FTC The “Sharing” Economy Workshop
June 9, 2015
Segment 1
Transcript

BILL ADKINSON: Good morning. Thanks very much for coming to our workshop. We'd appreciate it if people could find a seat now so we can get started on time.

Great. Thanks very much. On behalf of my colleagues at the Federal Trade Commission, I'm delighted to welcome you to the workshop "The Sharing Economy-- Issues Facing Platforms, Participants, and Regulators." My name is Bill Adkinson, and I'm an attorney adviser at the FTC's Office of Policy Planning.

As previously announced, this workshop will examine competition, consumer protection, and economic issues arising in the sharing economy. We are excited about a high level of interest in this workshop. We believe we have a terrific roster of speakers. And it looks like we have a great audience, as well. Thanks for coming to this workshop in person today.

We're also glad to be able to provide a live webcast. Greetings to everyone who is watching on the webcast. And thank you to our tech team. We will make the webcast and all the workshop materials available online to create a lasting record for everyone interested in these important issues.

There are many people who have made this workshop possible. But I'd like to offer a special thank-you to our speakers, who you all came to see today. I would also like to remind everyone that the public record for this proceeding will remain open through August 2015. It's August 4, 2015. We already have over 1,800 comments. And we encourage interested parties to continue to submit public comments, especially in response to the workshop discussion.

Before we get started today with our substantive program, I need to review a few administrative details. Please silence any mobile phones and other electronic devices. If you must use them during the workshop, please be respectful of the speakers and your fellow audience members. Please be aware that if you leave the Constitution Center building during the workshop you will have to go back through security screening again. Please bear this in mind and plan ahead, especially if you're participating on a panel, so we can do our best to remain on schedule.

Most of you received a lanyard with a plastic FTC event-security badge. We reuse these for multiple events, so when you leave for the day, please return your badge to event staff.

If an emergency occurs that requires you to leave the conference center but remain in the building, please follow the instructions provided over the building PA system. If an emergency occurs that requires the evacuation of the building, an alarm will sound. Everyone should leave the building in an orderly manner through the 7th Street exit. After leaving the building, turn left and proceed down 7th Street, across E Street, to the FTC emergency assembly area. Remain in the assembly area until instructed to return to the building.

If you notice any suspicious activity, please alert building security. Please be advised that this event may be photographed, webcast, or recorded. By participating in this event, you are agreeing that your image, or anything that you say or submit, may be posted indefinitely at the ftc.gov website or on one of the commission's publicly available social-media sites.

The restrooms are just down the hall, outside the auditorium. Lunch is on your own today. The Plaza East cafeteria is located inside the building, so you can use it without going through security again. It is open from now until 11:00 and from 11:30 to 2:30. Unfortunately, we have limited ability to provide refreshments, but we do have coffee available just outside the room.

I also have a couple of items regarding our use of webcasting and social media and our question-and-answer process. We've done our best to get speaker materials loaded ahead of time so that they will be available to webcast viewers. If materials are not accessible during the webcast, we will post them as soon as possible following the workshop.

For those of you on Twitter, FTC staff will be live-tweeting today's workshop at #sharingeconomy. We have comment cards available here in the conference room. And audience members will be able to submit questions or comments for each panel. During each session, workshop staff will collect cards and bring them up to the moderators.

We will also monitor Twitter and our workshop email account for additional questions that may be submitted. Time permitting, moderators will select some questions for the panelists. It's very unlikely we'll get all the questions during the workshop, but we certainly will review them after the workshop, as we continue our research in this area. So we encourage you to submit questions and comments. If anyone has questions throughout the day, please feel free to ask any of the conference staff, including our great paralegal helpers at the registration desk.

And now that the preliminaries are complete, to open today's workshop I'm delighted to introduce Marina Lao, who is the director of the Office of Policy Planning at the FTC, serving since February 2015. She's on leave from her position as professor of Law at Seton Hall University School of Law. Her scholarship focuses on various aspects of antitrust enforcement.

She has previously served as a member of the advisory board of the American Antitrust Institute and as chair of the Section of Antitrust and Economic Regulation of the Association of American Law Schools. Director Lao has taken an active interest in issues surrounding the sharing economy, even before joining the FTC, and she played a leading role in organizing this workshop. Please join me in welcoming Director Marina Lao.

[APPLAUSE]

MARINA LAO: Thank you, Bill. Good morning, everyone. Team leaders of projects such as this are usually the ones thanking everyone at the end. And they often do not get publicly thanked themselves. So before I turn to my introduction to Commissioner Ohlhausen, I'd just like to briefly thank Bill Adkinson and Julie Goshorn, who are the two coleads of this workshop, for their leadership and their tireless work on this project. And of course to the entire team, as well. But they'll be thanked later on.

And now it is my very great pleasure to introduce and welcome Commissioner Maureen Ohlhausen of the Federal Trade Commission, who will offer some opening remarks to kick off today's workshop. Commissioner Ohlhausen was sworn in as a commissioner in 2012 to a term that expires in September 2018. For a few years prior to her appointment, Commissioner Ohlhausen was a partner at Wilkinson Barker Knauer. Before that, she had been with the agency for many years, since 1997.

Her most recent service at the agency, before her employment as commissioner, was as the director of the FTC's Office of Policy Planning, or O-P-P, as it's generally called. While she headed OPP, commissioner Ohlhausen led the FTC's Internet Access task force, as well as its work on barriers to e-commerce. Because of her past tenure as OPP's director, Commissioner Ohlhausen has unparalleled understanding of the work of OPP-- my office-- and has given our office her unstinting support, for which we are most grateful. And as the current director of OPP I cannot thank Commissioner enough for all of your support.

Before coming to the FTC, Commissioner Ohlhausen clerked on the US Court of Appeals for the DC Circuit, where she also served as a staff attorney, for a few years. Commissioner Ohlhausen was on the adjunct faculty at George Mason University School of Law, where she taught privacy law and unfair trade practices. She also served as a senior editor of the Antitrust Law Journal and has published a variety of articles on competition laws, privacy, and technology matters. We are delighted to have her open the workshop today. Please join me in welcoming Commissioner Ohlhausen.

[APPLAUSE]

MAUREEN OHLHAUSEN: Thank you so much. That was a lovely introduction. Well, I'm delighted to be here today to help open the FTC's workshop on the Sharing Economy. First, I want to thank all the participants for coming to Washington to share their views with us.

And I also want to thank the staff for their considerable effort in organizing this workshop. As Marina noted, in one of my past lives, as the head of the FTC's Office of Policy Planning, I put together several workshops, so I know how much work and effort and time went into this. So I very much appreciate it. Now although they always make me say that my remarks are offered only on my own behalf and not on behalf of the entire commission, I'm sure I can recklessly disregard that admonition when it comes to thanking the staff for all their hard work that I know went into convening today's program.

I'd like to start by taking a brief moment to put today's workshop into a broader context. When people think about the FTC, to the extent that they think about our little agency at all, they tend to focus on the things that we do that end up in the newspapers. Our enforcement docket tends to draw the most attention from the press. And it can make for exciting headlines when the commission initiates antitrust litigation against a major company or we move aggressively against some fraudulent actor that ripped off consumers.

Now there's nothing wrong with that press dynamic. But it may give outsiders a somewhat inaccurate understanding of our mission. Yes, we do vigorously enforce the laws that protect consumers and competition in appropriate circumstances. But the FTC is so much more than a law-enforcement agency.

We are also advocates for consumers in all sorts of ways that never see the inside of a courtroom. For example, we do competition advocacy and outreach to policymakers across all levels of government. We undertake important research that others could not accomplish. And we educate consumers directly. Our actual mandate is to protect consumers and competition. And there are many ways to accomplish those goals. And I view all of these activities as a critical part of our mission.

In the past, we've looked at the nettlesome public-policy issues in such diverse industries as real estate, contact lenses, and even wine wholesaling. While it is true that some of those efforts later led to some investigations and even a few enforcement actions, I want to assure you that we did not convene today's workshop as a prelude to some planned, big, enforcement push in this space. Rather, I see this workshop as an important part of our broader responsibility to advocate for the interests of consumers, using the full panoply of our tools and expertise.

Particularly in an area like this, where many of the key issues are playing out at the state and local level, we need to tailor our approach to the facts on the ground. And I'm going to repeat myself, here, because I really cannot stress this enough. Interest in new developments in the economy by the FTC does not automatically portend a flurry of future enforcement actions. So for all of the various industry participants in the audience, I want you to understand that your relationship with the FTC need not be an adversarial one. In fact, you may find us a valuable ally in situations where your private interests and our broader public-mission interest intersect.

For example, we regularly provide written guidance and commentary to state legislators in appropriate circumstances. Upon request from a legislator, we can and frequently do provide neutral, unbiased analysis of the likely economic impact of pending legislation. Such analysis can carry a level of credibility that private, self-interested advocacy will never achieve.

That said, just as we strive to make sure we get it right in our enforcement docket, we apply the same rigorous analysis to our use of other tools. We want to hear from all sides whenever we evaluate contentious issues. And we want to understand the market dynamics, possible consumer-protection issues, and economics whenever we consider weighing in on a specific public-policy question.

It is against this broader background that today's workshop was convened. So, turning now to the topic that brought us all here this morning, I want to say just a few brief words about the sharing economy. First, as a lifelong advocate for the beneficial effects of competition, I see the rise of the sharing economy as yet another example of how free markets have the potential to introduce transformative change.

When entrepreneurs are free to innovate and compete, sometimes they will succeed, and sometimes they will fail. But over time, the repeated process of experimentation, adaptation, and revision creates meaningful improvement in all of our lives. The sharing economy is causing new business models to be created. And some of those models may ultimately upend existing businesses.

While the particulars may differ, the core of what is happening here is a very old story. The economist Joseph Schumpeter was talking about the value of creative destruction way back in the early 1940s. Change has always been part of free-market capitalism, and it always will be.

Now change is always hard. Even the most beneficial changes can cause short-term dislocations and damage to those deeply invested in the older order. Yet the potential social value of disruptive innovation is no less true today than it was in Schumpeter's time.

For example, there are already some suggestions that the rise of the sharing economy may have disproportionately positive effects on less affluent consumers over the long term. The ability to effectively rent, rather than buy, expensive goods, or to partially defray the cost of ownership through facilitated sharing, may be most valued by consumers that cannot afford to buy those same items outright. While it is still early days, at this point, these potential effects illustrate how disruptive innovation can often bring meaningful change to people's lives.

