Interchange Fees in Various Countries: Comment on Weiner and Wright

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Stuart Weiner and Julian Wright should be commended for the efforts they have made to assemble comparative information about interchange fees, no-surcharge rules, and related practices and regulatory issues from various countries.[2] It is clear from their work that much remains hidden from view about interchange fees and vertical restrictions in payment networks. They are, in fact, able to report on interchange fee trends in only a relative handful of countries – and many of those have experienced active regulatory or other legal investigations or interventions concerning interchange fees.

In addition to offering useful descriptive data and information about interchange fees and related issues in various countries, Weiner and Wright also attempt a *positive* analysis of interchange fees; that is, they attempt to analyze possible reasons why interchange fees tend to be set at particular levels. They concede their relative lack of success in this effort, concluding only that "interchange fees will be determined by multiple factors."[3] My comment will focus on this interesting attempt to account for differences in interchange fees in various countries.

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2. Stuart E. Weiner and Julian Wright, *Interchange Fees in Various Countries: Developments and Determinants*, April 25, 2005. [fix cite for finished version]
3. Weiner and Wright, p. __. [fix cite for finished version]

I. What do Interchange Fees Do?

Explaining why interchange fees are likely to be set at particular levels requires some hypothesis or competing hypotheses concerning the actual effects of interchange fees and the competitive pressures, if any, that might influence the level of the fees. Explanations for what interchange fees actually do in payment markets range from essentially semantic or legal arguments to highly theoretical economic models, but they tend to fall into several general categories, at least some of which might not be mutually exclusive. I categorize these as procompetitive or anticompetitive, depending on whether the hypothesis involves achievement of efficiencies or simply the extraction of profit through the exercise of market power, although neither the authors of the various articles on interchange fees nor Weiner and Wright would necessarily agree with my characterization.

A. Procompetitive Hypotheses

Three principal economic defenses have been offered in support of claims that interchange fees have important procompetitive, or efficiency-enhancing economic effects. These include claims that:

- Interchange fees "balance" a "two-sided" payment system market to correct an indirect "network externality" and solve a "chicken and egg" entry barrier problem;
- Interchange fees solve a "usage externality" in which consumers otherwise would have too little incentive to use cards which are assumed to impose lower costs on merchants; or
- Interchange fees are needed to reimburse card issuers for specific services they provide for the benefit of merchants and their banks (e.g., the interest-free grace period, the "payment guarantee," and "processing").

The last of these explanations has received relatively little attention from or support by economists, but has been received more favorably by some regulators. This is

perhaps due to its tractability and amenability to a regulatory solution, but the notion that Visa based its interchange fee on a measure of "costs" was also considered by the court to be an important factor in Visa's favor in the *NaBanco* interchange fee litigation of the early 1980s. A cost-based reimbursement justification for interchange has also reportedly been advanced by MasterCard in defense of its interchange fees.[4] MasterCard now discloses the relative importance of the principal cost components it claims are the basis for cross-border interchange fees in Europe.[5]

There is a significant conceptual problem with the cost-based defense of interchange fees. First, issuer costs are endogenous to the level of the fees: in response to an increase in interchange fees, issuers will have an incentive to spend more promoting their cards and enhancing their rebate programs. As Weiner and Wright explain, "Even with a zero interchange fee, issuers will cover their cost, in equilibrium by charging cardholders more."[6]

In today's electronic payment systems it is possible for a card issuer to assess competitive determined fees directly on customers whose transactions caused the issuing bank to incur costs (or perhaps waive such fees as part of a bundle of services, fees, and

