Public Policy and the Invisible Price: Competition Law, Regulation,and the Interchange Fee

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I. Introduction

The interchange fees set by the major credit card associations are among the most frequently paid prices in modern economies but are largely invisible to consumers. Does Adam Smith's invisible hand ensure that these invisible prices are set at economically efficient levels? Or should public policy concern itself with how interchange fees are set? If so, should policy stipulate their levels by regulation, or is the application of competition policy a better approach?

In this paper, I will outline why the interchange fee question should be of public policy concern. I will then discuss whether competition policy approaches to its solution are preferable to more regulatory intervention. This is an open question, and in the United Kingdom and at EC level, there are cases currently under consideration, on which I will make some general comments. But let us begin with the factual background for the United Kingdom and Europe generally.

II. The size of credit card spending and debt

The United Kingdom accounts for the bulk of credit card spending and debt in Europe. In 2003, there were estimated to be 66.8 million cards in issue in the United Kingdom, about 1.4 per adult, an increase of 60 percent on four years earlier. There were about 1.8 billion credit card transactions—and so many direct occurrences of the invisible price—with a transaction value of £107.9 billion, a figure 50 percent up on four years before.[1] Credit card transaction value is almost 10 percent of U.K. gross domestic product and is about 15 percent of consumer expenditure.[2] At the end of 2004, U.K. credit card debt outstanding was nearly £55 billion, also up more than 40 percent over four years, which is about a third of unsecured debt owed by individuals.[3]

Credit card usage is far higher in the United Kingdom than elsewhere in Europe. Indeed, the United Kingdom has accounted for more than 75 percent of credit card spending in western Europe in recent years. By contrast, France and Germany each account for less than 1.5 percent. The largest users apart from the United Kingdom are Italy and Spain, with shares of about 4.5 percent and 3.5 percent, respectively.[4]

The striking difference between the United Kingdom and the rest of Europe is not primarily because continentals tend not to pay with plastic. They do, but predominantly with immediate debit cards and also with charge cards and deferred debit cards, particularly in France. In the United Kingdom, spending with credit cards is not much lower than with debit cards, and there are more credit cards in issue than debit cards. Payment cards (credit, charge, and debit cards) are used by U.K. consumers as much as cash and checks in terms of value.

III. Some economics of four-party credit card systems

A simplified account of how credit card systems operate is as follows. Most credit card transactions involve four parties:

- the cardholder, who receives payment services[5] and credit services from
- the bank that issued the card (the issuer), and
- the retailer, who receives payment services from
- the bank that deals with the retailer (the acquirer).

When the customer uses the card to buy from the retailer, which must honor all cards of the types it accepts, according to the rules of schemes such as those of MasterCard and Visa, the retailer receives from the acquirer the retail price less the merchant service charge (MSC). The issuer pays the acquirer the retail price minus-or-plus any interchange fee. In practice, credit card associations set interchange fees that go from acquirer to issuer, but in principle, they could go either way or be zero. (In what follows, a "higher" interchange fee will mean a more positive or less negative fee from acquirer to issuer.) As well as the interchange fee from the acquirer, the issuer receives from the customer repayments, any annual fee, interest payments on debt outstanding, late payment fees, etc., and might, on the other hand, give the customer rebates, loyalty rewards, and the like.

Interchange fees are generally equal to the fallback rate set at a system level.[6] The two largest systems—Visa and MasterCard[7]—have many members in common. The systems serve the two sides of the market—cardholders and retailers—in which a key intermediate price in effect has been set collectively by member banks.

An indication of the level of U.K. interchange fees is that when the Cruickshank report was published in March 2000, the average fallback rate for both the MasterCard and Visa schemes in the United Kingdom stood at 1.1 percent.[8] Current domestic U.K. fallback interchange fee levels are not in the public domain, but for cross-border transactions in Europe, MasterCard's enhanced electronic rate is 0.95 percent and Visa's electronic authorization rate is 0.70 percent.[9]

A. Commercial incentives and the interchange fee

What economic factors influence commercial incentives and the public interest in regard to the level of the interchange fee? A substantial economic literature has examined these questions, of which leading examples are the papers by Katz (2001), Rochet and Tirole (2002), and Wright (2004), and the book by Evans and Schmalensee (1999).