Now, to be clear, I am neither an advocate nor a detractor of any particular business model. Whether these new businesses will soon spur a major reordering of certain segments of the economy or if they fall short of those lofty goals should not be our principal concern here. At the end of the day, it is not for us in government to pick the winners and losers in the marketplace.

I would also note that just as government should not directly decide how future competition should unfold, so too is it inappropriate for existing competitors to exercise control over the firms they compete with. In all too many situations, we at the FTC encounter these "brother may I" scenarios. And this situation occurs when a new competitor effectively has to request permission from the incumbent firms to enter the market. Whether through effective control of state regulatory boards or by obtaining protectionist legislation, incumbent firms can place themselves in a position to determine who they will compete with.

Whether the state picks winners or losers itself or effectively delegates that role to self-interested actors makes little difference. Either way, consumers pay the price for actions that favor narrow special interests over the broader public good. The sharing economy, pitting a number of long-established business models against aggressive new entrants, appears a particularly fertile ground for such mischief.

But let me be clear where I stand. The evolution of markets should be driven by consumer demand, rather than artificial regulatory preferences for one business model over another. Misguided government regulation can be the barrier to innovation that never falls. So regulators should tread carefully, particularly when considering hypothetical rather than demonstrated consumer harm.

While these abstract goals may be easy to articulate, they immediately raise a number of complex and challenging public-policy questions. For example, assuming these new business models may benefit consumers, how can regulators provide a regulatory framework with enough flexibility to allow them to realize their full potential? Do existing regulatory rubrics need to be reworked, or even abandoned, due to these developments? How do we also ensure that these same new business models don't inadvertently erode beneficial, existing consumer protections in such diverse areas as privacy, data security, health, and safety?

Can the trust mechanisms built into some of these new business models replace regulation? If so, where? How do we best avoid creating two distinct regulatory tracks, with one set of rules for the older, incumbent businesses and a different set of rules for the new entrants they now increasingly compete against? I'd suggest that picking winners by creating a regulatory differential in favor of new entrants should be just as undesirable as retaining regulations that deter meaningful entry. How should regulators appropriately respond to a highly dynamic market where the business models of today may be completely transformed tomorrow?

Now these are all hard questions that defy simple answers. And I do not imagine that we'll resolve any of these high-level issues or the myriad subsidiary concerns they implicate, today. However, today's panels bring together a diverse group of stakeholders and academics to jointly discuss these challenging topics. And that interchange and cross-fertilization can only help to bring us all a bit closer to the nuanced understanding we will need in the future.

Now fortunately the FTC is uniquely situated to help facilitate interchange and dialogue on this important topic. And as I've said in the past, there are useful synergies created by putting both competition expertise and consumer-protection expertise under one roof. And today's topic is a perfect example of the ways in which our two core competencies intersect.

The rise of the sharing economy implicates both our consumer-protection and competition expertise. So there really is no better place to have a detailed discussion of these issues. So thank you all again for coming, and I'm sure this is going to be a very interesting day.

[APPLAUSE]

NATHAN WILSON: Good morning. My name is Nathan Wilson, and I'm a staff economist here at the FTC. And it is my very great pleasure to be introducing our first invited panelist, who will be giving an introductory set of remarks framing the presentation on the sharing economy. And that will be given by Prof. Liran Einav, who's a professor of economics at Stanford University and a research associate in the National Bureau of Economic Research, where he is co-directing the Insurance Working Group. Thank you very much.

LIRAN EINAV: Thanks a lot for having me. Thanks a lot for organizing this day. So my mandate is to spend the next 15 minutes, and maybe a little bit more, to steal from my own panel participation later, to kind of give some sort of overview of why we are here today.

So let me start with, I think, just following up on the commissioner's point. This is kind of evolutions in markets. I think some of us who've traveled in the world remember kind of, you know, rickshaws in India and the floating markets in Thailand-- a less-organized market that might be fun for tourists but as participants on a daily basis might not be the most efficient market.

So, you know, better markets. Now we go to shopping malls or go to a taxicab line to find better ways to kind of find what we need for both sides. And I think that the sharing economy is kind of the natural next step in the evolution of markets, where we don't need to go anywhere to kind of get a cab or to find what we need in the shopping mall. We can just kind of sit in front of a computer and find our right match, and in a much more convenient way. So at some level, it's also kind of new discussion of how it's going to change the way we think about markets, given that it's sort of the new generations of many regular markets.

You look in the internet. These sharing markets are basically growing like crazy. So we see here, like the peer-to-peer lending, that's Prosper and Lending Club. We see Airbnb. We see eBay. Everything is kind of going up like crazy. And this is something that is presumably going to keep rising up.

And one may ask, what makes these markets so successful? And I would think there are three different reasons that these markets are growing so much. One is basically you take regular markets. They exist already, but they have existed very locally. So there were two things.

So if you think about the market for collectibles or market for used baby items. You know, if you were in a small town, there are so many people selling used baby items or collectibles. To find exactly what you need is very difficult. But once you take the same local markets and just merge all local markets into one internet market, suddenly these markets have much more matches between buyers and sellers.

So the second way that these markets grow is really creating new markets. These are not markets that existed before. If you think about finding someone who is going to do your shopping for you, or kind of sharing rides, or getting someone to put together your Ikea furniture or walking your dog, that's something that you didn't have a market. You were doing it yourself. And suddenly now you have the opportunity to find someone who is a willing labor supplier to do this stuff for you. And then you can find a useful transactional or efficient production that, before, we just never even imagined that we would be able to transact.

And then the third way in which these markets are growing and generating more business is really replacing or expanding existing markets. If you think about Airbnb and Uber or Prosper and Lending Club, these are markets that-- they're not new. You know, Airbnb is partly expanding the hotel industry, partly replacing the hotel industry. Uber is the same with taxicabs. And Prosper and Lending Club are trying to kind of replace, to some extent, and expand credit and investment.

And again, the internet allows us to create new opportunities from transactions, or to overcome some of the limitation of the traditional markets. And how they do this? So what's the value that's being created?

So one value is the idea of using technology to facilitate better matching of sellers and buyers. The idea of big data. You know, there are many potential sellers out there. I need something particular, but now, with big data and more information technology, we can find this kind of potential match that previously was very difficult.

The idea of mobile technology. The idea that sort of-- I need a cab, right now, here, and nobody knows where I am. But now, with mobile technology, I know where the cabs are, and I know where I am and where I need to go. You can find this kind of transaction much more efficiently.

Another reason that their value creation here is basically just cutting costs by eliminating intermediation. We don't need different market makers to kind of generate this kind of match between buyers and sellers and then, in the process, cut some commissions and raise prices. Now we can do this much more directly by having direct peer-to-peer interaction. And that makes things kind of cheaper and more efficient.

A third reason. We bypass regulation, whether it's good regulation or bad regulation. I just came in this morning from Dallas, talking to the cab drivers on the way in. Basically, it turns out that about 75% of the time he's coming back from the city to Dallas empty, because he's not allowed to pick passengers, most of the time. This seems like, from an economic perspective, kind inefficient. And something like Uber-- one reason they're generating business is because they have the cabs going back and forth, always full, without actually having these kind of empty drives.

Sometimes there are neutral regulations that exist. Prosper, for example. At some point, it expanded the peer-to-peer lending market because they found a way to overcome usury laws that were very differential across different states.

So in Pennsylvania, a customer who could only borrow at 6% interest rate suddenly could go transactions through a YouTube bank, where the usury law allows them to get a cash loan for, like, 36% interest rate. Whether we like it or not, it wasn't totally clear that this is good or bad regulation. But suddenly we can overcome this kind of differential regulation to generate more potential transactions.

And I could imagine that sometimes these type of businesses could also kind of generate value or distract value by bypassing "good" regulation that sort of-- you know, by violating zoning laws and stuff like that that sort of maybe are not so desirable. And that's exactly why we're here today, to think about this type of things and how they go forward.

The last one that generates for value creation in this sharing economy is less kind of replacement. But basically, the idea is, if you think about many industries that are kind of "traditional" industries, if you think about hotels or taxicabs, they are dedicated resources that have fairly high fixed cost. To build, like, a hotel chain, it takes a lot of investment and big capital. And then you can basically turn over the rooms very cheaply, with really low variable cost.

If you think about the sharing economy, this is sort of-- the fixed cost is actually almost nothing. I just basically-- I don't need to invest anything in having a room in my house that I rent out. But the variable costs are probably higher, because it's not dedicated resources. I need to do certain things.

So for certain transactions, this is really good. It's really useful when you have really sharp changes in demand for this type of services. And then we need to suddenly supply three or four times more hotel rooms or more taxi drives.

And suddenly we have this kind of available resources that can transform themselves to become sort of supply for this type of business, very flexibly and very immediately. And that's something that basically the more traditional kind of markets find it more difficult to adjust to. So the flexibility of these internet markets-- it's another way by which we generate value.

What makes it work? So how do we make these things happen? There are basically three components that I think we need to think about, when we think about how these markets operate-- what makes them work well.

One is levers of market institutions. How we search and match between buyers and sellers, the pricing strategies of different processes, and then trust and reputation that allows credible transactions and not--- you know, and get around sort of safety consideration and things like that.

The second aspect is various forms of market evolution. You see many of the platforms. They need to kind of think about network effects. If you just get all the buyers to come in and no sellers come in, the buyers are not going to find any match. If you get all the sellers to come and no buyers are on the platform, the sellers are not going to be able to sell anything. So you need to have some sort of scale economies and balanced growth to make things work.

Then basically what happens is, over time, as the platform grows, what gets transacted changes, and how, and by whom. Suddenly the seller's moving from becoming, like, peer-to-peer sellers to more professional sellers. And you see the evolution-- not only evolution from traditional markets to sharing-economy market, but also, within sharing economy, you see a lot of patterns where the market starts off kind of as random people matched together. But as they mature, you see much more professional services operating on the sharing economy. And it becomes much more of a traditional market. And standardization. Basically, the market ends up maturing.

The third aspect of it is things that are kind of-- you know, the markets find their way to get around certain types of markets risks and externalities. This one I'm not going to talk about. This is going to be covered mostly in the afternoon.

So let me just go in a little bit more detail to frame the next few panels. So if we talk about market institution and platform design, the basic problem is to facilitate search and matching when people have very heterogeneous preferences and the set of products is really large, diverse, and-- probably the most important word here is-- unstructured. We cannot actually look for a particular sort of catalog number that tells us exactly what it is. So we need to somehow find what we want, in a fairly unstructured marketplace.

And the markets can be thin in very different ways. Either because in eBay there's, like, tons of different things. It's hard to categorize them. So we need to find a way to find what we want without having a particular catalog that tells us what the product that are available.

