

# The Interchange Fee Mysteries

## Commentary on Evans and Schmalensee

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*Jean-Charles Rochet*

Indeed, interchange fees are an extremely complex and fascinating topic. It is a real intellectual challenge not only for academics (and at the same time it has an enormous practical implication for the banking industry), but also for the two types of end users, namely the merchants and the consumers.

David Evans and Richard Schmalensee have done a great job in summarizing what we know and, more importantly, what we don't know about interchange fees and their regulation. I fully agree with them that there are still many things we don't understand about the impact of interchange fees on the efficiency of payments systems, the strategies of the banking industry, and ultimately the welfare of final users. The main reason for that is the lack of systematic empirical analysis.

Instead of going into the major points of their very clear presentation, I will try to complement it by giving some views on interchange fees that my colleague Jean Tirole and I have developed based on our economic work, and I will try to do it in a less austere way than the usual academic presentation by introducing what I call the interchange fee mysteries.

I have the strange feeling of participating—and we are all participating—in sort of a detective story, but a very unusual kind. The culprits have been found: the banks and the payment card networks. Also, the weapon that was used for the crime is known: the high interchange fees.

Surprisingly, there is a lot of controversy about the nature of the crime itself. Is it that we have too many cards? Is it that we have too many card payments? Or more likely, as I would argue, the real crime may be that banks make too much profit.

Let me start by examining each accusation separately. First, do we have too many cards? The evidence indeed is that most U.S. citizens have many cards in their wallets, but most of the time they seem to use only one or two of them. There is a very interesting empirical study by

Mark Rysman about that. It may be slightly inefficient to carry cards that you don't actually use, but I do not see that as a crime.

Is it that we have too many card payments? The evidence is essentially the importance of rewards programs for cardholders, which was already commented on by Alan Frankel in his discussion. There is some truth in this remark. There was a nice article in the *Wall Street Journal*, as I recall, in April, about the extravagance of some of the perks that consumers may receive when they pay with plastic, while on the other hand, merchants often complain about the high fees they have to pay. So there may be some imbalance. But, if you look at the social efficiency, several econometric studies point out that once all costs are properly taken into account—not only merchant costs but the costs of society as a whole—then plastic payments are substantially less costly than alternative instruments like cash or checks. Maybe the crime is, in fact, that credit cards are used too much at the expense of debit cards. I think this is the position of the Reserve Bank of Australia.

But debit cards are not a perfect substitute for credit cards. In any case, it is not easy to determine what the socially optimal level of use of credit versus debit is, and more generally, cards versus paper instruments.

Let me give you an analogy in a very different context. Several serious experts claim that American people tend to drive their personal cars too much and use the public transportation systems too little from a social point of view when they exist. This is largely a matter of judgment, but does it imply that the government should regulate the price of cars and/or increase taxes on gasoline? I am not sure. The political costs would be huge in any case.

Let me now move on to the last possibility for the crime, which is that there is too much profit for the banks. Indeed, it is true that banks in general and U.S. banks in particular have done quite well in the recent years. And most financial analysts consider that a reduction in interchange fees would reduce the profits of large issuers. It is easy to understand. But I think the argument is symmetric. When interchange fees are reduced, don't forget that acquirers are likely to make more profits, unless you consider that acquiring is perfectly competitive. In any case, if the concern of regulators is a lack of competition in downstream banking markets, direct intervention in those markets—for example, reducing barriers to entry—is likely to be more efficient than indirect intervention through interference in the internal functioning of payment card networks.

**Table 1:**

*Fallacy 2: Interchange fees should be based on  
(some of) the issuer's costs*

*Interchange fees are often mistaken for a remuneration of the cost of a hypothetical "service" provided by the issuer to the acquirer on behalf of the merchant.*

Variable Costs	Merchant	Acquirer	Issuer	Total
Card Payment	10	15	20	35

*In this fictitious example, it is argued that interchange fee should correspond to the fraction of the issuer's cost related to the services that benefit the merchant.*

*WRONG: the picture is incomplete.*

*The most important character is missing, he who ultimately chooses the payment mode: THE CONSUMER*

Let me now address four important issues behind the pricing of payment cost services sometimes misunderstood by some commentators. The theoretical work we've been doing with Tirole and others may still need to be validated by data, but it is already useful in pointing out fallacies in the reasonings of some commentators.

Fallacy 1: Interchange fees may be needed at the start of a network in order to subsidize some users and to attract them to the system. But in a mature network—that is, in a situation where almost every consumer has at least one card and almost every merchant accepts cards—it is claimed that each participant should bear the cost it inflicts on the network. There is a very clear citation of the Reserve Bank of Australia that says, "Efficiency of the payments system would be improved if the relative prices faced by consumers were more in line with their relative costs."

