THE BROOKINGS INSTITUTION

PROMOTING INNOVATIVE GROWTH: VENTURE CAPITAL, GROWTH EQUITY AND IPOS

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Welcome:

MARTIN NEIL BAILY
Senior Fellow and Director, Private Capital Project
The Brookings Institution

PRESENTATION: FINANCING CHOICES OF YOUNG FIRMS

DAVID ROBINSON
Professor of Finance
Duke University -- Fuqua School of Business

PANEL ONE: GROWTH EQUITY

Moderator:

RONNIE CHATTERJI
Professor
Duke University -- Fuqua School of Business

Panelists:

BRAD ANTLE
Chief Executive Officer
Salient Federal Solutions

WALTER FLORENCE
Managing Director
Frontenac Capital

BRAUN JONES
M&A Managing Director
Outcome Capital

CHUCK MORTON
Partner
Venable

PRESENTATION: IPO MARKET

JAY RITTER
Cordell Professor of Finance
University of Florida

PANEL TWO: SOURCES OF CAPITAL FOR FUNDS

Moderator:

JOSH LERNER
Jacob H. Schiff Professor of Investment Banking
Harvard Business School

Panelists:

ERIC DOPPSTADT
Vice President and Chief Investment Officer
Ford Foundation

PIERRE LAVALLEE
Vice President and Head of Funds & Secondaries
Canadian Pension Plan

JONCARLO MARK
Founder
Upwelling Capital Group LLC

SCOTT KALB
Vice Chairman, WE Forum Global Agenda Council on Long-Term Investment
Advisory Committee, Private Capital Research Institute
Chief Executive Officer, KLTI Advisors

PARTICIPANTS (CONT'D):

PRESENTATION: CROWD FUNDING -- THE NEW FRONTIER

AJAY AGRAWAL
Peter Munk Professor of Entrepreneurship
Rotman School of Management, University of
Toronto

Keynote:

CONGRESSMAN JIM HIMES (D-CT)
Member, House Committee on Financial Services
U.S. House of Representatives

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P R O C E E D I N G S

MR. BAILY: So, my name's Martin Baily. We're going to start in about five minutes -- let a few stragglers come in, and get coffee, and sit down. So, hopefully, we'll start in just a few minutes. Thank you all for coming.

Good. Let's get started. I'm Martin Baily, at Brookings -- the Director of the Business Initiative here, and also working with Josh Lerner on the Private Capital Project, which is joint with Brookings and Private Capital Research Institute.

And we're delighted to have this event. This is the third such event that we've had, and I think all of them have been a success. I think this one will be, too. We've got a terrific set of people talking and presenting. We've got a great audience, and please get ready to ask questions, and push people forward, and so on.

Since there's no test at the end of each presentation, if you want to move up to the front and fill up the front, that's always good, but, you know, it's hard to get people to do that.

Okay, let me just say a bit of context about what we're going to talk about today. The title is "Promoting Innovative Growth," and we're looking at venture capital growth equity and IPOs.

I'm going through my notes, and it now says, "Tell them logistics about lunch," so I better break off and just tell you the logistics about lunch. There will be boxed lunches that will be available, and they come after -- okay, so Panel Two is "Sources of Capital for Funds." That's the one run by Josh Lerner, and at the end of that, there'll be boxed lunches out there.

If you don't like the boxed lunch, Brookings's cafeteria has stunning gourmet food, and you can go and get some of that for yourself, or you could rush out to Dupont Circle and get something better. But hopefully, the idea of the boxed lunch is so we can bring everybody back in time.

So, we only have set aside about a half an hour for lunch, because we want to get everybody back, and we do have the presentation by Ajay Agrawal, and then we're going to have the keynote from Congressman Jim Himes. So, I think the after-lunch session is not to be missed.

Okay, now get back to what I was going to say a minute ago.

So, I think the context of this meeting today is that, as we know, growth has been very sluggish. Quite a bit of that is sort of cyclical, tied to the financial crisis. We really have the missing piece, I think, of this recovery, which is business investment and business hiring. Some folks say it's the housing market, and, of course, the housing market was crucial to the decline that we went into.

But at this point, housing investment, residential investment is actually climbing pretty well. It's a strong point in growth. It is true that the loss of housing wealth has depressed consumer spending, but even there, in the last few quarters, consumer spending, while it's been relatively slow, has kept pace with the growth in consumer income. So, households are not, in fact, saving a lot and attempting to pay off more of their debt. They are basically spending whatever income they have.

So, in order to get us back to a stronger, more vigorous economy, there's an issue around state and local spending, maybe. But for our purposes, I think the issue is business hiring and business investment, and that's what's needed to get this ball rolling a little faster.

Now the large businesses, larger, mature businesses, generally don't have problems with cash. They seem to have a lot of cash on hand, as we read all the time -- some of it, obviously, not located here in the United States. But if they want to invest, they have the opportunity to invest. They have the cash; they can do it.

So, that piece, yes, investment and hiring are somewhat weak there. Obviously, what's restraining them is not a lack of financing, for the most part, in the larger, material businesses.

On the other hand, if you look at younger, smaller businesses, I think there's a pretty good case that lack of funding is one of the factors that's restraining investment and hiring in that sector.

Clearly, if the rest of the economy was booming, and everybody was looking at missing out on opportunities, there'd probably be more hiring, more investments. So, general uncertainty is a factor, but it looks like funding is also a factor. Banks have become more cautious. Small entrepreneurs who typically had used the real estate value in their homes to borrow -- and that has gone down, or is not available in the same way.

So, access to the venture capital market has been pretty depressed, and so there's not a lot of money out there on venture capital.

There are different views about this. You know, is it really funding, or is it really something else? That's part of what we're going to explore today. But I think this is a very important issue -- to explore the nature of funding for those businesses that are potentially going to grow, going to hire, going to invest, and be a key part of the recovery.

Just one more piece of it from my point of view -- I've spent a good part of my own career studying productivity. And I'm one of those folks who believes that if companies are able to produce the same output with fewer resources of capital, or labor, or energy, then that's a good thing. So, the rise in productivity is helpful, in the long run, to economic growth and even to living standards.

But we have had maybe a little too much of that since 2000. Looking certainly at the aggregate data -- so this is not something that's true of every company, every entity that you look at -- but if you look at the overall data of a non-fund business, the productivity growth we have had in some years has been quite high -- has really been restructuring efficiency-driven productivity, rather than numerator-driven productivity -- the output growing that pulls along investment, that pulls along hiring.

So, that's, again, another piece of what we're looking for to get this recovery going -- is innovation-driven growth and that -- you know, new ideas, new products, new services, things that help attract new customers and expand employment and investment.

So, this is the focus of today, and we're going to start -- we have a very good -- you have an outline, I think, so I don't need to go through everybody. The bios are also available there. But it's a pretty -- I'm pretty excited about this crew that we've come here -- thanks largely to the efforts of Josh, who's been instrumental in bringing in such a good crowd.

So, to start us off, I'm delighted to say we have -- our first speaker is David Robinson. I was intrigued, reading his bio, to notice that he has written on blackjack tables in Vegas. So, I was slightly tempted to ask him questions about that, but I think we better do that offline, because it's maybe not -- you know, maybe that's one way of getting small business finance; I don't know, but not the usual way.

So, he's our authority on venture capital and funding for young and growing companies, and he's going to talk about alternative choices of financing for young companies.

So, David, thank you and welcome.

DR. ROBINSON: So, thank you very much, Martin, for having me. Let me see -- ah, just what I was waiting for.

I won't be talking about the appropriate strategy for how to play blackjack. Instead, what I'm going to do is talk about the financing choices of young firms.

I've titled the talk this way, just so, really, that it conforms to what you see in your bulletin. But really, the message that I have for you today is much more narrow, much more focused. And it's on the role of debt and lending, bank lending, in the startup process.

Note that I said the word "startup," as opposed to "small business." We've understood for years and years that banks are important for the small business economy. But what I want to talk to you today about is the fact that banks are important. Bank lending is important for the startup economy.

I should say at the outset that -- please, if I'm going through the slides, and you'd like to raise a question, please do so. And if I don't see your hand, just blurt out the question. I'm used to that.

So, let me start, just to kind of frame the discussion a bit. Let me start by describing what I think of as sort of the myth from the MBA classroom. And I use the word "myth" somewhat provocatively. I've certainly perpetrated this myth, but I want to talk about it for a minute.

So, the myth starts with the idea that startups are opaque. And because they're opaque, and because they're startups, they're necessarily screened out of debt markets. Because bank lending is not available to startups, they then are forced to turn to a variety of other sources of capital. They go to the venture market if they can, or they rely on some combination of credit cards, friends, and family -- informal lending channels, informal capital channels.

And as a result, that kind of all just feeds back on the opacity of the startups in the first place.

Now the problem with this as a myth is that a lot of what's on this slide is actually correct. In other words, venture capital -- while most startups don't get venture capital, the ones that do are incredibly important for the economy in terms of job growth. So, venture capital's an incredibly important part of the equation.

For the firms that rely on them -- friends and family-type funding, credit card -- you know, access to sort of personal finance is really important. The real problem with this, the real -- where the facts break down and where this becomes a myth is really in this top arrow here. In other words, the fallacy is that because startups are opaque, they're screened out of debt markets.

And so what I want to do is try to think in terms of what is a more accurate picture, and think about startup capital coming from basically, you know, venture -- formal equity sources, informal capital sources, and formal bank lending channels.

And the question really is, what's the relative thickness of these lines? And you can frame that in a number of different ways. You can frame it in terms of innovation, in terms of job creation, in terms of business starts.

What I want to do is just show you some evidence from the Kauffman Firm Survey about the role of formal bank lending, just in the business start process.

So, just as an overview, what I want to do is, I'm going to quickly show you some evidence on the role of debt in this startup process. And as I've said before, this is distinct from the role of banks in the small business sector.

What you're going to see from this is that housing is an incredibly important source of collateral for many business starters. And as a result, that's going to have some policy implications that I'm going to try to talk a little bit about. I'm really not going to make policy statements as much as I am going to raise some policy challenges that I see based on the data.

Before I get into it -- well, actually, as a way of getting into it -- I don't know if Josh and Martin did this on purpose, but the organization of today's discussions kind of proceeds chronologically through the life of the firm in some ways, because I'm going to start at the very, very earliest stages of a firm's life. And then you're going to hear later in the day -- you know, our next panel's going to be on growth capital, and then we're going to hear about IPO. So, we're going to kind of be watching firms mature as the day wears on, and we're going to start with the very process of the startup act itself.

So, the Kauffman Firm Survey is something that I've been involved with doing the research using the Kauffman Firm Survey for a number of years. Let me tell you a little bit about what this survey is, and then I can show you what it tells us about the role of debt in startup capital structures.

So, basically what it is, it's about 5,000 firms that were started in 2004. Starting in 2004 means that in 2004 and not in 2003, they either began paying unemployment taxes, FICA, they established a legal business, got a tax ID number, or someone filled out a schedule C on a personal tax return.

These data were assembled through a Dun & Bradstreet sample frame that they used for doing credit score modeling. This gives us an incredibly heterogeneous pool of startups, both in terms of owner characteristics and in terms of business characteristics at founding.

And then what the Kauffman Firm Survey does is it goes in at a pretty high level of detail, asks a lot of questions about the nature of the business relationships they have, the financial structure that they have, and some of the founder background information.

So, in terms of founder demographics in the Kauffman Firm Survey, what you see is that founders are overwhelmingly white males who do not self-identify as

Hispanic. Their median age in the survey is sort of 35 to 44, in that age bucket, although about a third of them are over the age of 45. The median person in the survey has upwards of 10 years of industry experience.

So, we're really -- this is not college kids staying up all night in a dorm room, coming up with the next app that's going to change the world. This is a middle-aged man leaving a career -- leaving a company, continuing to work in the industry in which he has developed a lot of industry expertise, but starting a new idea, something that he's identified a gap somewhere that's not being filled.

If you look at the characteristics in the Kauffman Firm Survey, more than 40 percent of them have had at least one prior startup before the startup that the Kauffman Firm Survey catches them all in.

And if you look at the operating statistics of the companies themselves, the Kauffman Firm Survey catches a huge range of companies -- about 1/3 of them are pre-revenue in the survey year, but around 1/6 of them have revenues in their first year that exceed $100,000. So, there's a fair degree of heterogeneity in who these companies are. And remember, we're looking at them in their first year of starting.

So, I guess a picture is worth 1,000 words. So, this is a 3,000-word slide.

First, I want you to focus on the bar on the left. That's taking all the firms in the survey, and basically just looking at what their capital structure looks like. And I'm going to characterize their capital structure in perhaps an unusual way, but a way that's going to be very useful going forward.

I'm going to think about characterizing the source of capital in terms of who is providing the capital -- so in particular, the orange, which is going to be the main focus of my talk today, is at about 40 percent of the total capital of the firm when it starts -

- is outside debt, and that means debt that’s being provided by banks.

And you can look at the colors, and see where the other sources of capital are. The next biggest is owner equity. And the survey works -- you can never know how well this is being executed, but the survey’s doing its best to get respondents to distinguish between -- to not include home equities draws that they’re injecting in the form of cash. That is not supposed to be in this bucket; that’s supposed to be in the orange bucket. So, you can, roughly speaking, think about this as the blue is personal savings and the orange is bank debt, and the other colors, which don’t add up to very much on average are debt that they’re obtaining from other people in -- friends and family -- that they’re providing themselves, or equity that they’re getting from outside.

Now one of the things we had that was really neat about the Kauffman Firm Survey is we had the credit scores of the firms involved. So, one of the first cuts you can do is just cut on whether this is a high credit score firm or a low credit score firm. And bear in mind that these are firms that are in the very first year of founding, so a lot of what you think about their credit score is really something that the firm is inheriting from its founders. And what you can see is that there is, to my estimation, very little difference in the proportion of total capital that’s coming from bank debt -- depending on whether you’re high credit or low credit.

So, maybe what we’re looking at is just barbershops, and maybe that’s not something we really care that much about. Maybe this is not the kind of part of the economy that we think is interesting.

So, let’s look at high tech firms. Let’s flush out all the firms in the survey that do not self-report as operating in a high tech sector -- roughly the same picture. Outside -- question?

SPEAKER: (off mic)?

DR. ROBINSON: They oversampled high tech firms so that they had good representation of them, and then they used sampling weights, so that you got back to sort of roughly the same proportions as you see in other surveys. And I'm using weighted data here.

The capital structure story looks very similar when we look at high-tech firms as when we look at non-high tech firms. High-tech firms have about 30 percent bank debt on average. You break it across high credit/low credit, what do you see?

Well, high-tech firms -- you know, high credit is telling you something about firm quality. And the high-quality firms are actually relying more on outside equity.

SPEAKER: Is this for 2004?

DR. ROBINSON: This is for 2004.

SPEAKER: (off mic).

DR. ROBINSON: This is a snapshot of a point in time. That point in time is pre-crisis, 2004. I don't have pictures for that, but in a minute, I'll tell you a little bit about the progression of the capital structure over time.

I don't have much after the crisis in today's talk, but what you can see is pre-crisis. Basically, debt and equity kind of move in lockstep together. They continue to go back to bank debt as the firm grows.

What kind of debt is this? The blue is personal loans that have been obtained for business purposes. The red are business loans.

Part of the challenge here is that it's very difficult to decouple the corporate balance sheet from the personal balance sheet when you're looking at a firm in the very year it's being founded, right? And so there's a conflation of the two balance sheets, and you're seeing that here, because what's happening, a lot of what you're seeing in terms of personal loans for businesses will be loans obtained for business purposes that are secured by personal assets -- home equity, savings, et cetera.

Together, those make up 70 percent of the total debt. Add to that a business credit line, and you're up over ¾ of the total debt of a firm that's coming basically from lending facilities provided by banks.

So, what's the difference across these different, you know -- the capital structures look similar. What's the difference? The difference is size, to your question. High credit firms are just a lot bigger than low credit firms, and your average high-tech company is just a lot bigger than the average firm that's starting.

Let's look at more cuts of the data. Let's go at the end -- we probably don't care about that much today -- and look at garage businesses.

So, the reason you might want to look at what I call garage businesses -- we're talking about people who have not yet moved out of their home -- the place of work is the home -- we're talking about. So, on the far left, we have firms that only have the founder as an employee; no other employees. In the next bar, what we have are businesses that do not have a place of business outside the home.

The reason why these might be interesting is you might think that these are people who find it very hard to go to the bank and get debt, but that's not what the picture shows. It shows roughly the same proportions as what I showed you before. I can look at pre-revenue. I can look at post-revenue, but pre-profit. These are survivors through 2006, and these are ones that closed before 2006. And there's only modest variation in the average amount of debt these firms have. There's massive variation in their size.

I can also look at equity-backed businesses. So, these are companies that obtained some form of equity backing -- venture capital, angel finance, equity backing from other companies. And what you see is -- not surprisingly, if I'm conditioning on the presence of equity, equity is going to make up a large fraction of the total capital in the firm, and you can see that. The equity is the green.

But what's the second most important source of capital in an equity-backed company in the year it starts? Debt, the orange. So, the same kind of bank --

SPEAKER: Yes, but (inaudible).

DR. ROBINSON: So, I want to talk a little bit more about this, because one of the weaknesses in the survey is, it's hard to identify the exact source in which a particular loan is being collateralized.

And so we're kind of trying to triangulate on some of these issues, and I want to show you some work that other people have done in this vein, that point to the importance of housing as a source of debt.

Now I'm not going to stand on a limb and say that, you know, the average VC-backed company here, you know, involved using home equity to secure the debt. The data just don't allow me to draw that conclusion. It's very likely true, on the average, but I can't speak specifically to that with the data that we have; it's just a limitation of the data.

SPEAKER: (off mic).

DR. ROBINSON: That's exactly what I want to talk about at the end, in terms of policy. I think the facts that we're seeing here raise some policy challenges for how we want to think about moving forward, and I look forward to hearing your thoughts about that. I think this is important.

Sir?

SPEAKER: It approached crisis.

DR. ROBINSON: Yeah, absolutely.

SPEAKER: (of mic)?

DR. ROBINSON: Well, everything I'm going to tell you now is pre-crisis. All the stuff I'm going to show you is pre-crisis. This is a picture of what the world looked like before the financial crisis.

And so the question then is, given that we're in this post-crisis world, what kind of policy challenges do we face, based on how we know the world to have looked before the crisis? The difference is, again, size.

So, to summarize, basically, startups access bank debt at the very earliest stages in their life. This is an incredibly robust fact. It's robust across firm types. It's robust over time.

And to your question earlier, debt continues to be the primary source of funding, on average, throughout the first four years of the firm's life. So, as a firm is growing, it's going back, and it's basically -- it's plowing back any profits it makes into the company, but it's also trying to tap additional debt, and sort of all sources of capital sort of growing roughly proportionally.

So, that's kind of speaking to this complementarity of debt and equity. It's not that as the firm gets bigger, the equity is taking the debt out of the company; you're just seeing kind of debt and equity together grow proportionally. That complementarity suggests that financing constraints are important. As firms grow, they grow using every source of capital they can find.

So, I think of these -- and sort of the stylized fact here, as far as I'm concerned, is that variation in firm characteristics -- what I've shown you -- has a first-order effect on the size of the startup, but only a second-order effect on the mix of debt and equity that the startup uses.

Now what I want to show you next is some evidence that variation in the availability of debt is partly responsible for what we're seeing here. And all I've shown you thus far is that startups and debt mix. That might be because debt is really attractive for startups.

What I want to show you is that it’s the availability of debt that is driving part of this. Now even on a huge screen, I realize those are small numbers. So, let me just summarize what the numbers say.

What the numbers say is that access to outside debt is greater when homes are more pledgeable as collateral. And so the way we’re doing this is, we’re using some measures that were created by SAIS at Wharton looking at home supply elasticity. And in areas where the elasticity of home supply is larger, those are areas where home values won’t fluctuate as much in response to a demand shock. So, that means that the home equity is more pledgeable as collateral.

You can also look at states that have state bankruptcy exemptions, and you’ll see that where the home is exempted out, you see lower access to outside debt. So, areas where there’s geographic variation in the degree to which a home provides a source of pledgeable collateral, you see with that variation and the reliance on outside debt.

This is just what we were able to show in the Kauffman Firm Survey. My colleague, Manuel Adelino, and Antoinette Schoar, and Felipe Severino, have a working paper -- I think they’re actually going to be talking about it at the NBER this Friday.

They’re using publicly available data, and what they show -- again, this is all pre-crisis -- but what they show is that if you look between 2002 and 2007, areas that had strong exogenous home price growth saw stronger unemployment growth. And the unemployment growth was focused in --

SPEAKER: (off mic).

DR. ROBINSON: -- I’m sorry; employment growth, yes -- jobs. The employment growth was strongest at the small end of the firm size distribution.

So, their data allowed them to classify firms according to the number of employees -- one to four, or five to ten, and so on. Areas that saw home price growth -- it’s not the case that you see a huge amount of growth in large establishments; you see a large amount of employment growth in small establishments.

So, for example, the effect that they’re picking up is about three times larger in firms that have one to four employees, as do firms that have more than 20.

It’s also -- the effects that they’re picking up are most salient in industries where the capital requirements are lower, so it’s about three times larger in low-capital intensive industries than high-capital intensive industries.

In other words, the story that’s coming out of this is that if you’re in a high-capital intensive sector, and you’re operating a large firm, well, then fluctuations in the value of your home aren’t going to do much to change the amount of capital that you access.

But if you’re in a sector that has low capital requirements, and you’re a small firm, well, fluctuations in home equity can have a big impact in your ability to access outside capital, and that’s showing up here and there in their numbers.

SPEAKER: Is this the whole survey, or just the (inaudible)?

DR. ROBINSON: Well, they’re using different data than I am, so they’re not relying on the Kauffman Firm Survey. They’re using data from the U.S. Census to do this, the county business patterns data. So, you’ll have to look at their paper to get all of the details about that, but basically, they’re lumping together lots of different types of firms together here, and most of the cuts are just basically on capital intensiveness.

SPEAKER: Is the right conclusion that they were financing these with home equity?

DR. ROBINSON: So, this is where we have a challenge empirically, and this is related to your question earlier. You know, the real smoking gun is that if you can find data that look at what an entrepreneur did, in terms of, you know, refinancing their house to take equity out to put in the business, these data don't allow you to do that, because they're looking sort of very macro at county level employment patterns across the firm size distribution.

My data don't allow us to do that either, because, although we have very fine data on the source of capital -- and so I can tell you whether it was a personal loan, or a business loan, or a line of credit -- I can't tell you enough about how that was collateralized.

So, these are some open questions we still -- empirical challenges that we face, trying to get a better understanding of this.

Yes?

SPEAKER: Isn't -- shouldn't the causality be reversed with places that have strong employment growth (inaudible) because people can afford (inaudible)?