In Uber, it's the case where we need a cab right now, in a particular location, in a particular time. So now the market is thin in terms of both the location and the time dimension.

Also the TaskRabbit This is a marketplace for local chores. And I need someone to do my grocery shopping or build my Ikea furniture that I bought. And I need it tomorrow at 10:00 AM, because this is when I get it. And you need to find someone who's going to deliver this kind of potential labor supply at a very particular time.

So these are all thin markets. And just by getting a lot of people from both sides of the market, you can find a way to create matches. And from the platform perspective, the different kinds of friction you try to solve. So one is try to solve search issues. You know, buyers know what they want, but they can't really find it, because the market is too unstructured. You need to help them find it by having, like, really good search technology that finds what you're searching for and find potential sellers.

You need to deal with congestions in a market. All of us want this amazing sort of Airbnb property, but only one of us can book it for a given weekend. So we need to find a way through to get around the fact that everybody is going to try to book the same thing and in the process basically are going to get nothing else.

And the third thing. You know, it's the case where people actually don't know what they want. They're on the platform, they want to buy something, but what exactly they want, it's hard for them to exactly define. So the platform is in the business of guiding people, not only to find what they want, but also to figure out what it is that they might be wanting. And this is also part of the platform role.

The second part of the platform to think about is pricing. How do we create the transactions? And there are two distinct roles of the platform. One is to define what it is-- the transactable unit. Sometimes it's obvious. It's a, you know, taxi drive. Sometimes it's less obvious, when you're thinking about some kind of labor-supply type of transactions.

And the second role of the platform is to think about, once we know what we want to transact, how we are going to find the price. Is it going to be just a fixed price, or an auction, or some other mechanism that sets the terms of trade? In the process of transactable unit, what is a product?

So these are often, in many of these platforms, a trade-off between-- you know, if you define the product too narrowly, then basically it's hard to search for other products, because you're already in a page where it defines only the things that are very narrow. And it doesn't let you search for things that are similar. If you define two cores, then it's hard to compare kind of product, because we see unstructured states of different products that are kind of similar to each other but vary in so many dimensions that it's hard to compare and contrast.

So in TaskRabbit or oDesk, these are platforms that, over time, they ended up-- they initially priced everything by task. It created stuff to be too narrow. And now they're pricing things, basically, by the hour. In advertising, they started by pricing ads by impression. And then they moved to price ads by clicks, so by convergence. So slowly, you see evolution in many of these markets, in the way they define a product that is transactable.

The other aspect in the pricing is the internet facilitates a wide range of pricing mechanism, from auctions to dynamic pricing to posted prices to different risk [INAUDIBLE] on landing sites. And there's a common trade-off between-- on one hand, you want it to be really efficient. You want to have-- exactly every trade is going to get exactly the right price through some sort of sophisticated pricing mechanism.

On the other hand, the more sophisticated the pricing mechanism is, then the more likely it's going to involve a lot of action on both sides of the transaction to reach to this right price. So it's some sort of trade-off between making things easy and maybe slightly less efficient, versus making things very sophisticated but creating extra inconvenience, in terms of getting to the right price. And different platforms ended up solving it in different directions, depending on the particular transaction.

Finally, in terms of trust and reputation, transactions need to be safe. That's probably-- it's hard to imagine these markets operating without a certain level of trust in the other side of the market. The early concern was that asymmetric information between buyers and sellers, in terms of quality, reliability, delivery of the aspect, is going to be really much more difficult in internet market than in traditional market. Everything is going to happen without seeing and touching the other side of the transaction.

And what that every platform basically needs to think about-- and it's going to be the topic of the second panel today-- is different ways of running a reputation and review system. You know, you can have a reputation system. You can have grouping. Like in oDesk, you basically have agencies that are kind of creating small firms. You can think of diversification strategies in lending sites that allow you to avoid bad experiences, because you are diversified and you are lending to multiple borrowers at the same time.

Or you can offer the platform coming in and offering kind of platform guarantees. And this part of it has a lot of design issues. You know, do you want to do one-sided versus two-sided reviews, anonymous versus less anonymous? Who is eligible to post reviews? A lot of the market-design aspect of the platform are about these particular reputation systems.

One thing that we'll see, probably, in the panel today, is a lot of discussion about what can work better for a reputation system. The one thing I would say right now is that, on one hand, a lot of economists are worried about different inefficiencies of these reputation systems. On the other hand, all these markets will probably not work well if the reputation system was really bad. I mean, these markets would have no existence if I didn't trust the other side. So at some level the current reputation system, even though they're imperfect, are probably doing a decent enough job just to make these kind of markets grow as much as they do.

Then one last thing I want to talk about is market evolution. Platform problem is a bit different early and later. Initially, when a platform starts off, you have thin markets on both sides. You don't have that many buyers. You don't have that many sellers. A little bit of a bad experience might make people kind of drop off.

Later, when the market matures, then basically this is where the problem is different. Now, suddenly, people are not dropping off. An eBay seller is going to stay on eBay and sell on eBay. An eBay buyer is going to stay on eBay and buy on eBay. And most of the frictions are going to be in the intensive rather than the [INAUDIBLE]. And it's also, if you think about optimal regulation, it might suggest for the same reason that regulating a market early on versus later might have very different things to think about.

Then just to conclude. So these markets are going to take over our lives, whether we like it or not. It's going to become more and more important and more and more part of your daily routine-- either yours or your friends' or your family. And it's in early stage. And one thing I should say-- we can say a lot of stuff today-- but, you know, in 10 years-- I guess everything is getting recorded, and we are going to see this video, 10 years from today. And we can go back and ask, you know, how much of the statement we heard today ended up to be half right?

One thing-- you can go back to the early days of the internet. This is from 2000, from The Economist. And they talked about how the internet is going to completely transform markets, and every transaction is going to be priced in a very granular and sophisticated way.

If you look at the internet today, actually it has nothing to do with what this quote from The Economist looks like. Most of the internet is basically like just big shopping malls, where kind of-- you go to Amazon, or even today, you go to eBay. Mostly things are kind of priced at fixed prices, and you just shop just like you are in a shopping mall. No auctions as much, and no kind of sophisticated pricing as much, in many of these platform markets.

So it just shows you that when we think about markets early on, we think a lot of stuff. But they just end up having lives of their own and develop not necessarily in expected ways. So if I had to come up with a prediction, maybe 40% of what we'll say today will end up true. But one thing that I think I learned is that things don't have to be right in order to be interesting. So I'm going to look forward to having a fun day. Thank you very much.

[APPLAUSE]

NATHAN WILSON: Good morning. I remain Nathan Wilson, a staff economist here at the FTC. And it is my great pleasure to be moderating the first panel of this workshop, which is entitled "Sharing Economy Platforms-- Market Design and Market Structure."

Joining me is an impressive group of panelists who have spent considerable time contemplating these issues. In addition to Liran, who has already been introduced, they are Glen Weyl, who is a senior researcher at Microsoft Research's New England lab. Weyl is on leave from the University of Chicago, where he is an assistant professor of Economics and Law.

Chiara Farronato, joining us remotely, who will be joining Harvard Business School as an assistant professor in the Technology and Operations Management Unit. And Joshua Gans, who is professor of Strategic Management and holder of the Jeffrey S. Skoll Chair of Technical Innovation and Entrepreneurship at the Rotman School of Management, University of Toronto. In addition, Joshua was appointed in 2012 as the research associate of the NBER Productivity, Innovation, and Entrepreneurship program.

In the preceding discussion by Dr. Einav, we were introduced to the underlying fundamentals of what is coming to be called the "sharing economy." We also learned a bit about how and why these platforms have grown in prominence in recent years, as well as some of the challenges they have met and continue to face. On this panel, we will dig deeper into these issues, emphasizing the lessons contained in an increasingly rich economic literature on the subject. We will also consider how and where shifts to either demand or supply may cause platforms to evolve. Finally, we will think about the long-run importance of these platforms and how policymakers and practitioners should think about them.

Beginning with Glen, we'll hear from each of our remaining panelists about what their own research and thinking on the sharing economy, and platform economies in general, has to say about these issues. After which, we'll circle back to drill deeper into the topics they have introduced.

GLEN WEYL: Thanks so much, Nathan. And thanks to everyone for being here. So my research really comes at these issues related to the sharing economy from the broader and much older literature about network effects, which are, as Liran emphasized, an important part of these types of markets.

Those network effects matter both within a particular geographic market-- if you think about Uber, when it first enters a city, it's usually quite thin. It takes a while to get a cab. And they're also true across markets.

So when one of these services first develops, it's usually only available in one or two cities. And therefore people are often unwilling to learn the system, if they can't use it when they're traveling. And the relative importance of those two sort of cross-market, or within-market, geographically, dimensions of network effects differs, depending on what types of services you're talking about. For something like Angie's List, it's much more important to get coverage within a market. For services like Yelp, which isn't exactly a sharing-economy service, but part of this general internet platform area, people are very mobile, and coverage across markets is very important.

And the firms in these markets have traditionally been thought to have a hard time entering, as a result of these network effects. People often talk about a chicken-and-egg problem, where without getting enough buyers you can't attract the sellers, and vice versa. But there've been some pretty creative strategies. And I think Uber has probably been the most successful in implementing these to try to overcome these problems by, when the company first enters a market, charging very low prices for initial rides to get up a rider base, for example, and giving full pass-through, initially, to drivers as they get inducted into the system. And then eventually, as the system matures, riders face higher prices in compensation for lower waiting times, as the system matures.

So these types of strategies, which are not just, as we often hear about in the media, dynamic within a week but dynamic over the long course of the development of a platform, can be very useful in allowing firms to enter. And they can overcome a lot of the concerns that regulators have often had, that these markets tend to consolidate around a dominant platform that then is sort of immune from potential future entry.

And in fact they can create, in some ways, opposite regulatory problems, precisely because these strategies allow for such rapid growth of new services, there can be an excessive incentive for firms to enter the market, try to grab some fraction of what has become quite lucrative markets, and in the process actually break up a lot of the benefits that come to consumers from having a thick market. By creating this sort of excess fragmentation, the value of the services can actually be undermined. Not only is there too much waste on developing facilities, but there can also be reduction in the quality of the service to consumers if markets become overly thin.

And while competition for the marketplace-- competition to be the best service-- is obviously crucial to making these services work, fragmentation within the market is not necessarily desirable and, in fact, in many cases, can be overprovided. And I think one interesting aspect this ends up implying is that a natural dynamic, and perhaps a desirable dynamic, of these markets is for one firm to come to really dominate a whole service category. And as such, a primary role they end up taking on is not the supplier of a service, individually, but rather a regulator of a whole area of the economy.