4. According to the United Kingdom's *Cruickshank Report*, MasterCard claims interchange fees "compensate card issuers for the cost of services they supply to acquirers through the payment scheme" which "[a]cquirers in turn supply… to retailers." Don Cruickshank, *Competition in UK Banking: A Report to the Chancellor of the Exchequer*, (March 2000), Annex D3, p. 262.
5. MasterCard states, "The three main cost categories proportions, as measured in MasterCard's most recent MasterCard Consumer cards cost study and rounded to the nearest percent, are… Payment Guarantee costs, 50%; Free Funding costs, 25%; [and] Processing costs, 25%." MasterCard Intra-European Fallback POS Interchange Fees & Cost Components, (http://www.mastercardinternational.com/corporate/mif_information.html, visited June 5, 2005)
6. Weiner and Wright, p. ___. By "charging more," presumably, Weiner and Wright mean to encompass reduced rebates offered on some card plans, annual fees, and perhaps transaction fees.

other banking arrangements). Issuing banks, moreover, are in a far better position to control costs such as credit and cardholder fraud losses, promotional costs, and the interest free period, than are merchant acquirer banks or the merchants, which have no control over issuer decisions to offer credit, authorize transactions based on cardholder characteristics, or set the terms of card plans, including the interest free period.

It might be possible to test whether the associations set interchange fees to reimburse issuers for specific costs, by analyzing whether interchange fee movements are correlated with known changes in the claimed underlying cost elements (e.g., lower cost of funds, fraud rates, credit losses, etc.). Even a finding of such a correlation, however, might merely establish that interchange fees induce additional "rent-seeking" expenditures, liberalized incentive plans, and reduced credit standards.

In contrast to the cost reimbursement explanation, the two types of externality explanations have received a significant amount of economic attention, ranging from vague assertions about the need for interchange fees to "balance" the two sides of the payment market to complex theoretical modeling of this claimed balancing or of the "usage externality" – differences in costs imposed on merchants as a result of consumer payment choices not accompanied by differences in retail prices.

Some of the efficiency claims concerning interchange fees are based on an assumption that card issuing banks have unilateral market power. They are therefore related somewhat to what I term the anticompetitive explanation. (If even individual issuers have significant market power in the credit card market, then they obviously possess collective market power.) In this procompetitive scenario, however, the idea is that if individual issuers have market power, they are likely to restrict output and set

prices – e.g., transaction fees – too high. To the extent an interchange fee acts like a subsidy to card issuing, it might be used to offset the effects of issuer market power.[7]

There are significant difficulties with the hypothesis that interchange fees achieve efficiencies by subsidizing issuers with market power. For one thing, the theory directly contradicts one of the card associations' primary antitrust defenses – their contention that competition among issuers is so intense that it would be impossible for any network practice, including the imposition of interchange fees, to harm the public. In this view, a fee set "too high" would simply be rebated back to the public by card issuing banks.[8]

More generally, the notion that paying a subsidy to a firm with market power can be efficient is not unique to payment systems or "two-sided" markets. Subsidizing monopolists, as a theoretical matter, might be allocatively efficient, but there are significant wealth transfers and public policy issues involved. One could perhaps argue that Microsoft, for example, has market power and therefore does not sell enough copies of its Windows operating system, resulting in too little use of computers. But Microsoft is not permitted to impose a retail sales tax on other goods or services and use the revenue to subsidize itself for each copy of Windows it sells. Yet, this is what is happening with interchange fees: issuing banks (with collective, if not unilateral, market power) collectively control the card associations, which set the interchange fees collected by those issuing banks. Merchants pass the increased costs along to all customers regardless of payment method used, so retail prices increase to all consumers. As

7. Weiner & Wright, p. ___ ("higher issuer margins… requires higher interchange fees to optimally balance the two sides of the market.")
8. Of course, even if all supracompetitive fee revenue were rebated to cardholders, there would be a net transfer from non-card customers to card customers and a distortion of payment choices as some consumers are inefficiently steered towards card usage.

discussed below, moreover, there is no competitive mechanism to ensure an efficient outcome in which the associations consider not only the welfare of card issuing banks, but also the welfare of consumers generally, including the welfare of consumers when they use alternative payment methods such as cash, checks and PIN debit cards.

