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December 2, 2010

Louise L. Roseman, Director  
Division of Reserve Bank Operations  
and Payment Systems  
Board of Governors of the Federal Reserve System  
20th Street and Constitution Avenue, N.W.  
Washington, D.C. 20551-0001

***Via 'E-mail and FedEx***

Re: ***Rules Relating to Debit Interchange Rates***

Dear Ms. Roseman:

We are advised by some of our merchant clients who met with the Federal Reserve Board ("FRB") that among the issues under consideration by the FRB is whether high debit interchange fees provide a consumer benefit. We and our economists have studied this issue in depth. This letter explains in economic terms why high debit interchange rates would not confer a net benefit on consumers.

Neither economic theory nor economic literature support the contention that high interchange rates produce net consumer benefits. In fact, they demonstrate just the opposite. To explain why, we initially summarize the economic argument to justify a high interchange rate, namely, that it generates a network externality which supposedly benefits consumers. We then explain why that argument is incorrect in the context of today's debit markets, and demonstrate why debit interchange rates should be quite low (if there are any).<sup>1</sup>

There is substantial economic literature analyzing markets in which a supplier offers a product to two different sets of buyers and where there are significant externalities impacting these buyers in both directions. Common examples are newspapers or magazines that serve both advertisers and readers. The externalities there flow both ways in that advertisers are

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<sup>1</sup> It is not lost on us that Congress directed the FRB, in prescribing regulations under Section 920(a)(3)(A), to "consider the functional similarity between (i) electronic debit transactions; and (ii) checking transactions that are required within the Federal Reserve Bank system to clear at par...." If debit transactions are less costly to clear than checks – and we think the data shows this – and if checks clear at par, then we think there is a basis to conclude that debit transactions (certainly PIN debit transactions) should likewise clear at par.

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benefited by more readers, and readers are benefited by more informative advertising. This is called a "double or two-sided externality."

This market situation of two-sided externalities is commonly labeled in the literature as a "two-sided" market. The label is somewhat misleading because the important economic condition is not the presence of the two-buyer set (*i.e.*, the readers and advertisers, which constitute the two-sides), but rather the double externality (*i.e.*, the benefit to the reader of more advertisers and the benefit to the advertiser of more readers). As discussed below, this distinction is central to understanding why there would not be consumer benefits from high debit interchange rates.

The economics literature analyzing two-sided markets with double externalities shows that the efficient pricing in such markets may not be to charge each side of the market a price equal to marginal cost. Rather, depending upon the extent of the externalities at the margin and the relative elasticities of demand of the two-sides, the efficient (or optimal) price may be above marginal cost for one side and a price at or below marginal cost for the other side. In that event, the side paying the higher cost effectively subsidizes the other side which is paying the lower cost (if it pays anything at all). Thus, for example, a magazine may be given away for "free" while its advertisers pay a price in excess of the cost of running ads in the magazine.

It is this economic finding that an efficient price may exceed marginal cost which card companies and their issuers cite as the theoretical justification for payments by merchants to debit card issuers that exceed the cost of providing the debit service to the merchant. In a four-party debit system,<sup>2</sup> an interchange fee from the merchant to the issuing bank can be such a payment. The claimed potential efficiency is that the interchange fee can increase the issuer's incentives to promote debit card usage with possible external benefits to the merchants.<sup>3</sup> Under the condition of extensive competition among the issuing banks for debit card user(s), the interchange fee will be "dissipated" in promotional expenditures to increase debit card holdings and usage and in rebates to debit card users. In that situation, the debit card users may then effectively pay negative prices. *If* there were substantial externalities flowing to merchants from increased debit card usage, then a high merchant fee for debit card transactions and low user price might be optimal.

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<sup>2</sup> The four-party debit system would include the merchant, card company, issuer and cardholder.

<sup>3</sup> Because the network collects for the cost of running the system via its network fee, interchange fees are assumed to be above the marginal cost of processing the debit transactions.

But there is not.

Even in the stylized situation of near-perfect issuer competition and significant double externalities as described above, the economic models do not imply that "high" interchange fees are efficient, but only that *some* interchange *might* be efficient. Indeed, the economics literature shows that the profit-maximizing interchange fee will be set above the efficient level,<sup>4</sup> implying that the interchange fee can be presumed to be "too-high" (even in the presence of near perfect competition on the issuer side) and that regulation to lower the fee will be efficient.

