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CAN AMERICA GET ITS ENTREPRENEURIAL GROOVE BACK?

A DISCUSSION ABOUT PRIVATE CAPITAL'S ROLE IN THE ECONOMY

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PANEL THREE: RESEARCH ON PRIVATE CAPITAL

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MR. LERNER: I think we will commence the proceedings. We've been given the daunting topic of dealing with research insights regarding what we're casting as a fairly broad net around private capital, entrepreneurship, and innovation, and choosing whichever topics we want to particularly dig into ourselves. But while we have a daunting topic, we have a team here of people who are well up to the job in terms of putting us in a great position to talk about these things.

Sitting over here is Bob Litan, who is the vice president of research and policy at the Kauffman Foundation, which sort of understates his role as the critical intellectual venture capitalist in terms of seeding entrepreneurship research across this great land in terms of business schools, law schools, economics departments, and the like. It's hard to imagine very many people have had as profound a role in terms of shaping the intellectual discussion around entrepreneurship in the last two decades. In addition, among many other accolades, roles, and so forth, he still serves as a senior fellow at The Brookings Institution.

And then sitting next to him is Carl Shapiro. Carl is the Transamerica professor of business strategy at the Haas School at Berkeley, as well as professor of economics in Berkeley Econ Department, where he's been for many years. At the moment, though, he's on leave steering the U.S. economy through his seat on the Council of Economic Advisers. Prior to this he was the deputy assistant attorney general for economics in the Antitrust Division at Justice. And again, both these people have many glamorous things that we could talk about for a long time, but in the interest of time I propose we just plunge into things.

We've proposed a little mode where each of our distinguished panelists are going to take a few minutes to share a few thoughts. I'll then pepper them with a few questions of my own, as well as a few editorial comments, and then we'll throw it open for a few questions in the remaining moments until Carl has to go off and save the free world. (Laughter)

So with that, Bob, do you want to take?

MR. LITAN: Yeah, I'll begin. Actually, there's one other point you didn't have in your notes and introduction. We actually wrote a paper together once.

MR. LERNER: Wow, I didn't know that.

MR. LITAN: Oh, yes.

MR. LERNER: Little-known fact. (Laughter) Little-read paper.

MR. LITAN: No, we did a survey at Antitrust Enforcement in the 1990s, because we both served at the Justice Department. Actually, Carl is serving in the second -- well, you served a second stint in the same job. I think other than Jack Lew, probably the only person in the government who has had the same job twice.

MR. LERNER: Gene Sperling.

MR. LITAN: Oh, Gene Sperling, that's true. That's three. Okay, there's a pattern. Okay.

So in any event, I thought I would tackle just several issues. Let me step back before we talk about finance to talk about, I think, an emerging confusion between what we think of as new and small businesses. And the confusion in part was generated, embarrassingly enough, by a paper that was published by Brookings here, in the last Brookings papers on economic activity. There was a joint paper that was done by Eric Hurst and Ben Pugsley that looked at small business, and it got a lot of publicity and I've seen a number of columns on this that have taken off from the paper, I think wrongly attributing some of the findings of the paper.

And the paper shows that most small business owners -- this will not surprise you -- have no intention of growing beyond their lifestyle. So, therefore, no need for capital nor do they introduce new products. And the implication that I've seen from a number of commentators from this paper is, well, we don't have to worry about small business. If we're going to get our mojo back, we're going to have to rely on big business. And I wrote a column on this I think last week on CNBC's website that says that those commentators who were drawing that conclusion from that paper were missing an important fact, which has grown out of research that's been funded by our foundation and also research that we've conducted ourselves.

John Haltiwanger at Maryland, along with Ron Jarmin and other people, have sensed this and shown us some papers, and also I've done some papers with people at Kauffman that show the same thing. And that is that if you control for the size of business, size does not matter in terms of job creation, it's the age of business that counts. So all the action in generating jobs over the last 30 years until the recession is all in new business, it's not in small business. And so, that's the reason we're here.

