

Board of Governors of the Federal Reserve System



**Report to the Congress on the
Disclosure of Point-of-Sale Debit Fees**

November 2004

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Submitted to the U.S. Senate Committee
on Banking, Housing, and Urban Affairs

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Executive Summary

This report presents findings by the Federal Reserve Board on the disclosure of fees that a depository institution imposes when a customer chooses to secure a point-of-sale (POS) debit transaction by providing a personal identification number (PIN). The economic importance of debit card transactions has grown steadily in recent years. In 2004, consumers in the United States will conduct an estimated 18.6 billion debit card transactions, an amount that represents approximately 53 percent of all card-based purchase transactions. Consumers will secure more than one-third of these debit transactions with a PIN and the remainder with a signature. Recently, some depository institutions have instituted a fee that applies when a consumer conducts a PIN debit transaction. Some members of the U.S. Senate Committee on Banking, Housing, and Urban Affairs are concerned that consumers may be unaware of the existence or the source of these fees. To address this concern, committee members requested that the Federal Reserve Board conduct this study.

The findings of the study draw on several sources of information. The Board's staff collected and analyzed data from two new nationally representative surveys. The first requested information from more than 800 depository institutions, while the second involved interviews with roughly 1,500 consumers. In addition, the study incorporates information from more than 120 comments from members of the public in response to a notice published in the *Federal Register*. The Board's staff also performed a review of regulatory data on depository institutions' compliance with existing requirements for the disclosure of debit fees. Finally, staff members conducted extensive interviews with participants in the payments industry to discuss possible alternative methods of disclosure.

The primary conclusions of the study address four principal areas of concern: the prevalence of PIN fees; the degree of compliance by depository institutions with current disclosure requirements; the adequacy of existing disclosures and the likely benefits and costs of new requirements for disclosure statements; and the feasibility of real-time disclosure.

- **Prevalence of PIN fees.** According to the survey of depository institutions, about 14 percent of institutions that offer debit cards charge PIN fees to at least some customers. Because larger institutions are more likely than smaller ones to charge the fees, the institutions that charge fees cover approximately 15 percent to 20 percent of depository institutions' customers. In the survey of consumers, about 13 percent of U.S. debit card holders who were familiar with their institutions' fees reported that their institutions charge PIN fees. Drawing on the data from the two surveys, the Board's staff estimates that in the past year, about 15 percent of all customers with debit cards had accounts that were subject to PIN fees, as some institutions impose fees on only a portion of customers or accounts. In addition, a

smaller fraction of customers may be subject to signature fees. Because customers can modify their behavior to avoid debit fees, the fraction of customers with debit cards who actually pay debit fees is likely between 10 percent and 15 percent.

- **Degree of compliance by depository institutions with current disclosure requirements.** The existing regulations on disclosure of PIN fees, summarized in this study, address disclosures on the initial and change-in-terms statements and on the periodic statement of account activity. A review of data on regulatory compliance indicates that more than 95 percent of depository institutions satisfy all the current regulatory requirements for *any* electronic funds transfers and that an even higher percentage satisfy the specific requirements for the disclosure of POS debit fees.
- **Adequacy of existing disclosures and the likely benefits and costs of new requirements for disclosure statements.** Reports from consumers and merchants suggest that the debit fee information in the initial and change-in-terms statements of disclosure is of limited value to consumers. The household data, along with consumers' comments, indicate that some consumers first learn of debit fees from their periodic statements. In addition, many institutions' periodic statements omit the identity of the recipient of the debit fee. These findings suggest that improvements to the periodic statements, and potentially to the initial and change-in-terms statements of disclosure, could provide consumers with better information--at relatively low cost--about the fees that their depository institutions impose.
- **Feasibility of real-time disclosure.** The study considers several options for enhanced disclosure of POS debit fees. To varying degrees, the costs of the options discussed in this report include investments in hardware and software as well as associated expenses, such as system testing, employee training, and so on, that would be borne by depository institutions, merchants, and the networks and processors that carry debit transactions. Of all the options considered, real-time disclosure of debit fees at the POS terminal would involve the most extensive changes to the infrastructure of the payments system. Although such disclosure would improve consumers' knowledge of debit fees, these improvements would be achieved at extremely high cost.