The "usage externality" refers to the fact that consumers choose the method of payment, but although merchant costs vary with respect to those consumer choices, consumers do not internalize those cost differences because, as just described, merchants set a single retail price irrespective of payment method. The hypothesis that interchange fees are correcting a usage externality depends on an assumption that cards (absent interchange fees) significantly reduce merchant costs, and merchants would want to subsidize card use. At least if the merchant acquiring market is competitive, this hypothesis generates testable implications. Merchants, for example, should collectively approve of interchange fees. A merchant should have the ability to choose and disclose the level of interchange fee that will apply to its transactions, and have that amount rebated directly as a credit to the cardholder. If interchange fees are solving usage externalities, moreover, the cost (including interchange fees) to a merchant of accepting various payment methods should be about the same.

B. Anticompetitive Hypothesis

Weiner and Wright describe how interchange fees might be used to shift revenue to the side of the market with more voting power or market power.[9] Because these effects are either unrelated to, or in addition to, any claimed efficiencies, I label them

9. Weiner and Wright, p. __.

here "anticompetitive" rather than "procompetitive," but it should be clear that these are my distinctions, not those expressed in the paper by Weiner and Wright.

To explain how anticompetitive effects can arise from interchange fees, consider some of the possibilities described by Weiner and Wright – possibilities that, I suggest, resemble what is actually happening in the marketplace:

- "[C]osts are fully passed through on the acquiring side" (or close to it), so acquirers respond to an increase in interchange fees with nearly identical increase in merchant fees;[10]

- Issuers respond to an increase in interchange fees with less than perfect pass-through to cardholders. This will "increase issuers' profits," "increase the overall level of fees," and induce "more promotion of card services by issuers."[11]

- "Merchants will accept cards, in part, to attract customers from each other." They "will increase the amount they will be prepared to pay… above that determined solely from any transactional benefits…." so that "the card association will want to set a higher interchange fee."[12] They explain, "[e]ssentially, if merchants have little resistance to paying merchant fees because of their need to do so to attract customers, then card schemes will drive higher card volumes and profits by setting relatively high interchange fees."[13]

- Competition between rival networks does not constrain interchange fees to any claimed efficient level and does not prevent the exercise of market power.[14] A network reducing interchange fees gets no additional sales volume, because

10. Weiner and Wright, p. __.
11. Weiner & Wright, p. __. Weiner and Wright explain "If issuers get to retain some of the… increase in interchange fees, the card association may then end up setting interchange fees higher than is optimal…" Weiner and Wright, p. ___. Even with perfect pass-through, however, they will have an incentive to set interchange fees at a high level. In such a (unlikely) scenario, however, it will simply be card users that obtain all of the benefits paid for by those same cardholders and all other consumers.
12. Weiner & Wright, p. __.
13. Weiner & Wright, p. __. Differentiation among individual issuers' card programs, spurred by interchange fees, leads to a situation in which a merchant refusing one network will likely lose a significant amount of sales to another merchant even if the customers have the ability to use other cards.
14. Weiner and Wright cite Guthrie and Wright in describing how a "competitive bottleneck" might exist. Weiner & Wright, p. __, citing Graeme Guthrie and Julian Wright, "Competing Payment Systems," National University of Singapore, Department of Economics Working Paper No. 0311 (September 9, 2003).

> "merchants may continue to accept both cards given they expect consumers to only hold one type of card."[15] Worse, "greater inter-system competition can cause card associations to increase their interchange fees." In other words, to the extent competition occurs, it takes the form of associations – run collectively by issuing banks – competing for the loyalty of issuing banks by offering higher collectively set interchange fees paid by merchants.