Martin showed a chart at the beginning that had from BLS those numbers of new businesses going down. That's the problem, is that we've had a decline in new business formation that actually predated the recession, that got a lot worse in the recession. And then another chart they did not show but we have in the paper in Kauffman that shows the number of jobs per startup has also been falling, and that's been true for about 10 years and that's probably due to technology. But nonetheless, you put those two trends together and that's one of the reasons why we're having a hard time digging ourselves out of this slump when we come to jobs. That's point one.

Point two is we get to the issue in the Hurst and Pugsley paper, it talks about small business not wanting to innovate. That's true, because really when you talk -- if you look at the economic research, if you look at people like Will Bommel, Drucker, Schumpeter, other people that have written about the "entrepreneurship" in the economy, the definition of an entrepreneur is somebody who undertakes something new. And so almost by definition most small businesses are not what we would categorize as entrepreneurs because they're not doing something new, they're just simply replicating.

And in fact, if you look at the major disruptive innovations that contribute to our daily wellbeing -- things like the airplane, the car, personal computer, Internet search, I always say air-conditioning -- if you look at all those innovations, they were all brought to us by entrepreneurs, not by big firms. And that's because entrepreneurs who have no vested stake in the status quo are more likely to do disruptive innovation than existing firms. There are exceptions, of course. Honda and Toyota introducing the hybrid car would be a radical innovation, I would say, but that's going to be the exception that proves the rule.

So let's get to the important fact, and that really our challenge in our economy is to finance new businesses, okay? So now let's go to another chart that was up there. I think this was Ronnie's chart, and a lot of people have been talking about all this capital that's sloshing around the economy, billions and trillions of dollars. But the fact is very little of that capital is devoted to seed investment in starting new companies. Even venture capital, which had like a $20 billion entry and was sort of a pipsqueak in that chart, a small fraction of venture capital goes to financing the seed rounds of new companies. And in fact, these seeds have shied away from the seed capital financing since the Internet bust.

So on the surface you would say -- oh, by the way, there's one other factoid that I want to give you that also looks bad. We have a paper on our Kauffman website that I think is eventually going to be published in a journal. Alicia Robb, who works for us, along with David Robinson at Duke have published a paper that looks at the 2004 cohort of firms that we have been tracking longitudinally. And it turns out, contrary to popular perception, that bank financing, at least as of that cohort that they looked at, bank financing turns out to be a lot more to startups than people think. It's the most important source of funds, even more important than DCs and more important than friends and family or angel investors. And that's because most people start their business -- or at least until the recession they were starting their business with their credit cards, their home equity loans, and perhaps some straight business loans. And so the crunch in bank lending since the recession, which is a combination in decline in demand and also regulatory stringency, that bank lending crunch would be another source of worry when it comes to new business formation.

So on the surface it would seem that if private capital is withdrawing from new firms, that we should really worry. And so people will say, well, the government should step up and fill the void. I mean, it's sort of the natural reaction, and we'll hear from Karen Mills to see what her answer is, I guess, in an hour. I just want to give you a couple perspectives on that and then I'll quit.

Number one, it's important to distinguish the type of company, the startup, when we talk about this apparent shortage of capital because if we're looking at IT companies or anybody that's doing, you know, a web-based business, it turns out you don't need much capital because of cloud computing. You can rent the cloud, essentially you can rent an IT department. You don't have to recreate an IT department. You can rent a web designer, you know, you can hire programmers to do something cheap. And so the entry barriers for anything related to IT have gone down dramatically, and so the fact that there isn't as much capital around for those companies doesn't matter.

And even so, there's plenty of capital for those companies because replacing the seeds, increasingly, have been the so-called super angels. There's an outfit called Angel's List in California which has, you know, roughly 600 to 800 of the top angel investors in the country and they're putting money into these companies. And there's outfits like Y Combinator that are basically *American Idol*-kind of companies that bring together superstars based on their business plans, put them together in a hothouse environment, and then funds their companies. I think Y Combinator initially was giving like $15,000 or $20,000 per company. They're up to like $250,000 now.

So if you're in the IT space, capital is not a problem. If there's any market imperfection at all it would be in long-life startups. It would be in clean tech, in drug development, medical devices, anything that's going to be a long-term payoff, all right? And it's unclear there whether there's a capital shortage, but I will give you the following statistic. I went to the NBCA website and it turns out that of all the VC money now that's being invested in the last 2 years, 15 percent is in clean energy or in bio, and the only industry that has a larger share of VC is software, which is 20 percent. So even though the total number is down, the share of VC going to these long-life investments still is rather significant.