DR. ROBINSON: You're absolutely right, and that's why they went to such pains to generate exogenous home price variations. So, they're making use of the same variable that I'm using here, in this supply elasticity variable. And what SAIS is he looked at spatial -- he used, like, GIS software, spatial analysis tools, and he tried to identify places that, because of the configuration of rivers, and streets, and zoning regulations, there were exogenous barriers to home development, right?

So, the point you're raising is an absolutely critical one, and it's related to what Martin was saying in his introductory remarks. We know that home price growth fueled consumption, but what this is showing you is that home price growth also fueled collateral.

SPEAKER: Are these sources prioritized? In other words, I'm a small businessman. Do I have a preference as to whether I go to a bank, or I go to my house, or I go to friends, or family, or not?

DR. ROBINSON: It's really hard to say, because we're looking simply at equilibrium outcomes, looking at -- you know, we're not able to ask the question, "Did you get the bank lending because you first went to friends and family, and they turned you down, and therefore, you found yourself here?"

We're seeing just a snapshot at the end of the year of what actually happened.

Now some evidence to your question, though -- it can be gleaned from the fact that, over time, firms continue to go back to banks to borrow money as they're growing. And so if you thought that bank debt was a really undesirable source of capital, then you might expect to see -- as the companies grow, they begin to substitute out of debt, and into other sources of capital. That is not what you see in the first few years of a firm's life.

SPEAKER: I think if you talk to the banks, and this is anecdotal evidence --

DR. ROBINSON: Yeah.

SPEAKER: -- if you're a small businessman, and you want to borrow, and you've got equity in the home, then the bank wants a hold on it. I mean, there's no --

DR. ROBINSON: That's right.

SPEAKER: They don't -- happy to have you -- they want your money in that --

DR. ROBINSON: That's certainly my anecdotal understanding of the way this market operates. You talk to founding teams, and sometimes they'll tell you stories about bringing in an extra member of the team because they had a very strong personal balance sheet, right, because they needed to be able to bring collateral to the table in order to secure funding. I've heard that anecdotally, absolutely.

So, why is this fact important, about the home equity collateral channel affecting the small end of the firm size distribution more than the others?

Well, if you look at data on small business employment, the small business employment phenomenon is really a young business employment phenomenon. It's young businesses that are starting small and then growing, that are responsible for the job creation that is such a policy priority.

So, the line between entrepreneurship and job creation runs first through small, young businesses, and then through home equity as collateral.

And so in terms of policy challenges, I think, to me, this kind of identifies three policy challenges that I think we should spend a lot of time thinking about. I know Ronnie's had some -- who you're going to hear from later -- has had some similar thoughts.

First, I think we need to be very careful to decouple policy towards business starts from policy towards small business. What the Haltiwanger paper shows us is that there is no systematic relationship between firm size and employment. Small businesses don't create jobs; young businesses create jobs. Young businesses are small, because they face the capital constraints that I've just identified for you.

The second challenge, I think, is that we need to embrace the fact that innovative growth almost surely means accessing debt. And so if we want to promote innovative growth, we need to think creatively about the ways in which business starters can access debt markets. And there's a lot we could do in that regard. We have to think very carefully about that, because there are a lot of ways you can mess that up.

And then the final, I think, policy challenge -- and this is related to some of the comments that I was hearing from the back about the crisis -- we need to look squarely into the mirror, and acknowledge that the housing crisis is an entrepreneurship crisis, and that you can't -- you know, if you're going to have policy that's oriented at fixing the housing market, that need not -- that needs to be paired with policy that's promoting entrepreneurship.

So, I'm nearing the end of my time. I want to make sure that I give room for questions. I'll just put up this slide in conclusion. Most small business growth is young business growth. Startups access bank debt, even at the very earliest stages of their life.

Variation in firm characteristics has a first-order effect on firm's size, but only a second-order effect on their desire to go out and access bank debt. That bank debt is being collateralized, to a very large extent, by home equity. And that means that we need to think creatively about debt access to small firms.

So, let me take some questions. Yes, sir?

SPEAKER: Yes, my name's Brett Garobsky.

Way back in banking, 40, 30 years ago, different world -- a banker was always told, "Don't give a loan to a young firm or anyone based on collateral. The collateral is an additional thing, but you have to believe in" --

DR. ROBINSON: Vet the idea, right.

SPEAKER: Yeah, that's the basic idea. Now when we see this in the new modern banking, the regulators have decided that whatever is risky, these small, young firms, the bank is required to have much more capital than whatever is not risky -- officially not risky, if there is such a concept.

In that respect, many of these mortgages are placed on loans by banks, in order to dress up the operation as not risky, because that allows them to hold much less capital.

So, how to be able to separate all this tangle is very hard, because the real basic fact at this moment, in terms of policy and creative solutions, what we are doing, we are telling banks, “Look, you’re not allowed to earn as high risk adjusted returns on equity when you lend to young startups -- that when you lend to the sovereign or to whatever is officially AAA-rated.”

And the differences are just huge and tremendous, especially in times when bank capital is scarce.

So, it’s very hard, you know, from all this data, separate out all the different factors, but bank regulations have definitely -- and 2004 on, with bank capital becoming even more scarcer, these discriminations are made even much worse.

DR. ROBINSON: Yeah, I completely agree.

SPEAKER: Yes, a question concerning retirement income. To what degree did you see, either statistically or anecdotally, the impact that retirement income has if the average person is middle-aged? I can sort of relate to that -- and if a lot of your equity is in your home, and the housing crisis hits, and all of a sudden, value’s down, your retirement fund is down -- now the next thing you’re thinking about is the golden years of your life -- how does that play into this?

DR. ROBINSON: It’s hard to see how it -- I think that it plays into the story in an important way. It’s very hard to tell the story with the data that we have, because we’re not able to isolate, for example, someone drawing out of their retirement to provide capital for the startup. We’re not able to separate that from pulling money out of a savings account; it’s just simply whether you’re providing personal equity in the business.

So, this is, again, there are a lot of -- a lot of the questions that we're hearing today I think are interesting, because they point to empirical challenges that we face when we're trying to understand kind of how to, you know -- sort of how capital markets connect to entrepreneurship activity.

And there's no question that personal finance is sort of, you know, one of the main vehicles through which the banking sector connects to entrepreneurship. Understanding how that breaks out across home equity, retirement, et cetera, I think, is a really important question for future work.

SPEAKER: Five minutes.

DR. ROBINSON: Five minutes, okay.

Yes?

SPEAKER: Could I ask for a bit of clarification about the high tech sector? Because I think you said that taking your sample may (inaudible), therefore they won't necessarily be sort of dorm/garage startups.

DR. ROBINSON: That's right.

SPEAKER: And I'm wondering if there's a hypothesis that, actually, high tech sector has two opposite segments -- one which creates job, and one where, really, the technology is being used to destroy jobs.

DR. ROBINSON: That could well be true.

SPEAKER: So, which (inaudible)?

DR. ROBINSON: Well, I think that the type of high-tech companies that we're looking at tend to be job creators, because they tend to be the type of companies that combine high-tech capital with high-tech labor, to produce some kind of intellectual property or product that's used by someone else.

I happen to accidentally have learned of a company in the Research

Triangle area that’s in the Kauffman Firm Survey while I was having dinner with a local entrepreneur, and he said, “Oh yeah, yeah, I’m in that Kauffman Firm Survey you speak of,” and that would very much describe his company -- where they take a lot of high-tech capital, and combine it with a lot of PhDs, and try to produce an innovative new way of doing something.

Let me take -- yes?

SPEAKER: Most large money center banks and most Main Street banks don’t understand high-tech startup businesses. I mean, they just don’t understand them. And, you know, I’m from the Boston area, and, you know, there are boutique banks that focus on high-tech lending like Silicon Valley Bank, to name one.

DR. ROBINSON: That’s right.

SPEAKER: There’s almost a symbiotic relationship between them and the VCs. You know, they lend to companies that the VCs have sort of endorsed, if you will, and they also look at a high-risk sort of (inaudible) and so forth.

I mean, from a policy perspective -- I mean, apart from sort of having a healthy housing market -- you know, what are ways in which we can produce more Silicon Valley Banks, or have traditional banks sort of get smart and start -- get educated in this sector?

DR. ROBINSON: One thing that I think is a challenge here is that if you think about the way most bank securities work, once the -- they don’t really experience the upside of success. They get the loan repaid, and that’s the end of the story. That affects their incentives, and that makes it hard for them to do the kind of lending to high-tech companies, where all the payoff is on the upside. And that’s exactly why you see them piggybacking on the due diligence that VCs do -- the banks that specialize in high-tech lending.

So, I think one thing -- you know, one potentially fruitful innovation here would be innovation and security design, innovation and contracts that would allow lenders to take a piece of the upside. Very simply put, you can think about warrants being coupled with loans in a way that would give the lender some of the upside, and thereby affect incentives.

There are a number of policy ways in which you could implement something like that. I think exploring the details of that is interesting and important.

I think I have time for maybe one final question -- or maybe we're at the end.

SPEAKER: You mentioned variation in firm characteristics has a first-order effect on startup size, and I'm sort of interested in the characteristics -- but maybe going a little bit broader, there's a huge diversity. I mean, you've got restaurants, you've got high-tech companies, you've got drycleaners -- all these sort of startup and small companies are very different from each other.

So, if you do some cuts by industry or by type of company, these results you're finding pretty much go across the board, or are there a lot of variations as a result?

DR. ROBINSON: No, the capital structure results are robust to looking across different industry sectors, which is pretty -- yeah. What I suspect is the case is that if you are able to dig deeper into the debt itself, you'll see that there's interesting variation in the way the debt is structured, based on the industry setting or the institutional setting in which the company's operating.

But if you're just looking at the level of debt, equity, personal equity put into this business, you see very little variation across the types of dimensions you've just described (inaudible).

Okay, let me yield the stage to the next panel. Thank you very much.

SPEAKER: Thank you -- terrific.

DR. CHATTERJI: Okay, good morning, everyone. Welcome to Brookings, and our first panel discussion on growth capital.

My name is Ronnie Chatterji. I'm a professor at the Fuqua School of Business at Duke University. I'm joined by four outstanding panelists today.

Over the next 50 minutes, we're going to have an interactive discussion about growth capital and its importance for the U.S. economy. We want to hear from the panelists, and also leave enough time for questions and answers. So, let me be very brief by way of introduction.

I think one of the reasons this panel is going to be very informative is because we rarely hear about these kinds of investments. We hear a lot about venture capital in Silicon Valley, where people take risks on ideas coming out of their garage or dorm room. We hear a lot about the other end -- big time private equity and the leveraged buyout firms -- especially during the presidential campaign.

But in between, there's a large number of investments made that we call growth capital. These are mid-sized businesses with proven business models, financial track record. They're seeking capital to make an expansion, get into a new business, geographically expand their operations. These are the kinds of investments we're going to hear about today.

For those who aren't familiar with these investments, they can often come at a very important inflection point in the life of an enterprise. So, we could think about this being a time where numerous jobs can be created and value can be unlocked.

One of the unique things about America is actually the number of mid-sized businesses we have. So, this growth story is incredibly important.

So, today, we're going to try and understand a little bit about how and why these mid-sized businesses grow, and also, a little bit more about how public policy can impact that.

So, I'm going to go one by one, and let the panelists speak, and I'll introduce them before they speak.

So, to start, let's go to Braun Jones. So, to give us an introduction to growth capital -- Growth Capital 101, as we call it. Braun is the Managing Director at Outcome Capital, in the investment banking practice. He does advisory services for M&A, debt and equity private placements, and he also specializes mostly in technology and service companies, both in the commercial and the government market.

MR. JONES: Thank you. Thank you very much.

You know, I thought the first presentation was very interesting, and it shed some light on some of these sources of capital, such as your home, credit cards, and so forth, that can come from the people who actually start the businesses.

But kind of advancing the stage a little bit, I thought what I could do is just kind of -- you know, you have seed capital, private equity, subordinated debt, preferred equity. There's all these things out there, and I thought I could just take a moment to try and define sort of each category, and throw some numbers out there so that you can get a better sense for how these different sources of capital line up next to each other.

We heard a lot about debt with the first talker -- speaker -- you know, senior debt and subordinated debt.

Generally, from a cost perspective, from a cost of capital perspective, senior debt's going to be the cheapest source of capital for the entrepreneur. So, they're going to get as much of that as they can before they move onto these other sources.

And then you have equity. And I'm not going to hit on the areas that Dr.

Robinson did, such as taking out your home equity lines, and credit cards, and so forth. But he was calling out -- you know, he used the term “outside debt” and “outside equity.”

So, that’s what I’m going to be focused on here, is -- when a company actually gets to the stage where it can stand on its own, what kind of financing is available?

Well, they can go out, and they may have assets, they may have some cash flow, and they can get some senior debt. But there’s going to be a limit to their capacity to do that. They’re only going to have so much assets or so much cash flow to pay the interest on that debt. They can then go to the subordinated debt markets and perhaps get some more.

But at some point, if they’re a very promising business, and they’re recognized by venture capitalists and private equity investors, they are going to get equity capital to help maximize the value of that business.

And I said I was going to try and define these different buckets of external equity capital a little bit, and I’ll put them into three buckets -- seed capital, venture capital, and private equity. And we have a private equity story here today.

Seed capital is generally from friends and family, as Dr. Robinson pointed out. It can come from angel investors, but it’s typically individuals -- could be as little as $25,000 or $50,000, maybe up to $1 or $2 million, and that kind of gets the company going.

The next stage would be venture capital. Venture capital and private equity capital are run by professional investors, and they have pension funds, endowments, institutional investors, and individuals that give them their money to create a fund, and then those professional investors hopefully make good decisions, invest in companies, and realize a return for their investors.

So, venture capital really gets started in amounts of about $500,000 to maybe $10 million or more in capital. Private equity really gets started probably around $5 or $10 million in capital, and can go up to well over $100 million. So, that's really the core middle market.

That's another thing I can kind of define is, you know, what is the middle market? I've seen it put many different ways, but the lower middle market is generally $10 to $100 million in revenue. The core middle market, by my definition, at least, is about $100 to $500 million in revenues. And then above that, you have the upper middle market, which is $500 million to $1 billion.

And it's really this -- as Dr. Robinson pointed out, the smaller companies -- under $100 million -- from $100 million to $500 million -- they're really the lifeblood of the U.S. economy. That's where all the jobs are being created.

So, these sources of capital, both venture capital and private equity, are very important to that market. In fact, I can share with you some statistics in just a moment.

But before I do, I wanted to explain one more thing in terms of the cost of capital. You know, from an investment banker standpoint or a CFO's perspective, you have to come up with that capital structure for your business, and hopefully optimize that so that you're not paying too much for that capital to reinvest into your business. And then you use the business to provide a return on that invested capital. So, it's that spread that the entrepreneur's trying to maximize.

So, senior debt's the least risky. It's backed by assets. Subordinated debt is next on the layer. Those are both on the liability side of the balance sheet. And then you get to the equity part of the balance sheet, where you have preferred equity and common equity. The risk is lowest at the top, and becomes more risky as you get to the common. So, the cost of the capital correlates with that. The cheapest is at the top, and the most expensive is at the bottom.

So, that's how capital structure is done. You go through an analysis of that, and try and determine what you can get at what cost, and maximize the value of the business.

There's a website out there called growtheconomy.org that -- what they've done is they've taken a Dun & Bradstreet-affiliated database called NETS, which has 44 million businesses in there, and then they've taken another database from PitchBook, which has about 16,500 companies that were backed by growth capital -- either venture capital or private equity, and they've mashed them together to see what kind of data they could get.

And this is right in the center of that lower and core middle market that I was referring to earlier, in some of the statistics here. Now these are private capital-backed companies being compared to the general U.S. market. Private capital-backed companies grew 81.5 percent while all of the companies in the U.S. economy grew jobs by 11 percent -- so a pretty stark contrast there.

So, companies like Brad's are really the stars of the middle market, these private capital-backed companies.

Also, with regard to revenue growth or sales growth, private capital-backed companies grew 132.8 percent according to the website, while overall United States sales grew by 28 percent -- so a pretty big difference there.

So, again, just making the point that the middle market companies are vital to the U.S. economy, and the capital that backs those companies are equally critical.

DR. CHATTERJI: Great. So, actually, those statistics are very interesting.

And kind of to put a face on those statistics is Brad Antle, who's the CEO of Salient Federal Solutions -- also, the Chair of the Northern Virginia Technology Council. He formed Salient in 2009, and is here to tell us a little bit about how this worked for his company.

MR. ANTLE: Okay, I'm up next.

So, I'll start back with SI International, which was the first company I was involved with -- supported by private equity. It was formed back in 1998, which was sort of the height of the dot-com era, and at a time when it was very difficult to find growth capital for something that didn't have dot-com at the end of its name.

So, you know, it's a rather unsexy -- at the time -- brick and mortar kind of services business, supporting the federal government. So -- and in the financial markets, thought of as low margins. Today, obviously not so, but back then, it was certainly an uninteresting business.

Knocked on a whole lot of doors to try to find interest in supporting the business plan. And after many months of doing that, was fortunate enough to find Frontenac in Chicago, that had a program called CEO First -- and I'll let Walter tell you a little bit more about that.

But saw the advantage in diversifying their portfolio, of investing in a government services business -- although at the time, I think we were their first play in the sector, so it was a bit of a leap of faith for them. But I think they had confidence in the plan and the management team, and invested a little over $30 million with the team.

In two years, we acquired about $105 million worth of revenue with that $30 million investment, levered ourselves about five times in terms of debt capital, and that's when everything fell out of the dot-com market, out of the telecom market, out of the commercial market, and the debt markets went way down.

So, we were stuck. We eventually had to go public in order to access additional capital. It was not available to us in the debt markets at the time. And so then we went public, and we wound up selling that business 10 years from the start, later, at $600 million of revenue, 5,000 employees, to speak to the notion of job growth. So, that was a reasonably good success.

So, onto Salient, briefly -- we obviously had some experience at that time. The business rules have changed. The market had changed drastically. We no longer could execute the kind of model we did for SI International, because the federal government changed some rules which inhibited that.

So, instead of being able to go out with $30 million of equity, we needed a lot more in order to execute a business model today. And so we went out looking for $100 million worth of private equity, and imagined that we had lots of interest at that point from private equity companies in backing the management team and our business plan.

We were fortunate, and Frontenac was able to pull together a facility and a group of LPs, and, through their fund, to back the business again. Picking a private equity player is dicey for an entrepreneur, because it's an important relationship that's going to drive how that business operates going forward. And not all private equity players are the same. So, it's a really important relationship from an entrepreneur's perspective.

So, we're now two years into -- or a little more than two years into -- our company, Salient, and we're running about $250 million in revenue, a little over 1,000 employees, and on a path, we think, to grow that significantly over the next five years or so.

DR. CHATTERJI: That's great. And as you say, Brad, choosing that investor is a very important decision.

And so Walter Florence from Frontenac is here to talk about that a little bit, giving us a bigger picture of kind of the different kinds of firms in this business -- and also maybe the role of the limited partners, which we haven't talked too much about.

Walter's the Managing Director at Frontenac, which is a Chicago-based investment firm, primarily working with the mid-size, closely-held businesses.

MR. FLORENCE: Yeah, and thanks; we're real pleased to be here. So, thank you all for inviting us. It's a great forum and, I think, a great topic for our country, and for policy, and for business right now.

I'm just going to pick up on one thing Brad mentioned, because I think he and his team deserve a tremendous amount of credit.

We made acquisitions at SI International of roughly, I'd say, about $250 million in revenue. They organically grew the business from about $250 million in acquired revenue to over $600 billion. And that led directly to job growth. And if you look at -- which we've done -- that where our return to our investors came from was directly attributable -- not to the buying and the transactions -- but directly attributable to the revenue growth, the organic revenue growth, and the organic EBITDA growth, and the job creation.

And so fundamentally, you know, I think that's as great a success story as, you know, as is out there. And it's important to understand where the source of those returns came from.

Just to step back, the way I look at it, as Ronnie mentioned, I'm a partner with a Chicago-based private equity firm. I think we're here to have proof that private equity is an industry outside of New York; it's not just in New York. There's a big part of the country, particularly in the Midwest, that's focused on middle market companies and middle market financings.

There's a lot of people in the private equity industry today, just like in any industry, and there are some similarities -- and I think there's some important differences. The way I look at it is, there's really a continuum of investors, both on the private and on the public side.

Braun mentioned a little earlier, on the public side, there's debt investors, investment grade, you know, high yield, and a variety of different strategies. And on the equity side, there's a variety of different strategies. There's value investors, there's growth investors, there's technology investors, there's event-driven or distressed investors.

The same is true, really, on the private equity side. There's private debt, and there's a variety of different forms of that private debt. And same is true on the private equity side -- not all private equity is the same. There are startup investors. There are venture investors. There's growth investors, and there's buyout investors. And there's a whole bunch of others, but to keep it simple, that's the way that I would describe it.

Real simply, for all of those investors, we are in the business of managing money on behalf of others and ourselves, and our proposition is for every dollar -- again, simply stated, for every dollar that we're entrusted, we're looking to return $2 back to our investors over a reasonable time period. And that's ranged, you know, depending on what your success is, but I think it's important not to lose sight of, you know, of what some of the similarities are.

So, where do we fit as a firm, and what are some of the differences?

Our firm really is focused on a couple of areas and a couple of key points of difference. You know, one is our commitment to the middle market. There are a couple of definitions described here this morning. We work with companies that are roughly $25 to $200 million in revenue. And generally speaking, our goal with those investments is to double or maybe triple those investments in revenue and EBITDA during our lifecycle -- and if we're successful, driving real growth in revenue, and real growth in earnings, and creating jobs along the way, then we're going to make money for our investors. It's really that simple.

We're less in what I'd called the financial engineering side of the industry -- and I'll mention a little bit more about that in a second.

Second, we are committed to, as Ronnie mentioned, to the private founder or family-owned company market. We are generally, if not always, the first institutional owner. Our firm's been around for roughly 40 years now. We've been involved in over 220 different types of transactions that fit that model.

And in those settings, we're solving for, really, three objectives, which I think relate back to the discussion a little earlier this morning.

First is, those business owners have created a lot of wealth for themselves, built companies from nothing, in many cases, to whatever size they've achieved, and they're looking for personal liquidity and diversification. They've put everything on the line, and that business has gotten to a point where they're looking for financial diversification for themselves and for their family -- and in a lot of cases, for perpetuation and continuity for their business employees. We help facilitate that liquidity in that process.

Second is, a lot of those businesses are looking to grow to the next level, and they need, you know, really, two things.

One is help thinking about how to professionalize that management team and a board of directors.

And second, to start thinking about succession plans. It's rare to find an owner or an entrepreneur that's built a business that has actually thought about what the business could go on and do without him or her. They've been such a strong driving force -- and we work with professional managers and families to help, over time, accomplish some of those objectives.

And third is, really, to help provide capital to fund what is a latent growth plan. What we've seen time and time again is that these businesses -- if I started a business and got it to $100 million, and that's 100 percent of my family's net worth, natural instinct is, I'm going to get cautious with that business. I'm going to not invest in what it's going to take to get that business to the next level, because I have so much on the line. I probably have personal collateral and a personal pledge to the bank, as was mentioned this morning.

