General Discussion

Session 1

Mr. Katz: I just want to thank both discussants and to say a couple of things very quickly. I am going to stay away from the last thing Hal said, although I am quite happy to debate him about spectrum policy another time.

Just a couple of things. On Hal's point about controlling the payments system as a source of competitive advantage: From what I understand of the examples he brought up, I would say they are important but they are illustrating a slightly different point, which is this one that if people are doing online commerce, and they are going to log in and identify themselves, such as you do with Amazon, then the fact that Amazon can make it costless to use particular payment mechanisms once you have gotten on Amazon, it seems to me that is a big deal. But it is slightly different than saying Amazon is offering its own payment system. They are offering a particular form of one-stop shopping to people. I certainly agree with the point that that can have a powerful effect on competition.

On the ISPs, I would disagree that Comcast is a counterexample to what I have said. Comcast is charging in their role as proprietary content owner for premium channels, not in their role as provider of broadband services.

Finally, we want to throw it open to questions. On the carrier billing, I agree that in economies outside the United States it is not obvious what the difference is from the U.S. economy. Carrier billing is a big deal. (I think I said this in the paper.) Carrier billing will be a niche in the United States, although it could be a niche worth billions of dollars and that could be a big niche.

I thought about this a little bit as it relates to Japan. Americans' use of credit cards in particular, but also payment cards generally, is off-the-charts compared with most other countries. At least in the case of Japan, it is—at least until very recently and I do not know now—much more of a cash-based society. That is one of the reasons that mobile carriers play a bigger role there. Plus their mobile carriers are more innovative than ours.

Mr. Drechny: I have a couple of observations and then a question.

First, in Dr. Katz's diagram, I thought that it was really interesting that the connection that was missing, and nobody talked about, was between merchants and social networks. That you discount the fact merchants could use social networks themselves. Seeing as merchants already own all of the data that everybody else wants to get to, you could have that infrastructure built by merchants to consumers, which would be the most efficient way for that system to be built instead of adding people in the middle.

The other observation I will make is when we talked about revolutionary, the revolutionary side already happened and it was around getting rid of offers. There is a small retailer out of Arkansas that did a pretty good job of creating a large infrastructure around getting offers out of the system and making the system more simplistic for customers to be able to complete purchases.

It is quite interesting as we talk about the idea that the system is going to allow for consumers to get more offers, I would argue consumers do not want more offers. Consumers want simplification. We have recently seen a lot of announcements by retailers who have started to realize that customers want simplification—JC Penney, being one of them. Supervalu is about out of the marketplace, talking about how they are going to back down the amount of offers they have in the marketplace as well. I thought those were all interesting insights added.

My question centers around the fact that, How can you have a revolution and have mobile phones used to pay, ***if*** the basis for all that payment is still the current system that is in place today? So when you look at the basis of PayPal, a majority of the way that money is getting into PayPal is based on the networks that already exist today, those that already have a stranglehold on the marketplace and control that pricing in the marketplace. That has not changed.

My question is, How do you change that? Until you change that, there is no revolution. There is just a perpetuation and a change of the face of how it looks.

Mr. Katz: I will provide the uninteresting answer first. I will defend my diagram, but I will agree with you that my description of it was wrong. One interpretation of what you are saying is the "ad deal" network could be the social network, but I think you are right. The merchant could run that as well.

Your point about simplification: I take it that little retailer has been quite successful with its approach. But I also think we will see a bifurcation of it, because there are consumers—I am not one of them—who live for their deals and feeling like they are special. One of the things we will see, though, in evolution of a lot of this is away from—this Groupon model is the wrong one in a lot of ways. But the particular way I mean is this notion that it is almost adversarial. "OK, I am going to get this really good deal—the merchant's screwed—I am going to take advantage of this deal and then I am off to the next one."

The way we are going to see this stuff used is to try to build up relationships between merchants and their customers. The idea that it really is an ongoing relationship and the deals can build is much more like a rewards program and ***that*** is something a lot of consumers do want.

I will turn it over to Don to give a much more interesting answer about breaking the stranglehold.

Mr. Kingsborough: I think you are right. What you have to do is get other types of currency into the account where you have a lower overall cost of funds. That has to be part of the solution, relative to what retailers are doing. Retailers will be a critical part of this, because I have never been to a retailer who, in the first five minutes, is not talking about how we lower their cost of payments.