Introduction

At the request of members of the U.S. Senate Committee on Banking, Housing, and Urban Affairs, the Federal Reserve Board has conducted a study of the disclosure of fees related to debit card purchases. The study focuses on the debit fees that a financial institution may impose when a customer secures a point-of-sale (POS) debit transaction by providing a personal identification number (PIN). For the purposes of this study, the Board was asked to gather information on

- the prevalence of such fees
- the nature, form, and timing of disclosures that currently must be made to consumers regarding debit fees
- the current level of compliance by financial institutions with existing disclosure regulations
- the extent to which existing disclosure requirements are adequate and effective in making consumers aware of debit card transaction fees charged by their financial institutions
- the possible benefits of requiring additional fee disclosures in a consumer's periodic statement of account activity
- the feasibility of requiring real-time disclosure of debit fees at the point of sale
- the costs to merchants of accepting debit cards at the point of sale

This report presents the Board's findings, which comprise five sections and an appendix. The first section gives a brief overview of the POS debit industry and describes the participants in debit transactions as well as some technical aspects of these transactions. A report on the prevalence of POS debit fees appears in the second section, along with results from new Board-sponsored surveys of depository institutions and consumers. The third section addresses the adequacy of the current disclosures by providing an overview of existing requirements, evaluating regulatory reports of depository institutions' compliance, and summarizing consumers' comments on the adequacy of disclosures. In the fourth section, the discussion turns to policy options for improving the existing disclosure requirements. The final section briefly analyzes the potential economic effects of any new disclosure requirements and examines the ways in which such requirements could affect the development of the payments industry. The appendix presents a detailed summary of stakeholders' views expressed in comments submitted in response to the Board's request for public comment.¹

¹ Board of Governors of the Federal Reserve System (2004), "Notice of Study," notice of study and request for information (Docket No. OP-1196), *Federal Register*, vol. 69 (May 21), pp. 29308-10.

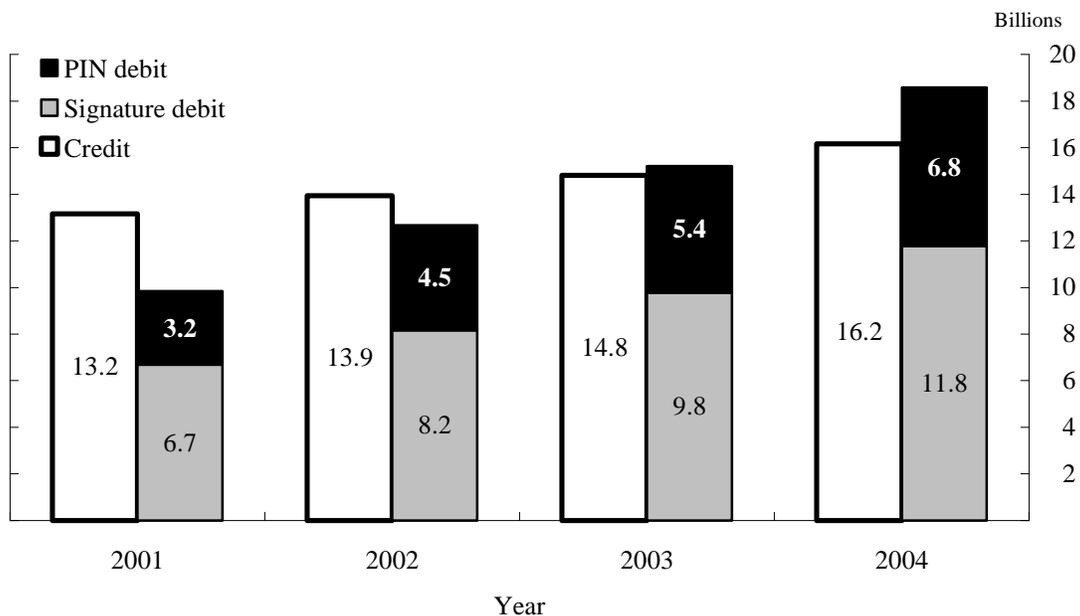
Background and Industry Basics

Consumers today face a wide variety of payment options. These options include traditional, paper-based choices, such as cash and checks, as well as card-based options, such as credit cards, debit cards, and, more recently, prepaid cards. As the options expand, consumer payment patterns continue to evolve and new policy issues arise.