While other theoretical possibilities are discussed by Weiner and Wright, if this set of possibilities resembles the actual situation, then banks have an economic incentive to use interchange fees to collectively exercise market power. I suggest that whatever "optimal" interchange fee might be implied by the application of one or another theoretical model, the principal economic force motivating interchange fees is the ability of card issuing banks to tax retail sales, including retail sales made with alternative payment methods. This latter effect occurs because merchants generally do not discriminate in price between card and non-card transactions. As a result, an association reducing fees gets fewer sales, not more (because some of the additional fee revenue is shared with cardholders who use that network). Competition between the associations will not constrain interchange fees to some claimed "optimal" level, and may in fact facilitate a move towards the monopoly level of merchant fees.

How accurate are the assumptions underlying this anticompetitive scenario? There is general agreement that the acquiring market in the United States, at least to date, has been intensely competitive; Visa has acknowledged that changes in interchange fees flow through to merchants in an equal amount. (This may be untrue in countries that lack

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15. Weiner & Wright, p. __. "More generally, a similar result may arise if cardholders rather than merchants ultimately determine which card will be used." *Id*. Cardholders may develop stronger preferences to use particular cards as a result of the interchange fee system, which has encouraged the creation and enhancement of cards with loyalty benefit features such as rebates that escalate in value as cumulative spending during a year increases.

effective acquirer competition.) On the issuing side, however, pass-through is far from perfect even in the United States with its thousands of issuers, many of which engage in intense nationwide marketing efforts. There are probably a number of reasons for this. As a practical matter, it may be costly to enact and inform consumers about reductions in prices or enhanced rebates when those consumers are already receiving zero or negative effective prices. In addition, cardholder switching costs may permit issuers to retain profits from increased interchange fees on charges made by inframarginal customers who do not switch to slightly enhanced card plans with each new increase in interchange fees.

Non-price competition is ubiquitous in the card industry in the United States. This is seen not only in perks like the frequent flier miles and cash rebates offered by some cards, but also in the huge growth in solicitation efforts by card-issuing banks. As Figure 1 shows, bank card issuers sent nearly 5¼ *billion* direct mail solicitations to U.S. households in 2004. Most creditworthy households already have a MasterCard or Visa card, however, and the average response rate to these solicitation offers has fallen to only 0.4%. The billions of solicitations, meanwhile, were accompanied by only 2.7 million net additional cardholders – about one new customer for each 1,900 solicitations mailed, and similar to the growth of the overall U.S. population. So it would seem hard to claim that interchange fees are necessary today to overcome a chicken and egg entry barrier problem.

The pattern of solicitation and other costs incurred to enlist credit card customers is consistent with the expectation by banks that they can expect to earn a stream of profits from cardholders over an extended period of time. Moreover, the high account acquisition costs consume some of the interchange fee revenue, reducing the revenue

available to pass through to cardholders. The often cited cash and especially in-kind rebates (e.g., frequent flier program credits) are obtained by only some cardholders, and these rebates are likely worth substantially less on average than the interchange fees paid to issuing banks.

Even in the anticompetitive scenario there are *some* economic constraints on the level of interchange fees; they are simply insufficient to generate competitive retail prices. The principal constraints are determined by the willingness and credibility of threats by merchants to drop acceptance of cards, and the ability of merchants to steer customers to the merchants' preferred payment methods.

Although the card associations tout the additional sales obtained by a merchant as a benefit provided by accepting their cards, aggregate retail sales in the economy cannot be increased for all merchants in all years as a result of the introduction of a particular card brand (beyond any actual efficiency savings generated by that payment method). Even if individual merchants each accept a card brand, if they could act collectively, they might choose not to accept the brand. The difference between the "private" benefit to a merchant and the "social" value to all merchants of a merchant's acceptance decision was noted by Katz and corresponds to the "strategic" vs. "transactional" motives to accept credit cards discussed by Weiner and Wright.[16]

The anticompetitive explanation of interchange fees thus leads to some predictions. If interchange fees are not achieving significant transactional benefits for a merchant, but rather exploiting its unilateral inability to profitably refuse a card brand, then this suggests that the networks will let issuers, not merchants, determine the level of