This is not simply about offers. This revolution is not about offers. What has occurred in the last 12 years is the consumer has decided they are going to be smart. They want to be a master shopper. Everyone in this room has a friend who gets a hotel room in Hawaii for $200 a night when you are paying $400 a night. Or they have someone they know that gets that $199 airfare and they are paying $500 for the airfare.

It is about information that empowers people to do things and they are not going to make these buying decisions without that information. The information is going to be moved from simply being online to being in-store where, while they are in-store, the "scan and scramming" is going to stop and "scan and buying" is going to start when the consumer gets enough information so they then can save time at that moment in time that they are doing the scan.

So it is not simply about offers. It is about information and the transmission of that information whenever the consumer wants it and wherever they want, whether it is at a price discounter like your chain or it is at another one that is more promotionally oriented. Without information, the consumer is going to find some other place to shop.

Mr. Varian: Let me weigh in on this complexity versus offers debate. They will coexist, because it is quite clear there are people who are shoppers who want the best deal, just as you said. The offers are a way to attract that segment of the population. Then, there are other people—and of course the same people are discussed—who at different times, want to buy it, get the thing done with, and do not want to go through all this offer stuff.

There is an interesting dynamic here. Because when you think about something like coupons, the fact you are willing to take the time to clip the coupon indicates you are a price-sensitive shopper and so you get a better deal, because you signaled to the merchant that you are a price-sensitive shopper. You cannot make clipping coupons too easy if you want this form of price discrimination to work. If 100 percent of the people clip coupons, then you might as well have the lower price to begin with. The hassle of clipping the coupons is what makes the market segmentation for you work, so a lot of these other offer deals inevitably have to have complexity. If you take the complexity away, then you have removed the whole point of the marketing effort. There is always going to be that dynamic throughout the whole system.

Mr. Tomasofsky: Thank you very much for a great panel. I see a lot of gray hairs in here. Many of us have been around the business for a few years. Every innovation, every new payment product that has come out in the last 30 years—at least from my perspective—has always had to make the trade-off between getting to mass production or whatever segment you want to penetrate, getting the right numbers, and being secure enough, especially in today's world with interconnectedness and social media, we know that the system today is broken when it comes to security authentication. We have built the fraud number into the product, hopefully, and it has not blown up in our faces yet.

The question I have is, To what extent should security-related questions and security and fraud mitigation, etc., be focused on when we talk about new products, new innovation, and all the things many of you showed us today? How does that work into your equation and where do we go from there?

Mr. Varian: I will say a word about that. Sometimes you hear people say, "Well, my system is only designed to deal with small payments, so it is not really much of a security risk."

But, as soon as you get computers into the equation, that defense goes away. There was a very interesting fraud committed on Medicare a few years ago, where people got hold of a doctor's account number. They would file reimbursement claims for some procedure that tried $200, $190, $180, $170 and then find out the point where the claim was not questioned. If it was below $120, it would be approved. Then you file a million reimbursement claims for $120. As soon as you have computers able to take advantage of any threshold you use for security purposes, you can get a lot of money out of small payments. It is always going to be a cat-and-mouse game. There is never going to be a final solution for this fraud problem.

Mr. Kingsborough: What we think is that fraud, as you said, is a part of every one of these systems. The fraudsters are generally ahead of us and you have to constantly catch up. At the beginning of these new payment technologies, you have to let enough fraud in so you can see exactly what is going on, so you can make the changes.

The other thing that is occurring, though, is as you start to see the consumer in a monolithic way, when you see them online, when you see them using a mobile phone, you see them in brick-and-mortar stores, and you use the technology that allows you to know more about them that they have invited you in and opted in to allow you to know more about them, then it is in the combination of these things, as opposed to having isolated events. It is the combination of these things that you know who the consumer is, what they normally do, and where they are by geo location. It is these things that a secondary and tertiary authentication will start to give you a better handle on reducing fraud. It is only in that combination of letting it in at the beginning, then analyzing it, and bringing other layers of authentication into the mix that you can gain this under control, in our opinion.

Mr. Tomasofsky: That is a good point, but that information you have now collected is a really nice honey pot for a fraudster to go after to help defeat everyone the second and third authentication tertiary stuff.

Mr. Katz: Knowing nothing about this, I will just make something up. (People become rich doing that.)