Nonetheless, I think we do have a problem financing these long-life businesses. Many of them come to us and complain there's a shortage of money, and so what's the answer to that? And my answer really goes back to a reference to Josh's work, which is setting the table for cooking the meal. Cooking the meal would by more Solyndra-kind of deals, which let's be honest, are off the table now, all right? A, for obvious political reasons and, B, because of the budget deficit. So, I don't think we're going to see many more government guarantee kind of operations.

I would prefer more setting the table kind of policies. Therefore, we at Kauffman have supported the idea of having a capital gains exemption for investments made in startups as long as the money is held for five years. This has been an Obama Administration proposal that we would like to see made permanent, and so that's the setting the table kind of proposal that doesn't pick winners and losers, and basically levels the playing field, but encourages more investment in seed-stage companies.

I'll make a final point and then I'll quit. Let's get to the growth stage, which is now a company, let's say, is past the seed. It's growing rapidly, and now it's making the decision of whether to go to IPO or not. And then there was a chart earlier this morning -- I think it was Ronnie again had that IPO chart, right? -- 5- to 600 IPOs in the '90s down to like 100 IPOs a year now, right? And there have been a lot of villains, and he showed you all the villains inside. It's Sarbanes-Oxley, regulatory uncertainty, blah, blah, blah.

I'm going to throw one villain that's not on the chart that Harold Bradley, our chief investment officer, and I have been writing about for the last year. It's a hypothesis. We haven't found the smoking gun, but I think we've found a lot of smoke, and in response to our writings we're getting a lot of people who are writing to us and confirming the following thought.

We think that ETFs belong on that list as a source or as an additional factor that may be depressing companies from going public, and I'll tell you why. You know, an ETF is a strange day-traded fund, it's not like a mutual fund. We have to wait at the end of the day to value the company. ETF is like a stock, you can trade it all throughout the day. Half the trading on the market appears to be high-frequency, and a lot of the high-frequency trading is in ETFs.

And what ETFs have allowed is, they've allowed -- essentially, they've lowered the transactions cost of buying the whole market or sections of the market all at once. And in particular, if you look at small cap ETFs, like the Russell 2000 and other comparable ETFs, what they are doing is the volume in the small cap ETF swamps the volume in the individual stocks so the ETF is basically the tail wagging the stock dog. And so, that's not true for S&P ETFs, where the trading in and out of Microsoft and Dell is clearly going to be driving the ETF price, but it's not true in small cap ETFs.

So one of the reasons we think you're seeing so much volatility in small cap prices is because the in and out movement of the ETF. And if you're a company that's thinking about going public, you may not realize a lot of volatility that may happen to you once you go public is because through no fault of your own, you may get lumped in to an ETF and you'll have no control over your stock price because your stock price is going to be driven by the ETF, not by your own performance.

And so we've suggested a couple of very radical ideas, and I'll just leave it there and then I'll quit. And that is, one idea is you can ban small cap ETFs. That would be an extreme solution. A second idea would be you could make ETF sponsors pay small companies for the right to put their company in your ETF. I mean, the fact of the matter is, why should some third party essentially expropriate the value of a company who has a right in their shares and take them and put them in ETF and basically put them in this ETF ocean and this little company is the small boat that's bobbing around the ocean?

So, I throw that in there as an additional thing to think about and I'll quit there and look forward to Q&A.

MR. SHAPIRO: Well, it's a pleasure to be here. Unlike Josh and Bob, I'm not somebody who has done years of research on private equity in particular, but I do come from a tradition of academic, and as an antitrust person of -- and being at Berkeley now in the Bay Area of paying a lot of attention to disruptive innovation, disruptive entrance a la Schumpeter going back many years.

Now, where I sit on the Council of Economic Advisers, I'm really a user of this research. And one reason I wanted to spend the morning here was to hear the broader thinking from people who came before. So, let me put a little broader context of sort of how the administration sees some of these things.