A baseline proposition is the neutrality result that the level of the interchange fee makes no difference in special theoretical circumstances, namely if:

- retailers could freely and costlessly charge different retail prices according to method of payment, and
- issuers costlessly could, and would, rebate higher interchange fee revenue to cardholders.

Then different interchange fees would lead to correspondingly different retail surcharges for card use, leaving the underlying equilibrium unchanged. What cardholders paid as higher surcharges, they would receive back as higher rebates, leaving net prices the same. The interchange fee would not matter for practical purposes, and no one would have reason to care about its level. What one paid on the swings one would receive back on the roundabout.

In fact, differential pricing is costly or unattractive for the great majority of retailers, and where schemes impose no-surcharge rules, it is disallowed anyway.[10] In the absence of surcharging, card-accepting retailers must take account of the MSC in setting their prices generally. Via the MSC, the level of the interchange fee is important. A higher interchange fee then will increase the retailer's prices to all customers, whether or not they pay by the credit card at issue. Payers by the card may get some or all of the higher interchange fee back as a rebate (or lower card transaction charges), but other payers won't. The incentive to have and use the card will shift with the interchange fee.

Moreover, if rebates to cardholders move less than one-for-one with the interchange fee, raising the interchange fee will tend to increase the aggregate profit of the banks. In that case, the banks would have a natural commercial incentive to achieve and maintain high interchange fees. One reason why higher interchange fees might not be rebated 100 percent to cardholders is that the issuing market might be expected to be imperfectly competitive, and less competitive than the acquiring market, given that issuing services are characterized by extensive product differentiation and the buyers (cardholders) are individuals, many of whom have proportionately high search and switching costs (compared with those of many retailers). Moreover, there may be stickiness in giving rebates, as distinct from lower annual fees, to cardholders. And once the annual fee is down to zero, which it commonly is in the United Kingdom for example, such competition as there is may tend to take less direct forms than price. (If what comes through my mailbox is a guide, it would indeed seem to.)

Rochet and Tirole (2002) indeed *assume*, in view of the facts of the industry, that member banks' profits increase with the interchange fee. So their incentive is to set the interchange fee at "the highest level that is consistent with merchants accepting the card" (p. 558).

In considering the incentive of retailers to accept cards, it is crucial to distinguish, as Rochet and Tirole stress, between a retailer's individual incentive and that of retailers collectively. Especially in a number of lines of retail, it would be substantially detrimental to a retailer's business not to accept at least the cards of the two main schemes, above all because the retailer would otherwise risk losing profitable business to rival retailers.[11] In short, there is an element of must-take. Because of the competitive externality between retailers, the extent of card acceptance by retailers is certainly not a reliable measure of overall retailer benefit from, or of the economic welfare of, card acceptance in respect of systems with wide coverage.

A further factor that influences the degree to which retailers must take cards is the cost/reward structure faced by users. If the interchange fee is so high that competition among issuers leads to users getting rewards for card *usage* (for example, air miles or cash back), "the cardholder is then even more upset when a shop turns down a card, as she loses the reward on top of the convenience benefit" (Rochet and Tirole, 2002, p. 560). This reinforces the key point that individual retailers' willingness to accept cards is not a good measure of overall retailer (or social) benefit from card acceptance. The sum of the willingness of each retailer to accept can greatly exceed the aggregate benefit to retailers or to economic welfare generally.[12]

Moreover, the cost and reward structure faced by users can distort choice between payments systems—to the detriment of economic efficiency. The governor of the Reserve Bank of Australia has recently drawn parallels between circumstances with high interchange fees and Gresham's law that bad money drives good money out of circulation.[13] Just as our sixteenth century forbears would rather pay with a coin that had lost 1 percent of its gold than a full one, so in the twenty-first century, some of us may be tempted to pay by means that yield 1 percent rewards at the expense of the retailer than by ways that do not. Without pushing the analogy too far, the common point is that the high-cost means of payment (for the retailer) can tend to gain at the expense of the low-cost means—irrespective of any underlying efficiency advantage.