I guess I'm running out of time much more quickly than I expected. Nathan, would you mind, given that we're a little bit short on people, if I just take a couple of minutes?

NATHAN WILSON: Sure, sure.

GLEN WEYL: OK, thanks. So these services like Uber and Airbnb-- through these reputational mechanisms that Liran was discussing, and that we'll talk about later, really become, I think, not competitors to other driving services or other hotels as much as they become competing forms of regulation. So in some ways, they actually compete with the local governments that traditionally regulate these services, rather than competing with the people within the market who supply the services.

And as such, I think they offer a different role for regulators to think about taking in these markets. For someone like the FTC to think about taking. Because rather than thinking about it being the responsibility of the local governments to be in charge, you might actually think about the local government as being one platform which is competing with these services in providing the service of regulating the market for rides and places to stay.

And I think that that, to me, raises a particularly interesting issue. Especially within the United States and our constitutional order, because the original purpose of the Interstate Commerce Clause that has come to stand behind so much of the active economic regulation was to prevent local governments from excluding national competitors to services that were provided at a local level.

And so I think a really interesting issue in the coming years will be to what extent the FTC and other federal regulators want to step in to try to provide an even playing field for platform competition between different local regulators, both these private regulators, who have more of a nationwide reach, and the local governments that traditionally regulated these services.

NATHAN WILSON: Great. Thank you. And now I'm going to turn it over to Chiara.

CHIARA FARRONATO: Hi, Nathan. Can you hear me?

NATHAN WILSON: Yes, we can.

CHIARA FARRONATO: Perfect. Thank you very much for having me remotely. Glen focused on sort of the benefits of having a central intermediary that aggregates buyers and sellers, or two sides of the market, to create a thick market. I might focus a little bit more on the differences and heterogeneity driving the success of platforms and some of the potential benefits of specialization.

And so if we actually look at the Angel List-- on Angel List-- there is about 600 peer-to-peer startups listed currently. And they range from the most well-known, like Uber, Airbnb, or TaskRabbit that were mentioned before, to some very curious solutions to find storage space or peer-to-peer shipping of your carry-on baggage. And so one question is whether these peer-to-peer models will succeed across all these possible services.

And probably much of the success will depend on the value generated once the transaction takes place. And of course some services have very different values. Finding a ride in New York City during rush hours or under a snowstorm is probably very, very valuable and much more valuable than other types of services.

Now given the gains from trade, once trade takes place, [INAUDIBLE] there are also some search frictions that prevent peers from just finding each other and trade. And that's actually the role of peer-to-peer platforms, which are leveraging on internet technologies to connect individuals who want to trade assets or services. And so, depending on the value of trade, people are more or less willing to bear some search costs-- some cost to finding each other and trade.

And the platform can adopt very different solutions to this matching problem. So, for example, Airbnb lets guests browse for options, and hosts actually approve the requests. EBay, an early peer-to-peer platform, lets buyers pick the item, with no say on the seller's side. And Uber actually organizes the matching in a much more centralized manner.

And even when we have, on average, reasonably high gains from trade, and that the platform that can reduce frictions to a low level, the nature of the services traded is very local and time-sensitive. Liran mentioned in the introduction, I might need a ride right here and right now. I'm currently in San Francisco. And the potential drivers who can offer me that service are just those currently available in the proximity of where I am. And because of the geographic and time-sensitive specificity of these services, these markets can be inherently thin.

And the frictions to successful matching can vary over time and across space. So it might be that Uber is very successful in New York City, where the market is thick, or where the platform manages to create a thick market, but less so in another city where market fundamentals like distances are much larger and driving habits kind of different.

So just to summarize, the success and the platform adoption can be highly heterogeneous, depending on the value of the trades that are intermigated, on the existing search and matching frictions of these trades, and how a specific platform chooses or learns to reduce these frictions. And depending on how market thickness and the elasticity of the demand and supply change across locations and over time, within a platform.

And so, just to take an example from my own research, TaskRabbit-- which is an aligned peer-to-peer platform for chores, as Liran mentioned, where you can find help building your Ikea furniture-- benefits from a very elastic supply that helps absorb fluctuations in demand but is also very heterogeneous. Its level of success is also pretty heterogeneous across cities. Where more successful cities are actually those where market fundamentals promote the thickness of the market, where buyers and sellers live actually closer together and it's easier for them to transact, and where the types of tasks that are requested are more standardized, and where supply might be more abundant.

NATHAN WILSON: Excellent. Thank you. And then finally, but certainly not least, Joshua.

JOSHUA GANS: Ah, yes. Thank you very much. So, as Liran said in his talk, we're currently in a Wild West of the sharing economy. All sorts of experiments are taking place. And we really don't know for sure where it's all going to lay down eventually.

Just to get some precise, let's just define the sharing economy, first. And I know people have used "peer-to-peer," and they're interchangeable. I sort of see this as having two characteristics.

The first characteristic is that individuals own key assets. They own cars, dwellings, their time, et cetera. They're owned by individuals.

And the second aspect is there exists some sort of market platform that is going to match these individuals who own things with consumers who want to access them. And those platforms, in order to be viable, have to satisfy what's called the "three principles of market design." These principles came from Al Roth, who, a couple years ago, won a Nobel Prize for his work in this area. And the three principles are that markets are successful if they are liquid, if they solve what we'll call the "temporal agglomeration problem," and if the transactions in them are safe.

Now what's interesting about recent developments is the first condition-- individuals owning key assets-- has not changed. Effectively, everything has come as a result of changes in market design. And those have primarily rested on mobile technologies.

And this isn't because those technologies were required to allow consumers to leverage the assets they own but because they helped overcome this temporal agglomeration problem associated with matching. And people have referred to it as "search," and other aspects of it, but they're all under the same issue is that suppliers can find customers. A supplier invariably has to signal their availability and their location, in real time, in order for a match to occur. And mobile technologies is what has enabled that to occur.

Now in this Wild West environment, there are two broad fears that I think the regulators have. And I've heard these in various forms. The first fear is around safety. There are all sorts of existing regulations, and we've heard about them, around the ability of individuals to make available their assets, due to concerns essentially about consumer safety. At least, that is how those regulations are currently marketed. We'll come to that.

Those safety issues just don't go away. They haven't gone away in the new world. But the very fact that these new markets have actually arisen without these regulations, or outside of them, to some degree, gives us pause to wonder whether the regulations themselves are necessary and have a rationale. So Uber, Airbnb, all should have failed, if the regulations were making transactions safe. They did not fail, because essentially the platforms substituted private regulation for public regulation, as Glen already mentioned.

Uber and Airbnb are in fact some of the most regulated ecosystems in the world. They have massive regulations that would make any would-be bureaucrat proud. The problem is essentially that we have a compatibility issue between the public and private regulations, not any fundamental disagreement that they should exist for their intended purpose. Again, come back to that.

Which brings me to the second fear of regulators that we hear in the substrate, but no one knows what to do about them. The second fear is that we have a fear of market power or dominance emerging. Could the private platforms emerge into a dominant situation in the future?

To be sure, why do we have that fear? It's perfectly legitimate, because that's exactly what occurred as a result of the previous system of public regulation. And because of that, the only large-scale entry, facilitated by mobile technologies, has a chance of overturning the current, existing system.

So, like the animals in Animal Farm, the danger is that we turn from one monopoly into another. And if the new platforms write the public regulatory rules, clearly we're going to have a concern. There's red flags all over the place, or things like that. So we need, sort of now, in this sort of Wild West area, to look for canaries in the coal mine that could signal future danger and be possibly vigilant about them.

One reason to be actually optimistic that we might not end up with this dominant situation is that there is a certain form of competition already baked into the system. It's something that's at risk, but it's baked into the system. For instance, because Uber and Lyft drivers are not employees, they cannot be compelled to work.

A feature of Uber, for instance, is that the drivers are free to come in and out of the system as they choose. The CIO of Uber made a big deal of this just two days ago, as their key feature.

Alongside of that, they're currently free to come into and out of the Uber platform. So their ability to platform-shop disciplines the power of those platforms.

What are the risks? Well, consider a situation where the public regulators require drivers to be licensed in a certain way and to have their cars maintained in a certain way. And these involve costs. And Uber, for example, may decide to take on the costs of those licensing and ensure that the cars are regularly serviced.

Now they're going to need some sort of return for that service. They're not going to provide it for free. And they may require exclusivity to Uber. In that situation, we've clearly got the seeds of a problem. OK? So instead what we want is we want to show that drivers can fulfill whatever requirements we choose to put them in an independent way to avoid such tying. To be sure, this is the side of tying that's led to taxi drivers being different from the medallions that are owned in the current system and has led to that wedge.

So we don't have to worry about the economics of this. One way or another, the system is going to compensate for the cost of licensing. But it's very important who owns those rights and who has the ability to take and exclude.

So the sharing economy is important. And if we could rewrite how we, for instance, deal with tariff, it's going to rewrite how we deal with transportation. You know, the potential gains, when you imagine a world with this, are huge. But it needs this competitive foundation. And I guess I'm worried that the current valuations of some of these firms reflect a market anticipation that, in fact, they may be expecting dominance. And we should be worried about that. Thanks.

NATHAN WILSON: Thank you. And thank you all. I think that set up a really nice number of things for us to talk about for the rest of this panel. I think I'd like to circle immediately back to some of the things that Joshua brought up, which was perhaps a set of organizing ideas of necessary conditions for what might constitute a successful sharing-economy platform.

And if I followed you correctly, those would be that the key assets involved lie in the hands of individuals, and that there is an organizing intermediary that sits between potential consumers and potential suppliers, and then, furthermore, that the big change-- the factor that has enabled the dramatic rise of these platforms and relatively recent years-- although I think we could point to some earlier success stories like eBay and perhaps Craigslist-- is the increase in mobile technology. And I guess I would first like to ask the other panelists if there are other things that they would like to add to that list, perhaps beginning with Liran.

LIRAN EINAV: So just to go back to-- I mean, I guess the main question is, should we worry about these platforms taking over in terms of market power? One thing I would think is that they're not-- many of these platforms are basically market makers. They're not taking a side of either side of the market.

So from a pure long-run view of value creation, the most simple way that I would think about this type of platform is that their value proposition is to cut some fixed percentage of the value created by the platform. It might not be quite right in the short run, but in the long run, the more value that is being created in the platform, basically they're going to benefit some certain percentage of it through commission fees, through other advertising, or things like that.

