadelphia Fed last week, that some of these AI models that use barcode data, say hiring decision, right, because basically bias against female, there is some like female college that actually have been excluded with the result of this model, AI model, because the data that enters the model is biased. So it's something that, yes, we need to be careful about and it's too complex and you have to be considered on a case-by-case basis.

MR. BUSH: Good. Well, I think we're at the end of the hour, so please join me in thanking the panelists for an interesting discussion.

(Applause)

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