We've put forward an innovation strategy and we've had a couple of rounds of documents. The most recent one was earlier this year. Actually, Ronnie Chatterji, who spoke earlier, was a senior economist at the CEA and was involved in this. And so, the vision or the structure is a pyramid. The base of the pyramid is building blocks: education, infrastructure, R&D, some of the things -- public goods type of things that really we need the government to do off in the federal government, including sort of IT ecosystem under there. That's the lower level, and that kind of legal -- of course, rule of law, some basic things like that.

The middle level, market-based innovation, that's more what we're talking about here, some of the structures to make sure capital markets are working well, that innovative firms are not blocked from the market, and other intellectual property policy and the like. And then on top of that, our national priorities that we might choose -- health, IT or clean energy, which in terms of what David Brooks decided, we can think of sort of starting from the goal line there -- and it's of a different analogy, obviously, than the pyramid, and how far do we go?

And the other analogy we've heard is table setting versus cooking the meal. I guess I'm kind of in the middle there. I feel like the government, we can kind of provide a very nice ambiance for the meal, okay? (Laughter) So, a little more than just setting the table, but, you know, so that people would enjoy the meal.

MR. LERNER: You're at the 50-yard line?

MR. SHAPIRO: I don't really know. I don't want to position myself vis-à-vis David Brooks. That seems like a losing proposition, actually.

I will say where I would differ from him -- it was a wonderful talk, actually -- is on sort of the -- I don't think we're in a lull in terms of innovation. I mean, we're obviously -- the recovery is not what we'd like it to be. Unemployment is too high and all that. But, you know, you talk about people doing whether it's robotics or clean energy, biotech, you know, a lot of the health sciences, maybe if we -- and I just had the pleasure of being at the awarding of the National Medals of Science and Technology, and it's so inspiring, you know. And you could see the young people, and the President just hosted some of the science winners. So, I just -- there I would differ from him. I'm not going to go into the end zone, but I'll stay somewhere in the middle of the field here.

I would also like to echo what you said, Bob, about the importance of young firms. That's something I think we really appreciate, actually. Ronnie, again, we worked on this together, the importance of young, high-growth firms and distinguishing them from small business -- from the broader set of small businesses. Not to say, you know, one is more important than the other. I mean, there are so many jobs in small business, but I think our focus here today, at least, is more on sort of the high-growth, entrepreneurial firms and getting capital -- making sure they have access to capital. And I'm sure we're going to hear from -- you know, I see Karen Mills here. We'll hear from her about the wonderful efforts SBA is doing in that regard.

A little more context, then I'll just say a few things about administration initiatives, but not so much SBA because Karen will. Look, we really do see that right now in the short-term -- if we think sort of short term versus some of these longer-term structural issues, you know, we see it as aggregate demand is the fundamental problem, you know, from a macro point of view. And Martin, you know, sort of alluded to that at least or mentioned that. And I think you mentioned, you know, the housing, we can't count on residential investment. We were over investing in housing versus other things. So, that's a painful de-leveraging process.

So when we think about job creation -- which we think about every minute, okay, all the time -- you know, that of course goes to, well, who is going to create the jobs? Businesses are going to create the jobs or people are going to create their own businesses and their own jobs. I'm waiting for my son to do that right now, by the way, because he just got out of college. And so, you know, we have that sort of macro policy, fiscal policy debate on the one side. What do we need the government to do to help grow aggregate demand and get us out from a situation where we're so much under potential output?

But in that context, what are we also doing to make sure that small businesses and growing businesses have access to capital and the tools they need, because they are so important for job creation. And the Kauffman Foundation's work, the Haltmeier work you mentioned, too, is very influential, actually. I've read that, we've learned that other people in the CEA -- that is kind of -- that's sunk in, okay, let's put it that way. So, that's a good example of actually how the research really matters in terms of the way the policy issues are framed in the White House.

MR. LITAN: You should come to our trustees meeting and say that.

MR. SHAPIRO: Okay. Well, I think it's really true.

So then the bridge between the aggregate demand and need to boost that versus looking to the private sector to make these investments, the American Jobs Act, which the President has sent forward and we're continuing to push for, has a number of elements in that area. So one that's maybe less well-known, in the Pathways Back to Work part, which is -- you would think it's including an extended unemployment insurance. It has provisions so that people who start their own companies can continue to receive some unemployment benefits, okay? So it has provisions for training and helping people to be entrepreneurs, okay? So, that sort of framework is part of what's in there.