And in that sense I'm-- actually, I'm not as worried about the market-power aspect, because their incentives are pretty much to maximize platform value, which is, I guess, if you-- the most standard economic framework what basically means some sort of an efficient market. So that's basically my--

GLEN WEYL: So I want to agree and disagree will Liran. In some ways, I really agree with what he's saying. But I think, though, an important thing to realize is that what Liran just described is effectively a private entity becoming the government of some area of the economy that used to be governed by the public. And that might well work more efficiently-- and I think, in fact, it does work more efficiently-- along many economic dimensions.

But there are many public goods that are supplied by private actors that you might not have an incentive to supply, if you're one of these providers. I think privacy has a lot of that character. I think many features of speech have-- you know, speech is probably less important on Uber. But if you think about Instagram and Facebook and many of these other platforms, they're becoming effectively the public space, over things that used to be sort of fundamental to what it meant to have a democracy. How we talk about politics. How we talk--

And their interests in providing what we consider to be the public good. Things related to free speech, related to equity of how different voices get heard, are not necessarily the same as their commercial interests in extractable value from those areas. Because people are not always willing to pay for public goods. That's the fundamental principle.

So I think, while we should, as Liran said, be much less worried, in my view, about the economic dominance of these groups, I think we should be worried about their democratic accountability. And maybe that's less for economists to think about and more for other types of social scientists. But I it's something we should be concerned about.

NATHAN WILSON: So I definitely think that those types of issues are incredibly important and ones that the agencies and others will be thinking about, as these things evolve and we start seeing how successful they are going forward. But again, to think about what explains their relative success today and their previous absence of success, relatively speaking, I guess I'm curious if we could-- thinking loosely, statistically, here-- try and separately identify the role of mobile technology in an increase in facilitating search and separate that from some supply-side factors, such as the fact that this is a down economy and that there are perhaps people with fallow assets. And will those people still be as willing to participate if the US reaches full employment, for example? Is there any evidence, in the limited empirical literature, that would allow us to say what role one side or the other might have?

GLEN WEYL: I mean, I don't think it's just mobile technology. I think mobile is important. But I think a lot of just Moore's Law and machine learning and computational resources are becoming very important to how this stuff works.

I mean, I think one remarkable example-- which I was really amazed by. My wife recently went to San Francisco. And she took-- I don't even know what it's called-- the new Uber ride-sharing service. So this service basically matches people up in different locations, they share a ride, it's $7, fixed fee. You can go anywhere from San Francisco airport out to Berkeley. It's really unbelievable. That's cheaper than it costs on BART to get from San Francisco airport into downtown San Francisco.

If that service works-- who knows if it will-- it could be much more disruptive that Uber has been so far. It could replace most of public transportation. And that is, to some extent, enabled by mobile. But to a large extent, it's enabled by really powerful algorithms, where they're finding routes where it's not inconvenient to people to share a ride along that route. And that's a very complicated matching problem.

And I think that those forces, rather than just mobile-- which, maybe, we've already seen the impact of mobile-- are going to continue to mean that there are possibilities that these services offer that I think will overcome any transitory fluctuations, like Nathan was referring to.

CHIARA FARRONATO: And if I--

LIRAN EINAV: Sorry.

CHIARA FARRONATO: Sorry. If I can add something from here, it is true that right now these peer-to-peer platforms are kind of leveraging off of underused assets or time. But it might actually be that, as they grow, more and more of the supply becomes specialized. And so there might be more full-time drivers. And there might actually be taxis listing and using these platforms as intermediary to match with demand. So it's not necessarily the case that the success of these platforms, even if it might have been favored by the down economy, will just die out as things improve.

LIRAN EINAV: Let me just add to this, I guess, two points. One on mobile. And I think mobile has two roles here. Certainly, I agree with Glen. So one, it just gives you location data to typically-- you know, if you're sitting in a-- you know, you don't have mobile, we don't know where you are. And if you need to report where you are in every single second, that won't get the market going. But if the market knows where you are through your mobile, that's just an important data, not for all markets, but for location-specific transactions.

The other thing, that mobile gives you access to the market. So if you need something in real time, all the time, then-- you know, Airbnb. Suddenly you're in a new place, and you want to find a place to sleep. Then I think mobile gives you the permanent access. So for certain transactions, it's really important. For peer-to-peer lending, it's probably less important.

The other point, about the slack-- for sure we might have more slack in the economy today than we might have, maybe five years down the road, if everything goes well. But some of the slack is never going to go away. I mean, people are working eight hours, in many jobs. And they have these extra hours to do stuff. So they have, like, three hours a day to potentially either watch TV or do some video games or ride an Uber car.

So I think lot of times, people have extra rooms in their houses. They are not going to fill them up. So then they-- so a lot of this potential slack, I don't think, is going away.

And then the final point, that Chiara was saying, take eBay, for example. They started in the late '90s. It was pure peer-to-peer market. It's people selling their used baby items, other kind of collectibles, and it was, like, consumer sellers selling to consumer buyers.

If you look at eBay today, there's still this consumer sellers selling to consumer buyers exist. But now they're, like, 20% of the market. 80% of the market, these are people who are running their small businesses on eBay. Either only on eBay-- they have, like, a full-time person who sources stuff in China, buy a bunch of electronics, and then sells them on eBay to the American customers. Or there is someone who is running a store offline. But then one of his shelves is basically to sell stuff on eBay, because that's where customers are.

So a lot of these markets start as peer-to-peer, but once they have constant demand, then, you know, there's constant supply. And then it becomes not just part-time and, you know, extra room. But then I'm running an Airbnb kind of hotel in my house. So I'm running, like, a full taxi as a full-time job.

Or even a firm. You look at oDesk. I mean, it started with some random guy in the Philippines kind of providing two hours a day of data work or data-entry work. But now you have, like, in Ukraine, people who are running basically 50-person companies that are basically-- all they do is kind of providing label supply services on oDesk.

So I think what you see in many of these markets, they grow into something which is much more of just generating slack. It's just generating a full kind of marketplace of permanent employment and permanent demand. But it takes time, because you need to show the viability. And it's hard to start the market without using some slack part. And then, once it works, then I think it generates much more supply.

NATHAN WILSON: Thanks. That actually effectively introduces the next question I want to get to, which is-- you've just been talking about the evolution we've seen in several of these more prominent platforms. How common is that type of plasticity? And is there anything about the very nature of these peer-to-peer platforms where their relative absence of physical capital makes them more adaptable to changing circumstances or to a need to evolve their business model?

JOSHUA GANS: So I think we've seen, previously, with platforms that have merged with technologies, that they can be quite inventive in finding ways that can stop experimentation. You know, it's hard to believe that airline travel booking is still for businesses in the dark ages, largely because a web of interlocking most-favored-nation agreements, content clauses, other things. Other essentially whack-a-mole versions in private regulation, to keep essentially a system from having competition.

So what's really interesting is to think about how the interplay of these sorts of business-model issues actually come up to actually restrain experimentation by other people. As I already mentioned, my main concern with regard to market power of Uber is, in fact, that there could be a significant change in government regulation that may lead to network effects and dominance and actually constrain the sort of business models people can do.

Currently, there's so much freedom in it. And as Liran already said, is that individual Uber drivers-- if you've ever spoken to Uber ex-drivers-- they act like small businesses. Some choose to specialize in never driving on a Friday night, because they don't want to deal with their particular car with someone who might be drunk, or whatever. And they sort of make these choices according to their own preferences, in much the same way as small businesses would normally do.

And so you want to have this environment where that experimentation is allowed. And I think, in relation to the question, what we would be concerned about is any of these contracts that access the platforms that also reference rivals. This is a term that Fiona Scott Morton came up with, and I think it really applies. And those are the sorts of things we look for.

Other than that, there's something great about the Wild West in sort of allowing different experimentation. But as soon as you have business models and contracts between either consumers or suppliers that restrict what you can do with other people, that's where we start to ring alarm bells.

GLEN WEYL: Just to follow up on what Joshua said, I think the physical-capital point has some relevance. But I think probably even more important is the fact that startup companies don't have existing business that they're worried about being cannibalized by innovation. And there's sort of almost an endless number of books in the business world about this sort of thing-- The Innovator's Dilemma, and so forth-- about the problems that established firms with large revenue flows have in disruptively innovating. And I think that's one reason why it is really important that we-- while I do believe in consolidating existing markets-- maintain the ability for new entrants who are not tied to existing players to enter the market and not just be swallowed up by existing players.

And so I think one really important aspect is to think about merger policy in the setting, in a dynamic context, that takes into account the fact that new, small firms that may not yet be competing in a significant way with existing players-- that if a new business model that might totally eliminate the business model of an existing dominant player but don't seem to be competing in the same market. We should be very hesitant to see those guys getting bought up by existing firms, which seems to be something that has not really gotten the scrutiny that I think it deserves, in many of these tech markets. Perhaps because they're so dynamic and maybe less familiar to regulators.

For example, you know, WhatsApp's acquisition by Facebook, Instagram's acquisition, ways, et cetera, et cetera. There've been a whole series of these tech acquisitions which are some of the biggest ones around. And they haven't really received the sort of antitrust attention that I think they deserve.

JOSHUA GANS: There's a flip side. Can I just [INAUDIBLE] to that is that some companies seem to have adopted as their identity the ultimate in acquisition stance. Near as I can tell, Uber won't ever acquire anyone. It won't ever acquire any of its competitors.

Now the flip side of that is its response is going to be to compete aggressively with them. So part of the tension that we face in these startups is how we want to be permissive towards mergers. You know, I can imagine the reason that Uber doesn't want to do that is it doesn't want people entering, capturing a bit of market, and then trying to get a good price for Uber as its response, which is, of course, the flip side of whatever Facebook is doing, I guess.

GLEN WEYL: Yeah. And I think I agree exactly with what Joshua said. I think that's precisely what we want to avoid. We want to avoid entry that fragments the market but doesn't have the chance to really displace it. And we want to encourage entry that really will displace it. And I think an aggressive merger policy to future potential competitors is crucial to making that work.

NATHAN WILSON: I think that's certainly something we'll think very, very hard about here. Before we segue further, I want to loop back to San Francisco and Chiara, to ask perhaps if your research into TaskRabbit allows you to say anything about how you think a platform could continue to evolve after achieving at least some success. One of Glen's points was that it is this somewhat newness of these platforms that allows them to evolve quickly early on. Once you've got some established base of consumers, is that going to change?