But this reasoning overlooks one fundamental aspect of payment decisions. Even in a mature network, it is the consumer alone who ultimately selects the payment mode. There is an old saying, "You can catch more flies with honey than with vinegar." If you consider that cards are a socially efficient mode of payment, then it is inevitable that consumers have to be given incentives to use their cards. Of course, you also have to

**Table 2:**

*Fallacy 2: Interchange fees should be based on (some of) the issuer's costs (2)*

*Complete picture*

<i>Variable Costs</i>	<i>Merchant</i>	<i>Acquirer</i>	<i>Issuer</i>	<i>Total</i>
<i>Card Payment</i>	10	15	20	35
<i>Cash Payment</i>	20	10	10	40

*If he pays by card, the consumer reduces the cost of the merchant by 10 and increases the cost of the acquirer by 5. If banks are competitive:*

*Optimal interchange fee = cost saved by merchant minus cost increase of acquirer  
= externality term (BAXTER)=5*

*NOTHING TO DO WITH ISSUER'S COST!*

consider the fact that merchants, on average, have to be better off by accepting those cards. This is a structural feature of payment cards: Merchants are initially free to participate or not, but once they are in, it is the consumer who ultimately decides to use the card or not. So merchants should benefit from payment cards, on average. Otherwise, they would refuse them. But cardholders have to benefit from each single payment, because they have the option to use the card or not. It is a fundamental aspect that has been overlooked.

Fallacy 2: Interchange fees should be based on some fraction of the issuer's cost. This assertion derives from the presumption that interchange fees correspond to the remuneration of a service provided by the issuer to the acquirer on behalf of the merchant, as seen in Table 1.

But this view is based on a wrong "vertical" model where only the merchant benefits from the payment service. In fact, the most important character is missing—the consumer. He is the one who ultimately chooses the payment mode, and the interchange fee is precisely there to provide him with the correct price signal. This example is shown in Table 2.

Fallacy 3: Surcharging always improves efficiency. If merchants and acquirers were perfectly competitive, the interchange fee could be replaced by surcharging. More precisely, the "perfect surcharge" would equal the negative of the efficient interchange fee. Thus, surcharging the cardholder

can only be justified when the socially optimal interchange fee is negative. So it means that surcharges and interchange fees are perfectly antagonistic instruments. Allowing simultaneously positive interchange fees and positive surcharges does not make any sense. A positive interchange fee corresponds to giving some money to the consumer for using his card, and surcharges correspond to taking the money back from him. I believe that if, in practice, like in the Australian experiment (it would be interesting to have the precise data on that), some fraction of the merchants do surcharge, it is because either they have market power and they use it to extract rent from customers, or alternatively, the cost incurred by the acquirer exceeds the cost saved by the merchant and then it is exactly the opposite situation, in which the interchange fees should flow in the other direction. But a system where you have at the same time a positive surcharge and a positive interchange fee doesn't make any sense.

Fallacy 4: The last fallacy is the belief that reducing the interchange fee will reduce banks' profit and benefit all merchants. This would be true, again, if the acquirers were perfectly competitive. Reducing the interchange fee would provoke a one-to-one reduction in the merchant fee and in banks' profit because, in this case, only the issuers make a profit.

But I don't think this is confirmed by the evidence. In the Australian case, according to the figures given by Governor Macfarlane in a recent speech, the average reduction in the interchange fee that followed the regulation of interchange fees was about 0.65 percent, while the rate reduction in the merchant fee was only about 0.40 percent, which means the acquirers' profit has increased. We have to take into account imperfect competition on both sides, and we also have to take into account the reaction of issuers. It is not clear to me that a reduction in interchange fees will reduce only cardholders' rewards; it could also affect the fixed fees paid by cardholders.

If this is true, if issuers increase cardholders' fixed fees, then fewer consumers will hold several cards. In this case, there is an interesting phenomenon, which is that merchants' bargaining power vis-à-vis the acquirer will be reduced because merchants will be more or less obliged to accept each card in order not to lose any customers. It is likely that a large retailer will find ways to resist—particularly by threatening to develop an alternative payment system. What about small merchants?

Let me finish with an analogy for mandating a zero interchange fee, a proposal that is sometimes considered. I would like to make this analogy in

regard to the restaurant business, which is important to me as a Frenchman. This analogy is meant to capture the notion that the payment service is indivisible, a little bit like inviting someone to dinner, and that separating the costs between the consumer's side and the merchant's side is irrelevant.

Suppose the government is concerned about insufficient competition between top-quality restaurants. Mandating a zero interchange fee in the card industry would have an equivalent effect in the restaurant industry of imposing a regulation or law that would oblige every participant to a dinner to foot his or her own bill. Suppose you want to invite somebody to dinner. This law would say that you are not allowed to pay a fraction of the cost of the dinner of the person you invite. I can imagine that some people would be relieved by such a rule, particularly when you have to invite your boss or your mother-in-law. But the rule would probably induce strange changes in behavior of people in terms of offering or accepting invitations to dinner. I don't think it would do a lot to improve competition among restaurants.