16. Michael L. Katz, "Commissioned Report," *Reform Of Credit Card Schemes In Australia, Volume II* (August 2001), p. 19.

interchange fees. Issuer concentration will likely be irrelevant to the level of interchange fees, because the fees are set by the issuers acting collectively through their associations, and the profit maximizing interchange "tax" rate or rates will be driven by the maximum amount merchants are willing to pay and the ability of the associations to price discriminate so as to capture as much of this value as possible.[17] Merchants with reduced willingness to pay – such as those with low profit margins, high customer access to other well-accepted, low cost forms of payment, and in which card penetration among competitors is low – may be expected to pay lower interchange fees (if the association discriminates among merchant types). Merchants in highly concentrated merchant sectors, for which the "social" benefit may be closer to the "private" benefit of accepting the cards, may also pay less. Large merchants may pay less also because they represent a greater threat to the associations' interchange fee structures. The defection by a handful of large retailers from a single branded network may induce a significant number of issuers and cardholders to switch to an alternative brand, and could induce consumers to become more accustomed to relying on multiple card choices, lessening the intensity of their preference to use a particular card.

Interchange fees will also be constrained somewhat by the ability of merchants to surcharge card transactions. As interchange fees and merchant fees increase, it becomes increasingly attractive for merchants to discriminate in pricing between expensive credit card payments and less costly payment methods (e.g., cash, check, and – so far – PIN

17. Jean-Charles Rochet notes the possibility that the "privately optimal" interchange fee – the profit maximizing fee from the association's perspective – is given by "maximum value of the interchange fee… that is compatible with sellers' acceptance" (i.e., the monopoly fee). Jean-Charles Rochet, *The Theory of Interchange Fees: A Synthesis of Recent Contributions*, 2 Rev. Network Econ. 97 (2003), at 104. Rochet, however, defends the use of interchange fees and notes other theoretical possibilities.

debit transactions). Merchant retail pricing freedom can therefore act as a deterrent to further interchange fee increases, particularly if fees are already relatively high.

Finally, it should be noted that maximizing profits from interchange fees is likely to be a dynamic process, introducing timing complications to any analysis of fee trends. An association might seek to penetrate a merchant sector using low interchange fees, for example, then – once most or all major competitors in that sector accept the cards – begin increasing the fees to those merchants.

II. Interpreting The Evidence

The extent to which collectively set interchange fees can be used by card issuers as an anticompetitive exercise of market power to collect tax revenue from merchants (and their customers) would appear to be limited importantly by characteristics of merchants, at least in addition to, and perhaps instead of the characteristics of issuers, acquirers and the relative market shares of the associations.[18] Weiner and Wright, however, focus their empirical analysis on the latter, for which they are able to assemble some data.

"The lack of any systematic data on interchange fees limits a serious empirical analysis of these issues," so Weiner and Wright attempt only a simple correlation analysis.[19] The authors first test whether there is any correlation between the level of interchange fees and the level of issuer concentration in a country, reasoning that "[a]

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18. A complication arises if acquirers have market power, insofar as both acquirers and issuers (through the interchange fee) would want to tax the same retail sales. To the extent that acquirer mark-ups make it more difficult for issuers to tax retail sales, interchange fees might be lower in regions with acquirer monopolies, all else equal. In such regions, the resulting merchant fee might be similar to or perhaps higher than the merchant fees in competitive acquiring regions.
19. Weiner and Wright, p. ___.

positive relationship between interchange fees and issuer market concentration is predicted by balancing considerations… and also so as to shift revenues to issuers… assuming higher issuer concentration corresponds to higher market power." They also test for any correlation between the level of fees and the difference between issuing and acquiring concentration, and between the level of fees and system-level concentration. None of these correlations are significant. Weiner and Wright do identify upward trends over time in the United States in both the 5-firm (issuing) concentration ratio and interchange fees, but "only a weak (at best) positive relationship between issuer concentration and interchange fees" when concentration is measured using the HHI.[20] Although Weiner and Wright cannot rule out that any time series correlation is spurious, they suggest that "the increasing ability of large issuers to play one network off against another to raise interchange fees may provide a more fruitful avenue for explaining the finding."[21] To the extent there is an association between issuer concentration and interchange fees, this finding is consistent both with the "balancing" and the "revenue shifting" hypotheses described by Weiner and Wright, but there will probably be no disagreement from merchants in the United States that competition has been serving the interest of large issuers, not merchants.