Might more purchasing with credit cards, perhaps encouraged by cardholder rewards resulting from high interchange fees, nevertheless expand overall consumption, and hence economic activity? This seems doubtful. First, the expansion in sales for one retailer deciding to accept a card is not an aggregate demand expansion if others lose sales in consequence. Second, if (as we naturally assume, in view of our conference host) the central bank is conducting monetary policy to keep aggregate demand in line with the economy's supply capacity, household consumption can expand only if business investment or government expenditure or net exports decrease correspondingly. The interchange fee could conceivably affect the mix of demand, but aggregate demand remains constrained by supply capacity.[14]

Finally, in considering the incentives of the banks with respect to the level of the interchange fee, it is important to keep in mind that, as well as revenues related to interchange fees and any annual fees, issuers receive very substantial revenues from those with credit card debt outstanding.[15] Credit card spending, unlike most other forms of payment, leads directly to debt, which is typically relatively expensive for the many who do not clear their balances in full within the interest-free period.[16] Of course, irrespective of the means of payment it uses, the change in a household's net indebtedness in any period is equal to its expenditure (including interest payments) less its income (including interest income). But means of payment can nevertheless influence the evolution of the mix of the household's net liability position. In particular, it is natural to expect that encouragement (for example, via the interchange fee) of means of payment that are conducive to particular kinds of debt (in other words, credit card debt) will tend to increase such debt. If that debt is relatively profitable for those with a role in setting the interchange fee, then the direct link from credit card spending to credit card debt will be an (upward) influence in setting the commercially most advantageous interchange fee.

IV. The public interest and the interchange fee

What, then, determines the interchange fee that would best serve the public interest? This question does not have a simple general answer.[17] For example, as explained below, there is no presumption that the public interest would be best served by an interchange fee of zero.[18] Three factors with a potential bearing on the interchange fee that is in the public interest are network externalities, imperfect competition in card issuing (or acquiring), and the nature of retailer competition and pricing—in particular, the ease or difficulty of surcharging for card use.

The observation was made earlier that the major credit card associations serve two sides of a market—cardholders and retailers. Other things being equal, cardholders generally benefit as more retailers accept their cards in payment, and up to a point (depending, for instance, on transaction cost efficiency), retailers as a whole benefit as card usage expands. Starting from a zero interchange fee, therefore, there are circumstances in which retailers in aggregate, and efficiency, would benefit from there being more holders and users of cards; a positive interchange fee then could improve social welfare by encouraging card use. There are also circumstances in which consumers would benefit from there being more card-accepting retailers, and a negative interchange fee then could be optimal.

The general point is that the interchange fee can adjust the balance between card acceptance and card holding/usage. In the presence of network externalities—that is to say, network effects that have not been internalized—there is no presumption that the optimal interchange fee is zero. But since network externalities can in principle go either way, neither is there a general presumption as to the desirable direction of rebalancing, relative to an interchange fee of zero.

As to the desirability of using the interchange fee to tune the balance between card acceptance and card holding/usage, it may well be that the case is stronger in nascent systems than in mature systems with wide coverage.[19] In mature systems, there is no problem of viability, and any network externalities resulting from changes in membership on either side of the market may be small relative to those in a nascent system. And it is in mature systems with wide coverage that retailers may feel most obliged to accept the cards of those systems—in other words, merchant resistance is weaker. Thus the divergence between the commercial interest of the banks and the public interest in regard to the interchange fee, as well as the sheer volume of commerce affected, may well be greater in mature systems with wide coverage than in newer or smaller systems.

The possible relevance of imperfect competition in card issuing (or acquiring) is a separate point. Suppose, as was suggested earlier, that competition in issuing is imperfect relative to that in acquiring. Then, along the lines of the theoretical argument that firms with market power should be subsidized to induce them to expand output, it could be argued that card issuing should be subsidized via the interchange fee to offset the market power of issuers. This is a key reason why, in the analysis of Rochet and Tirole (2002), the socially optimal interchange fee will not necessarily be lower than the highest level at which retailers would accept cards (which is the commercially optimal level of the fee in their model).