Our job is to provide the capital that provides the liquidity to them that allows the business to make the necessary investments to get to that next stage of growth. And oftentimes, that is working with banks to relieve those founder/owners from those personal guarantees. And they don't require guarantees from us, because we're putting real dollars of equity underneath their securities. And so we are facilitating that next level of growth.

And then two other things, real briefly -- one is, we represent what I call patient capital. Not everybody in the private equity industry is. A lot of people are looking for short returns. We've built a patient capital model that we think is aligned well with our strategy, which is more of a five to ten year time horizon. It's averaged, I think, around seven or eight years.

Brad made an important point. You know, SI International and its success -- it took 10 years, you know, to build that business as successfully as they built it, from, really, startup to $500, $600 million in revenue. We were investors in that business for eight years. For those that know our industry, that's a very patient, long term approach, but we believe real growth and revenue, real growth and earnings, if that's your source of value, it takes time.

And I'd say the last point that's relevant for us -- and I think it adds some color to the overall industry characterization -- is, we have built our business around a CEO First strategy, and Brad and his team really embody that. That's really a philosophy about investing that's not based on financial engineering, but it's based on real growth, and revenue, and earnings, which starts with great execution and great operations. And our philosophy is, that has always started and been led by great leaders of businesses.

And so we believe that that is the role that we play in the capital markets, and that is the process that we believe has generated successful returns for our investors, both at Salient, SI, and many other companies over the years.

DR. CHATTERJI: Great, fantastic. So, now we've set the stage a little bit in terms of what growth capital is, who the various players are, how it affects real companies.

There's been some interesting policy changes that are impacting this space, that I want to turn to Chuck Morton to speak about -- specifically, the JOBS Act -- Jumpstarting Our Business Startups Act -- that President Obama signed with bipartisan support.

Chuck is the Cochair of the Corporate Practice Group at Venable, LLP. His national practice solves complex problems faced by lenders, investors, and entrepreneurs as they create, build, buy and sell companies.

So, Chuck, great to have you here, and maybe you can talk a little bit about the JOBS Act and other policies that may be impacting this space.

MR. MORTON: Terrific. Thank you very much.

And I should point out that, in addition to my day job at Venable, I have the pleasure of serving as the Chairman of the Board of the Association for Corporate Growth. ACG has nearly 15,000 members in 58 chapters around the world -- principally here in the U.S. Our mission is to drive middle market growth, and the stories that you're hearing today really embody what the mission of ACG is all about.

So, I'm joined by our CEO and other leaders of ACG, so it really is our pleasure to be here. It's our pleasure to partner with PCRI in this important work, and it really does reflect, I think, what's best in what we do at ACG.

So, it's very nice to be here. Thank you for having us.

Before I talk about the JOBS Act, I do want to briefly come back to something that Braun mentioned, and highlight some points that are being made.

The first in the context of private equity is that private equity creates jobs. It's the simple truth of it. There's been a lot of discussion about this in this election cycle. We've thought it's been an opportunity to really talk in a thoughtful way about the role of private equity.

The data that Braun shared with us before was data from a 15-year period of time -- from 1994 to 2009. And that data suggests that private capital-backed businesses have grown jobs at nearly seven times the rate of non-private capital-backed companies.

Now it makes perfect sense -- and not just sort of from a data perspective -- when you hear the story that we provided anecdotally here today. Private capital is likely to be invested at companies at a point of inflection, and they're able to bring that money to bear, as well as human capital to help enhance the returns and the performance of those businesses.

So, the data reflects not just job growth, but also growth in sales. And that's over an extended period of time, not just a single, you know, one-year snapshot in time. We're working hard to update that data, and it is an exciting part of the story that we're eager to tell.

The second part of the story is that private capital creates returns for limited partners who are everywhere. And to be clear, this was hinted at a minute ago -- ultimately, private capital investors, just like all the rest of us, are working for other people. They're investors, and their goal is to try to create returns for those investors. And the sort of complexion of those investors in today's economy, at least, really, are made up by public pension funds. It's made up university endowments.

For example, I have the pleasure of serving as a trustee of a university-affiliated endowment. We've deployed part of our investment dollars into these alternative investment vehicles, in the hopes of, ultimately, subsidizing the education that the students receive at this university.

Those are the principal investors in private equity. So, when you create these returns, this isn't just something that's sort of dropping into the lap of people in Wall Street; this is money that's creating and making a difference for those limited investors. And they are everywhere.

So, a picture of private equity that fails to recognize where those returns are going to is an incomplete picture.

And then the final point is that private capital-backed companies are everywhere. So, not just the investors but the companies themselves are everywhere.

So, there's lots of examples of this. The website that Ron mentioned before -- growtheconomy.org -- has this wonderful map of the country overall, and you can zoom in in your local area to see where private capital-backed companies are. That's growtheconomy.org. I think the rule of thumb is, if you say it three times, people remember it. So, that's the third and final time, I promise.

But if you go to that website, you'll be able to get a map that shows clearly where these private capital-backed companies may be located. And I will tell you, I was frankly stunned when I saw the map. I, too, had the perception that private capital-backed companies were likely to simply be in Silicon Valley, or maybe here, around the Beltway, or maybe in Boston, or San Diego, in the bio industry. But in fact, those companies are everywhere, and they are relatively ordinary companies.

So, I encourage you to check out that data. I think it's compelling, and I think that if we're going to have a thoughtful discussion about the role of private capital in the United States, it's important to try to depoliticize it, focus on the facts, and understand how all this stuff plays out, so that we can have a thoughtful framing of public policy.

So, those are sort of the three starting points.

You know, there's an old Chinese proverb: "May you live in interesting times." And for securities layers, these are very, very interesting times.

Since the 1930s, there had been a carefully orchestrated framework of investment rules, fundamentally designed around forcing disclosures, having registration, with a carefully crafted collection of carve-outs from public reporting requirements, and that was a framework that largely had remained intact for more than 70 years.

Fast forward to Enron and other scandals that were the prelude to Sarbanes-Oxley, and you had an awareness of the fact that maybe that collection of rules wasn't working so well. Maybe it wasn't protecting ordinary investors. Maybe it wasn't extracting the sort of honesty and integrity that we expect to be reflected in the public markets.

And that gave birth to Sarbanes-Oxley, a series of regulations, obviously well-intended, designed, particularly when you combine them with some other regulations, to have more robust disclosures across a broader spectrum of asset classes, all designed to protect investors.

Then we had that, in a broad context, collide with the Great Recession, and there was a realization that we need to continue to be a place where capital can be efficiently and effectively deployed, and that we were potentially losing our competitive edge. People were filing to go public in places like London or -- heaven forbid -- Hong Kong. And our public markets were shriveling. They simply did not enjoy the level of activity that we had grown accustomed to.

And there was a recognition that we needed, notwithstanding the Great Recession and all of the challenges that we faced at that time, to try to make our markets more attractive -- a better place, a more efficient place -- to raise capital.

So, but it was interesting, because these were sort of colliding public trends. You had the disclosure trends -- you know, Sarbanes-Oxley and Dodd-Frank -- colliding with the recognition that we were becoming an exceptionally expensive place to raise capital.

Now, frankly, in that mix is one of the reasons why private equity was so successful and so meaningful -- because if you're a business with less than $1 billion in revenue -- or, heaven forbid, less than $100 million in revenue -- you needed to have a way to get your business, at that inflection point, capital. And private equity served an incredibly -- and continues to serve an incredibly -- important way to provide that capital.

But the JOBS Act was also designed to help fill that void, and make it easier for capital to be accessed. So, the JOBS Act, as many of you probably know, was approved last spring. We continue to be in the midst of the rulemaking regime for almost every aspect of the JOBS Act. It has proven more difficult than folks might have anticipated -- at least folks who are unfamiliar with what 75 years of inertia has created in our securities laws.

But these are three important aspects of it that I think could possibly make an enormous difference here, the first of which I'll talk about -- we're going to hear a whole presentation on later -- and that's crowd funding.

So, one of the other enduring trends that have happened over, you know, the recent past is access to information, and the ability for people to get information in an incredibly democratizing way through the web.

So, that has made possible things like Kiva, which is a peer-to-peer lending sites, and other forms of capital formation, where regular folks can access folks who need capital, often very modest amounts of capital, very inexpensively, out there in the cloud, as they would say. And crowd funding and the framework provided by the JOBS Act to get to crowd funding reflects some of those trends.

And sort of the big picture -- the crowd funding provisions of the JOBS Act provide for individuals or companies to raise under $1 million a year through registered portals or broker-dealers if the amounts purchased are modest amounts. And that depends based upon your net worth and income. Generally speaking, it's either $2,000 or 10 percent of your net worth as an investment.

So, again, it's the general framework of accessed information on the web. There are restrictions about the type of information that must be provided, but it's far less onerous, far less detailed than would be required typically in a public offering, and it "protects" the investors by limiting the amount of money that they may invest relative to their economic position.

So, that's crowd funding.

Secondly, I want to talk about the changes to Rule 506. Rule 506 fundamentally has historically limited the amount of advertising that individuals could provide to nonaccredited investors. So, again, the general framework is, only accredited investors could make investments in companies that are not public. And so the notion is that you want to limit the amount of advertising to those folks.

That creates a conundrum, though, because you don't know who's necessarily an accredited investor when you're trying to raise money. So, the net effect of that has been to create a very focused offering on a narrow group of friends and family or carefully screened, preregistered accredited investors -- which has had a chilling effect on the amount of capital -- or the way in which capital could be raised.

So, one of the changes in the JOBS Act is to make it far easier to have a general solicitation, but still ensure that the ultimate investors are accredited investors.

Now there was a rulemaking published by the SEC in the middle of August. It seemed like we were going to move relatively quickly towards a set of rules that would help us to navigate that. The response to the SEC's proposal was more than 150 responses, which has caused the SEC, I think, to pull back a little bit, and to try to more carefully navigate the circumstances under which you can have this general solicitation.

So, that is -- right now, I think it's fair to characterize as been mired a little bit in the rulemaking process.

And then the third thing that I'll only briefly mention because of the time pressures is, there has been efforts made to try to create a class of companies that can go public -- generally companies with less than $1 billion in revenues -- that have an onramp to the public markets that would be less onerous, where there are less reporting requirements, both pre-IPO and post-IPO, and a general effort to make that process less costly and less onerous on the folks attempting to raise capital.

So, what you have is this regulatory effort to try to lessen the burden, to get access to public markets, while at the same time, the role of private equity continues to be very important.

DR. CHATTERJI: Great, okay. So, I think now we have some time for Q&A, until 11:15 or so, on schedule. So, maybe we can start with a few questions, and then if there's a lapse, I can always jump in.

So, yeah, go ahead.

SPEAKER: Thank you. I think if I could do one thing on my Christmas list, I wish I could give capital a conscience. We wouldn't have to deal with Sarbanes-Oxley and Dodd-Frank.

But that being said, I would -- since it's been brought up, I would like to know, what is the profile of a good private equity firm to do business with, versus a bad private equity firm to do business with?

DR. CHATTERJI: So, and the other thing I think we can deal with as we go on this is, you know, I think one of the -- this is -- the heart of this question is about incentives being aligned at all the different parts -- so from the limited partners, like (inaudible) universities who are investing, the general partners who are managing the fund, the CEOs of the company, and the workers in the community.

So, thinking about sort of the -- are the incentives aligned in all parts of that chain, and how that actually works.

And Walter, maybe you talked about that most deeply, so maybe you can start us off.

MR. FLORENCE: Yeah, I mean, I'm not entirely sure how to answer that question, other than the way we look at it, right, which is -- I think our business is -- has nothing to do with capital, at some level. I mean, because there's a lot of capital out there.

I think it has to do with integrity, and are you going to do what you say you're going to do? You know, Brad and his team put a lot of trust in us when we form a partnership. There's a document that you have to lean back and rely on if something goes, you know, bump. But, you know, you get in business, whether it's, you know, you get in business with your neighbor to open up a restaurant, or you get in business with a private equity firm, to go buy a company and build, or whether it's somebody in this audience entrusting us with their capital -- are we going to do and say what we're going to do?

And so I always encourage people -- we've been in business for 40 years. We've made mistakes. I think if you're in the investment business, you have to, and I think you learn from those, but it's a question of, how do you behave? You know, are you a steady hand when good things happen and when bad things happen? And are you going to be there to sort of work through those?

So, anybody that's considering working with private equity, my best advice is to, you know, due diligence on them. Get references. Understanding, you know, who those people are, and how you're going to deal with it. And nothing's guaranteed in life, but, you know, if you have a good set of relationships and, you know, people that, you know, represent integrity, I think, on both sides of the table, usually, you know, the right decisions get made.

That's how I look at that answer. That's not to say there are people in our business that don't have that; I think everybody believes in relationships and integrity, but the best proof is the proof of, you know, of history and how they've behaved. And so that's why I say, you know, check them out.

MR. ANTLE: I would just add to that that I think it's important that -- it's like getting married. I mean, it really is a long-term relationship. It's important that you both have the same expectations going into it and coming out. And frankly, private equity isn't any good if it's not there when you need it, so it's important to have a clear understanding of how you're going to execute -- how you're going to use that equity, and make sure that it's going to be there when you need it. Otherwise, it's an empty relationship.

MR. JONES: I think there's another side to this equation, and there are other people, you know, that could address this, you know, later, but it's those that entrust us with their capital -- the limited partner community.

And I think they look for a lot of things. You know, others are in a better position to describe this, but I think they look for successful investment track record -- because fundamentally, they're investing for a return. But I think at some level, they're looking to make a decision: Are you going to be a good fiduciary of their capital, and how are you going to use it?

MR. MORTON: And let me address that question from the perspective of a limited -- so not my ACG hat, not my Venable hat, but my role as a trustee of a university-related endowment.

So, from that perspective, our time horizon is forever. So, we have this pool of capital that we're entrusted with -- largely by people who have entrusted it to this particular endowment, who are long since gone. And I feel a tremendous responsibility for trying to be a wise steward for those funds.

Now that involves a lot of tension. So, there's preservation of capital. So, we allocate some of that in very, very conservative investments.

But there is an aspect of ensuring -- or working hard to try to ensure -- that that money grows. The difference over the time -- I've already been a trustee for seven or eight years. I'm likely to be a trustee of these particular funds for a long time going forward. My firm has been a trustee of these funds for more than 100 years.

So, when I -- various partners of the firm have had the pleasure of serving in this r ole, all pro bono. So, when I think about the time horizon and our investment advisers model out for me the difference between a seven percent return and a nine percent return, and what we can do by way of scholarship support, and supporting the research of this university, that two percentage points is enormous. I mean, it changes radically the lives of lots of young people.

So, we try to fashion an asset allocation model that reflects a proper balance of risk and reward. What are described as alternative classifications, of which private equity, for example, would be a part, can help to create those returns. Now if you get too overly weighted when things are down, you get crushed -- you know, it's good on the upside; it's bitter on the downside -- so you try to balance that out, all in a way that makes sense.

But so when we're picking those in whom we intend to deploy a small part of that investment pie through alternatives in the world of private equity -- just a couple percent of the portfolio overall -- I, first and foremost, want returns, because that's going to help to create opportunity for folks who I feel -- you know, we could talk about it as a fiduciary obligation; you can talk all these from a legal perspective.

The bottom line is, I feel a responsibility to try to help these students and the people who will benefit from research. So, it's about returns, and I'm not bashful about it.

Now I think that socially responsible businesses, over the long run, frankly, do better with returns. I think there's lots of data to support that, so that sort of fits into the mix. But I'm looking for returns.

DR. CHATTERJI: Okay, in the back -- oh, you want to follow up, Martin?

Then we'll --

SPEAKER: Can I just comment on that?

SPEAKER: Professor --

SPEAKER: Just to be the devil's advocate -- I had this conversation with people the other day about returns, and they said, "Look, there is a set of economists who argue that pension funds and maybe endowments should only invest in safe assets. And you're going to earn two percent" -- and those safe assets are only earning two percent.

And so the nine percent or the seven percent that you're getting has to involve a great deal of risk. And can you comment on that side of that equation, and whether it's appropriate for a pension fund or a university really taking that level of risk?

MR. MORTON: Sure. Now, again, I don't want to overstate my role. I do acknowledge that as my day job, I'm a lawyer. But my view of this, and what we're encouraged by our investment advisers to think about, is a proper allocation, to try to frame that risk in a way that becomes rational.

There is obviously also a risk -- inflationary risk, among other risk -- of just parking your money in something that is very, very safe at two percent. And in education, obviously, inflationary risks have been enormous. If you're simply getting a two percent return on an endowment, and yet the costs of education are outstripping inflation at our five, ten, five, seven, whatever, eight percent -- whatever they've been over the past 15 years -- the real purchasing power of that money is being corroded every year.

So, for me, at least, wearing my hat as a trustee, it's about a proper allocation, to properly frame that risk in a recognition that there are other risks -- for example, inflationary risk -- that can really hurt you if your returns are too modest.

MR. FLORENCE: The best advice I've gotten is, you know, just like you would get for personal finance advice is, what are your goals and objectives? What's your -- the people you represent, whether it's a pension fund, or a foundation, or an endowment, or a family -- what are their risk profiles? What are their risk tolerances, and how can -- you know, can they live within the band there?

And then what you want to try to do within that is select managers, you know, that fit that profile.

I would agree with you. I think it's about risk-adjusted returns and trying to solve for an objective, as opposed to just chasing, you know, the sort of highest-dollar return that's out there.

SPEAKER: Just -- so two things. You were asking about alignment of interests before, and I think it's important in the private equity industry -- in which I also work -- to understand the way people get paid.

So, in mid market firms, like Frontenac and like Riverside, where I work, we don't take very much money from our management fees, because our funds are small. So, the only way we get paid is really from the carry -- about which there's been certainly lots of controversy.

But important to understand that we don't get it unless and until we deliver an eight percent return to our investors.

So, our incentives are completely aligned with our investors, because it's not until the end of the process, when we've made a successful investment, and we've returned all those policemen and firemen's pension funds who have invested with us that money. So, that's one.

And then I think the second thing to the question that was just asked is, you know, it's a very competitive world out there. So, if you, as a private equity firm, don't consistently deliver return to your pension fund investors, you aren’t raising your next fund. That’s it; it’s a survival of the fittest game.

DR. CHATTERJI: Right here, sure.

SPEAKER: Yes, thank you.

Yes, if we take the current climate as it exists today, from a private equity perspective, is it attractive to engage in what state and local governments are doing -- and also, the federal government -- in these private public partnerships, where risk is transferred to the private partner, in order, let’s say, to develop, construct a building or a facility? And then they assume all the financing, risk, and then possibly even the -- well, certainly the construction risk, but then also possibly the operating risk.

Does that seem to be an attractive option today, or do you think private equity firms might look at that and say, “Nah, it’s another government program we don’t want to really get into”?

MR. FLORENCE: I guess I’ll take a shot at that.

That’s not our business, first of all, so let me start with that. But I am somewhat familiar with it, and let me describe it the way I understand it.

But there are infrastructure funds, and there are folks that are privatizing, you know, sort of public operations, whether it’s the toll roads in Chicago, or whether it’s, you know, water treatment facilities, or what have you.

I think it’s just a maturing of the capital markets. And so what they are doing is they’re slicing another portion of an asset class. Just as you have, you know, bonds that are, you know, B, BB, BBB, you have, you know, equity that’s, you know, focused on different segments.

I think this infrastructure -- public private, you know, partnerships -- represent a privatization of the public finance markets, if you would. And so I think for certain investors -- I know insurance companies are active, you know, in those markets. They were looking at privatizing Midway Airport a number of years ago. They privatized, you know, the parking and meter business in the city of Chicago.

I think there is a financial return, you know, to be had there. I think it comes back to the discussion you had before -- is, what is the risk profile that those limited partners are looking for, and does that investment proposition that's represented by these public private investors match up with, you know, with what the expectations are, and how they're getting financed?

You know, I wonder, is it in the long-term best interests, personally, of the cities, or is there a short-term funding, you know, solution? But that's a whole different policy topic for, you know -- that, frankly, I'm not, you know, well enough versed, other than to have just casual opinion on.

DR. CHATTERJI: Any comments on this?

I mean, this is kind of big with the infrastructure bank that's being considered now, which you might be referring to. So, having personally worked on these kinds of issues, I think that there's clearly a tremendous need to rebuild American infrastructures. That's why people are looking to these sources.

The terms of the contracts -- things like liens, when they come into effect, and how they're designed -- will have a big impact on how attractive is -- both to the government side and the business side.

MR. FLORENCE: In general, I mean, I believe, the capital markets are relatively efficient, right? And so there will be a segment of investors that that product appeals to. How big that is, you know, whether it's ultimately successful, I don't know. But there will be a segment of the capital markets that that product will appeal to, and hopefully it leads to, you know, positive outcomes in productivity for us as citizens.

DR. CHATTERJI: Do we have time for one more question? Okay, great. Yeah, sure, right here.

SPEAKER: Yes.

I was sort of interested -- differentiating your business from the venture capital. The venture capital businesses are notoriously about home runs. 70 percent of their firms don't pay nothing, 20 percent do some return, and 10 percent go out of the -- you know, hit them home runs.

What do you all -- what's your profile of belly-ups? How do you all make money? Who goes up? What's your upside? What's your downside, et cetera?

DR. CHATTERJI: Maybe you can also touch to the woman's point in the back about a lot of venture capital firms moving into growth capital, and the fee structure, and how that works.

MR. FLORENCE: Sure, I'll try to fit all that in. I think we're short on time.

But, you know, real briefly, you know, you're exactly right. My layman's description -- the venture business is sprinkle and sprout. You have, you know, two home runs, get your money back and, you know, plus, you know, a small return on, you know, four of those investments, and lose your capital in the others.

And that's probably over a 40 or 50 company portfolio, just to make it up. And I'm truly making those numbers up, but direction -- I think that's the model -- our business.

And so there's a lot of volatility there, and I think investors are -- you know, there are firms that are experts at that business, and they've proven time and time again that they can generate those, you know, those home run returns.

And if you look at the attribution of those returns, those funds make money off of, you know, a handful of deals.

Our business is very different. We're going to have eight to twelve companies in a fund. I say we're in the singles and doubles business.

So, for our firm, the last two funds, the last 23 deals, we've lost our capital in two. It's represented six percent of our capital. We've made one and a half to five times our money in the rest of those deals, and we'll deliver, you know, 2.3 or 2.4 times our money in those businesses, with less leverage in our portfolio than is typical.

It's a lower beta, lower return, you know, strategy. Our investors are looking for a mix of certainty of capital, and preservation of returns, and lower loss volatility as a result of that.

That makes it challenging -- I'll be honest -- for us to deliver, you know, top quartile returns, because we're not swinging for the fences. It doesn't mean we can't do it, and we have in the past, but it means you got to get there slightly differently. And I think that reflects a maturing of our asset class.