CHIARA FARRONATO: I think, at a more general level, it's not just the newness of the platform that allows them to experiment. Although that is very important, because they are trying to challenge incumbents or creating a new market. But it's the continuous existence of potential entrants, not necessarily existing entrants, but the threat of potential entry that allows a platform to continue to experiment.

And maybe we can look these more on eBay, instead of TaskRabbit. TaskRabbit is still a fairly young platform. It's within the new generation of peer-to-peer platforms. But eBay has experienced a continous-- a more continuous-- transition and experimentation that led the marketplace towards more retail prices and away from its original mission-- or original business models of auctions.

And so I think with TaskRabbit, Uber, Airbnb, and all the other service industries that peer-to-peer platforms will likely enter into, guaranteeing a level of a threat of entry or guaranteeing the possibility that buyers and sellers can easily switch to other platforms will make the dominant or existing platforms challenge their business model constantly.

NATHAN WILSON: Great. Many thanks. I'd now like to bend the discussion subtly back towards a direction that's already touched upon-- those of network effects, competition, and the potential for dominance. So I guess I would like to start by asking for perhaps a slightly more granular discussion for the sources of the network effects exhibited in this sector.

JOSHUA GANS: So this is the interesting question. I mean there's a certain-- again, this valuation of some of these companies makes you think that someone is thinking that they're going to control the network. With respect to-- you know, let's take for ride-sharing-- where is that going to come from? Where a network effect comes from is-- or, for starters, where a consumer might search for a ride.

We know with search engines defaults are very important. What happens to be first up can give you some degree of power. But that's not the be-all and end-all. If you open up an app-- your favorite app-- and you don't find a ride, or it's too expensive, you can just open up another one. So long as there's nothing preventing you from switching, there's no issue. Now loyalty rewards, bulk discounts, whatever, can create that. But we haven't seen any of that arise yet.

The second thing could occur on the supplier side. Again, where are those network effects going to occur? Does it make sense, if you were a driver thinking of entering the market, to join the largest provider in that market-- the one with the most customers?

Well, yes and no. Yes, you are more likely, surely-- you think you might be more likely-- to be matched with a customer quickly. So that's a good advantage. But no, in the sense that all the other drivers could be thinking that. Just because it has a lot of customers, what you're interested in is joining the network that has the biggest shortage of drivers. Which might not be the largest network. It may be another network.

And so there's sort of forces pulling you towards a particular network and also pulling you apart in a way that we're seeing all over the place, that makes it very hard-- at least theoretically, without throwing something else into the mix like exclusive contracts or something like that, or long-term contracts-- to see where those network effects could arise. In other words, it's not obvious to me that there are insurmountable advantages to being the biggest in these markets. But others may have a different degree.

LIRAN EINAV: So I guess that I would think networks are basically just like inherent part of these markets. You have the usual network effects that-- you know, if I'm selling something, I need enough buyers to want it. And the reason that the buyers are going to be on the market and want it is because they know there are enough sellers offering what buyers want. So more sellers like me on the market are going to generate what people sometimes call in this [INAUDIBLE] join direct network effects that buyers would show up. And that makes it more likely that I would want to participate in this market, because I'll find buyers.

And I think one thing-- the network-effects aspect-- it has very different margins, early on in the platform growth, and later. I think early on it's all about are buyers or sellers. When I sell my room to kind of an Airbnb, you know, is Airbnb going to be my default place to go right? If I tried once, I tried twice, and then couldn't find any taker on the room, it's not clear that the next time I'm going to try to rent out the room I'm going to Airbnb at all. I'll try VRBO or some other stuff, or maybe I won't try it just because it's not worth it.

So early on, can we get the platform to be part of our go-to place when we try to sell something or buy something? Later on, it becomes-- I think now Uber-- I mean, so many people are using it that people are not wondering should I-- I need a ride somewhere. Do I do Uber or something else? I think most people, their default is to use Uber.

And then the question-- you know, how often do I use Uber? Do they sometimes kind of substitute their own driving to use Uber? Do they substitute other mode of transportation to use Uber? So suddenly the substitution is not "Do I use it or use something else," but is it-- you know, do I just extend using it?

But it's very common in other settings, too. If you think about grocery shopping, which is totally not peer-to-peer. I mean, initially it's to get people into the store. But then once people are in the store, you just need to get kind of more transaction from them, or more dollars spent in a given trip.

And the same here. The margins in which you are going to operate are going to take very different form early on in a platform, like when people are not aware of it-- they're not thinking about it as the go-to place to generate a particular transaction-- versus later on, that you just-- you want to get some used stuff, you go to eBay. I think everybody knows this.

JOSHUA GANS: Liran-- this seems like very old-guy thinking. I mean, if you've opened up Uber, and you've seen search pricing or you've seen it's going to be-- oh, my goodness, it's going to be seven minutes and not four, people will switch between apps. I mean, if they know about them-- and they exist. They will switch between these things.

I don't see that it's-- it's not obvious to me-- I think being a default is useful. It's not obvious to me that it is necessarily the path to dominance in these things.

GLEN WEYL: I wanted to try to reconcile a little bit what Liran and Joshua were saying, which is that--

JOSHUA GANS: Because I'm much younger.

GLEN WEYL: [LAUGH] Yeah. Joshua is the new generation. So it seems to me like a really-- if you view things as-- there's just a homogeneous good that's being sold and being bought, then Joshua's perspective, that you just go wherever the scarcity is, is right, obviously. But I think that what's crucial to these markets, and the real source of network effects, is the heterogeneity of the relevant goods that Chiara was emphasizing earlier.

The point is that even if you double the density of sellers and buyers, it's not as if that doesn't make the market work better. It makes it work much better, because there's much less latency in Uber. There's much greater availability.

I mean, I used Airbnb to go stay in Tel Aviv. If there were fewer buyers and fewer sellers, well, maybe they would have had something by the beach that would've been just as nice as the apartment I took. But I don't care about the beach. I care about being near the shops. And if you don't have the thickness to accommodate the differences in my preferences, then it's not going to be attractive, either to the buyers or to the sellers.

So it's precisely the heterogeneity and the differences in the goods that get filled in as the market gets thicker on both sides that I think avoids the type of dynamic that Joshua's talking about, until the market gets so mature that latency is down low enough that, you know, it effectively becomes within each segment a homogeneous good.

NATHAN WILSON: Any response?

JOSHUA GANS: No, no, no. It's really going to come down to an empirical matter for how quickly we get to those points. It's hard to tell.

LIRAN EINAV: But let me just-- I think just on the-- I would emphasize different-- I think this idea that when I heard [INAUDIBLE] talking about Google, whenever people complain about Google market power-- it's like, well, every other kind of search engine is just one click away. And it all sounds great in theory. You know, I'm looking at Uber and I'm looking at Lyft. I'm looking at, like, seven different platforms and choose the best price.

But that's just not the way it works. I mean, you basically-- you might just-- you know, one or two options to look for. But in the end, as long as things are kind of reasonable, you are not going to do price comparison and keep doing--

JOSHUA GANS: That's if it is. I mean, the scenario I was talking about is that you went onto a platform and you saw, literally, something different. So the problem with Google and Bing and DuckDuckGo is they're all kind of the same. I mean, it's very-- so there's no point in switching to another one to find the information. It's going to bring out the same stuff. Whereas if you see something that's not serving you currently on one of these platforms, there's, I think, still value to checking the others.

Literally, because I don't think, at the moment, the same riders, for instance, or the same apartments can be available on the same platform at the same time. So there's this temporal aspect that's a little bit different.

NATHAN WILSON: So let me see if I can--

CHIARA FARRONATO: Yeah, I think--

NATHAN WILSON: Oh-- please.

CHIARA FARRONATO: Sorry. I think, to reiterate back on what Joshua has just said, I think that geographic definition of these markets might make network effects not necessarily be there across geographic boundaries. And so, to be more specific, for example, Airbnb might enjoy great network effects because I can use it in New York, as well as I can use it in Tel Aviv. But at the same time, if I'm using a platform for a local service, like a delivery or a cleaning or moving help, the network effects that might exist and the thickness of the market that might exist in San Francisco might not necessarily be reproducible, say, in Houston. And so, depending on the nature of the service, we can have a different source or level of network effect.

GLEN WEYL: Yeah. I really agree with what Chiara said. I think that, within the area, there can be network effects. And then there's network effects across the areas. And how deep or how much saturation you need to achieve either of those is just going to vary widely across different types of services. So.

NATHAN WILSON: I think that seems like a really important point. And I want to perhaps make sure that I understood it. I think what you're both saying is that there's such heterogeneity in what we've been all calling and lumping together the "sharing economy," and that the relevant importance of network effects might quite well vary extensively within this very, very large pool of different markets. And as a result, it's not necessarily going to be the case that observing a single, seemingly dominant provider is either problematic or not problematic. Much will depend on context. Is that a fair summary?

GLEN WEYL: Well, I mean, I'm not sure that network effects to me necessarily mean that's problematic, for reasons that we were talking about before. But just in terms of network effects, I think you can take three examples. And not all of these are exactly peer-to-peer. But if you think about Angie's List, at one extreme, and Airbnb at the other, and Yelp in between, you really see the different types of dynamics you can get.

So Angie's list is really-- it's like a local-professionals thing. If it's got really good coverage on all the types of professionals in New York City, who cares what it's got in Boston? I mean, unless you move to Boston.

But people use it in a very deep way for all sorts of household services. And what's really important is that there's so many different types of professions. And you want to make sure it covers all of those types of professions. So there's a very deep network effect for it, within a given geographic market. But it's extremely unrelated across geographic markets.

Airbnb is exactly the opposite. Airbnb is completely useless to you if it only covers the city you live in. You never stay in the city you live in. It's only worth getting on the Airbnb platform if it has a wide coverage across the world.

Yelp is somewhere in between, because you use it both for local services and for things within the context of travel. And so it's got sort of a mixed emphasis, in terms of getting deep in the range of services it covers locally and in terms of covering across cities in order to sustain its marketplace.

NATHAN WILSON: OK. All right. So I think a number of important things have been brought up, with respect to network effects and whether or not we should associate them potentially with potential problems as well as how they may intersect with competition policy. Thinking about other aspects of how we might anticipate this sector evolving in the future, I'm going to think about how and whether or not, just because you're engaged in what we've been calling the "sharing economy" now, whether that's likely to endure in the future.

