General Discussion:
Evans and Schmalensee

Chair: Hendrik J. Brouwer

Mr. Lowe: I would like to correct two factual errors that I heard during the presentations and then ask Dick Schmalensee a question. The first was, as Michael Katz said, that the marginal cost to cardholders did change as a result of the reduction in interchange fees. It was primarily because the reward schemes were cut. In some cases, they were cut significantly.

The second point was that merchant discounts in fact did fall one for one with the cut in the interchange fee. That fall took place within a month of the change in the interchange fee. I don't know whether that says the merchant acquiring market is competitive but at least in this particular instance, the fall was one for one.

My question to Dick was how he responds to two propositions. The first one is about Alan Frankel's point where, at least as I understood him, he said that one of the fundamental problems here is that in these schemes, the competitive pressure is to actually increase the interchange fee. You write that by increasing the interchange fee you increase your sales, not by reducing it. That means the pressure is on for these fees to go up and up through time. That itself is *prima facie* evidence for a regulatory solution.

Also, I'd like to ask you how you would respond to the proposition that this is *prima facie* evidence that there is a problem because the price that cardholders face for using a credit card is much less than the price they face for using a debit card. Yet, the relative costs go the other way around. So the cheap payment instrument from a resource cost point of view is being offered to cardholders at the relatively high price. Is that not *prima facie* evidence that this is a problem?

Mr. Schmalensee: We did mention in the paper that reward schemes had become less generous, but of course I don't think all Australians have cards with reward schemes. We don't have numbers on the fraction of transactions that go through those schemes. We also mentioned the impact of changes in reward generosity . . . it's a little like the old economic question of the impact of changes in interest rates on savings. If you tell me I have to spend $30,000 to take a trip instead of $20,000, it is not obvious that reduces my incentive to spend. If I am saving for college and you cut the interest rate, do I save more or less?

So the impact of changes in reward schemes is not actually quite as obvious as it might be. We haven't seen the data that say that merchant discounts have fallen one for one. We'd love to see those data. We've looked hard to get data on Australia, and they haven't been as easy to find as we would have hoped. So I'd love to see the data on that.

I think the assertion that competitive pressures lead to higher and higher interchange fees is, of course, an interesting one. We saw data earlier that indicated that, in many countries where there is competition, interchange fees are falling. It is not quite clear how you read that. It is certainly true that competition among card schemes for issuers often takes the form of rising interchange. It is also, of course, the case that competition among card schemes for merchant allegiance takes the form of falling interchange. It is a complicated business. We know historically across countries that we simply have not seen a monotone increase in interchange fees, so that characterization is just too simple relative to the complexity we've seen.

Finally, on the differences in prices facing credit card holders and debit card holders, there is no question that consumers do not face appropriate price signals. I face a zero price for writing a check, even though it imposes significant processing costs on the merchants. That doesn't establish that transactions are significantly misallocated. You really have to look across transactions. There is no question that price signals are distorted.

Mr. Katz: Just one thing: your last point about checks emphasizes the importance of looking country by country. Yes, if you do it at a broad theoretical level, who knows what is going to happen? For example, in Australia, my understanding is that excess use of checks is not an issue at merchants at all, because almost nobody uses them. While maybe it is a theoretical possibility, it is not a practical one.

One other thing, as a matter of economic logic, Dick, if what you are saying is right about the rewards program, there could be this backward-bending supply. By that argument, it very well could be that, if we made the interchange rate go down, issuers would work harder to recoup the lost things and would promote Visa and MasterCard, where if it turns out we gave merchants less money, *they* would do it.

Once you start getting to the point that it is theoretically possible, anything can go in any direction. You also have no explanation of how it is that the associations have set the interchange rate in the first place. And they have certainly said they have followed some rational process. At some point, if we are going to get somewhere in this debate, we have to at least agree these are the bounds of what we are going to consider theoretically.

I wrote a paper 20 years ago that said the only general theorem in industrial organization is that there is no other general theorem. But that does not get us anywhere. We are going to try to figure out which things are probabilities.

Mr. Schmalensee: I would like to make one quick point to answer Michael's earlier point. *In general*, you would expect a variable fee to change. That is true, except when there is a transaction cost to moving it off zero, which there is in most non-reward systems. So for cards that did not have rewards, there hasn't been a change in the per-transaction fee. In the case of reward cards, my understanding is that there generally has been a change.

Mr. Katz: I agree with that. But I think it is also the case that most of the concern—I am speaking for others here—has been precisely where there are rewards programs, because it is the view that it is those people whose consumption is being distorted, say, relative to the choice of debit. If I face a price of zero for each, there still might be a distortion, because the Reserve Bank believes debit is cheaper in resources. But it is much less of a distortion. That, in fact, is exactly where they want to focus their efforts.

Mr. Schmalensee: I surely wish that data were available.