One of the things, it seems to me, you would think about doing if people are really concerned about it, given the possibilities of the communication, is you could have the payment network contact you in real time every time you were paying for something. There is always the question of how you stop somebody from changing the phone number, but there are things you can do to make it extremely difficult to change the phone number. That is something people would have to do. You could have it set once, then if you want to change it you are going to be sorry. That way, it would alert you every time you were making payments. And, if you were actually making the payment, it would not make any difference to you at all. You might think it is inconvenient if I am in the middle of a conference and you ask why is my phone ringing but some consumers might be willing to put up with that for security reasons. So there are things where you could try to make use of the communications capabilities to also improve it. But I agree with you. This is going to be a big issue and I also predict it will be a big issue generationally. People my age will be much more likely to be scared off from some of this stuff because of security concerns. People my children's age just do not care.

Mr. Varian: I am going to add one more point to that. It is very important to look at the decision of where the liability ends up in the exceptional cases, because it could be with the merchant, with the intermediary, with the consumer. These different liability systems can lead to different patterns for adoption.

Given the system is so competitive at the moment, you are going to see the intermediaries taking on the liability in an effort to get their technology adopted by the other parties. That can potentially be a systemic stability problem, the kind of thing we are talking about here. Where merchants take on excessive liability, there could be a problem.

Mr. Ramamurthi: I know Google has tremendous positive information. What I wanted to ask you is, What have you seen change, because Google literally sees even what I am trying to buy sometimes? Those data are visible to Google in real time across the world. What have you seen change in the last few years? Have you seen more mobile devices, more people accessing from mobile? If they are, is their search behavior changing to where it is more transactional oriented behavior? What is it you are seeing at Google now from your vantage point?

Mr. Varian: Well, certainly we are seeing a huge increase in mobile queries. One interesting fact is the pattern of mobile queries is not so different than the pattern of desktop queries. Obviously there are more location-aware queries. There are a few more adult queries on mobile devices, I think because they are more personal.

One interesting thing that is not sufficiently appreciated is that many mobile queries—you are supposed to hear the quotation marks on that "mobile"—are made in front of your television. So we call these the "immobile" users, because of their remarkably large number.

You have your cell phone with you when you are sitting in front of the TV because you might get a call. You see an ad on the television for a new car or a movie or something like that. Then people will follow up by just doing a query on their mobile device and getting a little more information on that particular product or that particular ad.

We've done a number of postings about the kind of queries people do during the Oscars and during the Super Bowl and during similar events. It is interesting to look at, because it is quite a significant part of the query stream. So the immobile users are a pretty big deal.

Ms. Benson: Michael, I have a question for you. We spent a lot of time thinking about how technology might enable changes in consumer payment behavior. You talked about ubiquity and I agree that is important. In today's world, that pretty much means you want a card that is going to work in a lot of places. But today also I have a Starbucks app on my phone, which is automatically topped off from my bank account. Tomorrow I could have a Wal-Mart app on my phone, an IKEA app on my phone. And I could get ubiquity just because it is all on my phone, not because it is all the same card that is good in each one of those payment relationships; it might be unique to the merchant. Do you see this as a technology that could be changing consumer behavior?

Mr. Katz: Some people would disagree with the dichotomy I drew between the evolutionaries and revolutionaries. Whether or not we count the Starbucks card as being about a payment instrument versus whether you should count separately the fact there is a rewards program. It is useful to think about them separately, even though obviously consumers want to see them together.

I agree. There is clearly the possibility that you will see all these merchant-customized programs, although it is not clear to me in that sense whether you should see that as the merchant actually delivering it. For example, you could easily imagine an intermediary…I was partially joking around with somebody last night that you could imagine bringing back store cards, but in the following way: It could be run by a bank using Visa infrastructure and it is actually one bank. The way it works is it is based on your phone and when you go into a Macy's, your Visa card shows up as a Macy's card. And it may have particular terms, either credit terms or store terms or whatever associated with it. If you were to go into Penney's, it would show up as a Penney's card, even though underlying it is the same card and same account.

There are a lot of different possibilities for how you could do this, either one card looking like many or it could be many cards all on one device. With that last one, though, it then becomes a question of at some point consumers are going to want things to narrow down to one-stop shopping, say, for the payments. So you have all these different things, but ultimately they all charge to the same credit card, I could see that happening. I do not see the notion of people having to pay 20 bills. Not that it is that hard if you do it electronically, but it does get harder to monitor them. What I guess I am saying is, technology opens up a lot of possibilities where we are going to see a lot of different things tried.