So perhaps, given the number of mentions it's already received, Uber is particularly emblematic of this economy. Yet, nevertheless, they have discussed plans for using driverless cars, seeming to segue into a-- to me, at least-- more traditional business model involving the control of physical capital by a centralized firm. What does the economic literature on vertical integration and organization tell us about the factors that may induce a firm to shift towards more control over its employees and assets, versus one that emphasizes the benefits of a more intermediated platform structure?

LIRAN EINAV: The one thing I'd-- just something that came up before-- is every time we talked about it so far, I think we thought about this platform as not taking a side of the market and just running the market. And then actually I'm not as worried about a lot of the antitrust things. But the minute you start thinking about the platform the market maker is going to kind of take a side of the market or part of the market--

You see it on Amazon. Amazon is not eBay. Amazon is-- on one hand, they're running their Amazon Marketplace, which is a market maker for goods. But they also sell their own stuff.

And then you start worrying about all the usual stuff. Because then you have a professional treatment. You own some of the supply but not all of the supply. You might exclude some people. You might treat things unfairly. You might have market-power considerations that are going to lead you toward the usual stuff.

So I think, in that sense, that would raise a bunch of red flags, I would think. How exactly it plays out, I think, depends on a context-by-context. But the minute they start owning a big chunk of the supply side, I think that's, at some point-- then I think all the usual market-power concerns are going to come up.

CHIARA FARRONATO: Yeah. I think within these aspects, as long as we are talking about scale economies and network effects existing in the intermediation of the exchange, it's going to be easy for both sides-- buyers and sellers, demand and supply-- to switch away from an intermediary. But when the scale economy's then dominance moves to production, then the usual problems sort of arise.

NATHAN WILSON: So if perhaps I could paraphrase and make sure that I understand correctly, it seems like one of the concerns might be that, as these platforms-- if they were to pursue a more integrated strategy-- there's something about the ease of multihoming that might change-- that might reduce the ability of others in this sector to discipline them in the market.

CHIARA FARRONATO: In the sense that, if I can use multiple mobile applications because I know that there will be drivers on both the Uber app and on other applications, then my switching costs are going to be very, very low. But if, instead, we have integration of the intermediary with the supply, or a large share of the supply, these switching costs might be much higher, because I wouldn't be able to find enough supply, otherwise.

JOSHUA GANS: I know we're sort of playing future stuff. You mentioned the autonomous vehicles, which are a fantasy, in this regard, at the moment. I think the prospects for large-scale capital acquisition that could lead to dominance in transportation-- you know, that seems a pretty darned tall order. I just can't-- I mean, you guys-- you guys are the empirical economists. But there's an adding-up problem in what would possibly be dominant, in that sort of a situation.

I think Glen is onto something more with the sort of-- own the intellectual property and the machine-learning algorithms. But even that is very hard to tell. That might be the important capital going on here. But I just don't see how the physical capital-- it just doesn't compute.

For starters, there's just so many people out there, near as I can tell-- at least in the United States; maybe not elsewhere in the world-- who want to own their own cars, because they like cars. That's just going to-- I just don't see that disappearing right away, you know? It just doesn't seem plausible to me.

GLEN WEYL: I think I will take the opposite side, just to be devil's advocate. I mean, I'm not sure I agree with Joshua's view about why people like cars. I think people like cars because they're status symbols. And if they start becoming symbols of being old-fashioned, rural, et cetera, which I think they could well become, I don't think that people are going to have a lot of affection for having a giant pile of metal rotting in their outdated thing called a "garage."

So it's not, to me, implausible at all that you would end up with these firms that have these unbelievable market capitalizations coming to really own the physical infrastructure. But I also want to push back against what Liran and Chiara were saying, about that being worrying. Is it worrying? Or in fact is it something that we might really be worried if there isn't a dominant provider of that?

So it seems to me, in transportation the greatest potential gains, from a social-welfare perspective, that we have to get out of these systems comes precisely from their being a consolidated, dominant operator. And the reason is congestion. So congestion pricing is really one of the biggest problems with modern urban planning. And these folks really have the opportunity-- whether it's Google, through its map system, or Uber, through whatever potential future dominance it has over transport-- to manage that in a rational way for the first time. Rather than just doing optimized routing for you, holding fixed the rest of the network, reroute the network to achieve optimal transportation.

And, you know, estimates that transport engineers have done of this is, if you truly had automated systems, you could reduce by at least an order of magnitude average travel times, in many of the major cities, especially during congested periods. And that really does require centralization. Now maybe the state will somehow get its act together and do something about this. But it seems pretty implausible, given that they've had more or less the ability to do this for 100 years, and governments haven't figured out how to do it. So I think that that's an important thing to--

LIRAN EINAV: So the only thing I would push back, that there's certainly advantages for centralization, from all the externalities perspective that Glen just mentioned. But the question-- do you need, you know-- all the bad stuff about market power, of taking a big capital position? And especially if you're trying to run a market.

And I kind of agree with Joshua's point, where we don't expect Uber to basically own all the cars in the world. But suppose they own half of the cars in the world. You know, what about the other half, that want to supply services in Uber, but now nobody's going to direct any traffic to them, because now Uber is both the market maker and owns the other half?

So then you just have the usual market-power considerations. And you want to trade it off against, maybe, potential externalities. But the other half are not paying congestion prices effectively. And so, in some sense, they're pirates who are congesting up the roads, taking advantage, and not dealing with the externalities.

I don't know. I mean, it's a difficult trade-off. And I think that democratic governance is very important. But I think it would be a real mistake if we don't take advantage of the benefits associated with dealing with those externalities.

NATHAN WILSON: So as a DC native, I am deeply sympathetic to any discussion of the possibility of reducing traffic congestion by an order of magnitude. That said, I'm going to hew back to a slightly less futurist question and ask-- so I think we've talked about the importance of network effects. We've also talked a little bit about the importance of assuring quality. I think perhaps my comment about driverless cars was a bit of a red herring, taking us into the deep future.

Perhaps in the shorter term I could imagine a platform wishing to increase its quality geographic coverage but unable to find suppliers out there in the marketplace. Is there anything about the nature of these platforms that falls apart if they partially vertically integrate to ensure the existence of some supply of either transportation at all times or of accommodation or the existence of at least a couple of coders out there, available on demand? And could we see a platform sustain itself in a mixed model?

JOSHUA GANS: That's-- that's-- now you're getting there. The robot cars-- that was the easy question. This seems to be quite difficult.

I mean, you know, the problem is, we're dealing with these startups. And if we know anything about the startups that become future successful, they like to stay on mission. And currently all of them, without a fault, have branded themselves as the platform and that they're allowing their suppliers to be free to come in and out. They seem to have that as part of their identity.

There are services that sort of come into play. For instance, in ride sharing, insurance provision is a big issue. Currently, there is informal insurance going on, depending on the jurisdiction, with Uber and drivers. At some point the states will say that has to be explicit. And it may well be that Uber takes the charge to negotiate some sort of new insurance contract that will allow drivers to come in and out and be insured in some way.

Similarly with Airbnb, for any of these things, including also things like health inspections, including policing of noise, and other stuff like that, it may take on those services. So I imagine those are the things that are going to come in first. It's a completely different set of capabilities to actually own-- you know, be like the old firms in this industry-- the old hotel chains and the taxi companies-- and actually own and maintain the assets yourself. That just a different set of capabilities.

Could it emerge? Certainly. It may turn out that, in order to keep the system running, if they can't do the machine-learning things that Glen is projecting, they might prefer to have a few people that aren't autonomous and free that they can push around. Or if not any of these companies, it might be other companies that might operate on these ways.

There might be new entrants to come in and say, in fact, our benefit is we don't have these random people from the public. We have our own certified drivers that you can trust, coming in. And for that reason, sort of presumptively worrying about it seems a bit down the track.

LIRAN EINAV: Let me just-- I think, one thing. I think the question is, do we imagine, like, Airbnb deciding one day that there's, like, not enough supply of rooms on their site, so they're buying up Marriott and sort of let all the Marriott rooms be coming available on Airbnb? And maybe, but in some sense, Marriott already exists. And if you think that's a viable reason to buy Marriott, then just create enough incentives for Marriott to offer their rooms on the site.

And you saw it with eBay. EBay basically, today-- Toys"R"Us have, like, a storefront on eBay. So you go through eBay, and if it happens to be that what you're looking for is available at Toys"R"Us, eBay will direct-- you know, cut some commission, but direct people to Toys"R"Us to get stuff.

So in some sense, to me, the right thing to do it is not to just buy Marriott and offer Marriott's rooms on the site but make the market good enough that Marriott wants to be part of these transactions. But it's not that the ownership here is going to be any advantageous. And if anything, is going to be lead to all these potential market-power concerns that we discussed earlier.

CHIARA FARRONATO: I think in terms of early ownership that you were referring to, Nathan, at the beginning, that might be a partial and temporary solution to the chicken-and-egg problem. So how do you attract enough buyers, if you don't have enough suppliers to begin with? But we haven't seen at least the largest platforms continuing with this model. But rather we have seen some of the e-commerce websites moving towards more specialized supply, later on.

NATHAN WILSON: I think that's a fair point. Although I do think the example of Amazon and eBay are useful ideas to keep in mind. That it seems like we can have some degree of coexistence of a platform that is vertically integrated with one that serves to connect disintermediated individuals. And somewhat similarly, we do see in the overall economy examples where a centralized firm vertically integrates in part but also has a network of affiliated, motivated franchisees, for example. And I think as things evolve, it will be interesting to keep in mind what facilitates that coexistence in some sectors and what leads towards a single model in others.

OK, great. Kind of moving back towards deep, deep forecasting and prognostication, I am curious. We are in the relative infancy of this sector. Do we have any idea what is potentially contestable for these types of platforms and markets? Any ideas about what share of the overall economy we might be able to, at one point, place under the sharing-economy umbrella?

JOSHUA GANS: I think we take that economist's prediction. They were just slow. 100%. No, I don't think there's any scope at all. I think we have no predictive power in this regard.

This is right at the edge of the economist's usefulness. And we come to the stage where we say we're useful by telling you we can't tell you. I don't know if anyone disagrees. [LAUGH]

GLEN WEYL: Well, I'll give you my long-run guess, but it's just complete guess. I mean, my guess is this is a relatively passing phase and that eventually what happens is just much more centralization, because of all these externality issues. And I think once computers get to a certain level the whole Hayekian thing about you needing a decentralized economy starts to sort of fall away. And there's just an ability to do a lot of computation resource allocation in a very centralized manner. And it becomes very hard to compete with that, given the existence of other externalities.