POINT-OF-SALE DEBIT TODAY

In 2003, consumers in the United States conducted more transactions with debit cards than with credit cards for the first time in history (figure 1). In 2004, consumers in the United States will conduct an estimated 18.6 billion debit card transactions at the point of sale, an amount that accounts for roughly 53 percent of all card-based purchase transactions. Consumers will secure roughly 11.8 billion debit transactions with a signature and the remaining 6.8 billion with a PIN. Compared with the number of such

Figure 1. Number of card-based transactions in the United States, by payment method, 2001-04



Note. Credit figures exclude transactions made on proprietary store or gasoline company cards. Figures for 2004 are projections.

PIN Personal identification number.

Source. *Nilson Report* (various issues), *EFT Data Book* (various years), and estimates by the Board's staff.

transactions conducted in 2003, the 2004 total represents an increase of more than 20 percent.

The following discussion of the POS debit industry briefly summarizes the way in which a debit transaction is processed; the costs to the merchant of accepting payment, including the fees exchanged for debit transactions; and the incentives the industry fee structure provides for depository institutions, merchants, and consumers. This information provides context for interpreting the survey results and for understanding the discussion of policy options provided later in the report.

HOW POINT-OF-SALE DEBIT TRANSACTIONS WORK

Point-of-sale debit is a form of electronic payment developed for the retail sector. The two main types of POS debit transactions are PIN debit and signature debit.² These types of transactions differ in the input required from the consumer, the debit networks over which the transactions are carried, and the technical mechanics and timing of the transactions. The existence of these two rival forms of debit has been a critical aspect of competitive developments in the POS debit industry.

PIN Debit and Signature Debit

A comparison of several features of PIN debit and signature debit is useful for understanding these types of transactions from a consumer's perspective (table 1). As the names of the transactions indicate, a customer secures a PIN debit transaction by typing in a PIN at the POS terminal and a signature debit transaction by signing a receipt or an electronic screen. A consumer is typically prompted at the POS terminal to choose "credit" or "debit"; when the consumer uses a debit card, a choice of "credit" results in a signature debit transaction, while a choice of "debit" results in a PIN debit transaction (the names of the choices notwithstanding, both types of transactions are in fact debit transactions).

PIN debit may have certain advantages for a consumer. A customer can receive cash back at the register when using a PIN but not when signing for a transaction. This feature may be particularly relevant for customers with limited access to their own institutions' automated teller machines (ATMs). Also, some consumers and merchants consider a PIN more secure than a signature.

For signature debit, perhaps the most important feature is ubiquity. Until recently, Visa's and MasterCard's operating rules mandated that every merchant that accepts Visa or

² These transactions have historically been called "online" (PIN) and "offline" (signature). For ease of exposition, this report uses the simpler terms "PIN debit" and "signature debit."

Table 1. Comparison of selected features of PIN debit and signature debit transactions

PIN debit	Signature debit
Customer chooses “debit” at POS.	Customer chooses “credit” at POS.
Customer enters a PIN.	Customer signs a receipt or enters a signature on an electronic terminal.
Merchant must have a POS terminal.	Merchant need not have a POS terminal.
Customer can get cash back in excess of purchase amount at POS.	Customer cannot get cash back at POS.
Customer’s account is debited immediately.	Customer’s account is debited within 1-2 days.

PIN Personal identification number.

POS Point of sale.

MasterCard credit cards must also accept these networks’ debit cards (this requirement was called the “honor all cards” rule).

Another difference between PIN debit and signature debit concerns consumers’ liability for unauthorized use of their debit cards. This issue is discussed in more detail later in this section.