Mr. Kingsborough: We actually did some research on this specific subject. Our take was there could be a few retailers who could pull it off, but the consumer is not going to have 40 different apps in their phone to pay 40 different ways. It has to do with trust. They like retailers. There are a few they will trust, but there are many they will not trust. It is the level of trust that will determine who could do this and who could not do this. At the end of the day, consumers generally voted—I will give you the ranking—but when they ranked how they did it, retailers did not rank in the top four or five, even though they were well-thought-of retailers.

Mr. Anderson: Michael, I am slightly skeptical of the idea that you could have a multifunction store loyalty card. And the reason for this is that over the past 20 years, smartcard vendors in Europe tried that again and again and again and there were few takers. We struggled with various things, like cards that would work for electricity as well as banking.

The killer was very often marketing stuff, like whose logo goes on the front and who controls the address list. It was not whether you could get enough RAM in the card or figure out the application IDs so we would not interfere with each other. There is a real commercial reason why we have 40 different cards in our wallet and it is about branding and loyalty and stuff like that. It is not altogether clear how technology makes that go away.

Mr. Katz: At least on the branding, it ***can*** make it go away. That was what I was mentioning. If you think instead of a smartcard you are using a phone with a screen, I am saying you have a locational device. When you walk into Macy's, it would show up the branding and would be Macy's on the screen. And, when you are at a Starbucks the branding would be Starbucks, even if it is the same underlying, overall account.

There are some things the technology could solve. I agree with you, though, issues like who is going to control the information could be huge. But even that, you could have infrastructure service that divided that up and it would say: "You can sign up to be in our virtual store card program and you retain ownership for the information."

Obviously, they would rather NOT do that; they would rather centralize the information. The current technologies give you a lot more flexibility to try to make an end run around some of those issues.

Mr. Williams: I like your approach, Michael, to go right back to basics to try to take a very high-level view. At the end of the day, when we are trying to make payments, we are trying to pay a person or a merchant. We are trying to transfer some sort of value. Hal made a very good point about wallets currently containing mostly things which are around identity or payment mechanisms. I would contend most credit cards are, in fact, alternative methods of authentication. We certainly use them as such when we are checking in at electronic kiosks for airlines. A couple of us are taking an approach looking at identity, like NIST (National Institute of Standards and Technology) in the United States or Identity Assurance in the U.K., to try to link identity back to attributes on our individuals. That is one of the key things. In the U.K., we have recently launched something called Pingit at Barclays Bank, which has the ability to empower a mobile phone number but using an ACH transfer. It seems to be very successful so far.

My question is, Is identity the key thing behind this for all of these transactions we have talked about, what you can say about the consumer, what you can say about the merchant, how you can set the trust between those two for prevention of fraud? So is identity key? How do we keep anonymous transactions, which we are currently doing using cash, in that environment?

Mr. Katz: I will say this about anonymous transactions. We will all agree that identity and being able to authenticate yourself is critical to all of these. It is certainly the case, even if you do not go as far as anonymous payments, there are going to be a lot of issues about how much control over your information you have and how widely it is used. So that would be one of the extremes.

It seems to me a big issue with anonymity is going to be whether you believe the people are not actually tracking this stuff. I understand there are various ways you can do digital cash and it could be anonymous. There would be a question whether people believe it actually is anonymous. I defer to the experts on this.

Mr. Varian: I guess the question is anonymous to whom? You could be anonymous with a merchant. You could be anonymous to the payments system. There are lots of different levels there that the system I described—the Square system—I said you could come in and say, "Charge it to Hal" or you could say, "Charge it to XYZ192" and use a code. Then you are anonymous in that respect. Well, I do not know. Obviously there is a demand for anonymous payments from some segments of the economy.

The question is, Are those segments of the economy that we really want to support? You always see this debate where on the one hand anonymity might be considered a right and on the other hand it is also a possibility for abuse. So we are going to see this fought out for the near-term future.

Mr. Katz: Let me just say one thing on that, because there is always this thing about we need to make sure we have a currency for drug dealers. It is a lot more than that. You think about this thing currently going on with Facebook and employers saying they want access to employees' Facebook accounts and their passwords. It does start raising issues. There is a lot of stuff you would not want employers seeing. For example, some pharmaceuticals, people would rather remain anonymous when paying. Now a lot of people want anonymous and then they pay with credit cards and do not realize it is not anonymous. It does seem to me these questions of privacy do cut across things beyond illicit transactions.