Mr. Rochet: I just wanted to respond to Philip Lowe. I am surprised that the figures I gave about Australia are incorrect, because they were taken from a speech by Governor Macfarlane. So I would like to see the other data that you have.

Another statement in the same speech was interesting because Governor Macfarlane was proud to observe that in Australia interchange fees were about one-third of the level, on average, of the U.S. interchange fee. It seems implicitly in his mind that it is a measure of social inefficiency—the lower the interchange fee, the better is social welfare. This would imply that the ultimate level is zero. I don't think this is based on any economic reasoning.

Mr. Brouwer: We should be very grateful to the Australian central bank and Philip, because he is the only one who is providing some more data, because they are already doing experiments.

Mr. Howell: For those of you who may not have heard of Coles Myer, we have supermarkets, liquor stores, fuel, department stores, and discount department stores. So we pretty much cover a fairly broad range of the retail market in Australia.

I would just like to confirm with what Philip said about the reduction in interchange fees passing through to a merchant service fee. I can certainly speak on behalf of my organization, and we have 100 percent pass-through. He's absolutely right there, as far as I am aware.

I had a question in relation to the presentation by Jean-Charles Rochet. Jean-Charles, when you spoke of mistake #2—and I am not sure whether I am overanalyzing this or not—you had a zero cost for card payments for merchants. I find that very curious, because that is quite different from our experience where credit cards, excluding merchant fees, are still dearer than cash to prices.

Mr. Rochet: This example was, of course, fictitious. What I meant was that, first of all, the fees are not included, if you remember that. Second, what matters is the qualitative cost with other means of payments. I have the feeling that managing cash reserves is not a negligible item in merchants' accounts. If you can save on those managing costs, then it improves or adds some benefit to the merchants.

Mr. Howell: Certainly, but in the case of credit cards, even if you exclude the merchant fee, it costs more for a credit card to be processed than a cash transaction.

Mr. Rochet: It was not meant to represent credit cards. It was just a simple example.

Mr. Frankel: I also was looking at mistake #2 of your handout, Jean-Charles. I think you're looking at this very similarly to the way I was discussing earlier. If the externality is primarily focused at the merchant side, if you assume acquirers are perfectly competitive, then it is all on the merchant side. So then the question is: Wouldn't you recommend letting the merchant pick any interchange fee it wants and having that amount directly rebated back to the cardholder through the credit card system?

Mr. Rochet: You are absolutely right, in a perfectly competitive system. As soon as you introduce market power, then it is not true anymore. You have to be very clear about where the market power is. Is it on the merchant side? Is it on the acquirer side? Is it on the issuer side? The answer depends a lot on the subtleties of market power. It is a very delicate matter.

Ms. Tumpel-Gugerell: I have a question about David Evans and Richard's data on the relative costs, net social costs of various payments instruments. In Chart 1, you can see that, first of all, cash is underpriced, but also that credit cards are far more expensive for the merchants compared with debit cards. Would this be a case for promoting debit cards from the merchant side more?

Mr. Evans: The point of that chart is that the black bar showed the net social costs of each of these payments mechanisms. If you believe the numbers in this, cash has the highest net social cost after you include the relative cost and benefits to the cardholder side. So, if you believe these data, cash is inferior for this example of a $54 transaction at a supermarket, and credit and signature debit are both superior to that. That is the conclusion you would reach, if you believed these data.

Now, as Dick pointed out, these are back-of-the-envelope calculations. The question that is being asked here is the right question: What is the net social cost of each of these payment mechanisms? We would certainly suggest that it is nothing more than a back-of-the-envelope calculation. The general point is that, if you want to know the right answer to the question of whether particular kinds of payments systems are overused or underused, you need to ask the question: What is the net social cost of each one of those?

Mr. Schmalensee: I also would point out that this is for a $54 transaction at a grocery store. If you go back to the paper we cite, they find—as do others—that the costs and benefits vary by transaction size, transaction type, and so on. This is one kind of transaction; there are a lot of others.

Mr. Gabeiras: In 2001, the Spanish regulator allowed one of the networks in Spain to discriminate in setting interchange rates across the merchant categories and delivered permission to use it for five years. This permission has been cancelled recently—two weeks ago—without giving any specific explanation. Is there any rationale, in terms of microeconomic theory, to discriminate in interchange rates according to merchant category codes in a similar way that the Ramsey prices are calculated in terms of the elasticities of every demand curve? My perception is the demand is homogenous throughout the various merchant categories.

Ms. Hatcher: I had another comment as well as a question on the net social cost and this back-of-the-envelope calculation. The Food Marketing Institute has done a number of studies that are not back-of-the-envelope, that are payment cost studies. We have certainly calculated in the so-called social cost in terms of the issues that were raised about theft and about processing time on checks. We certainly wouldn't want the 120-plus shoppers in the room to think that merchants do no want customers to use cash; we absolutely would prefer you to bring your cash and your checks in, because we have been able to become efficient at processing that cash and processing those checks and reducing a lot of the inefficiencies out of the system. That is simply what we would like to be able to do on the electronic payment types as well.