We also have got various, you know, tax cuts and extenders into 2012, such as the bonus depreciation for investment and payroll tax cuts for small businesses. All of those should help.

I think the more specific policies that are a little closer to our topic here today are -- and I think you mentioned, actually -- the 100 percent exclusion for capital gains tax for capital gains that are realized based on the sale of qualified small business stock that's held for at least 5 years. And that seems right in the line of sort of private equity, angel investors. We've already had that, we want to continue that policy. And from my point of view, it would be very interesting to hear how much that matters, for which sort of investments that matters. You know, not everybody is signing up necessarily on that policy, so, it's good for us to have evidence and learn what the effect is.

Obviously, it has a budget cost. Anything with a budget cost we need to justify and explain there's a good return on that, so that would be one example. The making permanent and expanding the R&E tax credit would be another example which would be particularly important for innovative, high-growth small firms.

Let me just list a few other things relating to access to capital that are, I think, pretty much closely related, all of which we've called for and all of which actually have considerable bipartisan support. And in fact, I just got an e-mail this morning as I was sitting here that the Senate Banking Committee is planning a hearing on some of these issues coming up. A number of them have also been taken up in the House. So, one strives to find these bipartisan areas. There are not as many as one would like. But actually, access to capital for small, high-growth firms is generally in that area, and I think that's why the work that folks here are doing can really get picked up and it doesn't have to run into partisan gridlock.

So, crowd funding is one of them, okay? Which, you know, I don't know if it's going to be huge in comparison with the tens and hundreds of billions of dollars, you know, that we were looking at in some of the slides here, but particularly someone from the Bay Area, sort of with a tech orientation, it seems very appealing. So, this is basically to give a limited exemption from SEC registration requirements for companies that can raise up to a million dollars -- at least that's our proposal. Individuals can put in up to about $10,000, and we can have a holding period so you would avoid sort of people who are just flipping these and turning these.

And it's pretty appealing in a number of respects. We've indicated our support for it along the lines of seed capital that's already given some special treatment by the SEC. And to the House (inaudible) this is -- I think also has an interest in Congress.

Second one along the same lines is to expand the limit for Regulation A, many public offerings. Right now, it's $5 million; I think it's been that way for quite a while. And this, to raise it up to $50 million. This gives basically an exemption from SEC registration requirements, simplified financial disclosure, and basically would allow companies to get access to capital in that way and grow larger in the process of that. Very few companies took advantage of this provision last year, and that could well be because the limit is so small.

A third area is to have an on ramp for Sarbanes-Oxley compliance to make it basically lighter compliance as companies -- they can go public and then get larger and have proportional responsiveness requirements imposed on them. Right now there's a market cap limit of $75 million. This has to do with the audit of 404(b), especially costly. CEA has looked at this, I think Ronnie did some work on this, actually, when we had you with us. Compliance costs, you know, can be 2-1/2-, $3 million a year for an average company, just for the external part of the auditing.

So we're looking at working with the SEC to have some more proportionate sort of on ramp so that as companies got larger they -- but beyond the $75 million they could gradually take on more responsibilities. Again, while they're young, okay? The notion is based on age rather than just size.

So in the end -- Josh is looking at me. I will wrap up here and we'll go into questions. Certainly where I come from is to be agnostic about various forms of capital funding, okay? The basic story about private capital being patient, being more hands-on, we've heard that from several people this morning. That's very appealing to me. I mean, you go back -- and I'm a student of Alfred Chandler and Burl and Means and the growth of the modern corporation, and there's clearly an important role there, okay? Of course, there's an important role for traditional, you know, large, publicly-traded companies with diffuse ownership. So we're trying to put in place the suitable ambiance for all of these meals to be eaten.

MR. LERNER: Right. Well, thanks so much, guys. All right, you have to be at the White House at 12, right? So maybe we'll do five minutes of questions and we take, maybe, eight.

MR. SHAPIRO: Yeah, or 10.