However, the argument that the interchange fee should be raised in order to subsidize imperfectly competitive issuers is unappealing.[20] First, insofar as there is imperfect competition, it should be addressed by procompetitive measures, not rewarded by subsidy. (Pushed to an extreme, the argument would favor subsidizing cartels.) Second, any subsidy has to be financed by, effectively, a tax on retail purchases. It may be that some of the tax implied by a high interchange fee is recycled to card-paying consumers (for instance, via the interest-free period and rewards for card use), but the recycling may well be imperfect and inefficient. Moreover, there is usually no interest-free period for the many payers by credit card who do not routinely clear their balances in full, and in the absence of frictionless surcharging, those paying other than by credit card get no tax rebate at all. So besides the general unattractiveness of subsidizing imperfectly competitive firms, the effective tax to finance the subsidy would seem likely itself to be inefficient and distorting.

The question of surcharging deserves further comment. If surcharging were frictionless—that is, if retailers costlessly could differentiate their retail prices according to means of payment—then surcharges could internalize some or even all of the externalities relating to credit card acceptance and use.[21] In theory, there could still be public interest reasons to seek to use the interchange fee to correct for distortions—for example, relating to issuer market power, as discussed (doubtfully) above, or if there were a systematic tendency for retailers to set price differentials that did not match the costs and benefits for retailers associated with different means of payment. But the practical importance of this theoretical point seems very limited.

In fact, moreover, surcharging is by no means costless for retailers, even where (as in the United Kingdom) surcharging is permitted. In that case, an unduly high interchange fee for credit cards could substantially distort choice between payment methods (for example, against debit cards), with important consequences for economic efficiency, and to the particular detriment of the many consumers who either don't generally pay by credit card (perhaps because their credit rating does not allow them to have such cards) or let costly card debt accrue.

A public interest assessment of the interchange fee would by contrast seek to avoid distortion between payment method choice, and would consider consumer welfare evenly in the round, without special weight on consumers who both generally pay by credit card and routinely clear their balances in full.

A. Commercial incentives and the public interest compared

It follows from the points discussed above that the level of the interchange fee that is best for the major credit card associations, and their members, could well be significantly in excess of the level that best serves economic efficiency and overall consumer welfare.[22] So the invisible price set by the major credit card systems—so frequently paid in modern economies directly by retailers and indirectly by consumers as a whole—could well be too high, at substantial cost to the public interest.

V. PUBLIC POLICY APPROACHES

The level of the interchange fees set by the major credit card associations is therefore a serious public policy question. In broad terms there are three approaches to it. The first is *laissez-faire,* which would be the right approach if the costs of public policy intervention outweighed the benefits. As explained above, that may be the case for nascent or smaller systems but is less likely for mature systems with wide coverage. As to the cost of intervention, moreover, it is worth noting that there is no reason to expect that some public policy constraint on interchange fees would require a large regulatory apparatus.

The two broad alternatives to *laissez-faire* are general competition law or specific regulatory measures—for example, in legislation relating to payments systems. For short I will call these the "competition policy" and "regulatory" approaches, respectively. However, a variety of substantive outcomes is possible under each of these broad headings, and so substantively, if not procedurally, those outcomes could overlap. For example, one could imagine a regulatory approach that imposed a particular level of interchange fee—for instance, zero—on the major systems. Conceivably, though I think this unlikely, a competition law remedy could take the same form. By contrast, a lighter-touch form of regulation might allow the relevant interchange fees to be within a range, perhaps reflecting particular cost categories (but excluding others), and one could imagine a competition law remedy—or settlement—similar to that.

In part because of this possible substantive overlap, one cannot say that the competition policy approach is generally better or worse than the regulatory approach. But it has advantages, provided it is effective, for example by avoiding the need for particular legislative or regulatory provisions or structures.

What competition policy approaches to the interchange fee question have been taken in the United Kingdom and at EC level? A full answer to this question would involve, among other things, detailed discussion of various legal points and, moreover, would be improper, given that cases are currently in progress, including at the Office of Fair Trading (OFT). So the following is a general and nontechnical account of what has happened to date, focusing on some of the key issues.

A. Competition law and cases

First, the relevant law must be outlined. In broad terms, article 81 of the EC Treaty and the chapter I prohibition of the U.K. Competition Act 1998, which mirrors EC law, prohibit appreciably anticompetitive agreements, unless they are shown to pass all of four tests. More particularly, the prohibitions apply to "agreements between undertakings, decisions by associations of undertakings, or concerted practices . . . which have as their object or effect the prevention, restriction, or distortion of competition." The tests are that the agreement (etc.)