Just in response to the question from Mr. Schmalensee asking if there is something wrong. Our membership and a number of the retailers in the room say that absolutely there is something wrong, whether it is the theoretical side or the actual side. The actual side is that on our profit margin, we are paying twice as much in interchange fees as we receive on our net profit on the same exact transaction.

Mr. Schmalensee: I'll respond quickly. Yes, interchange fees in the United States vary by merchant class to some extent. There is a rationale—whether you would call it Ramsey pricing or price discrimination, those being two sides of essentially the same coin—there is a profit-enhancing rationale for tiering interchange fees. Whether allowing that gets you closer or farther away from a social optimum, I have no idea. I don't think anyone else does either.

Mr. Evans: Let me add one thing quickly on that point. If you look at almost any product, there is extensive price discrimination in almost every market. So the fact that interchange fees are tiered is certainly not surprising, relative to almost any other business.

Mr. Schmalensee: But the theoretical literature says the social welfare effect is typically ambiguous. As to the cost studies, the Food Marketing

Institute has indeed done careful studies of grocery retailers' costs. The point of this exercise was to say that those studies don't answer the question of net social costs and benefits, including costs and benefits borne by consumers. For there to be a misallocation, it is not enough for merchants to prefer one type over another. It is a social question. Just like it is not sufficient to answer Jean-Charles' question about automobiles versus mass transportation by saying, "No, no, no, consumers like to drive."

Mr. McAndrews: I wanted to ask two questions, one for Jean-Charles. He points out that the interchange fee and surcharges are antagonistic instruments. This was also pointed out by Steve Salop in a paper of his several years ago. If the issuer can charge a price or subsidize a cardholder and the merchant can charge a price or subsidize the card user, then the interchange fee becomes irrelevant. Jean-Charles said it doesn't make any sense to have both interchange fees and surcharging. Of course, some of us in the room would recognize this as a situation in the U.S. ATM industry. Jean-Charles, would you agree with Salop that, if you allow surcharging—and in ATMs in the United States, surcharging is quite feasible technologically and, of course, banks can charge their cardholders easily—would you recommend an elimination of the interchange fee? Unlike Salop's prediction that the interchange fee would wither away once surcharging became widespread, it still remains.

Then I have a question also for David and Richard. I take issue with your historical examination of the U.S. check industry. Being from the Federal Reserve, I have to, of course, defend my institution. In the nineteenth century, the clearinghouses set exchange fees at zero, so zero was an important number. I also think zero is an important number. It is very different from an interchange fee. In a one-sided market, zero is the interchange fee.

I ask the question to you, are checks a two-sided market? Rochet and Tirole point out very clearly that for a two-sided market to exist, there must be a failure of Coasian bargaining between the buyer and the seller. Jean-Charles pointed out in his paper that cardholders typically make the choice of the payment at the point of sale. Checks in the United States today average about $1,000. The buyer and the seller can negotiate any externalities in their use of checks. Checks often occur in recurring relationships and so on.

So I would think the burden of proof is on you for suggesting that checks are a two-sided instrument and saying that all payments systems are two-sided markets. I don't believe that is clear, especially for the larger-value payments systems.

Furthermore, an examination of the exchange fees in the United States in the check business in the nineteenth century suggests it was much more a case of a holdup problem. What was going on was very similar to what you, Mr. Schmalensee, were talking about on bilateral bargaining. You had these banks that were not even bilaterally, but simply unilaterally, attempting to get the benefits of a better technology for delivering checks from one place to another—that is, the mail system. I think that the Federal Reserve's action in establishing par checking was not a case either of setting an interchange fee at zero, but it was assisting the solution of a multilateral holdup problem, when there was no multilateral way for the parties to transact.

Mr. Constantine: Dick, I would like to ask you a question and just make an observation that virtually every economist has bemoaned the lack of data. But there are a lot of facts out there, so I'd like you to react to some facts. This is on your point that you don't have to take into consideration only benefits to merchants or costs to merchants, but also benefits and costs to consumers or cardholders.

With PIN and signature debit, a fairly objective comparison is that PIN debit is two to three times faster at the point of sale, meaning the transaction takes half the time or a third the time. A signature debit transaction is seven to 10 times more likely to be fraudulent. The money in the transaction moves two to three times faster. You might say for a cardholder that means they lose a little float, but that also correlates to a much higher rate of bounced checks when you use signature debit versus PIN debit.

I would somehow like to fit the interchange philosophy that your client Visa utilized over the years, whereby the interchange on PIN debit was a tiny fraction of the interchange charge for signature debit, into your and David's methodological framework.