MR. LERNER: What do you think? All right, 10 it is. All right, so I'm going to start with the first question. You highlighted one thing that we don't know, which is sort of how effective tax policies -- you know, in terms of capital gains or R&D are in terms of really stimulating stuff. Do you in your, you know, sort of day-to-day interactions -- are there other things that sort of really stand out in terms of things you like relative to this whole realm of entrepreneurial finance, private capital, whatever you'd like to have more evidence or information on that would be helpful in terms of guiding your choices?

MR. SHAPIRO: Well, I think generally all the things that involve tax credits. I mean, there's a rigorous -- you know, whether it's OMB or Treasury or CEA we're like, all right, we've got to explain why we're spending tax credits money, you know? Turns out we got long-term fiscal issues. We can't just throw around money, okay?

So even the R&E tax credit, okay, as an example, I mean, as an economist I'm naturally disposed to that because there are positive spillovers associated with R&D and so forth, but do we know what that does in terms of how companies actually spend? You know, what about if we're going, you know -- other benefits and investments in small business or preferred or, let's say, national priorities, what's the return on those investments, historically? You've looked at this a little bit. Doesn't look so great, necessarily, from all of your work. So, I think that's very relevant.

So, there's a couple examples.

MR. LERNER: Bob, what do you see as the sort of big gaps from where you're sitting, as I said, as the intellectual venture capitalist? Where are there holes in the portfolio?

MR. LITAN: Okay, so far we've been talking about -- or at least a lot of the papers that we've funded have talked about jobs without distinguishing what the jobs pay. And so, I think the next frontier of research, especially given all the angst about income and equality and opportunity and all that, is to focus on the kinds of jobs that are being created.

MR. LERNER: Yeah.

MR. LITAN: And in particular, is there anything we can do to both promote new job formation and at the same time narrow income inequalities?

Now, when I was a research assistant here many years ago, I was Art Okun's research assistant on the famous paper called, "Upward Mobility in a High Pressure Economy." And at that time, the sort of standard view was if you had lots of aggregate demand push and the economy was growing strong, we would narrow income differentials and you'd have lots of upward mobility. And right now, we are in a demand low, and the big question that we don't know is whether Art's research would hold up today as we expand. And that's just a -- you know, we take it on faith as economists that once we get down to 6 percent unemployment at some point that these differentials will narrow. But on the other hand, in a society we've got 30 percent dropout rates and all the problems we have in our K-12 education system and so forth, it is not a certainty that more jobs will necessarily lead to a narrowing of the income differentials. I think that is the next frontier.

MR. SHAPIRO: I would just pick up on that and say, you know, one of the big issues we naturally face thinking about jobs and Okun's Law, actually, is if companies -- even if companies start up and they're successful as they scale, what sort of jobs will that create, okay? I mean, some of the most profitable companies -- and there's a lot of fixed costs, whether it's content or software -- they don't necessarily create that many jobs, even though they are very successful. And if they scale, are they going to do it in the United States in terms of the employment or abroad?

So, in that sense, at least right now, we sure care about that as well as the ROI on those investments.

MR. LERNER: Yeah. I guess one challenge is just the way that Census actually compiles data. Where, you know, so often certainly much of the research that's been done on these questions has used the Census data where they'll have the aggregate payroll, but the fact that there are 150 people collectively making $1 million doesn't really tell you a lot of what you really want to know to answer, you know, some of the critical questions there in terms of stuff.

So, we throw it open to questions? Yeah, all right. A quick question?

MR. CHIN: Yeah, Chow Chin, freelance correspondent based in Maryland.

Dr. Shapiro, first thank you for your service in the President's Council. I would like to ask you a question I did not have a chance to ask last panel, and I would like to take advantage of your current position to ask.

Mr. Michael Klein pointed out that the company profit share and the company wage share are in a different direction. One is going up and the other one is going down. How do you manage in this situation better?

Thank you.

MR. SHAPIRO: Well, corporate profits are at record highs. And I think as, again, maybe Ronnie or somebody else pointed out, there's a lot of money on quarter balance sheets, basically. What did you say, $1.9 trillion, was that the figure you cited? So, one thing that tells us, the access to capital is not the problem. And, in fact, Mr. Klein said there's plenty of capital around for larger firms.

We still worry, you know, and have to pay careful attention to access to capital for smaller firms and the evidence we have from the Fed's senior loan officer and other sources indicate there's been a -- the loan standards went much, much tighter during 2008, 2009, and then they've eased off again. But that's something we have to worry about.