Path of a PIN Debit Transaction

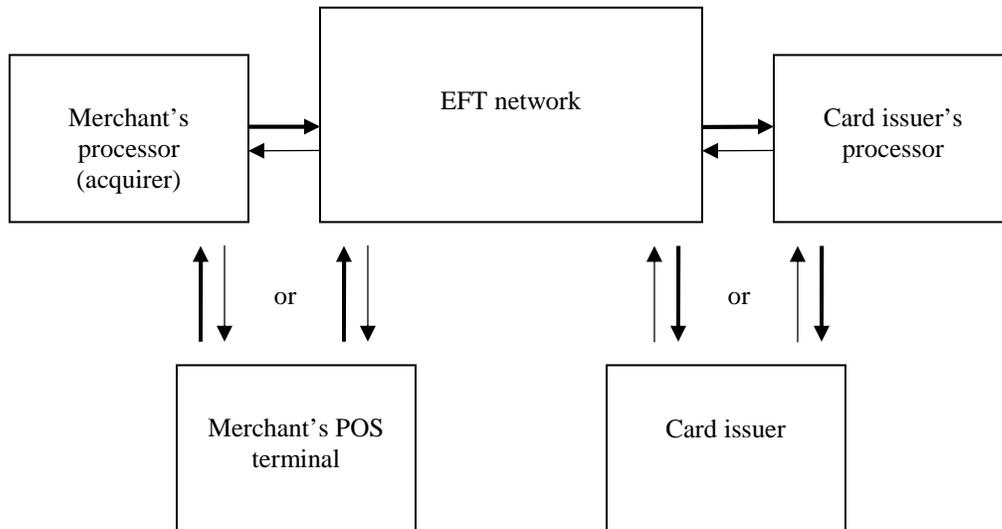
To complete a PIN debit transaction, a customer must have a debit card linked to a deposit account at a depository institution that is a member of an electronic funds transfer (EFT) network, and the merchant must have a network-compatible POS terminal.³ To initiate the transaction, the customer swipes the card in the terminal and enters a PIN. The transaction can take various paths when traveling between the merchant’s terminal and the customer’s deposit account (figure 2).⁴ The transaction may proceed directly to the EFT network (generally the case only for the largest national retailers) or may reach the network via the merchant’s processor, also known as the merchant acquirer. Historically, the term “acquirer” referred to the depository institution that connected the merchant to the network; currently, the term refers either to the merchant’s processor or to the depository institution that sponsors the processor’s access to the network.⁵ The

³ Rare exceptions may include transactions in which a card is linked to a different type of account (such as a transaction that involves a stored-value card) or “PIN-less” Internet transactions in which no merchant terminal is used.

⁴ Depending on the identities of the participating merchant, processor, and depository institution, the transaction may be processed in a slightly different way. The diagram shown here describes the most common route for a debit transaction. See Hayashi, Sullivan, and Weiner (2003) for a more detailed summary of other possible transaction routes.

⁵ A POS processor may or may not be a depository institution. However, the networks allow only members to conduct transactions over the networks, and they require that members be depository institutions. Thus,

Figure 2. Path of a typical debit transaction



Note. Heavy arrow indicates initial message with request for authorization, and thin arrow indicates return message with authorization or decline.

EFT Electronic funds transfer.

POS Point of sale.

message that travels over the EFT network identifies the customer's institution and account, the merchant, and the amount of the purchase.

The network routes the transaction directly to the card issuer or, more likely, to the card issuer's processor, which then passes it to the card issuer. The card-issuing institution receives the message and uses the identifying information to check that the account is valid, that the card has not been reported stolen or lost, and that the needed funds are available in the account. If these conditions are met, the card-issuing institution accepts the debit transaction, debits the customer's account, and sends an authorization message back over the EFT network to the merchant's terminal. Settlement occurs when the card-issuing institution credits the merchant acquirer for the amount of the transaction (by one of several possible arrangements). The merchant usually receives payment from its acquirer by the end of the day on which the transaction has occurred.

The identity of the network in figure 2 can vary with the network affiliations of the merchant's processor and with those of the card-issuing institution or its processor. One possibility is that the card-issuing institution and the merchant acquirer are members of

all processors that are not depository institutions are sponsored by one or more such institutions. Although this report refers to processors as members of POS networks, it does so with the understanding that this membership may occur through a sponsoring depository institution.

the same regional or national POS network.⁶ In this case, the common network carries the transaction.⁷ If the acquiring institution and the card-issuing institution are not members of a common regional network but belong to networks that have a reciprocity agreement, the transaction may be passed between the two networks.⁸ If neither of these conditions is met, the PIN debit transaction cannot be completed. The leading PIN debit networks, including the regional and national networks, typically handle millions of transactions per month (table 2).