None of the measures analyzed statistically by Weiner and Wright directly reflect the ability of merchants to resist paying the fees, which in turn is governed by their unilateral economic incentives to refuse to accept a card brand, their ability to surcharge costly cards (and the effectiveness of other steering efforts), and the potential

20. Weiner and Wright, p. __.
21. Weiner and Wright, p. __.

consequences to the associations and the fee revenue earned by their issuing members if the merchant should refuse their cards.

Empirical data with which to perform a more complete statistical analysis of interchange fees may be scarce. As Lloyd Constantine correctly notes, however, many facts are known about the credit card market and interchange fees.[22] In particular, the hypothesis that the associations are setting their interchange fees like a monopoly, at the maximum amount merchants will bear, is consistent with the following marketplace facts:

- Weiner and Wright provide a list of credit card interchange fee trends in ten countries (or EU cross-border). In eight of these, interchange fees are declining or stable. In five of the eight, merchants have been or are permitted to surcharge card use, or surcharges are being debated. In each of the other three stable or declining fee locations, regulators have intervened or are investigating interchange fees and/or surcharges. Fees are increasing only in the United States and Canada, where surcharging is not permitted and there is no active regulatory intervention.

- In Australia, where at least some segments of the merchant sector are relatively more concentrated than in the United States, credit card interchange fees were relatively low even before the Reserve Bank of Australia intervened (and debit card interchange fees flow towards the merchant side of the market). This is consistent with the social benefit of merchant acceptance being closer to merchants' private benefit of acceptance in Australia than in other regions.

- The defection of very large merchants (to, e.g., a subset of branded cards, private label cards, or perhaps a new general purpose card system) poses a greater threat to the interchange fee system and to association market share than the loss of smaller merchants. In the United States, large merchants have received lower interchange fees than small merchants.

- Merchants with low profit margins and with customers accustomed to using other payment methods have a smaller private benefit from accepting cards. Supermarkets have correspondingly received a lower interchange fee from the associations.

22. Lloyd Constantine, "The Need for Federal Reserve and Antitrust Intervention in the Failed U.S. Debit and Credit Card Markets," _____ [CITE FINAL VERSION]

Although Weiner and Wright focus on what might cause interchange fees to *vary* across countries and over time, the average *level* of interchange fees – which amount to a private sales tax on nearly the entire retail economy – is also of concern. Despite some examples of merchants receiving reduced interchange fees, the competitive position of merchants is generally quite weak relative to banks that can act as industry-spanning cartels. Moreover, once merchants throughout a retail category, such as supermarkets, begin to accept credit cards, it is much more difficult for any one merchant to drop cards if interchange fees begin to rise.

III.Conclusion

The focus of my comment has been the part of the Weiner and Wright analysis to which the authors have given the least emphasis, particularly at the conference at which this paper was presented. By my focus, I do not intend to detract from their efforts to obtain and summarize interchange fee and related data and trends from various countries. Indeed, their difficulties in obtaining data suggest a possible role for public authorities in facilitating the release of such information. Yet, the lack of comprehensive data concerning these issues in all regions does not preclude a comprehensive and critical economic analysis of a practice that amounts to collective price fixing by members of an industry. I suggest that the facts are consistent with the hypothesis that interchange fees are being used as an anticompetitive exercise of collective market power, constrained only by relatively weak merchant ability to resist acceptance of the cards.