Our limited partners and limited partners in this community, they want to make their own asset allocation decisions of how much risk they want, and who's good at that risk, and how much lower volatility but stable returns that they want.

And so there are different strategies, I think, and different returns, approaches.

The other point I'd make is, not all firms -- you know, if you deliver the same 2.3 times your money, you know, over a reasonable period of time, they may have underlying -- taken very different risks in order to get there. Some may have relied entirely on leverage. And as we've seen, leverage can work both ways; it can help you, it can hurt you. And so is that a repeatable model, as it relates to what your source of returns are?

So, I think smart limited partners are looking today at, what's the underlying source of those returns? How does that match up with what their objectives are, and is that repeatable, you know, over time?

And I may have forgot the other comment in the back.

MR. JONES: It also has to do with the stage of the company as well. I mean, venture capital -- you know, I mentioned seed capital. That's usually, you know, $1 million or less in revenue -- pre-revenue, even.

Venture capitalists nowadays tend to kick in about -- at $1 million of revenue, they start to look at companies, and maybe you go up to $10 million or so.

So, the private equity guys are much later stage. They probably have cash flow. They can take on debt. It's a different stage of business as well, and that also tends to correlate with the risks somewhat.

DR. CHATTERJI: So, with that, I think we should conclude the panel. We'd be glad to continue the conversation offline.

I want to thank the audience for a great discussion -- also, our four panelists for today. Thank you.

We'll be back here at 11:30 for our next presentation, so we can take a short break.

SPEAKER: Come back in 10 minutes, please.

(Recess)

MR. LERNER: All right, so I'm Josh Lerner who is organizing this event with Martin, and as was sort of definitely pointed out earlier, we do have very much a sort of theme of the entrepreneurial circle here in terms of really beginning with the, you know, sort of founding in early days and then sort of going through the life cycle. And this sort of very much brings us to the process of going public. And in a lot of ways I think you can argue that this is really the crucial part in the process, because the comment was made in the earlier panel that it’s all ultimately about returns and without liquidity one isn’t going to have much in terms of returns.

So, you know, certainly the IPO market has been an area that’s been fraught with issues or challenges in the last dozen years or so, and we have the man to talk about the subject matter in the form of Jay Ritter. Jay is the Cordell Professor of Finance at the University of Florida, but he’s sort of known in academic circles certainly as Mr. IPO and has got no shortage of insights to share. He’s also been very involved in the policy process in its various manifestations from, you know, certainly having done a variety of stuff, you know, from the SEC to the New York Attorney General’s Office and lots of other interesting places in between so as a result certainly very much combines both, you know, academic and practical insight of these issues.

And without further ado, Jay, the floor is yours.

MR. RITTER: Thank you, Josh.

I’m going to talk about reenergizing the IPO market, and this is partly based upon an academic working paper that I have with Xiaohui Gao and Zhongyan Zhu called “Where Have all the IPOs Gone?” reenergizing the IPO market I’d say more at the policy issues, and I’ve got a companion paper that will be published in a Brookings papers volume that will be coming out in a couple of months.

This graph gives the number of IPOs, the buyers per year from 1980 through 2011, and what you see is from 1980 to 2000 an average of 310 companies went public every year; and over the last 11 years, which I’ll call casually the last decade, ever since the tech bubble burst, an average of only 99 companies have been going public each year in the United States. You know, a huge drop, and this is even more disturbing when you take into account the fact that U.S. real GDP has grown by 120 percent from the early ’80s until now. So, if anything, you would have expected not a fall-off in the annual volume of IPOs but an increase over time.

The blue line there gives the average first-day return, which, with the exception of the bubble period, has averaged about 11 percent per year and has been fairly stable during the last decade.

Now, if we take IPOs and divide them into big and small companies using a very tiny borderline, only $50 million in inflation-adjusted pre-IPO annual sales, it turns out about half of the companies over the last 32 years have been below that cutoff and half above that cutoff. What you see is that from 1980 to 2000, most years about the same number of small firms and large firms went public, although on average slightly more small firms.

But in the last decade small-firm volume has been almost nonexistent, and this was true even during the 2004 to 2007 period when the stock market had largely recovered, and this is still true in 2012. In a few weeks, when I update this graph, 2012 is going to be coming in just like 2011. And this has policymakers concerned, the venture capital community concerned, entrepreneurs concerned that we've gone this long time period in both up-cycles and down-cycles with the IPO market being nowhere near like it used to be, and it was just discussed previously.

Historically, a lot of young companies that venture capitalists back, successful companies, exited via an IPO, and this has just not been much of an alternative in the last decade, and it doesn't look like it's changing. And this partly motivated the JOBS Act, which was passed in April.

My personal view is the JOBS Act will have approximately no effect on IPO activity, and let me explain why. And this has been a policy issue, you know, for years. Many of us can remember six years ago when the New York-versus-London debate was going on that Chuck just mentioned, you know, about companies going public in London and Hong Kong, although when you look at the data more carefully, there just haven't been many U.S. companies going public overseas, and indeed the vast majority of companies that have gone public on London's AIM market would have been rejected by NASDAQ as just too small. And, in fact, almost all of them amount to just private placements sold to qualified institutional buyers, and no public market ever really develops for them.

And since the panic of 2008, European IPO volume has been very low, you know, partly due to the Euro zone crisis. But investors have earned very low returns on AIM IPOs and kind of the consensus is that London is not going to be coming back the way it had been six years ago.

Now, this graph gives from 1990 through 2011 the number of successful exits by venture capital-backed companies. This is not including write-offs, but the green on top gives the fraction of successful exits that are IPOs, and the purple on the bottom gives the percentage of exits that are trade sales selling to Microsoft or Merck or Oracle rather than taking the company public, and what you see is that during the 1990s there was a very substantial trend going on where taking companies public was becoming less and less common and selling out was becoming more and more common.

Now, this is the percentage of exits. It turns out that at least in the last 15 years the number of exits have been pretty stable at 300, 400 per year. So, if we were just graphing the raw number of companies, the patterns would not look too much different. But, you know, this is what the venture capitalists are talking about, that, you know, as an exit, IPOs have become very uncommon.

This graph gives, in purple here, a measure of stock market valuations. It's the Shiller price earnings ratio, which is the level of the S&P 500 divided by the inflation-adjusted 10-year moving average of earnings to smooth out business cycle effects. If instead I had plotted the market-to-book ratio for the stock market, the pattern would look virtually identical, and what you see is the big stock market rally of the 1980s and 1990s; the tech bubble burst; the 2008 financial panic; et cetera.

And also graphed is scaled IPO volume per quarter. This is the number of companies going public each quarter divided by real GDP. And what you see if you look at things -- like in the bull market in the end of 1982 led to a huge increase in IPO volume -- you see the spikes up and down are very closely associated with stock market rallies and stock market falls. The IPO market tends to be hypersensitive to stock price movements. But what you see as well is starting not in 2000 but actually in about 1997 that IPO volume hasn't been keeping up with that historical relation in terms of both the level and the sensitivity. When the stock market goes up now, only a few more companies go public. It's still the case that when the stock market goes down, IPO activity grinds to a halt, but the amplitude of the variation has dropped off dramatically with low-volume bull market and bear market year after year. And as I just pointed out, this trend had actually begun before the 2010 tech bubble burst. And, indeed, when stock prices were so high in the late '90s, IPO volume actually was pretty modest compared with the historical relationship given how high tech stock prices had gotten.

Well, the conventional wisdom, you know, based upon the logic for the JOBS Act -- if you read the *Wall Street Journal* editorial page, conventional wisdom is that Sarbanes-Oxley and other regulations have imposed very stiff costs on publicly traded smaller companies and a combination of technological changes in the way stocks are traded, and regulatory changes have drastically lowered bid-ask spreads and reduced the amount of analyst coverage of small companies, and this has led to the collapse of what's sometimes known as the IPO echo system, that in the '80s and '90s there were a lot of San Francisco-based boutique underwriters -- Hambrecht & Quist, Robertson Stephens, Montgomery Securities, et cetera, that took lots of tech companies public. Elsewhere, Alex Brown, based in Baltimore, took a lot of other small-growth companies public, and in the mid and late 1990s a lot of the big commercial banks bought up these boutiques, and they really haven’t been replaced, making it harder and harder for smaller companies to find reputable investment banks to take companies public. And so some proposals have been that well, we need to somehow subsidize analyst coverage; we need to bring back the IPO Eleco system and this will jump start the IPO market again.

Well, I and my co-authors call these arguments the regulatory overreach hypothesis, that well-meaning regulations designed to protect investors have had some unintended consequences, harming the IPO market. And I think there is some truth to this, but I’m largely inclined to believe that these are fairly minor effects.

Instead, I think that there’s a long-term change that’s been going on where economies of scope have become more important, “economies of scope” being defined as related businesses can do things more cheaply if they’re combined into one business rather than as separate, independent companies. There’s been an increasing importance of speed to market. Product half-lives have been getting shorter and shorter, especially in the technology space, and basically getting big fast is more important than it used to be.

And so our argument is that as a consequence of these things, the profitability of small, independent firms has declined relative to the value created as part of a larger organization that can quickly implement new technology and benefit from economies of scope and scale. As a result, small firms are selling out rather than staying independent.

So, in other words, what I’m arguing is the problem isn’t a public market versus private market issue; it's a big company versus small company issue. And increasingly, being a small, independent company and growing organically is not the profit-maximizing business strategy, that instead getting big fast is the value-maximizing strategy, and the way to do that is typically to merge, either merging with other companies to grow rapidly or, most commonly, being acquired. And there are all sorts of facts that are consistent with this.

We call our explanation the economies of scope hypothesis. Now, what's the evidence? This is, starting in 1980, the percentage of seasoned public companies -- companies that have been publicly traded for at least three years with negative earnings -- and here we're defining companies big and small, based upon $250 million of fiscal year sales. And what you see is for large companies, on the bottom, it's been increasingly common to lose money. There's a little bit of an uptrend there, and there are definitely business cycle effects. And the top line, for smaller companies -- there's also an uptrend, and this uptrend was going on before 2000. There's not a discrete event, that smaller companies have been having more and more trouble being profitable.

Now, there have been accounting changes that have gone on. For instance, in 2005 employee stock options started to get expensed. But you don't see any dramatic change in 2005. The trend was going on before then. Starting in 2002, Sarbanes-Oxley costs came into effect. We've asked well, what would the numbers look like if we backed out compliance cost due to Sarbanes-Oxley? That's where you get the dotted lines here, where, as you can see, if companies had lower compliance costs, a higher percentage of them would be profitable. A smaller fraction of them would be unprofitable. But, you know, the trend is still there.

What about for the companies going public? Here we've got the large-firm IPOs, the small-firm IPOs as well, and what you see is the uptrend going on there, especially for small companies a bigger and bigger percentage of them have been reporting negative earnings, and this trend was going on in the ’80s and ’90s. Technology has been changing gradually where getting big fast has become more and more important, and there’s no one discrete event that is associated with this. This is a technological argument, not a regulatory argument, and in the bigger picture scheme of things this is related to why the distribution of income and wealth is getting more right-skewed, not only in the United States but in the world as well. Increasingly, in many businesses it’s more of a winner-take-all market where -- you know, how many of you want to go out and buy the eighth best smart phone because it’s a little bit cheaper than the products that Samsung and Apple sell? You know, I think smart phones are a classic example of where getting big fast and winner take all really make sense. And there’s a little company, Android, that figured this out as well, that came up with some good technology. One of the things they could have done is raise more money, gone public, developed a better product and maybe three years from now brought a smart phone with their operating system to market. Instead, what did they do? Well, they said, you know, well, that Samsung or Apple or Google would be willing to pay now a lot more money and incorporate our technology into their products right away. And, indeed, they went out and talked to those firms, and Samsung turned them down, said nah, we’ve got 500 PhD scientists; we don’t need to buy outside technology. Google decided yeah, we will buy this. And Samsung greatly regrets their decision. Google views the Android acquisition as the best acquisition they have ever made. And Android’s founders have no regrets about having sold out rather than to build an independent company.

Now, what about the cost of compliance? Well, you know, if Sarbanes-Oxley costs were really burdensome, we would expect to see a lot of publicly traded small companies going private. This is a graph from 1980 until now of companies that went public and how many of them went private within three years of the IPO. And what you can see is it's not many. It averages only about one or two percent per year, and in particular there's no increase after 2002, that of companies that do go public, that yet delisted, typically it's because they're either failing or because they're bought out rather than by deciding to go private as an independent company.

Young-growth firms that do go public are more likely to be acquired or to make acquisitions, and this is a trend that was going on in the 1990s as well. In terms of analyst coverage after the IPO for both small firms and big-firm IPOs, analyst coverage has been close to universal. Now, there is a bit of selection bias here. Certainly there are some small companies that didn't go public because they couldn't get a promise of analyst coverage from a reputable underwriter. I do believe that the minimum threshold size to be a publicly traded company, to make it optimal to do so, has gone up over time. But still the huge drop in the number of small companies going public seems to be just too big to explain by mirror increases in regulatory costs. And of venture capital-backed companies, they're not selling out to private equity shops and remaining as independent companies. Most importantly, they're selling out in trade sales. They're selling out to the Oracles and the Mercks and the Googles of the world where the bigger organizations can integrate the technology and create value.

What if lack of analyst coverage was resulting in lower public market valuations? Well, then we ought to see this in the price-earnings ratios of publicly traded companies. This graph shows for small companies and big companies with positive earnings -- so this is excluding all of the companies with negative earnings -- what the price-earnings ratio is, and what you can see over time -- this is 1980 through 2011 -- the vast majority of years small companies with positive earnings sell at a little higher price-earnings ratio than for big firms, but that relation doesn't seem to be much different now than it was 10 years ago or 20 years ago or 30 years ago. So, I don't think that its lower valuations of publicly traded small firms that are deterring small companies from going public.

So, what are the policy implications? There have been a lot of proposals out there to subsidize analyst coverage, maybe even create special requirements with minimum bid ask spreads for small companies. Our analysis indicates that these are not going to be very effective at generating a lot of IPO activity, because it's not a public market versus private market issue. It's a big company versus small company issue.

Our analysis suggests that companies are not going public, because they have less value as a small independent company than they would have as part of a larger organization.

So, to conclude, I don't think there's any one explanation that accounts for all of the prolonged draught in IPO activity. But I do think that the regulatory overreach hypothesis has been overplayed. And maybe I'm wrong here. Personally, I hope I am wrong. I would really like there to be a lot of small company IPOs. But, on the other hand, I don't see the problem being that lots of profitable small businesses are having difficulty raising money. I don't see venture capitalists demanding onerous terms and earning huge rates of return on the capital that they're investing. Overall, I don't see the problem as a shortage of capital. I see it as a problem with lack of profitable small businesses and, in particular, lack of rapidly growing profitable small businesses.

I think there are a lot of small businesses with good technologies that are being funded, and then they sell out to larger organizations and realize value that way. So, I think there has been a structural change going on, and I think a lot of policymakers are stuck in a mentality of well, traditionally, successful young companies went public;

therefore, that's the way it should always be. But I think the world has changed, and that model is not necessarily the best way of financing young companies and creating growth and facilitating job creation.

Thank you.

MR. LERNER: Okay, got some time for questions.

Yes.

SPEAKER: From a policy point of view, is there more job creation and more value creation in companies continuing independent as an IPO as opposed to being acquired, that the research on value creation in M&A is that depending on what study you agree with, there's a tremendous amount of value leakage and value loss after acquisition? So, if our goal is economic growth in job creation, are we better off to create policies to incent job creation through IPO companies than through M&A?

MR. RITTER: Yeah, you're asking a very important question, and I think it's really difficult to answer that question. Last year, I and co-authors did a study for the Kauffman Foundation looking at job creation after the IPO for all of the companies that went public from 1996 until now, and we found that the actual numbers are a lot lower than the numbers that the VC lobby had bandied about during the run-up to the JOBS Act and that the *Wall Street Journal* kept reporting. But in doing that, just like Josh Lerner's study on how many jobs do private equity firms create in their portfolio companies, it's easy to measure for some companies. But what do you do with the companies that go bankrupt? What do you do with the companies that get acquired? And a lot of companies get acquired, and then the acquiring company, like Oracle -- they report their total employment. They don't report how many are in this division, how many were employed by this company that is the remnants of a company that we acquired three years ago. So, it's just incredibly difficult to answer that question.

But, just like with venture capital investing, the fact that the majority of M&A transactions wind up being disappointments for the acquirer -- that doesn't bother me. Every once in a while an Android acquisition comes along that can balance out a lot of failures and it's -- you know, it's really difficult to figure out on average what happens.

MR. LERNER: Martin.

MR. BAILY: Is it possible that the regulation and, to some extent, the way private markets work part of the reason you have to get bigger? Because there are a lot of costs associated with monitoring of complying with SOCs, complying with other regulations and that if you're a small company that's being covered by financial markets and you have a lot of variance in your returns, they tend to mark you down. The credit rating agencies don't necessarily like that kind of variance, so is some of our financial and regulatory structure actually providing this negative to being small or like the benefit to being large, which may not be pure economics? It may be somewhat regulatory.

MR. RITTER: Yeah, I don't want to defend existing regulations as the optimal regulations. Personally, I'm glad I'm not a policymaker who has to figure out of the tradeoffs to try and get the right balancing between capital formation and investor protection. My inclination is to think that some of the regulations are too heavy-handed.

Something that you constantly hear from public companies is the fear of lawsuits. I'm inclined to think there are too many class action lawsuits. But on the other hand, when you look at the numbers for how much do companies have to pay in directors' and officers' insurance, the numbers are not staggeringly large, and they have not increased dramatically from the 1990s.

So, that leads me to think it is a bit of a --

MR. MARTIN: -- 2009.

MR. RITTER: Okay. It is a bit of a problem, but I don't think this is the first-order problem, that the main problem is as product half-lives have gotten shorter, it's harder and harder to have a profitable business and grow organically, and, you know, the trends have been going on there for a long time with more and more M&A activity. There was not any discrete change in 2000 or a discrete change in 2009, and these patterns are not unique to the United States either. So, I think explanations that focus exclusively on what's going on with U.S. publicly traded companies and their regulations are focusing too much on the trades. That's not to say that the regulations aren't in need of some changes. But I think that's largely a second-order effect.

MR. LERNER: Yes.

SPEAKER: Thank you.

I'm trying to paint a sort of larger picture. Do you think that one possible explanation is that, you know, there is a structural weakness of the U.S. economy in this economy or the Western economy in general following the dot.com boom and bust cycle of early 2000, that companies don't grow organically, as you say, because there are not so many companies that can actually grow organically and survive in the current business environment and turn out to be bad investments in the first place.

MR. RITTER: Well, I think one of the things that has changed when I talk to venture capitalists and growth equity people and entrepreneurs, especially in the high-tech sector, is they are, in general, comfortable with the build-to-sell model for a number of reasons. One reason is they say, especially in the B2B space -- business to business -- it's really difficult, if you've got a good technology, to market it to a lot of companies. You know, why should they take the risk of buying your unknown product rather than something that the Oracle sales team has put the Oracle name behind? Whereas, if you sell your technology to Oracle and Oracle integrates it into their suite of products, you know, first of all, you've got the certification there of the Oracle brand name, and Oracle can generate a lot more sales, and Oracle consequently is willing to pay a higher price for your company than it's worth as a standalone entity.

You know, this is basically the problem of, you know, in a world of information, asymmetries, opaqueness, you know, how do you convince others to believe your story, where, you know, you have certain middlemen who do the betting, do the due diligence, do the certification; and one way this is done is through getting big companies with the brand names to stand behind the product. And a lot of big companies have also found that, you know, the internal rate of return we've been earning on our in-house R&D has not been that great, especially in the pharmaceutical industry, so increasingly they've been cutting their R&D spending and instead essentially outsourcing it by being more willing to buy independent growth companies when they think there's a good technology there. So --

SPEAKER: But how is that different from about 10 or 15 years ago? I mean, those constraints that you cite were there already, don't you think?

MR. RITTER: Yeah. I think the trend was disguised for a while by the technology bubble of the late 1990s, where basically public market investors were willing to overpay for small, independent -- and big -- technology companies as well. So, I think that's part of it. But also I think in fact the speed of technological change has gotten faster and product half-lives have gotten shorter where the certification of, you know, taking advantage of that opportunity now has become more important, and I think that's part of the reason why this is more of an issue now than it was 15 years ago.

MR. LERNER: Microphone.

SPEAKER: Thank you. In your research, did the issue of antitrust come up at all, meaning that some of these bigger companies are pretty much going after the competition when they buy a smaller company whether it's securing a tangible asset like a patent or a trademark just to put them out of business and grow market share. So, could you share if there are any insights regarding that and, I guess, my perception that antitrust sort of doesn't exist anymore?

MR. RITTER: Yeah, I think these are important issues. You know, patent and copyright policy comes into play as well. Josh Lerner has done a lot of insightful work on that. And this gets back to one of the issues that Martin raised in his question about, you know, how much of this is fundamental technology versus how much of it is government policy that essentially subsidizes the big at the expense of the small. I think there are some issues there where, you know, the fixed cost of compliance does result in the optimal scale of the firm being bigger.

On the other hand, I think there are countervailing trends where it's easier than ever to start up a company. All sorts of things you can buy off the shelf, download from the cloud, rather than, you know, going out and spending the money to buy all sorts of computer servers yourself. So, there are some offsetting trends that make it easier than ever to start up a business.

MR. LERNER: Okay --

SPEAKER: If these deals -- you kept talking about the disappointing deals -- if these deals are so disappointing, why are firms continuing to buy them?

MR. RITTER: That's one of the counter-arguments for why I don't think that it's a public market failure, that, you know, I'm hard pressed to think that Oracle and Cisco Systems and Microsoft, et cetera, are time after time consistently overpaying out of empire building perceptions or whatever. One thing that you can measure is the returns that public market investors have earned on small company IPOs. And the evidence there is consistent, really bad, in both the U.S. and Europe; in the U.S. in 1980s, small company IPOs underperformed; in the 1990s they underperformed; in the bubble years they underperformed; in this decade they’ve underperformed even worse than in the ’80s and ’90s, even though there have been fewer of them. And the one run returns on small companies in Europe, especially on London’s AIM, have been abysmal for investors both in the late ’90s and in this decade as well.

So, if it was just a matter of depressed public market valuations, you might expect well, if companies have to sell at a low-price earnings ratio, investors would then earn high returns. Instead, the fundamental problem is the inability of so many of the companies to earn money or, you know, we get back to the skewness issue. Even if the majority of them were failures, if there were a few that became the big successes, the 10-baggers for public market investors, that could offset the fact that the median does not do that well. But I’m hard pressed to name many companies that went public when they were less than 50 million in annual sales that became big successes. You know, Google, eBay, et cetera -- lots of them were already pretty successful companies when they went public.

Josh?