And so I think the sharing thing is sort of a step towards that harnessing existing resources that came out of the old economy where everyone was owning all this stuff and moving towards a new economy where people are going to own very little, because of the ability to do these centralized computations. And so my guess is it's a transitional thing, and in 10 years it'll be much less important.

JOSHUA GANS: The issue is the nature of work, right? Are people going to prefer a lifestyle that allows them to pick and choose more? I mean, the counter has always been that, you know, there's value to certainty, you need a certain amount to get along, and things like that.

If we're going for the long run, there may be all sorts of reasons why people value a multitude of activities, and things like that. If not here in North America, just think about what is going on in Asia and how those economies are transforming. So it's not sure that we're going to end back up in the corporate state.

CHIARA FARRONATO: I might just even only offer a comparison with online retail, which is less than 10% of total retail in the US. It's still growing, and it saw a huge bump with mobile technologies. But it's still less than 10%.

LIRAN EINAV: Yeah. The only thing I'd say-- I totally agree with everybody that, you know, who knows? And prediction is not probably what our comparative advantage is. But I guess the question is, like, why do we care? And is it going to be 20% or 50% or 80% in some sectors?

I think what we really want to think about is, do we want to do anything differently today, given differential predictions about the future? And I'm not totally sure. So, in some sense, we are going to give predictions for others, but we only want to engage in this to the extent that it's going to affect how we approach the regulation of this, or restrictions on this, and things like that.

NATHAN WILSON: That brings up a great point. And Glen has suggested that the importance of new technologies should give antitrust regulators some pause when evaluating transactions. Are there other opinions about how antitrust and competition authorities in general should potentially change their thinking, when it comes to firms or actors in what might be considered the sharing economy?

LIRAN EINAV: I guess the one thing I would say is I think that-- like, a natural-- it came up in the commissioner's presentation, earlier on. I think there are some natural-- partly because of different interested parties-- but to impose existing regulation to these new players. And I think one thing that I think came up today already is it's a bit of a new way of doing stuff. And a little bit different way that markets operate. Different way that products are supplied.

And so it's completely not obvious to me that we want to grandfather all the regulations to these new things just to have a level playing field. I think level playing field is a good principle. But exactly what should be the level playing field, we should in some sense let it play for a few years-- see how things evolve. Have some better idea of maybe how big it is, but, maybe more important, how exactly it's going to operate. And try to customize potentially the new level playing field with new regulations to what the next five years will be, rather than what the last five years were. So that's the way I would think about it.

NATHAN WILSON: So while we continue to see how these things evolve, as you suggest, can we simultaneously look for lessons, perhaps, in parallel or otherwise similar industries, such as those that also involve two-sided platforms or things of that nature, either on the internet or off? Are there likely to be good guides there? Or could we potentially go seriously wrong if we think of that literature as being informative?

GLEN WEYL: I just would push back against what Liran said, which is-- like, I mean I agreed, in terms of how you want to regulate it and some details perhaps you want to wait. But I actually think it's wrong to say that uncertainty should lead you to forbearance, as a regulator. I mean, I actually think that--

For example, these mergers that I was talking about earlier. It's precisely because of the possibility of the emergence of a very different type of business model that you don't want to allow potential future competitors to get swallowed up. I don't think that the fact that we don't understand how this marketplace works or that it's constantly changing-- and, in fact, maybe, in two or three years, once we get around to regulating it, it will no longer be as relevant. I mean, that's one real possibility.

So I'm not sure we have the luxury of simply saying "We don't know what's going on here. Let's wait and see." I think we need to take into account both the dynamic reasons that we'd want to be more active and the dynamic reasons why we'd like to learn before intervening. So.

NATHAN WILSON: I think that's a really interesting point. So accepting that perhaps-- at least for the sake of argument-- that greater scrutiny might be needed, what are the limiting factors that folks in my position and others might use to diagnose potentially problematic incipient competition from things that are sufficiently unrelated that we would not be concerned?

JOSHUA GANS: I think you've got these-- I mean, we've got these sort of twin issues. We've got-- the current threats to innovation here are all coming from existing incumbents that are backed by government regulations. And that makes it incredibly difficult to think about antitrust law.

You know, I come from Australia, where, in fact, actually, the governments, in their operation of at least government-owned businesses, were also required to comply with antitrust laws. And so there was sort of a mechanism there by which you could bring that into the fold and apply normal antitrust principles. Here, I'm not so sure how that works.

But even so, in terms of all the prospective stuff that we've been talking about-- the uncertainties and the issues-- there is a real problem that you face, is that antitrust laws are not equipped at all to handle prospective enforcement. In any of these mergers that Glen was talking about, I feel pretty confident in saying that applications of, would this lead to a substantial lessening of competition and increase in concentration, could not have been applied then. In each case, you can point to other competitors, other things going on, and not to mention lack of low entry barriers at the present time. And so how you'd actually structure the current laws, as at least I understand them, to deal with any of this-- it's just not possible.

GLEN WEYL: (LAUGHING) So I would push back against both of those things. So first I'd say that, while I agree that antitrust may or may not be the right paradigm to think about these competition between a national service provider or a global service provider and local government regulators, we have an even older doctrine that allows us to do that-- the Interstate Commerce Clause. The whole original point of the Interstate Commerce Clause, before it was applied to a lot of things like the antitrust laws, were precisely to deal with the problem-- I mean, this was why it was put into the Constitution, originally. There was worries about local governments being captured by local providers and not allowing for competition across the states.

So, I mean, if you just go back to the original point of many of our basic constitutional provisions, they were precisely to deal with this sort of circumstance. And I think it's coming up now, and it's something that is just a very natural sphere of action for the federal government, to ensure that local governments don't inhibit interstate competition.

And along the second dimension, I think, while it's true that you can't use upward pricing pressure in a simple way to think about a market that's just a potential three years down the road, you know, you talk to-- I'm at Microsoft, now-- you talk to anybody in the tech industry, and they know that these guys are buying them up because they're potential competitors. I mean, the idea that this is not well understood and that this is such an imponderable-- that there's no way of thinking about it-- I mean, it's just-- it's ridiculous.

You go and you talk to any venture capitalist about, why are you thinking of getting into this industry? Well, it will potentially be competing with this guy, and they'll be forced to buy it up. You have to accept different types of evidence. But the idea that we can't form a conjecture that if this guy is going to be successful he's going to be successful by competing with this other guy, I mean, that's absurd. If you couldn't do that, no one could ever start a company.

JOSHUA GANS: I just think-- I mean, I know what you're saying, in terms of what we think is plausible, in terms of what's going on. The evidence that-- let me put it. The evidence that economists normally use in these antitrust matters-- which is not so much direct evidence, but market definition, market-power assessments, entry barriers-- I'm not going to get at that question.

However, I mean, if you find yourself--

GLEN WEYL: Who is this person?

JOSHUA GANS: If you found the CEO of the acquiring companies-- you know, the PowerPoint presentation, and where they've signed off that they were taking out a competitor and they had projections that were going to be-- that'd be wonderful. I'm sure the people at the DOJ would think that's wonderful. But it just really seems to exist that way. I don't know.

GLEN WEYL: Talk to venture capitalists. I mean, they're finding these things all the time. They're thinking about business models--

JOSHUA GANS: If you can get a venture capitalist to testify that that was-- I mean, it's just-- I'm talking about the practical [INAUDIBLE] operation of the law. It just seems like it would be very difficult to do that.

NATHAN WILSON: Well, I think this is unlikely to be a disagreement that gets resolved immediately. And rather than continue to fight it out, perhaps we can do that over the break. I want to take a couple of the questions I've received from the audience for the panelists.

So this one focuses on something you mentioned, Glen, which was the benefits of services like Uber share, which I think is analogous to Lyft Line, for taking cars off of the road. So to this workshop, we received comments from Mothers Against Drunk Driving suggesting that the reduction in cars on the road could lead to safer transportation for all of us. Does anyone on the panel know if that's a topic that has been seriously assessed, as of this time, or its potential to be accurate?

GLEN WEYL: You have to talk to someone more on the technical side than we are. I mean, I'm sure that there are people in transportation engineering who've thought about this. But it's not something economists would have [INAUDIBLE].

NATHAN WILSON: More broadly, is anyone aware of there being analysis or research on broader community benefits to a richer or less densely utilized sharing economy within a given area?

CHIARA FARRONATO: I'm sure Uber and these companies are carrying on their own surveys. But outside of it, I don't know. [LAUGH]

NATHAN WILSON: OK, thank you. I want to turn now to something that struck someone that you mentioned, Joshua, which was that platforms such as Uber and Airbnb are among the most regulated ecosystems in the world. So I think the audience member was struck by the tension of that statement, vis-a-vis kind of traditional command-and-control regulation in heavier industries. How should we think about the relative intensity of that?

JOSHUA GANS: Let me give you an example of where that was coming from. At the moment, if you are an Uber driver, if you ever received other than a 5 rating, they investigate as to why that happens-- let alone a poor rating. If your average drops below some extremely high number-- 4.7 something-- you get cut from the system.

Now this is a very-- there are a lot of reasons that can cause you to do that. As a university lecturer, I know that rating systems of suppliers are imperfect. Simple things can go wrong. And so that's a very pressured system. But they've setting in those rules, and they're not disabusing that. That's a fairly public, known thing.

I know it's very comforting to consumers to perhaps have that power. But it's also an issue for suppliers. So that was the reason for my thing. There was a lot of things going on there. No taxi driver faces that discipline, in terms of their quality. You know, given the whole licensing system's supposed to be about quality, that's kind of amazing.

GLEN WEYL: I completely agree with what Joshua said. And I really think that there's some aspects that are not-- they're regulated differently. But just subjectively, my experience on all these systems has been that there are so many things-- that you can have gotten a license 20 years ago, and since you've become a, you know, drunk or whatever.

And who knows who's monitoring these taxis? I mean, someone has to call in and go through a complicated process to do a report. Like, just clicking on your phone, it's so much more seamless. And they get such higher reporting rates. So I think it's just a much more powerful regulatory system.

JOSHUA GANS: Just to emphasize more, you know, I as a parent trust my children to the Uber system in Toronto. But I wouldn't trust them to the taxi system. And as a parent of teenagers, it's totally changed my experience, in being able to let them go out, and things like that.

But the reason for that is because I know there's-- basically, because I know there's no privacy. I know exactly where they're going where, and who's paying for it, and what the ratings are. And I can identify the driver, and I can identify the company, and I know I can get action. That's a very-- that's pretty tough regulation going on, there.

NATHAN WILSON: All right. Well, I think that just about exhausts the time that we have for this panel. Thank you all very much for your time and thoughts.

[APPLAUSE]