- must contribute to improving production or distribution or promoting technical or economic progress,
- with consumers getting a fair share of the resulting benefit, and
- must not contain restrictions not indispensable to attaining those objectives
- nor eliminate competition.

For an agreement which appreciably prevents, restricts, or distorts competition *not* to be prohibited, it must satisfy all of these tests in such a way that the procompetitive advantages of the agreement outweigh any disadvantages to competition.

In the United Kingdom, MasterCard notified its arrangements to the OFT when the Competition Act came into force in 2000.[23] In February 2003, the OFT issued a statement of objections to MasterCard and published a summary of preliminary conclusions on MasterCard's interchange fee.[24] Following extensive responses from MasterCard and analysis of those responses, a further statement of objections was issued in November 2004. That statement proposed to find that the MasterCard agreement on the interchange fee applicable to U.K. transactions infringed article 81 of the EC Treaty as well as the chapter I prohibition of the U.K. Competition Act. (In May 2004, the OFT had become empowered to apply the EC competition rules as well as domestic law.) Further extensive responses came from MasterCard, and the OFT's analysis of them is nearing its conclusion. In November 2004, the OFT also announced that it had launched an investigation into the Visa agreement on interchange fees applicable to U.K. transactions.

Meanwhile, in 2002, the European Commission found that the agreement on the Visa intra-regional interchange fee, applicable to cross-border Visa consumer card transactions in Europe, was anticompetitive but granted it an exemption (until the end of 2007) after Visa made a number of changes to its arrangements, including a lowering of interchange fees. The European Commission is currently examining the MasterCard interchange fees relating to cross-border transactions, on which it issued a statement of objections in the autumn of 2003.[25] The OFT and the European Commission, of course, are in close contact on these matters.[26]

B. Two key issues

Of the various issues that European competition law assessment of interchange fee arrangements in major four-party credit card systems entails, two are central:

- The question of anticompetitiveness: Supposing that the arrangements are "agreements between undertakings, decisions by associations of undertakings, or concerted practices," do they prevent, restrict, or distort competition?
- The question of exemptability: If the arrangements are anticompetitive, do they pass the tests?

On the questions of anticompetitiveness, there are, broadly speaking, at least two ways (either or both of) which interchange fee arrangements might be found to be anticompetitive. The first is if it is found that the *existence* of the agreed interchange fee restricts competition—perhaps because it is found to restrict the incentive or ability of parties to negotiate interchange fees bilaterally.

The second is if it found that the *level* of the interchange fee distorts competition in the acquiring market and/or the issuing market—for example, by putting unduly high costs onto acquirers and thereby preventing or restricting their ability to offer better terms to retailer customers. At what level of the fee might there be said to be such a distortion of competition?

On one view, there might be said to be a distortion, relative to the situation of simply letting costs lie where they fall, if there are *any* transfers set by card system agreements—in other words, if interchange fees are other than zero. More generally, having regard to the fact that credit card systems provide payment services jointly to retailers and to cardholders, it might be thought that there is a distortion of competition in the acquiring market arising from the interchange fee, at least if it effectively requires acquirers to charge retailers more than their fair share of the costs of providing the payment services. But it is not obvious what constitutes a fair share. So a related, but perhaps rather modest, view would be that there is certainly a distortion of competition in the acquiring market arising from the interchange fee if it effectively requires acquirers to charge retailers <u>more than all</u> the costs of providing the payment services that are provided jointly to retailers and cardholders.[27] (It would then seem quite reasonable to say that there was a scheme-imposed 'tax' on retailers and, hence, their customers.) Likewise, there would be a distortion of competition in the issuing market arising from the interchange fee if it effectively required issuers to charge cardholders more than <u>all</u> the costs of providing the payment services.

On occasion, there have been attempts to justify levels of interchange fees in terms of costs, but where those costs have included not only (all) the costs of payment services but also the costs of credit services provided to cardholders, for example the cost of the interest-free period. On the approach outlined in the previous paragraph, such interchange fees would be held to be distortive of competition.