MR. LERNER: One of the trends we’ve seen the last few years has been companies waiting to go public until they’re much older, you know, so obviously Facebook was a visible example. But when you think about many other examples as well, do you see that as a healthy thing or consistent with your ideas? How do you make sense of that sort of tendency of these really old -- young companies?

MR. RITTER: I think partly it reflects public market skepticism. You know, investors have learned that the track record of small, young companies that have gone public has not been very good, and consequently I think it’s made it more difficult for a good young company to go public at an early stage and get a high valuation. And given that difficulty, and given the willingness of venture capitalists to fund them, many of them have decided look, we are going to wait until we’ve got more of a track record so that public market investors would be willing to pay up for us just as the venture capitalists are willing to pay up for us now.

So, once again, I don’t necessarily view this as a public market failure. To some degree I view it as a private market success, that there is sufficient private market capital there to finance good companies. But it’s still the case that the majority of them are then exiting, not by going public and remaining as an independent company, they’re instead selling out in a trade sale.

MR. LERNER: One last question.

SPEAKER: I’m not sure that public ownership is actually a very good form of ownership for small companies, because I think they need more patient capital in order to grow, frequently be in a position needing to take their earnings down to invest for growth. And, you know, if you have quarterly shareholder meetings, you know, you can’t do that. So, I think that’s a contributing factor to the under-performance.

MR. RITTER: I would agree with you on that, although it’s not clear to me why this has been different the last decade than it was in the ’80s and ’90s. For those of us who are older, we remember the late 1980s when it was impossible to pick up a copy of *Business Week* magazine without a story talking about how great the Japanese economy was because companies there didn’t have to focus on quarterly earnings. So, while I do think that this is a very valid issue for public companies, I’m not sure that it’s different now than it was a decade or two or three ago.

Okay, thank you very much.

MR. LERNER: Thank you.

Okay panelists, we’re -- after many delays --

MR. SCOTT: (Off mic)

MR. LERNER: -- I think we can hang loose. Thanks, Scott. That way I can keep a careful eye on you.

We finally get to the real people here, the people who have the money. And in particular, in some sense, up until now we've largely been sort of focused either on the perspective of the entrepreneurs or on the private equity guys, and the other intermediaries who are providing the funding. But in a lot of ways you can say the most critical in the process are really the people who have the dollars.

Now, they popped up a little bit in conversations, but as we were talking about among ourselves, we're not sure we always agreed with the way that they were characterized, and it seemed it was important to get here from their own words how they're seeing this whole realm of, you know, sort of venture growth capital investing, what their perspectives on it are, and so forth.

We're very fortunate in having what might be described as an all-star group of panelists here who really represent not just simply three countries but also some of the, you know, sort of really classic investors in each of their respective types of investing here. We're going to sort of dig into a series of questions about what's going on, how the landscape is changing, and what their perspectives are on these issues.

Everyone got the biographies, and the biographies sort of lay out clearly what all the backgrounds of the key players are. But what I thought would be helpful is maybe we'll just ask each of the panelists to spend, you know, sort of 30 seconds on, you know, maybe a bit about themselves and their organizations, really just sort of the *Reader's Digest* version of the key aspects, and then we'll sort of get into the questions and we're going to really mix it up here in terms of stuff.

Eric, do you want to start us off?

MR. DOPPSTADT: Sure. Thank you, Josh.

I’m Eric Doppstadt. I’m the chief investment officer of the Ford Foundation in New York City.

We’re the -- I guess my mic isn’t working.

(Technical problems)

MR. LERNER: Get a mic. Got a mic? Hand mic.

MR. DOPPSTADT: The Ford Foundation is the second largest private foundation in the United States, and I think what’s noteworthy for this discussion is that we were the first endowed institution to invest in venture capital and private equity going back over 40 years ago, and my experience at Ford spans close to half of that time frame. So, I’ve seen a lot of the cycles come and go across the private equity and venture capital markets.

MR. LERNER: Thanks.

MR. KALB: I’m okay.

MR. LERNER: All right.

Okay, well, I’ll just operate in the shadow here, thank you. (Laughter). I was in Korea anyway, so I’m used to it -- South Korea -- so.

My name is Scott Kalb, and I got to know Josh and we did a lot of work regarding long-term investment -- actually, a lot of the gentlemen here -- when I served a term -- I actually just completed a term working as the chief investment officer and deputy CEO of the Korean Investment Corporation, which is the sovereign wealth fund for Korea. So, I had the honor of being, I believe, the only foreigner who’s ever been asked to run a sovereign wealth fund. Usually senior government officials -- local government officials -- are asked to run those. So, it was a very unusual circumstance. And I’m certainly the only U.S. citizen who’s ever run a sovereign wealth fund, because we don’t have one.

The sovereign wealth fund world is a very interesting world. There are only about 40, maybe 45, today. There are some being formed. Really, 70 percent of them have just been formed within the last 10 years. So, it's a fairly new phenomenon but very powerful in financial circles. Those 40 funds together control about $5 trillion.

The KIC where I worked -- when I started we were at -- we started at about 20 billion, and when I left we were at about 55 billion. And one of my jobs -- you know, it's also -- it was only formed in 2005, so I came in and I was really one of the -- I was the second CIO and deputy CEO there, and so my job really was to sort of try to move them forward, and one of the things that we did was to take them from zero to about 15 percent of assets in alternative strategies, including private equity plus a whole range of infrastructure, real estate, and everything else.

MR. LERNER: Great.

Pierre.

MR. LAVALLÉE: My name is Pierre Lavallée. I'm with the Canada Pension Investment Board, and just because of all this talk about sovereign wealth funds, I'll say right up front, we're not a sovereign wealth fund. We invest surplus contributions to the Canada Pension Plan on behalf of 18 million beneficiaries. We manage in aggregate $165 billion, of which 20 billion is in the fund of funds that I manage with a team of 30 people across our offices in Toronto, Hong Kong, and London. On top of the 20 billion that's already invested, we have another 13 billion that are unfunded commitments, and this is a program that is, as is the case for the overall fund, a program that is destined to grow over time. Our investment mandate is to focus on returns and minimize risks of loss. But it is a returns-based rather than economic policy-supporting type investment mandate.

Thank you.

MR. LERNER: Joncarlo.

MR. MARK: So, my name is Joncarlo Mark. I founded a firm called Upwelling Capital Group last year. My profile fit very neatly into the presentation that was presented this morning age-wise. Don’t have any leverage yet. I haven’t asked the banks yet. I think I know the answer, actually.

Prior to starting Upwelling Capital, I worked for 12 years for the California Public Employees Retirement System, which today is about $230 billion of assets in our management. In that period from ’99 to 2011, the total committed and invested capital in our private equity program grew from $10 billion to about $50 billion. We are globally diversified. We had venture capital leveraged by our credit, expansion capital energy, sort of everything in the private capital area. Infrastructure was not something we technically did in our group. A new infrastructure group was brought in, and real estate was separate as well. So, that can be it.

MR. LERNER: Thanks.

So, maybe we should just begin by trying to understand what the perspectives of institutions today are on these aspects. And particularly we’ve highlighted both venture and growth equity as playing crucial roles in terms of enabling financing to take place. It’s including not everything, but it’s including very important roles.

So, for instance, in your seat at CPP, how do you think about areas like venture growth equity? Is this -- I mean, you guys have a lot of money to play with, and how does that affect how you think about these kinds of asset classes as people come knocking on your door, Pierre?

MR. LAVALLÉE: We do have a large mandate, and there are hundreds and hundreds of people that call on us every year, and while I have I think in the industry a relatively large team, we are still very capacity constrained.

MR. LERNER: Mm-hmm.

MR. LAVALLÉE: And so we really operate under two major constraints. One is the actually very large amount of capital. That's a constraint for us because it drives the quantum in which we have to invest, something I think you'd appreciate.

And the other constraint is people -- people who make good investment decisions. And therefore we've established some basic ground rules on the funds that we'll look at, and one of those is that we invest only in funds that are raising $750 million or more.

And you say why would you want to do that? And, well, part of the rational -- not the only element but a big part of it is that when we deploy a team to make an investment decision, we want that decision to be significant in terms of funding, which means we want to write a check for about $150 million or more. And if you want to invest $150 million in a $300 million fund, the fund starts to look at you and say well, this is nice this time around, but what if you don't like us so much and you decide to not come back the next time? It creates a gigantic hole for the fund. So, there's a dynamic there between the LP and the GP around balancing how many and how large an investor they want in their base versus what we're able to do in an efficient manner.

MR. RITTER: So, that's 750. That's going to eliminate basically all but, what, eight venture capital funds on the planet? And probably, even if we were to go to, you know, sort of lower middle-market buyout groups, they're gone. I mean, there's a lot of people you're not seeing as a result.

MR. LAVALLÉE: Right.

MR. LAVALLÉE: That's true.

MR. LERNER: Yeah.

MR. KALB: I mean, I think also, Josh -- I'm just going to jump in here, sorry.

MR. LERNER: Yeah, go ahead. This is what it's all about.

MR. KALB: As an asset allocator, you know, frankly, venture capital is almost impossible to access if you're a large institution. You know, as --

MR. LERNER: Well, wait a second. I thought there were all these people knocking on his door --

MR. KALB: Yeah, but you can't -- you know, it's not that you can't --what happens is it's not -- you get no scale by putting $10 million or $20 million into something. You're managing a hundred billion or 50 billion, and it just doesn't -- it doesn't -- you don't have the resources to manage the small things. You can't get economies of scale.

The other thing I just wanted to point out is that actually I think venture capital has a lot of proving of itself to do to investors. The returns have not been good.

MR. LERNER: Mm-hmm.

MR. KALB: So -- and that's the -- you know, this is where we've got to start as an asset class. Over the last 15 years if you look at the Preqin data, the average annual return for venture capital has been 2.1 percent.

MR. LERNER: Right.

MR. KALB: And the standard deviation has been 54 percent.

MR. LERNER: Right. So, why don't you look over the last 30 years? Venture capital looks pretty good. It's just this minor inconvenience thing of the last decade that -- the last --

MR. KALB: Well, no, this is 15 years (Laughter) But I have to tell you that the last --

MR. LAVALLÉE: The last --

MR. KALB: From 2000 -- during the last decade, it was negative almost every year. So, a lot of guys are -- there are a very few people who have been able to have, you know, those big 100-fold hits. But for the most part, it's been a very disappointing asset class.

MR. LERNER: Eric, you know, you've got a lot of VC skeptics going on here. At Ford you've been the same way? You're just sort of hiding under -- you say that was 1970s; we're out of it now? How do you think about that?

MR. DOPPSTADT: No, I think that's a very good question, Josh, and in general I completely share that skepticism about the venture capital business. As a whole, it's a terrible business and always has been, and it's particularly terrible today, because it's become a completely winner-take-all kind of game.

We work with eight venture capital firms at this point in time, and virtually our entire venture capital portfolio, which is a billion dollar portfolio, is invested with those eight firms, four of which we were the founding investor in, which include firms like Sequoia Capital, Matrix, Benchmark Capital, but they're firms that we were able to be there on the ground floor and grow with them. We've had a reasonably good success in that part of our portfolio, but there are a lot of problems that even those firms have to deal with today, some of which Jay referred to in his remarks and that I think are problematic.

The IPO market is essentially closed to technology companies for a lot of the reasons that Jay described -- but also I believe because there's a demand side problem. It's just not to clear to me that the public markets want anything to do with technology in general. Tech stocks are trading at 30-year lows relative to industrial companies, and I think there is a general distaste for tech-related IPOs. That's a problem for the venture business, because the enterprise values on IPO on average are multiples of the enterprise values on M&A or trade sale exits. And of course if you don't have an IPO exit option, a potential buyer, like the Oracles of the world, which were referred to earlier, know that, and they're going to pay a much, much lower price for your company than they otherwise would if they know that you could threaten them by filing an S-1 and going public.

So, there are a number of problems that we, you know, are wrestling with. But at the same time I would say that the issues with the IPO market have created an opportunity for the survivors in the venture business to capture a lot of the returns that used to be captured by public market investors by financing companies for a much longer period of time and being able to capture a larger portion of their growth trajectory, as it were, in successful companies.

But in the end, it is unlikely that that’s going to help most of the venture business below the top tier, because from our perspective the industry appears to be becoming even more and more of a winner-take-all dynamic in which if you’re in that sort of top tier, however you define it, you have the ability to raise almost unlimited amounts of capital; if you’re not, capital is essentially unavailable for the sorts of other firms of which there are hundreds of them around that used to be very active in the business.

MR. KALB: So, look, I’m sorry, I just -- I think the venture capital in a way is kind of reverting to its roots a little bit, which was that people starting up businesses would go to their family or friends or, you know, what we call angel investors to help start up their businesses, and then if they prosper then they can go for another round of finance with maybe -- on a larger scale.

MR. LERNER: Yup.

MR. KALB: And, you know, I think there was a period of time where we had this huge excess in almost like a bubble where we started to see people getting involved, institutions getting involved. There was an opportunity to get involved in that early stage on a scale, but there was a little bit of a mania, and I think that’s gone, and we’re going back to this again, this more type of a family-and-friends type of structure.

And that’s not -- that’s tough for large institutional asset allocators.

MR. LERNER: But let’s put venture on the side in this little penalty box for the moment and think about the -- you know, what we heard about in this panel before about middle market, particularly lower middle market farms we serve. So, you know, this sort of case study of saying here’s a case of a firm which really needed financing where the public markets weren’t really viable, where, you know, banks didn’t seem like the right fit, and where ultimately the decision was made to sort of go and get, you know, a sort of long-term private equity investor. Maybe we’ll call it medium-term private equity investment, because ultimately they need to get out to do that. But, you know, essentially (inaudible) doesn’t have a huge -- I mean, they’re KKR in terms of having many, many, many billions of dollars under management. Yet, we certainly hear from, you know, CPP, and I think we’re going to hear this a lot more generally in terms of institutions saying we can’t have too many relationships, all those things that we have to sort of set the bar pretty high in terms of -- I mean, first of all, is that what you’re hearing from pension funds more generally saying limiting number of relationships?

MR. MARK: It’s not even pension funds. It’s endowments; it’s foundations. Everyone was kind of in a feeding frenzy in the last 10 years, and I think people are looking at their portfolio and they’re saying a very well-known endowment, for instance, I talk to, has 80 relationships. They said 15 matter. Fifteen matter, and they’re trying to consolidate them.

But I’m a California guy, so I’m going to be the voice of optimism here in venture capital. After that last panel, I went outside and I wrote down a few names for you all, because I didn’t want everyone thinking it’s all about pets.com and that’s venture capital.

Has anyone ever heard of Jamba Juice? Has anyone ever heard of

Square -- you know, the little thing you plug into your smart phone? That's a venture-backed company doing exceptionally well. Has anyone ever heard of Zumba Fitness in Miami, Florida? Has anyone ever heard of Under Armour? Local company, right? Third-string quarterback from the University of Maryland. So, there are a lot of -- Noodles & Company in Denver, Colorado -- these are just a handful -- I thought of some companies I know that are venture-back or growth-back companies. So, there was a little company in Redmond, Washington, and another one in Austin, Texas, you might have heard of called Dell -- and Microsoft as well. Everyone knows about HP and Google and Cisco and Intel.

So, yes, I mean, I guess what I would say is unfortunately institutional capital has a tendency of following kind of a lemming mentality, and I think what you saw, and you can see through a lot of the big pension funds late '90s, you know, tremendous capitals being made by those early investors -- Eric -- in the '90s (inaudible) the venture portfolio, we all jumped in. And at one point in time, CalPERS venture capital portfolio was 25 percent of the entire portfolio. Now, the portfolio is much smaller in total dollars. We were just chasing. We were looking for that venture -- elusive venture -- return in our minds, and we were a hundred miles away from Silicon Valley. Why can't we have a great venture portfolio? The returns weren't very good.

But, you know, a sort of lesson in life: Whenever money is too easy to come by bad things happen. That's kind of what happened with venture capital. You had too much money pouring into the asset class and not the same discipline that made venture work very well when Eric was in his foundation backing the hundred million, $200 million early stage or (inaudible) stage venture funds. There's little discipline put on the entrepreneurs. It wasn't like they were doing, you know, $20 million capital injections in the first round. They were, you know, slowly putting the money to work on those companies and having the company management meet milestones. That kind of went away.

I think we're coming back to that. So, I don't -- I think that, you know, returns have not been great It's funny, because I also went and checked on some returns in the break, and I looked at a -- State Street does an index through March, so it's not totally current, but the 10-year return was 6.2 percent so actually better than the public markets. The one-year return and the three-year return are about 14 percent. So, you know, I mean, it's okay. You know, it's coming back, and I think what you have is much like other parts of the investment universe. There's a compression going on in venture capital as well, and probably what has to happen is the big guys got to stay out of it, like CalPER* and CPP, and the smaller institutions -- what matters in a 5- or 10- or – $20-million commitment to an early-stage venture capital drives the needle, moves the needle for them and is a valid investment.

MR. LERNER: Now, one of the issues that came up I the earlier panel had to do with this notion of alignment and then setups and all that, and particularly there was a sense of saying look, we all make money at the same time, you know, your friendly private equity or venture capitalist is only going to really be making you money if he -- entrepreneurs are making money, and the investors are making money. But it seems clear there's been, you know, a bit of static, I guess would be the kind way to put it, in terms of the relationship between the people with the money on the one hand and the people investing the money between the limited partners, people here, and the general partners were actually running the fund. How do you make sense of what's going on with that, Eric?

MR. DOPPSTADT: I think it comes down to supply and demand in the particular market that you're looking at. So, in the buyout market or private equity market, on the one hand there's a lot less differentiation, in my view, amongst a lot of the firms that are seeking capital, and there was a plentiful supply of capital in the last 10 years, which led to the consistent ratcheting of terms against investors. That seems to be reversing now -- and most importantly around, in my view, around deal fees or transaction fees, which came to comprise a very large portion of the income of the general partners of a lot of larger firms and really serve to misalign interest between general partners and limited partners. As I see, as an observer or spectator at the largest end of the market where we don't tend to participate, that does seem to be correcting itself.

In the venture business, there is overcapacity as well, but the rationalization of supply and demand seems to be happening not through a ratcheting of terms in favor of limited partners but, rather, through this kind of Darwinian winnowing process that I described earlier, that is, a reduction in the supply of venture capital firms so that the small core of perceived top-tier firms will continue to have huge leverage vis-à-vis prospective investors and, in my view, will be likely to remain a seller's market so that investors like me will continue to face what I call a Groucho Marx problem, namely, you probably don't want to invest in any venture capital firm whose terms you could rewrite to your liking. And so I think that it just depends on which market you're looking at, and each of these things is sorting itself out in a different way.

MR. MARK: So, I think it's sort of important to get back and understand, you know, what everybody's role is, and sometimes it gets forgotten. You know, the guys up here, you know, are or have been -- were stewards of public capital. They were managing money on behalf of, you know, moms and pops pension or their education or retirement benefits, and it's their job to make that return.

And, historically, as an asset allocator, we used to have this old model --

I think it’s a, I don’t know, a 60- 70-year-old model. It’s the 60/40 model, which is -- you put 60 percent of your money into equities, you put 40 percent of your money into fixed income, into bonds basically, and you run it and that works and that’s how, you know, you’ll generate a return.

And then maybe 20 years ago people realized well, you know there are other asset classes out there that are developing that are interesting, and one of the important things about portfolios -- you’ve got to diversify. You know, you want to try to have uncorrelated return streams so that your portfolio’s always got something working for it and that overall you can get the direction right and get a nice risk-adjusted return.

So, asset allocators created this other bucket called “Other” for alternatives, and for a while that was the model: equity, fixed income, and other. And then gradually now the new trend has been well, let’s disaggregate this and let’s start to make an asset allocation model that fully reflects what the risks are of these assets and what their return purposes are. So, guys now are putting all sorts of equity together. They’ve got public equity and private equity and other equity types of assets and so on.

So, the private equity industry developed in response to two things: one, a need for capital from, you know, from companies or people that can fill the need; and then also a demand from the investment community especially from the asset allocators who want to diversify their portfolios and want to diversify a return.

Well, you want to -- you know, you want to access -- if you have the capacity to be a long-term investor -- in other words, you’ve got a big part of your portfolio that doesn’t have to be liquid and you want to try to invest in illiquid assets where you can generate a premium return. Why -- you know, you should, and it can also be uncorrelated and diversified. So, the private equity industry developed really is intermediaries in that field. They are taking capital from asset allocators and investing it also where there's a demand, and they're making a return. But I think that sometimes people have forgotten. You know, they think that, you know, the reason why the private equity industry exists is so that, you know, they can make a nice living. Well --

MR. LERNER: Well --

MR. MARK: That's okay, you can make a nice living, but that's not why the industry exists. The industry exists to help -- really I think ultimately help the asset allocators generate a better diversified return on behalf of the moms-and-pops who are managing that money. And I think that's the job of the private equity guys, and they also then have to manage the companies. But I think that's really what it's about.

And venture capital is a little different, because usually the demands, you know, that the large capital -- institutional capital from the asset allocators would overwhelm them, so it's a little different and, you know, maybe if they aggregated it together, they could intermediate.

So, you know, my view is that sometimes it's -- to us, private equity managers, these intermediaries, are very, very important. But they also -- you know, to us, because we want to access that as a class. We can't do it all ourselves. We need good partners. But it's very important to me that they also behave well and remember kind of what their role is. Their role is to really work with the asset allocators who are trying to get those returns, you know, and improve the risk-adjusted profile of returns for their moms and pops.

SPEAKER: But ultimately in that part of the question is so what is fair compensation for them to do that, right? And when you have market imbalances where too much capital is chasing too few managers and those managers can set the conditions under which they work, which includes the fees you hear about, the deal fees they used to take, and all of these things. And over the last maybe five, six years that balance is shifting.

MR. LERNER: Mm-hmm.

SPEAKER: And so that even -- you know, you will have some winnowing out.

MR. LERNER: Mm-hmm.

SPEAKER: But those that remain I'd say that they're averaging down in what they think they need to operate, you know, and a lot of them don't need the kind of money they were making in '03/'04. They're finding a way to make do with what is still outstanding compensation I think by any --

MR. LERNER: -- frame of reference, mm-hmm.

SPEAKER: And that's part of the swing that's happening now I think that we're seeing.

MR. LERNER: So, Pierre, what I'm hearing you say is that this is really sort of not just a short-run blip but a really more permanent shift. But even so you're not really necessarily -- we don't need to necessarily have too many sleepless nights worrying about the compensation of the private equity guys?

MR. LAVALLÉE: Easy to agree with the last part of your statement. But I'm not sure about the permanence of it.

MR. LERNER: Right.

MR. LAVALLÉE: This is a cyclical business. It's gone through -- it was very small in the mid-'90s when I started to be involved with it, and it's gone in cycles like this in terms of its overall growth. And now that the question is will it actually come down in size. I haven't seen that yet, frankly, but -- so, will it be a permanent shift or is it just temporary as we're about to go into another cycle like this? I think what we're seeing is a little bit of polarization than that, whereas, you know, if I've described the averages moving down in terms of how much the GP's keeping, there are still some premium folks out there that are working on terms that you would think as being outrageous. That being said, they can do it, and they'll be able to continue to do it if they continue to provide the returns that Scott was talking about before, right? Because ultimately, you know, we will to continue to invest in those through those GPs if they continue to provide above-benchmark returns.