But it goes back then to interest rates are low, all this capital is looking for a good place to invest, and if we need to get demand up in order for that investment to be profitable, and then that will hopefully create jobs and will get a broad-based resurgence and prosperity resulting from that.

MR. KENNEDY: Hi, Joe Kennedy. A lot of discussion is being focused on sort of the supply side of innovation, tax incentives and other things. And I'm just wondering, maybe it would be more productive to focus on the demand side, on the areas where we would like to see innovation and growth. Energy, education, health care are not the type of dynamic, competitive choice field markets as IT are. And wouldn't it be better, maybe, to focus on government and other policies that would free up those markets to more innovation and more competitiveness and make it easier for outside entrants to enter with disruptive technologies?

MR. SHAPIRO: Well, let me take a crack at that and then maybe Bob. So, you know, you should hear Aneesh Chopra. He's the current chief technology officer of the United States. He's wonderful, I get to work with him pretty often. He's very energetic. And one of the things he's really pushing, and others, is that some of these areas where the government -- or the government is buying a lot of the services, and I don't just mean the federal government. State or local government are where we don't see as much innovation. Educational technology, health, IT, some areas we're trying to kind of standardize and move forward.

So I think when the government is on the demand side -- I mean, educational technology is a great example. It's very Balkanized. We don't seem to be getting scale economies, it's sort of sluggish in terms of adopting new technologies. That's a real challenge. It's a challenge for the CTO, it's a challenge for our chief information officer, so we can do learning.

One of the things in the Affordable Care Act is to try to do a lot of experimentation in the health care sector so that we can see what works and hopefully save money there by rewarding the business models as well as technologies that are more successful. So, I think that's a big area of demand pull where the government could do better.

MR. LITAN: So I'll just add to that. I don't know whether this is demand or supply, but we're coming out with a paper, Kauffman is, in January called, "License to Grow." It's a survey of a lot of the fields that you talk about where we have state and local licensing provisions for people to go in, whether it's education or doctors or lawyers. There's a book here that was published at Brookings that Cliff Winston and Bob Crandall did on licensing lawyers. You can just go down the list --

MR. LERNER: In Florida, it's dog walkers have to get licensed, right?

MR. LITAN: Dog walkers, et cetera. In fact, there's an index of the share of population, which now has to be licensed to do something, and it's gone straight up. And it gets at your issue. And so all these things are not at the federal level. These are state and local things that need to be done and are better addressed, obviously, to legislatures there, national government association. But we think they're huge opportunities for unleashing a lot of creativity if we got rid of a lot of these licensing restrictions.

MR. SHAPIRO: And one example where we were able to push a little bit in that direction is for veterans, actually, coming back who had training maybe as medics in the military, come back and try to ease the way that they can get civilian jobs and reduce the licensing barriers they would face when they actually have, you know, good training and experience, but there can still be delays because of these obstacles.

MR. LITAN: Right.

MR. LERNER: Okay. I think we can go on for hours entertaining ourselves, but the show must go on. So with that, I will end by very much thanking our panelists for sharing their perspectives. (Applause)

So, let me -- we're doing a little software upgrade here. I'll just tell you I have the honor of introducing Karen Mills. She is, as you all know, the administrator of the Small Business Administration.

Prior to running SBA, she served as the president of a private equity group called MMP Group, and prior that, the director -- founding partner and director of Solera Capital, whose primary focus was in investing in women-owned businesses.

She's got many honors including her alma mater and my employer, Harvard Business School. So, assuming the technology is ready --

MR. LERNER: It's not.

MR. LERNER: It's not. Okay.

MR. LERNER: We had this earlier problem, but we have a back-up plan.

MR. LERNER: We've got a back-up plan. This reminds me of some of the technological difficulties we encountered in our day. Our previous dean at Harvard Business School didn't like to invest in computers. He used to be a forest ranger, so we kept on upgrading the software, layer after layer, until one time trying to do an Excel spreadsheet and the little old IBM XD that we had caught fire, started smoking.

(Laughter)

In any case, this looks more promising. In fact, it looks really good. Without further ado, thanks again.

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