More importantly, the assumptions of the economic models justifying interchange fees simply do not hold in debit markets because there is no evidence of any significant externality benefiting merchants at the margin in an established system from increased debit card use.<sup>5</sup> When a debit system is new and small, there can be some initial external benefits to merchants from increased debit card use (an externality flowing from card users to merchants) as the fixed costs to the merchants of joining a system can be spread over sufficient transaction volume to justify participation.<sup>6</sup> Specifically, participation in a debit network will involve fixed costs such as acquiring PIN readers and/or devices for transmission of card information, verification and acceptance. However, such costs are relatively low, and in any event, for all merchants of any meaningful size, debit card availability and usage today is far beyond the threshold level justifying their participation in the system. A debit card is available to nearly every customer who has a checking account, and it is simply not credible that those outside the banking system will elect "in" because of any benefits from interchange. Therefore, the marginal externality of additional card usage for the merchant in today's established debit card systems is *de minimis*. Absent any significant externality to merchants from increased debit card usage, the efficiency basis for any charge to the merchant in excess of marginal cost is absent.

The history and facts of the debit card system demonstrate that there are no significant externalities to merchants from increased debit card usage. In the infancy of the debit system, when there may have been some externality (as noted above), the system did not need

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<sup>4</sup> See, e.g., Özlem Bedre-Defolie and Emilio Calvano, "Pricing Payment Cards," *European Central Bank Working Paper Series* number 1139, December 2009; Rochet and Tirole, "Platform Competition in Two-sided Markets," *Journal of the European Economic Association*, 2003.

<sup>5</sup> Processing a debit card transaction may be less expensive to a merchant than to accept a cash or check transaction. However, this is a benefit internal to the merchant and not an externality.

<sup>6</sup> The externality flowing in the opposite direction is simply that a customer who prefers the use of debit benefits from increased merchant acceptance of the customer's debit card.

interchange charges to merchants to develop and flourish. Rather, the debit system developed by having payments to merchants (negative interchange) to encourage their adoption of card readers. This suggests that the externality of importance at the time was the benefit which went from the merchants to the card users and issuers; that is, that more debit card acceptance by merchants had benefits to the issuers and to card users. Additionally, the issuers themselves incurred direct benefits from debit card usage independent of any interchange fee, because card usage substituted for check and cash usage and banks saved resources by processing debit transactions rather than checks or cash.

Assuming *arguendo* that high interchange fees conferred a social benefit on consumers by alleviating externality problems, that could occur only if those high fees translated into greater usage by debit users and the fees were completely passed on to the debit users by issuers in the form of incentives that further propagated card use. But they are not. Competition among issuing banks is far from perfect competition, as a result of which issuers do not fully pass on to customers interchange fees. Estimates are that only about half of interchange fees result in benefits to card users.<sup>7</sup> The remainder goes to bank profits and to the costs of administering transfer programs.

In analyzing the pass-on issue, a natural economic question arises: Are issuing banks more likely to "pass-on" higher interchange fee revenue in the form of card holder benefits due to issuer-based competition, or are merchants more likely to pass on savings resulting from lower fees in the form of lower retail prices? The evidence here is clear – retailers engage in some of the most intense competition in the U.S economy (as demonstrated by their perennially low/negative profit margins), while card issuing banks reap high returns and "compete" (to the extent they do) for cardholder business through socially useless advertising and marketing expenditures.

More generally, economic models of interchange fees do not typically take into account the *actual* pricing decisions made by merchants facing interchange fees. If it were costless for merchants to set differential prices depending upon a customer's choice of payment mechanism, then high interchange levels (above any private benefits to the merchants) would be reversed by merchants' differential prices. However, in the actual world of costly pricing, merchants elect to set most prices based on the average marginal costs of serving all customers. Thus, a high interchange fee results in higher merchant retail prices to all customers. The debit card users who receive rebates may or may not pay a lower effective

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<sup>7</sup> The estimates are from studies of the credit card markets and find only about 45% of interchange fees are passed on to card users. See Hayashi, "Do U.S. Consumers Really Benefit from Payment Card Rewards?," *Economic Review of the Federal Reserve Bank of Kansas City*, (2009).

price,<sup>8</sup> but those customers using other payment means unambiguously pay higher prices.<sup>9</sup> Thus, a high debit interchange rate may (or may not) provide consumer benefits to some card users, but it simultaneously injures all other consumers. According to the data, the consumers receiving such benefits would be the more affluent ones who have premium cards, while the less affluent consumers subsidize those benefits by paying higher prices. Such a result is not socially optimal.

Based on the foregoing analysis, the FRB should reject the argument by card companies and issuers that high debit interchange rates would confer benefits on consumers. Economics demonstrates otherwise. The history of the debit card system in the United States reveals no significant externalities from card users to merchants that would justify any charges to merchants above the marginal cost of authorizing, clearing and settling debit transactions.

We and our economists are available to answer questions or discuss the foregoing points with you and/or your staff.

Respectfully,



William J. Blechman

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<sup>8</sup> Assume "PO" is the pass-on percentage of interchange and "DU" is the percentage of debit card users. The expected impact on the effective prices faced by debit card users depends on whether PO is greater or less than DU. For example, assume PO is 50% and DU 30%. Then a one dollar increase in interchange will lead to an expected price increase of 30¢ in price and a benefit to users of 50¢.

<sup>9</sup> This discussion does not cover credit cards and their accompanying high interchange rates.