For argument's sake, suppose now that interchange fee arrangements have been found to be anticompetitive. Besides the tests relating to economic progress and elimination of competition, arrangements with an unduly high interchange fee might fail the tests relating to consumer share of benefit and/or indispensability because of the height of the fee. For example, far from being indispensable to the attainment of economic progress and consumer benefit, an unduly high fee would reduce them relative to situations with perfectly feasible lower fee levels. But what is an unduly high interchange fee?

Again, perhaps a natural benchmark is whether or not the interchange fee paid effectively by retailers (and, hence, their customers) exceeds all the costs of the payment services that are provided jointly to retailers and cardholders. Thus, one approach would be to say that if the interchange fee is within this bound, then the indispensability test is met, but that otherwise it is failed, unless it is demonstrated that such a high interchange fee—with more than all of the payment services costs charged to one side of the market—is necessary to attain the objectives of economic progress and consumer benefit.[28]

Arguably, however, such an approach would be too permissive. It is quite possible that an interchange fee that charged all—but no more than—the costs of payment system services to one side of the market would result in lower economic progress and consumer benefit than a fee at, say, half that level, or indeed at zero. Unless it could be demonstrated that such a high fee were required to attain those objectives, it might be thought that an interchange fee equal to all the cost of payment system services failed the indispensability test in European competition law.

On the other hand, it might be argued that the interchange fee should, after all, be set so high as to charge more than all the costs of payment system services to one side of the market—the retailer side—and, in particular, that the cost of funding the interest-free period enjoyed by (some) cardholders should be factored into it. However, besides the burden of proof, such an argument would appear to have some difficulties to overcome, including, but not only, the following.

First, such reasons as there are in economic theory that the most desirable interchange fee might conceivably, in particular theoretical circumstances, charge more than all of the payment services costs to one side of the market appear to have nothing to do with the cost of funding an interest-free period (or other credit services provided to cardholders). Only by fluke would that deliver the answer.

Second, credit card issuers have substantial revenue streams other than the interchange fee to finance the cost of funding the interest-free period, especially interest payments from the many who do not routinely pay off their credit card balances in full. (For those cardholders, moreover, there is usually no interest-free period anyway.) This is an element of the wider point that it would seem natural and appropriate for the terms of credit between issuers and cardholders to be a matter between them, not one calling for financial contribution from retailers and, hence, consumers at large.

Third, the detriment caused through higher retail prices to consumers generally would have to be shown to be outweighed by other economic and consumer benefits.[29]

The questions of anticompetitiveness and of exemptability discussed above, though central, are but two of a number of issues that arise in the assessment of interchange fees under competition law in Europe. The cases continue.

VI. CONCLUSIONS

The first question posed at the outset was whether the invisible hand would ensure that the invisible prices so frequently paid in modern economies—the interchange fees of the major credit card associations—would be set at economically efficient levels. For the reasons outlined above, that is to be doubted.[30] Where those invisible prices are of great economic importance—including for the evolution of payments systems—it follows that interchange fees are potentially of serious public policy concern. Perhaps they call for tailored regulation. Perhaps competition law can provide adequate discipline. We shall see.

Author's note: The views expressed here are personal and not necessarily those of the OFT. The author is most grateful to OFT colleagues Robin Finer, John Leaning, Peter Lukacs, Nic Newling, and Alan Williams for their help in preparing the paper, and also to Mark Armstrong for discussions on related economic issues.

ENDNOTES

[1] *Credit and Debit Cards,* Mintel Finance Intelligence, July 2004, Figure 16 (based on the APACS Plastic Card Review, 2004). These figures include purchases and cash acquisition in the United Kingdom and overseas on U.K.-issued cards.

[2] This is not to say that all credit card use is by consumers; of course there is some business use too.

[3] Bank of England, "Monthly Amounts Outstanding of Total Sterling Net Credit Card Lending to Individuals Not Seasonally Adjusted" (series LPMVZRE).

[4] See *Western European Cards and Payments Databook 2004*, Datamonitor, October 2004.

[5] By "payment services" I mean services integral to the operation of a system as a payment transmission mechanism providing means of irrevocable payment.

[6] The fallback interchange fee rates apply in the absence of separate agreement between the parties concerned. Since the vast bulk of transactions in the United Kingdom take place at those rates, for simplicity I will speak as if all do.