As described earlier, a card-issuing institution must authorize each PIN debit transaction. The customer data file used for this authorization may reside at the card-issuing institution or at the issuer's processor. For an issuer that has outsourced its transaction

Table 2. Number of transactions handled by leading PIN debit networks, March 2004

Thousands	
Network	Transactions
Star	243,810
Interlink (Visa)	103,038
Pulse	59,604
NYCE	57,378
Accel/Exchange	17,254
AFFN	13,000
Credit Union 24	8,599
Shazam	6,504
Presto	6,200
Jeanie	4,724
Alaska Option	1,364
Maestro (MasterCard)	1,300
Total	522,775

PIN Personal identification number.

AFFN Armed Forces Financial Network.

Source. 2005 *EFT Data Book*.

⁶ In the past, most networks tended to operate in limited geographic regions--hence the term "regional POS network"; however, several of these networks are now national or nearly national in scope. The "national networks," Interlink and Maestro, formerly served as networks of last resort that would carry transactions only if the regional networks could not. The distinction between these two groups has now all but disappeared.

⁷ When more than one network can carry a transaction, specific "routing rules" determine which network prevails.

⁸ As consolidation has given many of the regional POS networks broad geographic scope, reciprocity agreements have become rarer.

processing, this remote file is the primary source of data for authorizing a transaction. Such files may not be updated in real time, and, as a result, the data they contain on customer accounts may not be current.

A data file that resides at the issuer's processor may also be accessed when network communication problems cause the issuer's real-time data file to be taken offline. In this situation, called "stand in," a file at the issuer's processor is used to authorize new debit transactions. Again, the data this file contains may not be current.

Whether at the issuing bank or at its processor, the customer data files used to authorize debit transactions may be sparse compared with the customer data files used to manage the details of customer accounts. Typically, the authorization files include only identifying information, such as an account number and an account balance, rather than the details of other transactions. As discussed later, in the section on policy options and analysis, the sparseness of these data files has important implications for potential modifications to the current system.

Path of a Signature Debit Transaction

To conduct a signature debit transaction, the customer typically has a Visa- or MasterCard-branded debit card linked to a deposit account, and the merchant must connect to a processor that is a member of the Visa or MasterCard credit card network. The merchant may, but need not, have a POS terminal. (Because a POS terminal is not required for a credit card transaction, it is also not required for a signature debit transaction.) Instead of keying in a PIN, the customer secures the transaction with a signature. From the merchant, the transaction travels directly or indirectly (through the merchant's processor) to the Visa or MasterCard network, from which the transaction proceeds directly or indirectly (through the card-issuing institution's processor) to the card-issuing institution. At the time of authorization, a hold is usually placed on the funds in the customer's account. Settlement between the acquirer and the issuer (and the debiting of the customer's account) occurs after a second message is sent from the merchant to the issuer, usually at the end of the day. This "dual-message" system is one of the features that distinguishes signature debit from PIN debit, which uses a "single message" system. The merchant typically receives payment within two days of the transaction.⁹

COSTS TO MERCHANTS OF ACCEPTING PAYMENT

Although precise estimates of the costs to merchants of accepting a form of payment—checks, cash, debit, or credit—are difficult to obtain, they may include the time and

⁹ This two-day range applies to a transaction submitted electronically; a merchant may face a longer delay for the crediting of a paper-based signature debit transaction. Most signature debit transactions are submitted electronically.

expense related to managing the transaction as well as any actual dollar charges paid to processors or other third parties.¹⁰ Nonmonetary costs make up a large share of the merchant's cost of processing cash and, to some extent, checks. In contrast, the primary costs of accepting debit and credit take the form of fees paid by the merchants to other parties.