MR. MARK: Josh, I think there's a bigger issue here, and actually Professor Ritter just talked about the fact that IPOs historically 10, 20 years ago have not really done well, and I think the bear issue is private equity has sort of replaced a part of the public markets, because these companies are less mature and probably not appropriate for a $20 million company to go public. You know, you know, you had a different kind of a research and investment banking eco system 15 years ago pumping these companies, and then of course when they'd go public they were distracted by the quarterly earnings and whatnot, and private equity really should bring more than capital, so in a lot of ways they should be there to provide guidance to help these companies become more competitive, stronger. Shareholder concentration's a focus, because they only make money when they create value by the company doing well.

MR. LERNER: Mm-hmm.

MR. MARK: So, I think that's the bigger picture.

MR. LERNER: Mm-hmm.

MR. MARK: Things like the fees -- unfortunately, that was a supply-and-demand issue, but I think the other thing is -- with all these companies going public these days and with a presidential candidate coming from private equity, I think there's a hell of a lot more focus now on kind of how it all works, and I think that a lot of that is -- I mean, it's still -- if someone's generating great returns, they're going to get paid premium economics, sort of the New York Yankees dilemma, right? But if they can generate good returns, investors will continue to commit capital to them. But I think that the big picture is private equity is -- and not just here in the states. You know, this is -- private equity has become very global.

MR. LERNER: Mm-hmm.

MR. MARK: It's different in Asia; it's different in Europe. But it's a very global, permanent part of the overall investment landscape, too.

SPEAKER: I also think it's -- I think that we're changing -- I think the investment community, institutional investment community, is becoming more sophisticated, more mature. The asset class has been around longer. People have been involved. And as they become more mature now I think that the shape of the industry is changing.

MR. LERNER: Right.

SPEAKER: I think investors are looking more for partnerships, not just you know, here's my money, you know, and take what you want and --

SPEAKER: This is all pretty rosy, but I guess, Scott, what's worrying me is saying, you know, we know that -- I mean, this was eluded to earlier today -- there's a lot of interest on the part of governments, not just in the United States with the Dodd-Frank but also in Europe with the EIFM and so forth, interested in sort of regulating this stuff, saying this has been a big, unregulated -- an increasingly big, unregulated market. Is this going to mess it all up, or is it somehow, you know, regulators are actually going to make things better here?

MR. KALB: Regulation is a really -- it's a really complex topic. You know, we've seen recently -- you know, we have Dodd-Frank in the U.S. We had the AIFM directive in Europe. And these are all sort of geared toward trying to regulate all alternatives. But let's focus on private equity. And it's very confusing, because the regulators -- essentially what they've said we're very interested in one preventing systemic risk and also making sure that we can kind of prevent contagion.

MR. LERNER: Mm-hmm.

MR. KALB: And so we want to extend regulation to -- you know, we want to put in regulation on the banking system fund. We also want to extend this to unregulated financial entities, like private equity. The problem is that as they have pointed out in their directives or in their regulations, private equity really didn't -- wasn't involved in causing contagion or systemic risk. But, nevertheless, it's confusing because they want to extend regulations to them. And what we're worried about as investors is, you know, what are the unintended consequences?

MR. LERNER: Mm-hmm.

MR. KALB: You know, as a result of some of these regulations, we may have restricted access to private equity managers; our costs may go up; our returns may go down; we may -- you know, we're seeing that some U.S. firms may not be able to operate in Europe; some European firms may not be able to operate in the U.S. I mean, this is a -- this is kind of a mess. And one of the other things I don't really understand is why haven't the regulators reached out to the asset allocating, you know, or the public asset allocation community or foundations who are the stewards of capital who want to access this asset class in an intelligent way? Why aren't they reaching out to them to get their views and to find out, you know, how we can make regulation? Nobody's going to object to regulation that gets the bad guys, you know, and there are a lot of bad guys out there. So, okay, let's get the bad guys. Everybody agrees. But you also want to try to make sure that you encourage good behavior, and so that you have good actors out there and that we can access them so that we can get

SPEAKER: We've got about 10 minutes left, and I can certainly pepper these guys with questions for the next two hours, but I think I'd be interested in hearing some comments, and I see there's a question already.

We've heard a lot about -- I've heard it twice anyway today -- unattended consequences of regulation. Maybe. But we know what the consequences are when max regulations are out there. When there are billions and trillions of dollars at stake. Our best angels don't come forward. But that's not my question.

Talked about a lot of investing on the part of these entities. But there's a lot of active investing that's going on, too. It's my understanding that private equity is the rebranded form of leveraged buyouts from the 1980s, and we know where that took us. I guess my question is: Is there any social conscience -- I use this all the time -- is there any social conscience to this money?

SPEAKER: Right.

SPEAKER: Do you want to cut me short?

SPEAKER: No, I --

SPEAKER: Oh, okay, no --

SPEAKER: I think we got it, but let's the end of it, yeah.

SPEAKER: Okay, no. When we look at this --

MR. LERNER: Right.

SPEAKER: Like, Bain brought this to the fore in the last election.

MR. LERNER: Right.

SPEAKER: All right? You know, is there a need to go in there and tear apart a company and possibly send jobs overseas when we need them here? I don't know, I'm just --

MR. LERNER: Yeah, this is a great question. I mean, I think you can see this especially in Europe where, you know, one of the aspects of the AIFM, which has not really dealt so much with systematic regulation, has been in terms of saying here’s a bunch of bad behavior by private equity guys we want to eliminate. So, one of the clauses they sort of -- I think Article 20 is the one which sort of deals with quick flips, and it basically says you will not go in, buy a company, and sell it, you know, within -- 18 months later you will not do special dividends, and various things. And I guess it’s an appropriate question to ask is that if we -- I mean, I think we all accept the fact that, you know, private equity does not entirely consist of angels and that there are groups who have done some very good long-term things, and there are some groups who have behaved in extremely short-run manners, which have been problematic. Is essentially regulation like that the way to address these kinds of problems?

Nobody wants to take that one.

MR. KALB: Well, I mean, do you think a public equity manager is restricted from selling their stock within 18 months?

MR. LERNER: Right. So, you say there’s lot of -- you say there’s lots of short-term behavior everywhere.

MR. KALB: And the gentleman from Frontenac this morning talked about it. He said integrity is really key. As an investor, I assure you we spend a lot of time doing the due diligence on the managers themselves, their backgrounds, even their personal lives to understand what are these people like, because at the end of the day they’ve got to sell themselves to an entrepreneur who’s got to say this is my partner, and they’ve got to know that that’s one they can count on. So, again, no doubt there are bad actors in this industry. But I think integrity has a lot to do, because, you know, bad news travels 25 times faster than good news, and if you develop that kind of a reputation, you’re not going to get the good deals and you’re not going to get the returns for the investor. So, I think there is -- the leverage question is an issue. It's -- you want to commit capital to managers who prudently use leverage, not the kind of leverage that was maybe used 25 years ago. And some people have short memories, right? But, you know, the funny thing is that we hear about, you know, jobs being lost and jobs being sent overseas. It happens all the time in corporate America.

MR. LERNER: Mm-hmm.

MR. KALB: All the time, right? HP in my backyard laid off 5,000 people, 10,000 people. So, it's just sort of - I think it's how do you make a company more efficient in a way that at the end of the day makes a company more competitive so it can create shareholder value for the long term whether you're a public company or a private equity-backed company.

MR. LERNER: Mm-hmm.

MR. KALB: I just want to say also I think what you're seeing is a growing trend -- this may not be a complete response, but we're also -- I think we're seeing a growing trend of disintermediation taking place, and that is that as the asset allocators -- the large ones anyway -- are getting more and more sophisticated. They're not happy with the providers in terms of their --

MR. LERNER: Mm-hmm.

SPEAKER: -- you know, the GPs. If they're not doing a great job or they're charging too much money or they're too short term, I mean, for us, for example, you know, I don't think when I was at (inaudible) I don't think we ever sold a position, a stock -- not short term. What's happening is the guys are starting to do more themselves directly, and I think you'll see that going on. So, to a certain extent, that will force better behavior. The market itself will start to force better behavior I think.

MR. LERNER: All right, there are about hands up, so why don't we start with the gentleman over there.

SPEAKER: Thank you. I have a question on the issue of capital scarcity for the middle market fund managers, and I'm curious -- since all of you have been stewards of large pools of capital what your view is on fund of funds of accessing some of these smaller fund managers.

MR. LERNER: Right. So, maybe we should start with Joncarlo just because Calpers did a bunch of things along these lines, right, to try to say -- you can talk about it more clearly than I can.

MR. MARK: Well, I think you're seeing kind of -- fund of funds have a little bit of bad rap right now. Generally, the returns have not been outstanding, and the perception of this layer of fees that Scott was talking about in institutions trying to disremediate. But I think the reality is as they're concentrating on the bigger end of the market, they might find out that just because they're able to cut management fees by 25 basis points, their net return may not be great, and they'd be missing something in the middle market. So, you know, on the other hand there are smaller institutions that are happy to do funds. In fact, many of those institutions today -- once a fund exceed a billion or two billion dollars we're not going to commit to it, because we don't believe in that part of the market. But I think the fund of funds have definitely felt the squeeze recently. But I don't -- some people say fund of funds are dead. I personally don't believe that, because it takes a certain expertise to (inaudible) the source -- smaller funds, smaller than even 500 million. I think that's kind of the (inaudible) where people just don't have the resources to do that.

But then again you have to be the right size, because if you commit a hundred or $200 million to a fund of funds, it's going to give you 30 new relationships. It may not be that valuable.

SPEAKER: (Inaudible) can be the right answer. It's -- you know, the market segments, like any business probably segments itself, and (inaudible) have a role to play with a very defined segment. Early on, we -- you know, we've only started to invest actively at CPPI in the last 10 years and, really, only since 2005, so it's -- but in the early days we actually had a number of fund of funds relationships an what we found is what you describe, which is that -- and this could be -- I wasn't there, so easy for me to say, but I think if a fund of funds is trying to go too broadly -- and a lot of them have, you know, dozens and dozens of relations within the fund -- they end up averaging out to average performance.

Well, the simple math -- we talked about incentives -- the simple math is at average performance I don't get paid. So, I have no interest. And my team has no interest. And so what you'll see if you look at our portfolio, which is publicly disclosed, you'll see some fund of funds relationships. But the reality is that in the last five or six years I don't think we've renewed any of them save for one, which is a Canadian fund of funds where the role they can play for us is absolutely leveraging their existing business, and they're able to provide to us a service, investing in Canadian funds, at a cost structure that we can't replicate. And to me, that's a -- you know, that's a segment that's very specific. It works for us. May not work for, frankly, any other fund on this panel. But for us, it actually works. It works very well.

MR. LERNER: Okay.

SPEAKER: It's always easier to about misaligning incentives of others, so let's talk about one that should be the partners in many of your deals, which are the banks, and which have over the last two decades basically been given misalign incentives in the same way that they're allowed to earn much higher risk-adjusted return when investing in something safe than when investing in something risky.

These banks -- have they changed the way they cooperate in the whole process over the years? How are these regulations affecting you in a direct form, in your day-to-day activities with startup companies within the private equity investment process? Or are they just absent completely.

MR. RITTER: I think this is a very interesting question, right? because certainly there's been a lot of research which suggest that, you know, one of the reasons why the private equity industry has been so crazy in these periods with a huge amount of funding of buyouts and then periods where there's relatively little funding has been because either the banks have this -- bankers seem to have this on/off switch where they're either shoveling huge amount of money at anyone who walks in the door or else, you know, refusing anybody who comes along. So, in a way, whether we like them or not, you know, if you're doing private equity investing, you're sort of married to the banking sector. So, what are you seeing there?

MR. MARK: I would just caution that it's important not to confine the analysis just to the banks, because the high yield market and the bond markets are, over time, going to become much, much more important players in terms of the scale of finance they're providing. And there's really essentially no regulation on the terms of the way in which that financing is provided. So, now, again, we're seeing terms in high yield coming right back to where they were in 2007 with all the bells and whistles.

MR. RITTER: They say that regulations are sort of clamping down on the banks, and it's just like -- instead, it's popping up here in this sort of junk bond market where there's even less regulation than there was originally in the --

MR. DOPPSTADT: And you're starting to see that in Europe, which before, about five years ago, had essentially no junk bond financing market for leverage buyouts. Now that's starting to take over from what the banks were doing, and it's on much easier terms than bank loans that were typically made available.

MR. KALB: So, interesting statistic is if you looked at all the different kinds of -- there are lots of different kinds of private equity funds, but one of the best asset classes over the last 15 years has actually been Mezzanine Debt, which is a function of, I think, disintermediating the banks, if you will. So, it shows that they have been -- there's some premium they've been capturing, which is now available and which will start to be compressed. But Mezzanine Finance had a high single-digit return, average per annum over the last 15 years with only a 12 percent standard deviation, so pretty good.

So, I think -- again, I think the banks will -- they're either going to have to do it well or they're going to gradually be pushed asides, because there's other capital, you know, from here for example. You know, we will provide finance -- Mezzanine finance or credit -- to companies.

MR. LERNER: All right, well, I could keep peppering these guys for a while, and I think that at least the five of us would be quite fascinated with it. (Laughter) But I think we have to be sensitive to the time, keeping the trains running on time.

Just as a reminder, we're doing something a little funky, which is to say we're having a break of 30 minutes. But the idea is that we're going to have the abundance of absolutely gourmet sandwiches that Martin's been whipping up during the last hour. (Laughter) And then we will reconvene to sort of deal with, one, the sort of great issue which we've not really touched on before, the sort of area of crowd funding and whether it's indeed the solution to our problems of financing availability. And then we will have Congressman Himes to sort of give a little bit of a broader perspective from someone who has bridged both the private financial world and the public sector. So, let me just end my piece. Bye. Thank you all panelists who were with us.

(Recess)

MR. BAILY: I misspoke earlier. They're not actually box lunches. It's a spread, a sandwich spread that's laid out there so you have to do what your mother told you not to do, which is eat quickly and also sort of grab quickly, so we need to fit everybody in.

MR: LERNER: So, if we think about this morning as having dealt with the past, our last two events are really dealing with the future, and we're going to start with what may in some sense be one of the funkiest aspects of a JOBS Act, which has been the sort of real interest in terms of crowdfunding and the efforts to try to facilitate how to facilitate crowdfunding. And we have, fortunate to talk to us, Ajay Agrawal. He's interesting for two reasons. One, of course, is that he's been one of the sort of luminaries in terms of looking at the intersection of entrepreneurial finance and strategy and done a whole variety of interesting work in terms of the regionalization of entrepreneurship and a variety of other extremely interesting areas. He's also been very involved at the Rotman School where he is the Peter Monk professor of entrepreneurship in terms of not just simply theory but trying to turn Toronto into an entrepreneurial hub with various efforts to incubate and nurture the best ideals that are out there. And I think, perhaps, making him particularly well qualified for this, he's also about the sole academic who has looked seriously at crowdfunding as a phenomenon and as a result can really tell us whether this is the salvation or not for our entrepreneurial finance woes. So, without further ado, the floor is yours. Thank you.

MR. AGRAWAL: Okay. Well, thanks very much. Thanks for the invitation, Martin and Josh, for inviting me to participate. So, I notice the title of the program of this session was Crowdfunding: The New Frontier. Probably, maybe that was to make it enticing to come back after a 30-minute lunch. Could have been

Crowdfunding: The Controversial Frontier.

Just so I have a sense, how many people feel they have a reasonable good idea what crowdfunding is? Most people. And also how many people here have participated in some form of crowdfunding? Okay, so maybe 20 percent or so. All right, so rather than walking through the mechanics of what crowdfunding is, for those of you who don't have as much idea, I will explain it by way of a story.

So, this is a story that many of you know, and it begins with a Canadian. So, on April 11, 2012, Eric Migicovsky launched a crowdfunding campaign to raise capital to produce an invention that he had created called the Pebble Watch.

So, who's Eric? He's from Vancouver. He's a graduate of the Waterloo, a university in Ontario. He was, at the time, at Y-Combinator, a high-profile software incubator in the Silicon Valley, living in Palo Alto. He had created a watch before this called the Impulse, which interfaced with the BlackBerry, and now he had founded the Pebble.

So, what was the Pebble, or what is the Pebble? Or what might the Pebble be? So, the Pebble is essentially -- the simple way to think of it is it's a watch that allows you to interface with your iPhone because there are many -- and/or your Android device. Many times when you're doing things like riding your bike or golfing or whatever, running, where you might want to interface with your device, and it's not convenient to actually have your device in your hand. And so, his idea was that you would have a screen on your wrist, and you could interact so you could control your music, you could pull up e-mails, get messages, and so on on the screen on your watch, and it would communicate with the CPU in your device through Bluetooth. Okay, so that was the idea.

So, why did he need capital? He needed capital because he had designed the watch. He had even built a couple of prototypes of the watch, but now he needed the machinery to actually build the watch, even at a small scale, so production tooling, large component orders for all the parts that make up the watch, and Bluetooth certification.

It's useful in this example to remind ourselves who was he? In other words, was he a novice that no one had ever heard of before? Not exactly. He had already built the Impulse. He had, for that, raised money from well-known angel investors and early-stage investors including Jim Draper of DFJ and one of the partners at Y-Combinator, and yet when he went out with the Pebble to raise just $100,000 for this tooling, he couldn't get it. And when he was interviewed by the *Los Angeles Times*, he said, "The hardware is much harder to raise money for. We were hoping we could convince some people to our vision, but it didn't work out." Even somebody with his track record.

So what did he do? He ended up putting this watch onto Kickstarter, one of these crowdfunding platforms and where essentially you can offer rewards for people to back your project. And so, in his case, he had a list of rewards that were basically he would reward you with a copy with one of his watches once he built them.

So, what happened? He launched his campaign on April 11, so roughly a week after President Obama signed the JOBS Act, and he set a target that he wanted to raise $100,000 so he could get some of this tooling equipment. He raised the $100,000 in the first two hours. He went to sleep that night and woke up in the morning and had over a million. He ran his campaign for 37 days at which time when that campaign closed, he had over $10 million. He had almost 70,000 people who were supporting the building of the Pebble Watch, and he had now made a commitment to deliver 85,000 watches. This was what he promised on the site, and we'll speak to the dark side of crowdfunding. The dark side of a good entrepreneur is that he would deliver his watches by September.

This is something he posted on his website a few weeks ago. “DMPVMP, I’m heading to our factory in Dongguan, China on Saturday for two weeks of work on the design verification test build. After DV we have one more test build scheduled in December called production verification before Pebble enters mass production. As I mentioned in update number 17” -- this was update number 26 or something -- “our assembly line will be set up to manufacture 15,000 Pebble watches per week. I know each one of you has a burning desire to see Pebble on their wrist, but I want to caution you that even after we begin mass production, it will still take us several weeks to manufacture all 85,000 Pebbles.”

Okay, and this was written on November 10th. Keep in mind that he had promised his watches for September. And then he sends a variety of other messages, and the reason this is so important, I think, is it gives a sense of the uncertainty facing the entrepreneur when they raise money and the way that they have to communicate with, in this case, not their angel or venture capital investor, but the community of investors on the crowdfunding platform. He writes, “We have confirmation from our primary component supplier that the vast majority of components have departed Arizona. They’re flying towards Hong Kong and ultimately Dongguan, China. There are more than 110 electronic components inside each Pebble. It’s been a lot of fun finding 85,000 sets of everything.” he writes in October of 2012. And then again, a few weeks ago, he explains to his investors how he’s trying to accelerate things, and here he’s practicing mailing them things. He says, “Well, we’re not ready to start shipping out our Pebbles yet. Getting prepared to ship to 113 different countries has been quite a task. Okay, just one of you lives in French Polynesia, but we care deeply about all our backers. That’s why we’ve been running extensive shipping tests to determine the best methods to use as we ship out 85,000 Pebbles. All the test shipments reached their destination. Outside of a postal strike in Uruguay, we found that our test shipments reached their destination even faster than we expected. We also learned some important lessons about all the different customs documentation required around the world." This is the entrepreneur for the first time shipping his product internationally, and he posts on the crowdfunding platform pictures to keep his backers informed of the progress that he's making with the product. Okay.

So, why is crowdfunding interesting? There is certainly a lot of interest in it. This is a schematic of Google search volume on the term crowdfunding. Now, the first real crowdfunding platform, the one that gained international recognition for some time was the major crowdfunding platform in the world was, for music, it's called Sellaband. It launched in August 2006. I began collecting data on crowdfunding just after that launch. Kickstarter, which is now the dominant crowdfunding platform for non-lending based crowdfunding, launched in April '09 right here. SEC chairman, Mary Shapiro, made the remark that was quoted in the *Wall Street Journal* on April 11th, they were discussing crowdfunding as possible regulatory approaches. The first draft of the JOBS Act passed the House in November of 2011. President Obama signs the JOB Act in April 2012. In other words, there has been a lot of very -- the interest in crowdfunding -- I know this because I tried publishing a paper in the early part, was very limited. The recent interest in crowdfunding, as you can see, has surged. Okay.

But why is it interesting here in Washington? I think it's interesting because there is an assumption that underlines the reason for addressing crowdfunding in the JOBS Act that allowing or facilitating or promoting crowdfunding will, in some way, increase the flow of capital into early-stage ventures and to supporting entrepreneurs and launching new ventures. In other words, we can think about crowdfunding on at least two very base dimensions. One is crowdfunding might add more capital into those early-stage classes, so simply more capital. And by thinking of more, we can think of it as the -- imagine that we ranked all of the investment opportunities by their risk-adjusted rate of return. So, we had the very best ones at the top, and then we just worked our way down. And so, assuming the capital markets work efficiently, then let's say with the current capital in the market, folks on that class that we could finance, the best 100 ventures. If we simply add more capital, then we might be able to finance, say, let's say the next 10. In other words, if the margin -- we're just going down the list and financing some more ventures. So, that's if we think of crowdfunding as simply just adding more capital to that early stage class.

There's also the possibility that crowdfunding might be different. That is to say, not only may it be working its way down. It may also be financing a different type of venture. And if you read, certainly if you read the popular press, and hear the politicians, including President Obama speaking on this topic when it's mentioned, the underlying assertion is that crowdfunding will operate largely in the bottom quadrant. In other words, it's going to add more capital, and it's going to add different capital; different types of ventures that might not otherwise get funded, will get funded.

And so, I think that the most useful way of framing our thinking as we are heading into this unknown territory of equity crowdfunding is does crowdfunding influence the rate and direction of inventive and entrepreneurial activity? Does it fund projects for companies that would not otherwise be funded? So, in other words, I think that's the basic question we should have in the back of our minds as we try and work our way through thinking about what crowdfunding does.