[7] Visa and MasterCard account for about two-thirds and one-third, respectively, of U.K. credit card business, whether measured by number of credit cards in issue or the volume or value of credit card transactions.

[8] *Competition in United Kingdom Banking,* Her Majesty's Treasury, March 2000, Table D3.6.

[9] See *www.mastercardintl.com/corporate/mif_information.html* and *www.visaeu.com /acceptingvisa/interchange.html.*

[10] No-surcharge rules were abolished in the United Kingdom in 1991 following the report of the Monopolies and Mergers Commission, *Credit Card Services—A Report on the Supply of Credit Card Services in the United Kingdom.*

[11] The fixed costs of many retailing activities mean that retail margins are often substantial.

[12] Likewise, the average retailer benefit from card acceptance may be less than the average fee that retailers pay—an issue that is featured in the analysis of Wright (2004).

[13] Macfarlane (2005).

[14] Katz (2001, paragraphs 37-39) considers a number of routes by which card use might increase aggregate consumption. He concludes that the literature suggests that "the claim that credit and charge card use leads to a permanent and significant increase in aggregate consumption . . . is ill founded."

[15] See Katz (2001, paragraph 79).

[16] The figures presented earlier showed, for example, that U.K. credit card debt outstanding is more than half of annual credit card spending.

[17]There is also the question of what constitutes the public interest. In addition to the old question of whether producer profits should reckon equally with consumer welfare in assessing social welfare (or the public interest), there is the question of which consumers count in the reckoning of consumer welfare. For the purposes of this discussion, I will take it that the interests of all consumers are of public interest concern, not just credit card users (nor, of course, the even narrower and odder category of credit-card-users-but-only-in-respect-of-the-purchases-they-make-with-credit-cards).

[18]See, for example, Evans and Schmalensee (1999, p. 280), and Wright (2004, section III, iii).

[19]See Katz (2001).

[20]See Katz (2001, paragraph 97).

[21]See the summary in Katz (2001, paragraph 81).

[22]The analysis of Rochet and Tirole (2002) gives formal support for this conclusion (even though their model omits some of the reasons, for instance those relating to debt interest, for possible divergence between commercial and social incentives). In their model, the interchange fee is set too high by commercial interests except if it is socially, as well as commercially, optimal for the fee to be at the highest level at which retailers accept cards.

[23]Another U.K. payments systems matter involving interchange fee issues notified at roughly the same time was the agreement relating to the LINK ATM network. The OFT found, in a decision issued in October 2001, that LINK's centrally set merchant interchange fee restricted competition, but that it satisfied the tests for exemption. The exemption decision applies until October 2006—*see www.oft.gov.uk/Business/Competition+Act /Decisions/LINK+Interchange+Network+Limited.htm.* The OFT is also engaged in work on payment system questions other than interchange fees—see, for example, *United Kingdom Payment Systems—An OFT Market Study of Clearing Systems and Review of Plastic Card Networks* (May 2003) and other materials at *www.oft.gov.uk/Business/Payment+systems+task+force/default.htm.*

[24]Office of Fair Trading (2003). A previous statement of objections had been issued in September 2001.

[25]See Commission press release MEX/03/1030 of October 30, 2003.

[26]In addition, there are competition law cases concerning interchange fees in some EU member states other than the United Kingdom. And there have been and are cases, including before the European Commission, on credit card matters other than interchange fees.

[27]In those circumstances, it also reasonably might be said that there was distortion of competition in the issuing market because the receipt of interchange fees reflecting more than all of the cost of payment services unduly depressed the effective cost base of issuers—a system-imposed subsidy financed by the tax on retailers and their customers. There could moreover be consequential, and very substantial, distortions of competition between means of payment, for the reasons outlined above.

[28]If the only reason why the interchange fee was found to be anticompetitive was the distortion of competition arising from its being in excess of all the costs of payment system services, then the exemptability question would fall away if the fee were reduced below that level, because there would no longer be anticompetitiveness. But that is not the only reason why an interchange fee might be found to be anticompetitive.

[29]Note that this detriment is suffered by cardholders too on the typically many occasions when they make purchases other than by credit card.

[30]Adam Smith, I suspect, would hardly have expected the invisible hand to guide the major credit card associations of today as it may have done the independent butchers, brewers, and bakers of his time.

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