Mr. Evans: I guess maybe I didn't understand the first portion of the last part of your observation.

In the late nineteenth century and early twentieth century, a lot of checks were transferred not at par by the clearinghouses. I am certainly not an expert in the checking business, but my understanding is that the Federal Reserve, in effect, forced on-par exchange, because there were indeed interchange fees that were positive between banks. So that was the regulatory intervention.

I do think of the checking industry as a two-sided market. You have an acquirer and an issuer of checks, just as you do in the credit card situation. There is an issue of what the optimal price is. You can make an argument, which we could debate, as to whether zero is the right price for that transfer between the bank that issued the check and the bank that is processing the check. But, again, that is an empirical issue.

The one other general observation I would like to make on a lot of these points is, to a large extent, many of the observations we get into in this debate really are in the weeds, in the sense that the fundamental question really is an empirical question. It is the question that we discussed with regard to the Food Marketing Institute and the social benefits and social costs to different payments mechanisms.

Ultimately, the empirical question is: Is there evidence that there is overuse or underuse of cards, whether it is credit cards or debit cards or cash or checks?

If we are talking about things from a regulatory intervention standpoint, that is the relative empirical piece of information we need to have. That is the kind of empirical inquiry we need that can help resolve some of these issues. Some of these details—in which I would include some of Lloyd's observations—really are in the weeds. We need to understand the relative social costs and benefits of alternative payments systems before we start talking about regulatory interventions or, for that matter, saying that everything is just grand.

Mr. Schmalensee: I'll respond briefly. First, I am not going to defend Visa's interchange philosophy. I don't know what it has been. We can see the rates. I assume Lloyd is talking primarily about the American honor-all-cards rule that linked signature debit and credit, and that was thrown out by the courts.

We actually discuss the relation between signature debit and PIN-based debit in our book, and I will make a modest plug for it: *Paying with Plastic*, second edition, MIT Press, 2005, a terrific read.

The history is fascinating. The systems couldn't get banks to issue signature debit, so they needed a high interchange fee to get issuing done. The systems couldn't get merchants to install PIN pads to get PIN debit used for merchant transactions, so they needed a very low interchange to penetrate on the merchant side. We are now seeing this very interesting pattern of readjustment after they have been decoupled. The plaintiffs in the case that broke the U.S.-style honor-all-cards rule argued for damage purposes that what was going to happen was that the signature debit interchange fee would fall rapidly to the level of the PIN debit fee. Well, it didn't happen. That market is much more complicated, and this is not the place to try to understand it in all its dynamic detail.

Mr. Katz: I think it is useful to take this example from other industries we mentioned, and that is this business about the choice between driving your own car and taking public transportation. If the price of automobiles reflects the social cost and the price of public transportation reflects the social cost, then you don't need to know what consumers' benefits are in terms of driving or taking the subway. Because if they face those costs, they will make the right decision and you can decentralize. That is the whole point of the market economy.

It is important to recognize that it is absolutely right that efficiency depends on costs and benefits. We also have to remember we are using market forces to some degree, even under regulation. We need to take that into account because then we can economize on some of the information we have to collect. As Jean-Charles would say, you have to make sure you get the social costs right.

The second thing is on interchange and surcharge. I'll say two things about them. There is a tension between the two. We need to remember a couple things. One, there is heterogeneity of merchants. So when you talk about the interchange or the surcharge, it could vary across the two. You may well want to have both at once, because only some merchants surcharge. I won't go into detail here. It is not a coincidence you see the merchants surcharging, for example, in Australia. It is not just a random selection of merchants; it is particular types. It suggests that it may be useful to have both at once.

The other thing that is important—and I'll have to say this as an economist—is you'll have to remember equilibrium analysis. The possibility of surcharging may be enough to have an effect, so that in equilibrium you don't see any. There is some evidence—maybe weak—to believe that in Australia, the possibility of surcharging itself has some effect on the three-party schemes and how they price.

It is wrong to measure the effectiveness of a policy by how much . . . it is like saying the way you should figure out whether the policy of having speeding tickets works is to see how many people pay speeding tickets. Well, that is the wrong way. It is obvious you want to look at what the effects are on how fast people drive. We need to be a little careful of how we judge surcharging.

Mr. Rochet: I fully agree. In particular, it shows that the interchange fees in an ideal world should be differentiated across merchants, so it is quite possible that for some merchants for which the benefits are smaller than the costs, the interchange fees then should be negative. That is perfectly possible. The possibility of surcharging—and I agree with Mike Katz—can add to the competitiveness of the systems, can force the networks to put their interchange fee decision more in line with social efficiency. But I was just remarking that in a given market, if you have simultaneously a positive interchange fee and a positive surcharge, it doesn't make any sense. That's all I was saying.