Now, going to the issue of different, why might crowdfunding result in a different type of financing? In other words, financing different countries. Not just more, not just going down the list, but different ones than otherwise. There are a few reasons. One is that the crowdfunding community, as they call themselves, may be operating with different sets of information. So, in other words, one thing we know about traditional forms of early-stage capital, namely angels and VCs and family and friends, is that it is remarkably localized, and so investment decisions are being made based on local information. And the so-called wisdom of crowds that is facilitated by an online platform may change the information set, and therefore result in different types of investments.

The social platform, the fact that you can learn about who else is invested the moment they invest because their profiles are right there on the platform may change the nature of investment. Secondly, in addition to having different information, the people on these platforms may have different preferences. In other words, in addition to some people being completely motivated by risk-adjusted returns, there may be other investments, other motivations for investment. So, for example, when you read some of the discussion going back and forth regarding the investors or what they call backers of the Pebble Watch, these were people who wanted to support the venture because they wanted to support the technology. They wanted the product. Some of them wanted the product because they want to build their own ventures, because the way that particular product was being built, it was creating a platform on your wrist that would have an open-development platform because they were also distributing the SDK, the software development kit, so people could write more applications to go on the watch.

There’s also, maybe, a different type of investment because there’s a different rule set, and there’s a variety of reasons for the rule set, the importance -- so for example family and friends that may have previously invested in a more unstructured informal way can now do it in a manner that’s far more formal and structured. But I think the one that will be most interesting and I'll get to in a few moments is the notion of a provision-point mechanism. That is to say, it's the idea that when there are multiple investors who are considering investing in a venture, but everyone else's decision is going to be contingent on the entrepreneur being able to raise some minimum threshold amount of, in this case, equity-based capital that nobody's investment is committed until the full target is reached. Okay.

So, heading into the data on crowdfunding, I think an interesting question is in what ways is crowdfunding capital similar to traditional forms of capital, and in what ways is it different? Let me begin with some ways that it's similar. So, I'm going to present some data based on the Kickstarter platform since it is by far the largest crowdfunding platform that's not lending. So, I just plotted on here Kiva and Prosper which are both lending-based platforms and one of the prominent equity-based crowdfunding platform, which is in the U.K, Crowdcube. It's in the press quite a bit because it's an example of an actual equity-based platform. You can see it's tiny compared to something like Kickstarter. Okay.

If you thought that because the investors are so geographically spread out that maybe they would allocate their capital geographically much more -- in a very different manner than the way capital is normally distributed, you might be surprised at this figure. This is comparing -- so I've just taken out the projects that are arts-based projects from Kickstarter, and plotted them against the geographic distribution of grants from the National Endowment of the Arts, and what you see is that there is a surprising correlation. In other words, the regions that are tracking the most amount of NEA grants are also attracting the most amount of crowdfunding in that sector. Maybe you're not surprised. You say, well, of course. That's where the talent is. That's where the artists are. But it certainly doesn't feel like that there is a significantly different geographic pattern resulting from crowdfunding investment.

This is VC investment. VC investment plotted against crowdfunding in tech sectors, and if I take out those, Wyoming and North Dakota at the bottom, you see again, the geographic distribution of crowdfunding in technology is not that dissimilar, even though the funders themselves may be very spread out than VC investment. Okay.

Going back to David's excellent presentation this morning where we talked about home loans, the next thing we want to do is to see, well, is crowdfunding orthoganal as unrelated to other forms of capital such as home loans? And so, what we did is we looked to the housing price index, and we were interested in the movement in the housing price indices over the 3-year period that we have data for crowdfunding. And so, what we wanted to do here is, the basic idea was that as home loans become -- let's imagine that as the house price index rises, the access to home loans increases. And so, what we're interested in as home loans become easier to get, do those regions that experience a bigger bump have a higher or lower disposition to raise capital via crowdfunding? And on the one hand, if we would think they were orthogonal, meaning that they're unrelated, that we should find no relationship between the house price index and the amount of crowdfunding raised in a region. So, this is all at the city level. We used city-fixed affects, so basically we're just looking at within city variation, and the punch line here, without getting into all the regression details, is that we find a reasonably strong relationship. In other words, that as home loans become easier to get, regions decrease the amount of people that are raising money through crowdfunding. And that the crowdfunding appears to be in the range -- or that the relationship between crowdfunding and home equity loans or the HPI index volatility is happening in the range where we would expect it to be which is not very small, but nor is it very large at north of the half-million dollar range. Okay.

We also looked at crowdfunding in the context of music. So, this was Sellaband, the company I mentioned earlier. What was interesting about Sellaband is for a 3-year window, they operated as something that was closer to equity-based crowdfunding, which is, while they didn't give out equity, what they did was you could invest in -- this was all focused on new artists, so brand new unsigned artists who were raising money to record an album, and when an artist successfully raised the amount of money that they needed, that the funds -- the $50,000 is what they would raise -- the funds would be used to produce an album. The album would then be sold through a variety of channels, both digital downloads and hard-copy CDs and so one, and the revenues would be distributed a third, a third, a third. A third would go to the artist, a third would go to the platform Sellaband, and a third would go to the investors on a pro-rata basis based on how many shares they bought.

When we discovered this, the reason I became so interested in this was I had spent some time earlier at the MIT media lab looking at the various technologies people are exploring to try and protect music from illegal sharing. And at the end of the day one realizes when you're investigating that topic, there's no way to protect music because as soon as you can play it, you can record it. As soon as you can record it, you can then distribute it. So, In other words, there seemed like there was no way you could ever protect music. When I came across Sellaband, I realized I'd discovered the one and only type of music that can never be copied, and that was the music that had yet to be made. That that was music that hadn't yet been made that people would pay for in advance of it being made through crowdfunding.

Crowdfunding was interesting here because even though there were thousands and thousands of artists on the sight, that the capital going into artists through the crowdfunding platform didn't look that different than the way it does in Los Angeles and Nashville. That is to say it was wildly skewed. That the most of the capital went into a tiny fraction of artists even though we think of ourselves as having a great variety of musical tastes, that the crowdfunders, two percent of the projects accounted for 80 percent of the capital raised. Same thing at Kickstarter. Not quite as skewed, but reasonably skewed. That the top 20 percent of projects account for 75 percent of the total capital raised on Kickstarter. Okay, so in other words, those are some ways in which crowdfunding capital is similar to some traditional forms of capital. It's got a similar geographic distribution as I illustrated through those scatter plots. It's got some relationship to other forms of capital like home equity loans in the sense that there seems to be some substitution between those two. And it's got a similar degree of skewness.

Now, in what ways is it different? I think to think about ways in which it might be different it's first of all useful to keep in mind that we are talking about a moving target. This is the accumulated capital being put on the -- to Kickstarter, and I stopped collecting data in October of this year, and even in the last month that line now would be way off my slide. And so, it's a moving target. Secondly, this is the mean size of projects. As you can see, if I had given this talk in 2011, I would have said, look, the average size of a project is very small. It's $5,000 and that characterizes, says something qualitative about projects on that kind of a crowdfunding platform, and I would have misrepresented what was about to happen in just Quarter One of 2012 when, essentially, technology projects started making their way onto the platform. Okay.

So, the thing about crowdfunding that I think has been lost in the press is that especially since Kickstarter is the dominant platform, is that Kickstarter -- we discuss it in terms of statistics in the aggregate, and really it's like a Middle Eastern bazaar. There are all sorts of different types of things happening on this platform, and to understand the mechanics of crowdfunding, we have to take that apart and realize that some sectors are very different than others.

So, as you can see, first of all there's four big sectors: design, film, games, and music. Design, by the way, is the category that that Pebble Watch was in. Okay. So, Pebble Watch design and technology are reasonably similar. So, the first thing is, like I say, there's four big categories that account for the lion's share of activity on the platform, and then a bunch of others. Design and games, what we think of -- these are the types of projects that feel similar to the things we think about when we think of Silicon Valley -- are different in a variety of respects. The big thing you can see is the discontinuity in the amount of capital raised at various points in time. Those are big projects, like the Pebble Watch was a $10 million project. Whereas film and video and music are all -- it's a series of small projects. The other thing is these have very different growth -- I mean, who knows what this will look like if I were to give this talk 6 months from now because it's changing so fast, but the point is that different sectors are growing in very different rates. Games are just going off the charts on the crowdfunding platforms.

In terms of the investment size that the total capital raised, you can see that the majority is going towards small projects that are less than $50,000 projects; however, that doesn't represent the distribution by sector. So, essentially the large projects are all happening in design, games, and technology.

Geographically, probably as you suspect, the top regions in California and New York are top in almost every category, but you're probably not surprised, for example, to see Nashville, Tennessee is one of the top regions for music, and so on.

I think, at least with the current type of crowdfunding platforms, one of the very interesting distinctions between crowdfunding and other forms of capital allocation is how explicit the ulterior motives, in addition to risk-adjusted returns, are on these crowdfunding sites. So, for example, people are putting a fair amount of capital in just to receive notifications of updates of the project. In other words, they want to feel part of the entrepreneur's community who's building this new product. So, the rewards in here where you get a t-shirt, you get thank-you e-mails, you get a poster, and so on. It's not until you put in $275 do you get a promise of a reward for your contribution of a prototype of this device. So, the composition of all the $2 million raised for these virtual reality goggles, a large fraction were essentially preselling. They offer a product in return for a pledge in advance, and then a not-insignificant amount, almost 10 percent, is just sheer philanthropy, people who want to be part of that community, buy merchandise, and VIP access, so they're going to get something earlier than the rest of the market. Okay.

The last point I'm going to make here is on geography. So, that is to say one of the most interesting things about crowdfunding is that unlike traditional forms of very early-stage capital, which is known for being very local, that the geography of crowdfunding, there are people from around the world who are putting in small amounts into very early-stage ventures. In this case going back to the music data that the average distance -- keep in mind, this is for an unknown artist that's got no track record, the average distance between the artist and the investor was approximately 3,000 miles. So, we looked at every transaction over a 3-year period on this platform, and these are the data. Now, why is this interesting? On all the platforms and currently, also in the JOBS Act, one of the key features of the crowdfunding platform is this provision-point mechanism, which is to say you have to outline, before you raise your capital, how much capital you need, your target. And then as investors put their capital in, it sits in escrow until the entrepreneur successfully raises that amount of capital, and usually there's a time limit in terms of how they have before they can raise the capital. If they don't raise the capital by the time they hit the time limit, the money's returned to investors and all bets are off. What was interesting -- and they all have this. Kickstarter has it, Indiegogo has it, Kiva has it. What was interesting is that, probably not surprising, that as projects advanced through the process in terms of how much capital they'd raised -- so keep in mind in this site they had to raise $50,000 to hit their target -- that the probability of an investor investing in a given week increased substantially as they got closer to their goal. Okay, so this is based on regression analysis where we were looking at the artist/investor pair and were looking at the probability that an investor will make an investment in a given artist in a given week, and it increases significantly as the amount of capital raised increases. And this is true, not just on this site, on all the sites that follow this type of pattern. All the major sites, at least. Okay.

So, we then look and we split the investors up into two groups: those that were local and those that were distant. Local we call those that were within a 60-mile radius of the residence of the artist, and those that were not. So, the majority of investment, 87 percent of the investment came from distant investors, so that's interesting. But what was more interesting was this. That the local investors were insensitive to how much had been raised. In other words, they weren't using the information of who else was investing and how much had been raised. They were making their decisions based on something else because they were local. So, first we thought this was a geography phenomenon. We said, you know what? This kind of capital, perhaps, isn't that different from traditional forms of capital where locals were behaving differently than distant investors. But then we did something else. We coded up all the investors as being either friends and family or not, because some friends and family were local and some were distant. And what we found was that it was friends and family that were explaining that timing story. In other words, distant friends and family, local friends and family behaved the same. It didn't matter for them. They were investing irregardless of the timing of other investments. It was the non-friends and family who were waiting to see if other people would invest. And so what we realized was even on a music-based crowdfunding platform, and now we've started finding it on other platforms, that just like in the off-line world, the non-crowdfunding world, that other investors, they want to make sure that the people who know you, at least they believe in you. At least they'll put their money behind your venture before they get in and start investing in your project. And so, even the online world has these off-line related frictions, in this case, social frictions. Okay.

So, let me conclude by saying that what I think we are going to be watching for as things unfold with crowdfunding is the extent to which crowdfunding investments are both more and different. To what extent are they resulting in financing more companies, but perhaps more interestingly, different companies, companies that wouldn't otherwise be financed, and you can -- I've just got some points on here on ways in which we think that difference might occur. That's it. Thanks very much. I'll take some questions. (Applause)

SPEAKER: Hi. Two questions. One, can you just clarify on Kickstarter that it's actually not, people are not investing in a product? They are basically -- there's no actual legal investment?

MR. AGRAWAL: Right. There's no investment. They are backing a project.

SPEAKER: Two, have you considered or sort of realized at least in game publishing, that you had on one of the charts people were pre-ordering where game publishers for years have really be pre-selling where they put out a work that's not finished, and then they gauge the response, and if it does well, they say, okay, we're going to support it. We're going to do additional content. And if it doesn't, then they basically move onto the next project, even some extreme cases where they're willing to possibly alienate their customer base just to keep it going. So, technically, it's not capital investment, but it's really a reverse way of doing it, and that definitely predates 2006, so I was kind of curious on your thoughts on that as well.

MR. AGRAWAL: So, yes. I mean, yes in the sense that this was happening before, and perhaps one way to think about this is that crowdfunding seems to, at least one permutation of crowdfunding, seems to have formalized the market for pre-selling ideas. And so, to the extent that there is much of the entrepreneur community who has embraced the idea that has been popularized by Eric Ries and Steve Blank and some others of the lean start-up methodology, and this is very consistent with lean in the sense that people aren't building something until they can see evidence of customers.

So, in the old days, we used to call that market research and focus groups. And now we're saying, look, rather than you tell me, as in a focus group setting, that you would buy this if I built it. Instead, put your money where your mouth is, and so not only do you get to see a real sense of demand because the capital will be committed as soon as you hit your target, but perhaps even more interestingly, you get to do some pre-research on price discrimination because, for example, if you saw on the Pebble Watch menu, that there was a different price if you wanted it black versus colors, if you wanted two versus five. And so, there was a lot of pricing information that the entrepreneur was getting before he even built the product. Next question. Yes.

SPEAKER: With regard to your study, you showed the example of the NEA, the monies. I'm assuming it (inaudible) non-profits. Do you see the implication for states with more scrutiny and securing those dollars from the non-profits from a solicitation standpoint? And number two, with regard to intellectual property, do you see any implications whether positive or negative for those entrepreneurs going out there, they do their product, and then they're caught in lawsuits with larger companies?

MR. AGRAWAL: Okay, let me start with the second one, intellectual property. The intellectual property issues around this will be thorny, as they are on so many dimensions online. The intellectual property issue that I think is, from a policy perspective, perhaps most salient here is how the disclosure requirements will affect the types of projects that lend themselves to crowdfunding. So, for example, in the case of the Pebble Watch, the entrepreneur was willing to and didn't feel that his ability to build and sell his product would be so adversely affected by his revealing what he was working on, early stage. In other words, one of the benefits of going to an angel or a VC is you can keep everything secret until much later in the process. In this case, he had to reveal a lot of information early on before he'd even begun manufacturing. Moreover, we think of companies who are building a new product and manufacturing them in China, doing everything they can to keep everything secret of what's going on in the factory and so on and so forth. And if you go to this platform, in order for him to keep his investment community feeling reasonably supportive because their watches are late and so on, he is taking pictures all through the factory. He's posting them on the web. He's trying to show people, look at what we're doing to make sure you get a great watch. My point here being, I think that crowdfunding will favor the types of ventures for whom disclosure won't be particularly harmful. So, stated another way, if you think of harm from public disclosure being on a spectrum for different types of ventures, those that are on the less-harm end of the spectrum will be the ones that will be more likely to want to use crowdfunding as a way of raising capital.

With regard to your first question of states, I'm not sure that I follow what the essence of the question was in terms of whether you were thinking about regulatory -- you mean, in terms of regulating the projects that get posted on crowdfunding?

SPEAKER: It's primarily the non-profits being required to register in the states to solicit. If you're going by way of the web, and it's the crowdfunding, do you see because of states and their short --

MR. AGRAWAL: Right. So, but right now they're not issuing -- because, for example, Kickstarter isn't issuing -- no one is getting tax receipts. So, that in other words, it's not being considered a charitable donation, that they're not subject to that scrutiny. Yes?

SPEAKER: We had a fascinating question earlier about the trade-offs between companies going public and being acquired by larger companies, and the question was what the impact was on -- what was the bottom-line impact on innovation? And, I guess, I'd be interested in your thoughts here as well. Do you think this is the kind of setting where if your something, which is sort of faddish and cool, some sort of social media thing, it's going to tend to be the kind of things that get funding here, and the sort of stuff that you might think as more revolutionary are going to find it much harder to get funding? Let's say a biotech or a clean-tech thing that will take many years to realize? Or do you think it's going to be more even in terms of some of the impact it's going to have on what kind of technologies get favored through crowdfunding?

MR. AGRAWAL: Sure, that's a great question. So, I think, I mean, there are some enthusiasts of the crowdfunding world who would argue the opposite. That, in fact, their view is that traditional capital is far too conservative, and that the real visionaries that are able to allocate their capital through crowdfunding and spread the risk in a way that is harder to do through traditional forms will indeed fund more risky and exploratory projects. I suspect, for example, as in the first point, that it will be much -- the Pebble Watch was able to attract a lot of attention through crowdfunding and the types of people who would want to support that because it was going to consumers. In other words, if there's another device that was basically a gesture control device, it was very cool, but is not a device that people would be able to use directly. It would the type of device that would likely be sold to Sony or a company like that, and that project just didn't attract the user-investor attention that the Pebble Watch did, probably for a variety of reasons. But basically, that was a venture that was going to build a product and ultimately have to sell it to a company rather than sell to a consumer. So, I think, just to wrap up on that one, I think the jury is out. I mean, in a sense that we won't know until we see equity-based crowdfunding here, how adventuresome crowdfunding investors are, but I think there is certainly reason to believe that they might be equally adventuresome but you had two things bundled in your suggestion. One was the degree of venturesomeness and the other was just the amount of capital. Life science projects require so much more capital than software or even hardware that the crowd might not be up for that scale of an investment. There's one more question here.

SPEAKER: You have 30 seconds.

MR. AGRAWAL: Thirty seconds. Okay.

SPEAKER: We should probably end by giving you a round of applause. Thank you very much. (Applause)

MR. LERNER: As promised, we do have kept people here for a long day, but we have a grand finale to wrap this session up. And in particular, we have Congressman Jim Himes as our keynote. I think he sort of really is quite unique in terms of having a perspective that really very much bridges the worlds of private finance as well as the public sector challenges and, as a result, we'll be very interested in hearing what he has to say. It's a long resume with lots of things on it. I won't sort of belabor it.

He represents the 4th Congressional District of Connecticut. He's in a second term of Congress, serves on the Financial Services Committee. He's a product of my institution and a Rhodes scholar. He's spent a fair amount of time both in the world of private finance at Goldman, ultimately heading up the bank's Telecommunications Technology Group as well as also running the New York City branch of the Enterprise Community Partners, which essentially I guess you'd describe it as sort of social venture capital in the sense of trying to address some housing needs.

So without further ado, we'll turn the floor over to Congressman Himes. Thank you very much for coming. (Applause)

CONGRESSMAN HIMES: Thank you. Thank you, Josh. And I'd like to thank Brookings for inviting me to participate. And, frankly, today I wish I could have been here for more of it. It sounds like it was quite interesting. And as you're more than aware, and as I'm very aware, with Congress' 12 percent of 11 percent approval ratings, I accept any invitation proffered, so thank you for that. (Laughter)

And it's actually a thrill to be part of this because I think I can bring to you a perspective perhaps that you haven't heard today. I can't tell you how the JOBS Act or parts of the JOBS Act are likely to affect over time the capital markets. I have my biases and my guesses, but, of course, so much of rule-writing has yet to be accomplished and we will see. And I'm not, unlike some of the previous speakers, an academic. What I can do, though, is give you a little bit of a sense for how the JOBS Act when through Congress because it went through in a pretty remarkable way. And the way in which it went through Congress, I think, offers some lessons for those who are broadly interested in public policy. And if our objective collectively, of course, is to establish a regulatory regime and to set the stage for truly vibrant, competitive, and liquid capital markets, I think there are some things that can be learned.

Anyway, as Josh mentioned, maybe apart from sort of having been there at the conception of this legislation, maybe I can bring something of a unique perspective.

Because, as he mentioned, I spent 12 years at Goldman Sachs in corporate finance doing IPOs and working with, in particular, the technology area, companies that were just sort of emerging from the angel-inventor phase into something larger. So if you note a trend in my career here, I've gotten Goldman Sachs and the House of Representatives. I'm looking for the trifecta of truly reviled professions, so suggestions for the third are more than welcome. (Laughter) Bookie, whatever.

And let me start by saying that I am a qualified -- I was pretty intimately involved in the writing and all of the legislative work that was done in the JOBS Act. I am a qualified supporter. I actually think on balance it is a good thing. I have my qualms, as many observers do, about certain aspects of it, and I'll touch on those briefly, but the theme that I want to talk more about is really the fantastic measure in which it was sort of shepherded through Congress, sold to Congress. I don't mean fantastic necessarily in the good sense. Perhaps it was good, but it was also involving a certain amount of fantasy that I think can help us think through how we think about policy, particularly regulatory policy.

A couple of my own observations. I'm going to close with kind of five of my own recommendations for public policymakers, but let me set the stage by just offering you my opinion on what was done.

Ironically, I think, in the JOBS Act, though it emerged from something called the "IPO On-Ramp," which was this sort of odd amalgam of the Obama people and lots of lawyers and venture capitalists and others, particularly in Silicon Valley. Ironically, though, the focus isn't on IPOs or at least the popular focus is on the IPO on-ramp elements of the emerging growth company in particular. I actually suspect, and in talking with market players think, that probably the more significant long-term impact of this act will be the crowd funding, which I know we were just talking about provisions, as well as probably increasing liquidity and availability in the private market: Reg A, Reg D, 144, 144(a). And I suspect those will be, on balance, good things, which is why I have the opinion that I do, fully cognizant of the fact that there will be from time to time absolute catastrophes of fraud that emerge as a result of crowd sourcing and probably as a result of people marketing in ways that they were never permitted to do before private offerings. But, of course, this is the balance that we strike as we think about regulations.

On the IPO side, I must say I'm somewhat ambivalent both about what the act did in statute as well as its actual likely application, for a bunch of reasons. One, I worked hard both in committee and on the floor. I offered amendments both times to actually try to create a category of emerging growth companies that would, in fact, be emerging growth companies. And I had a line that was getting a certain amount of laughter in both venues where I was saying, look, when you've got a billion dollars in sales, you have emerged and, you know, you're not probably quite exactly that sort of Hewlett and Packard in a garage in Palo Alto that we're envisioning or talking about here. You know, something like 70 percent of all U.S. IPOs, at least in some time period I looked at of 2 or 3 years recently, were of companies with revenues less than $1 billion. And so it's important to understand that because of how we defined emerging growth companies we are actually talking about most of the IPO market here. And, you know, I'll sort of leave that there. I'm not sure if that's good or if it's bad.