Mr. Varian: If my insurer really knew how much butter I consume, he would be very unhappy.

Mr. Wallgren: My question is, How can I show off my black card panache and my status in the future of mobile?

Mr. Katz: Actually you will have to return to history. The first touch screen mobile phone, at least that I know of, was a Prada phone. You are just going to have more garish cases, although that is going to lead to some interesting intellectual property issues, because then people will start making wraps to put around the phones to make them look like the expensive ones. So, I think the answer is you need to hire a good IT lawyer and a fashion designer. I don't know if Don and Hal have thought about high-status accounts?

Mr. Varian: Call it PayPrince, rather than PayPal.

Mr. Kingsborough: I think we will leave it there.

Mr. Katz: One thing on this: You will not be able to show it to other people, but certainly, there are a lot of possibilities for creating tiers of service and having people who get the super high level of things. In that sense, it opens up way more possibilities for creating differential cards. You can automate it all. It is easier to have multiple levels of service. You are losing this thing about other people not saying they will be able see that. Certainly in terms of communications with the consumer and saying, "you get a package of service that nobody else gets," there are way more possibilities for that.

Mr. Kingsborough: You can put anything in the digital wallet and you can display it if you so choose to. All the things consumers want—which is loyalty, loyalty points, rewards, those kinds of things that are associated with the things that go into the digital wallet—will still be there. You do not lose the less obvious things that are important when you move to a digital world. You do not lose it at all.

Mr. Hansen: Dr. Katz, you mentioned earlier regulation, regulation, regulation. As a lawyer who practices in this area, I would agree there are many regulations as you converge different industries—between the telecom industry with the banking industry, for instance, or interactive entertainment. But I would ask this panel, What is new that needs to be regulated? Right, I admit it is more complex. But to me the question is, Where is the gap?

Mr. Katz: I do not know enough about the details of regulation to know if there is a specific gap. My concern would be that you will see multiple regulations potentially covering the same transaction. What is going to be the need to figure out which regime is the one that governs it? That is the thing that concerns me the most. There could also be things that are new in the sense that communications networks might want to start using customer information in ways they had not before. Then there would be a question if a regulation needs to adapt to it. My guess is the problem is more so that things are covered that are not covered in the right way ***rather than*** there are things that are not uncovered.

Mr. Varian: I guess I was going to say the question is somewhat hypothetical, because we do not really know how the industry is going to shake out. But given the very strong network effects and the strong complementarities, it is ***possible*** some player would gain a position which gave them monopoly power and then there would certainly be cries from everybody else in the system that there should be regulation on the behavior of that player. I do not think that has really occurred yet. Of course, there was the American Express suit and the investigation of Visa-MasterCard about the payment mechanism. That is the kind of thing people are concerned about. There could be a player who locks in a privileged position and that is going to bring calls for regulation.

Mr. Kingsborough: At the beginning of any revolution, there has to be a period of time to let these things grow and to foster these things first. Then start to look at regulation after you start to see clearly the direction in which these new payment types, these new marketplaces are going. We always think you should hold off on regulation for awhile and then only use regulation when something is abused.

Ms. Walker: I will take the last question here. One of the questions I had was, You are all very well-connected in the space we are talking about today. It seems there is an opportunity for new incumbents, new participants in this particular activity. I am curious if any of you have seen any startup or entrepreneurial ideas you find have promise to help us move in this direction and play a growing role in that area. Michael.

Mr. Katz: I am sure PayPal and Google will. I will defer to the industry.

Mr. Varian: I have already mentioned Square. There are people who are working on currencies in social networks and trying to do aggregation of virtual currencies—that kind of thing. There is an amount of interest there.

Mr. Kingsborough: I gave a speech the other day and I said, "This is the first time financial services were really sexy."

I think that there are a lot of startup companies that look at the world totally differently than probably most of us in this room. They are not obligated to follow the rules. So we see companies all the time that take small niches and start to innovate on those niches. There is a tremendous amount of innovation going on. Both new companies and you will see some companies of size—like Google or like PayPal—that actually are innovating. The industry will see lots in the coming 24 months.

Ms. Walker: Thank you all for your attention. This wraps up our panel this morning. Please join me in a round of applause for Michael and our discussants.