But the other thing, of course, and those of you who read *The New York Times* this weekend know that it's not all clear that companies that are emerging are necessarily going to want to take advantage of the exemptions that are provided to them as a result of the JOBS Act. Certainly at Goldman when we did 144(a) offering memorandums, they looked exactly like SEC filing memorandums because we didn't want any sense that this is a second-rate, a B, a JV, a little-boy-type company. And so I think for those reasons it's probably actually not likely to have a tremendous impact in the public markets.

Whether or not, and this is, of course, one of the key questions and why I say this act, which I support and voted for and helped on, was sold somewhat fantastically, whether it really helped solve the issue of reduced volumes of IPOs in this country over time, I just don't know. And, frankly, I'm a bit skeptical of that. The academic research out there, of course, doesn't unambiguously point at the conclusion that Sarbanes-Oxley is a meaningful impediment to filing in IPO. There are all sorts of other things: order handling rules, the change in the nature and the regulation of research entities, how the buy side thinks about the sell side that I think drive that.

And again, this was sort of sold fantastically. If I saw it once, I saw it probably 2 dozen times presented to my colleagues a chart showing IPOs in 1998 and 1999 -- the height, of course, the IPO tech boom -- and look at this, in 2009, there's been a substantial reduction in the number of IPOs. And depending on how much caffeine I had in me at the time, you know, I might sort of sarcastically ask the question, well, 2009, didn't we also have a financial meltdown, you know, unparalleled since 1929? And they'd get all flustered and whatnot. But believe it or not, it was accepted amongst my colleagues as dogma that Sarbanes-Oxley was primarily or meaningfully responsible for the reduction in IPO volume.

And by the way, those numbers, as you know, are somewhat ambiguous. It is pretty clear that smaller company IPOs over time have declined. Actually, frankly, a decline going back well before Sarbanes-Oxley existed, but we sort of accepted that and we sort of accepted that if we just lifted that regulation that that would meaningfully help. Well, we'll see.

We also never stopped to consider some of the other premises that were offered up to us, that an IPO, of course, is the route to maximum job creation. And, frankly, the White House was somewhat complicit in this. They had a report in one of their commissions that said maybe up to 22 million jobs have not been created because of this challenge in the IPO market, which, look, the Vice President used the word "malarkey," I suspect it's not quite that simple. But my point is a broader point, which is that it is not clear that for any given company the IPO route is a good -- it may be -- or be better from a job-producing standpoint. Maybe a Reg B offering is the way to go. Maybe an angel offering is a way to go. Maybe a strategic sale to a large acquirer is the way to go.

One of the things I'll conclude with here is that we shouldn't allow the Congress or policymakers to just sort of join this religion of IPOs create jobs. I like IPOs, but they are one of many tools in the toolbox. And you should understand that, you know, a collusion of I think some enthusiasts in the White House, the industry, and an awful lot of us sort of didn't critically examine the extent to which, A, it's true that IPO volume is down because of Sarbanes-Oxley; and B, that adjusting that would somewhere have a positive effect.

So I guess before I get into my five quick recommendations from a policy standpoint I think it would be helpful if we took a much more disciplined approach, a much more principled approach to thinking about the array of tools that exist for young companies to be financed. This is a personal bias having done some of these IPOs. If you're a $75 million market cap company or would be a $75 million market cap company, when you layer in the regulatory burden that most of us would agree is simply appropriate because you are selling securities to widows and orphans, when you layer in the hassles of having to report to the Street, of having to report to shareholders, and all of the attributes of being a public company, there is probably some number -- that the professors in the room can tell me what that number is -- below which it just doesn't make a lot of sense to your cost of capital to be public. And that, of course, would point you in a certain direction. We need to think more in the Congress and amongst the staff and among the regulatory agencies about that whole toolbox and what the characteristics are of the companies that make one tool more or less appropriate.

And by the way, we ought to step back and say we've built this incredible apparatus, this Rube Goldberg machine of regulation, that kicks in depending on whether you're borrowing or issuing equity, or whether it's big or small, or you're public or private, we ought to have somebody step back -- and maybe actually that's the point of this conference -- and say we need to think about this holistically. Apart from maybe favoring as we did in the JOBS Act, you know, one mechanism of financing, is our whole system picking winners and losers, if you will, amongst the different financing tools that one has? We ought to consider that and one of my recommendations is relative to that.

The other thing is we need to think -- if we are truly interested, as I think we all are, in making our capital markets efficient, we shouldn't just focus on the regulatory regime. That, of course, is easy to do when you're in a Republican-controlled House. It's easy to do in a moment in time like this when many of us, believe or not, are desperate for bipartisan legislation because, of course, if you can get a bunch of Democrats along with the Republicans who are sort of temperamentally anti-regulation, you can really move something, which is, by the way, why I'm going to make some of the recommendations I make.

But what about the other stuff? I had the temerity and I think I embarrassed some of the IPO on-ramp people in a hearing in which I asked, well, what's your best guess as to the overall cost of being public, up front and continuing costs? And the numbers sort of range between 1-1/2 million to $2 million. And then I asked a math question. I said, okay, the mean IPO in the last 3 years has been $400 million. Gross spread on an IPO today is remarkably consistent at 7-1/2 percent. Interestingly enough, 20 years ago, when I was in the business the IPO gross spread was 7-1/2 spread. We'll talk about that later. But what's 7-1/2 percent times $400 million? It's a big number. $30 million, right? Why are we not talking about this? Are we convinced that that $30 million -- which, by the way, if your cost of equity is something like it perhaps is, 20 percent-ish, more maybe, what is a perpetuity of $1-1/2 million a year that you pay to be public relative to that $30 million foregone proceeds right up front? We didn't ask that question much, interestingly.

And by the way, maybe we shouldn't. If we're convinced that gross spreads and that fees associated with capital intermediation are purely the product of a competitive market and that that's a competitive equilibrium, as a Democrat I'll be the first to say -- well, I wouldn't be the first, but close to the first to say -- that, you know, that's probably not an area in which the government should take all that much interest. But, again, as I said, the gross spread on IPOs have been remarkably consistent over a long period of time; probably worth thinking about.

So five recommendations that I think are interesting at least in terms of informing policymakers.

Number one, I've characterized in a somewhat jovial way the way in which I think an on-balance piece of good legislation was sold to the Congress. And that's okay if, like me, you believe than on balance the JOBS Act is a good thing, but it's not okay, of course, as a procedural mechanism because not everything that gets presented -- and some of you will not share my opinion that the JOBS Act was a good thing -- that's actually not a terribly good way to legislate. So we need a lot more education of members of Congress. And institutions like this one can do, I think, a lot more to create nonpartisan, academically driven -- but here's the key part -- understandable ways to think about very technical topics.

One of the reasons I get invited to these conferences is because I may be one of the very few members of my 435 colleagues who actually enjoys diving into the details of, you know, more esoteric and technical financial regulation. But there's remarkably little information provided to us on these issues. Hearings don't do it. Hearings are political events and you can glean information in hearings, but, more often than not, they're a little bit of a debate that has been set up by the leadership of the two parties to bring out opposing views in a way that is not designed necessarily to get at reality, but to sort of establish a record that two years from now you can point to as a record. So we need a lot more education not just of members of Congress, by the way, but of the media.

For too long and still as we think about financial regulations, as we think about Wall Street and Main Street, as we think about the banks and the investment banks and JPMorgan Chase and Goldman Sachs, in my world it's a morality play that roughly breaks down along partisan lines -- or it does break down along partisan lines. It's a question of who gets to play God and who gets to play the devil? But here, you know, coming out of the disaster that we had in 2009, of course, are the Democrats saying that Dodd-Frank is received wisdom, you know, unalterable and unamendable, and here we have the Republicans on the other side saying this is satanic and terrible and horrible and it should be repealed in its entirety. And, of course, that's the nature of the dialogue that all too often the media stokes.

One of the things that I try to do in Congress -- and it's partly my background, it's partly the place I represent to which financial services is very important -- I try to find ways to carve out that question of what are the win-wins there. What is there not just to protect people, but will ultimately lead to lower cost or greater availability of capital? And that's very hard to do when the media and the information out there falls into the morality play that defines the discussion that we have around financial services and regulations. So we need more education both of members and the media on these topics.

Secondly, and I alluded to this before, but we really need to consider the whole toolbox of financings, from angels to IPOs, to strategic takeovers. And as I said before, you know, do an analysis of our overall regulatory structure and say are we favoring one form of finance inappropriately over another?

And by the way, that leads to asking some even more profound questions that Sheila Bair did in her new book, *Bull by the Horns*. Sheila Bair came out and said we ought to stop tax-subsidizing debt. Now, I'll be careful here. You know, I read that and that's what she said and other smart people have proposed it. But I think we ought to do that kind of holistic examination of the various forms of subsidy and incentives and whatnot that we give different forms of financing, and really scratch our heads and says does this help us from a public goods standpoint?

This town, of course, is full of people who will tell you that it's, you know, important from a public goods standpoint, but what they really mean is it's important to their association. But I have never seen sort of a comprehensive treatment of here's what you do as a government and as a regulatory structure. Here's who the winners are in this system and who are the losers, and you should think about whether that's appropriate or not.

Third, it's worth considering -- and I try to say this, I'm a Democrat, but I try to say this with as little partisan of a lens as I can -- it is worth considering that there is a natural alignment between the anti-regulatory ideology of the Republican Party certainly today and the very powerful associations in this town -- the bank lobbies, if you will, and I don’t say that disparagingly; I work with them; they’re important to my district so I’m not sort of trying to fit into the morality play -- but I am trying to say that it is worth considering, as we think about examining that whole spectrum of regulation and different financing devices, how is the playing field tilted. And it is tilted in deregulatory ways.

This Congress, the 112th, as we draw to a close, was arguably the most partisan of those 112 Congresses, and yet this piece of legislation shot through Congress and was signed by the President at an unbelievable pace. And, you know, ideas like reducing the definition of an emerging growth company from a billion to 750 million weren’t even considered, not only not by the Republicans, I couldn’t persuade too many of my fellow Democrats that we ought to slow it down and consider these things if only because here we were moving a piece of bipartisan legislation in this Congress. And isn’t that a good thing? So when you have the natural axis that exists between the associations and the natural ideology of the Republican Party -- and I’m using my words carefully. There are plenty of Republicans who understand the important of regulation and whatnot, but, nonetheless, the overall current there is a very powerful one. So when the White House says we like this piece of legislation, it’s done.

And some of you will have heard this story. You know, many of the people who were intimately involved in crafting the ideas behind the JOBS Act, on the definition of emerging growth companies they said, well, I’ll tell you what. We’re going to ask for a billion dollars in the House -- so, in fact, that’s how it’s drafted -- even though that’s kind of a crazy idea, but, you know, it may not get through the House. And you know? If a billion dollars in revenues for an emerging growth company gets through the House, they’ll certainly stop it in the Senate. Well, we didn’t stop it in the Senate. And, again, you know, I’m not trying to cast any sort of aspersion here. I’m just trying to illustrate the fact that that is a dynamic which we should be conscious of as we think about regulation.

Fourth, I’m convinced that financial regulation is different from other regulation in at least two ways. One, the intense interconnectedness of the financial ecosystem makes it different. And in many regulatory areas it feels to me like we’re turning a knob. And the results of turning that knob, increasing regulation or decreasing regulation, are fairly predictable. You know, dangerous electronic appliances, you know, obviously we don’t want electronic appliances that burn people’s houses down. You know, turn that knob too far, though, and it’s going to be hard for people to afford electronic appliances. Turn it too far the other way, you’re going to get too many house fires in a way that is probably fairly predictable.

The same is true of, and I set aside climate change in making this statement, but with environmental regulation. You know, we can predict, depending on how you regulate emissions from coal plants, exactly the particulate matter in the air and the effects on children with asthma and that sort of thing. I think financial services are different. I don’t think it is subject to that kind of linear precision. I think, as we’ve all observed now, that you reach a point in the financial services industry where you get some combination of dialing the dials back and you no longer move proportionately. You move in dramatic step functions. And because of that, if for no other reason, because of that I think we should tread far more carefully in this realm of regulation.

By the way, that’s not to say that getting our air quality right is less important. I’m just saying that because of the disastrous consequences of turning the dial a little bit more, we should think a little differently about this regulation, maybe be a little bit more prudent, which perhaps informs the current argument that some of you are aware of between Patrick McHenry and Mary Schapiro. But I do think it’s different.

And by the way, it’s also different -- I stepped into the realm of partisanship, so it’s also different in the sense that here we’re not talking about business versus consumers. You know, we’re not talking about the interests of the coal generation companies relative to the interests of people who live around them who might get asthma. Here we’re talking about two different kinds of businesses. We’re talking about the buy side and the sell side. And I think there’s an opportunity there and I think you see it. You know, the ICI and other associations that are there to protect investors’ interests often will find themselves on the other side of the table from the issuers, from the sell side. And I think that perhaps offers us an opportunity to do what the implications of my previous statement are, which is to perhaps be a bit more prudent, perhaps help elevate this debate out of the morality play into something like, hey, you know, if we really get this wrong, if the JOBS Act turns out to be a colossal mistake, it will have been perfectly counterproductive because investors will say we are going to attach a substantial risk premium to an emerging growth company. We’re going to attach a substantial risk premium to a crowd-funded company. You know, clear to me, anyway, that there’s scope for more common ground there than there is in other forms of regulation.

Lastly, my fifth recommendation, you know, as you can tell, I have certain ambivalence about the JOBS Act. I really think it’s absolutely critical that we get regulation right. And I’m one of the few members of Congress who will say we need a vibrant, competitive, energetic, innovative financial services sector. It just needs to be safe. But as long as we’re framing things in terms of jobs, let’s not kid ourselves about how we, the Congress, should be spending our time. If we really want to talk about jobs, what we should talk about is innovation.

And, look, I think the JOBS Act, on balance, is going to do some good things and I hope we do a lot more of calibrating that regulation, but what about innovation? What about the STEM challenges that this country has? What about the fact that, you know, our educational system is falling behind? To my money, there are lots of reasons why we're innovative. It's IP, it's bankruptcy law, it's our venture capitalist community. But at the center of that is our system of education.

And I'll just close with this observation and happy to take a few questions if there is time for that. The JOBS Act when through the Congress like a hot knife through butter and yet we did not take up the No Child Left Behind authorization where we could have really moved the needle on innovation and created long-term jobs, not because we got a regulatory balance somewhat better, but because we sort of changed the fundamental playing field for our people to be innovators and create jobs.

So thank you, everybody. (Applause)

MR. LERNER: We've got time for a couple of questions. Yes, over there.

SPEAKER: Congressman, thanks very much for your frank and insightful comments. And before you a bunch of economists spoke, but you used the words "linear," "step function," and "equilibrium," so I think a lot of them were smiling. (Laughter)

CONGRESSMAN HIMES: There's hope for the Congress yet, huh?

SPEAKER: Exactly. Two quick questions to follow up on your points.

You know, you mentioned, as is often said, that we need to educate our representatives and the media on these complex issues. You know, we try to do it at forums like this. Any advice in terms of what specific institutions work best to get Congress people and their staffs information? We had some great PowerPoint presentations today by the speakers, I think, with some digestible points that could really shape the debate. What's the best way to get that in people's inboxes that makes a difference?

And the second thing, on emerging growth companies, where in government, you know, are these conversations happening? You know, you have the SBA, you have the House Committee on Small Business, the Senate Small Business and Entrepreneurship Committee. Where's the place in the government where people are thinking about entrepreneurs and private capital first as opposed to an ant?

CONGRESSMAN HIMES: Yeah, the second question there is particularly good. Let me come back to that.

So procedurally, you know, how do you improve the education? I'm embarrassed to say this, but, number one, start with the staff. You know, we are not a government of experts. We are a representative government and my colleagues look an awful lot like the folks you meet back at home. They spend a little more time raising money than they do, but other than that, very, very similar. So I think it's really critical that majority and minority staffs have relationships with institutions like this one and other institutions. You have an advantage -- the SEC, the Fed, others do wonderful work in this respect, but they are, to some extent, part of the ideological battle in the sense that if you're naturally deregulatory in outlook, you know, you're terribly suspicious of stuff coming from the regulators. You, I think -- you and collectively the NGOs and think tanks in Washington -- have a terrific opportunity to -- and, of course, you all have your ideological stripes, but to build relationships and particularly with committee staff and with staff of members.

And secondly, I would -- you know, don't forget the members. And, you know, those who follow this stuff, much to my chagrin as a relatively new member, tell me that the decision-making power in the United States Congress is more concentrated in the leadership than it has been in generations. So that says something about, you know, focusing, of course, on committee chairs and ranking members and subcommittee chairs. And, look, it's not easy. I mean, this stuff is really technical stuff and a lot of my colleagues -- and this is not in any way meant to be disparaging -- you know, how about four minutes to sort of listen to this and when they hear the word "jobs," you know, they probably don't want to hear too much about 404(b). And so it's a real challenge.

But for some reason, and it may just be the subject matter, my sense is that there are more people peddling thoughtful analysis on the Hill in the realm of national security, in the realm of overall fiscal issues than there are people peddling, you know, good financial calibration. Now, that's probably obvious, right? There is always going to be a fairly small minority of the Congress who focuses on that stuff, but I think we can do better.

In terms of within the government who's really thinking about emerging companies, you know, I don't sense that perhaps with the exception of a few people in the White House that anybody is. It's not the SBA. I mean, the SBA does wonderful work for a certain category of companies. It's really not the SEC, whose mission is about investor protection, not about, you know, helping guys in a garage.

And by the way, I'm not sure that that's inappropriate. You know, the venture capital and the emerging tech community and whatnot are remarkably absent from Washington, not entirely and that's changing. It is changing. Silicon Valley group is here now and, you know, the Googles and the Facebooks are now deigning to open Washington offices and stuff because they realize that it matters. But those are big companies. The smaller groups, I think the National Venture Capital Association is, you know, arguing on their behalf, but it's pretty quiet. And I don't have the time to sort of suss it out, but that may be okay. That may be okay. I mean, you know, the more Washington gets interested in what happens in Palo Alto and up on Route 128, it's possible that that may not be a good thing for innovation. (Laughter)

Yes, sir?

SPEAKER: Thanks. I have one suggestion. You talked about education or getting more knowledge. And one of my suggestions, I talked about it earlier on a panel, was why not try to increase the dialogue with the managers of public funds, the stewards of public capital out there, as a group that are involved in allocating assets? They also happen to be government servants, right? They're not in the private sector. They're not part of the banking community. But those are the people who are managing money on behalf of moms-and-pops and they're also directly impacted by a lot of the regulatory reform that's taking place. And they can give you an idea of what they're worried about, where might be the unintended consequences, you know, what you can do to kind of stop the bad guys, but also what you can do to potentially encourage good behavior. Because you need to encourage good capital flows. I mean, you know that I think probably better than anybody.

CONGRESSMAN HIMES: Yeah, so you mean sort of the pension fund managers, the CalPERS of the world, right?

SPEAKER: CalPERS and there's international institutions as well, and they're all interested in investing and they're very concerned about protectionism. You know, we've got this move towards regulation which seems to be putting up barriers between the U.S. and Europe and other places, and restricting access. And we're worried about increasing costs and lowering returns. And the ultimate people who are going to get hurt are the moms-and-pops in terms of their savings. So how do we deal with that?

And, you know, there is a lot of capital potentially that could be unlocked. And part of it, also, is how do we smooth the way for some of this in an appropriate manner?

CONGRESSMAN HIMES: Yeah. It’s an important and very powerful observation. You know, I talked about that morality play that, unfortunately, has set the terms for our discussion of financial services regulation. In that morality play anything -- and I’m exaggerating here, but anything that, you know, a money center bank or an investment bank or hedge fund or, you know, private equity institution tells you is, at least on the Democratic side, inherently suspect. On the other hand, if you get a fund manager for a union pension fund who comes in and explains this stuff, it just gets a -- it’s the Nixon in China syndrome, you know, the unexpected. It can be very, very powerful.

And actually they’ve played an important role, many of the public pension fund managers and that sort of thing; very powerful effect. I mean, we see it today with, you know, CEOs who one might ordinarily associate with the Republican Party in town last week to say you got to raise revenue. That can have a tremendous amount of power. It’s a really important thing.

What often happens, though, is if a public pension fund manager or a fund manager or collectively fund managers are given, you know, limited amount of time to interact, sometimes they choose more parochial issues. It might be, you know, the structure of money market funds, money market fund regulation as the thing that they put first. So again, we sometimes find the overarching questions of, you know, where the real rigidities and frictions are, and capital markets being, you know, the item you get to in minute number 29 if you have time, which is unfortunate.

MR. BAILY: Can I give one more question? I like the idea of approaching staff. I will say having done some congressional staff briefings, which were often fun, but the staffs are often very young is what I’m struck by, that there must be a lot of turnover there, new ones coming in every year and so on, that may make it difficult to accumulate that knowledge.

But my question really is around -- I actually wrote with one of my colleagues an op-ed in support of the JOBS Act, but, like you, I had some reservations. And part of the reservation was around the misuse of this crowd funding, that whether there were going to be adequate protections for bad guys, if you like, who really were able, potentially able, to take money from folks that really were not going to offer anything in return. Do you feel satisfied that that can be avoided or there were enough restrictions or regulations to prevent the misuse of that crowd funding?

CONGRESSMAN HIMES: The House bill was dangerous as it passed the House, and I voted for it, by the way. This is one of the things that you learn as a legislator is you sort of, you know, always hold your nose when you vote for legislation if it’s meaningful legislation.

I think the Senate bill and ultimate bill was dramatically tightened in a way that I think certainly got me there. And I think that the SEC’s approach will also further tighten things up from a standpoint of regulation. So, again, I hesitate to unconditionally say that we are where we are. And even if I were willing to say that, of course we’re still, every six months, going to be treated to some, you know, crazy fraud which, again, another topic for another day. You know, the objective of financial regulations can’t possibly be to eliminate the possibility of fraud.

So I think where we ended up was probably a good balance, but that’s actually the piece of it that worried me the most. You know, at the end of the day, general solicitation, I don’t want moms-and-pops to pose as accredited investors, but presumably there’s some complicity there. I’m not too worried about the institutional investors. When you are talking about the possibility of fraud perpetrated in particular to retail investors it’s very, very serious. And I, like you, am conditionally satisfied with where we are.

MR. BAILY: Thank you and thank you so much, Congressman.

CONGRESSMAN HIMES: Thank you.

MR. BAILY: Really great to have you here. (Applause)

So that's the end of the event. Thank you all for coming. It's been a terrific day and we'll look forward to seeing you at our next event.

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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

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