Costs of “Paper-Based” Payments

The primary costs of accepting cash include labor costs (specifically, the wages of employees who handle cash), security costs, and fees paid to depository institutions for cash-handling services. The costs of accepting checks include labor costs (the wages of employees who handle checks), expenses related to maintaining the merchant's automation infrastructure, and the cost of managing “exceptions,” such as bounced or fraudulent checks. Other costs to the merchant of accepting checks include the “float,” or the time elapsed before a check clears, and the delay that occurs in the checkout line when a customer writes a check at the cash register. Merchants may also pay third parties to process their checks. The costs of accepting checks reportedly vary widely across merchants. Many of the nation's largest retailers have implemented highly automated systems to handle check processing and to limit the number of exceptions, making checks for these retailers a relatively inexpensive form of payment to accept. Finally, ongoing developments in the electronic processing of checks will continue to lower the costs to merchants of accepting checks.¹¹

Fees for Accepting Debit and Credit Transactions

The monetary cost of accepting debit or credit transactions is called the merchant discount, which is the difference between the face value of the retail transaction and the amount the merchant acquirer transfers back to the merchant after settling the debit or credit transaction. The exact amount of the merchant discount varies by firm and is generally considered proprietary information. Merchants may also pay their acquirers periodic contracting fees as well as the cost of installing and maintaining terminals.

¹⁰ For a frequently cited study that quantifies the costs to supermarkets of accepting payment, see the Food Marketing Institute (1998), *A Retailer's Guide to Electronic Payment Systems Costs* (Washington: FMI). For a recent study that updates and extends this analysis, see Daniel D. Garcia Swartz, Robert W. Hahn, and Anne Layne-Farrar (2004), *The Economics of a Cashless Society: An Analysis of the Costs and Benefits of Payment Instruments*, related publication 04-24 (Washington: AEI-Brookings Joint Center for Regulatory Studies, September).

¹¹ The current methods of processing checks electronically are (1) check truncation, in which a merchant processes a digital image of a check without having to transport the paper check, and (2) check conversion, in which checking transactions are transformed into automated clearinghouse (ACH) transactions. Check truncation is expected to become increasingly frequent in response to the Check Clearing for the 21st Century Act (Check 21), which became effective October 28, 2004. Check 21 facilitates check truncation by creating a new negotiable instrument called a substitute check, which is the legal equivalent of the original check.

The bulk of the merchant discount is paid to the card-issuing institution in the form of the interchange fee, the amount the merchant acquirer must pay the card-issuing depository institution for each debit transaction.¹² Although the interchange fee is paid to the depository institution, it is set by the EFT network.¹³ These fees apply not only to debit transactions but also to credit transactions. Thus, Visa and MasterCard (or their respective PIN debit networks) set interchange fees for their credit card, signature debit, and PIN debit operations.¹⁴

The pricing structures typically set for PIN interchange differ from those set for signature debit and credit card interchange. PIN interchange fees are either a fixed amount or a percentage of the transaction, capped at a fixed value. In contrast, fees for signature debit and credit card interchange are calculated as a percentage of the total amount of the sale, without a cap. All three types of interchange fees may vary depending on the type and size of the merchant; for example, the networks may offer different interchange fee schedules to major supermarket chains, gasoline retailers, and discount retailers.¹⁵

Since 2001, interchange fees have varied markedly (figure 3). The figure shows the historical trends in average interchange fees, by payment type, for a \$40 purchase conducted at a typical merchant. The interchange fees set by Visa and MasterCard for signature debit have been substantially higher than those set by the regional POS networks for PIN debit. The difference between PIN interchange and signature interchange has narrowed somewhat in recent years, as the regional POS networks have raised their PIN interchange fees.¹⁶ Moreover, signature fees were lowered after the 2003 settlement of the class-action suit led by Wal-Mart against Visa and MasterCard. As of August 1, 2003, both Visa and MasterCard cut their signature-based rates by one-third. These prices were valid through early 2004, when both Visa and MasterCard increased their rates slightly. As of January 1, 2004, the honor-all-cards rule was fully abolished.

As discussed earlier, most current interchange fees vary by purchase amount (figure 4). The figure shows average per-transaction interchange fees charged to the same typical

¹² The merchant acquirer must also pay a “switch fee” to the network that carries the transaction (the issuer may pay a switch fee as well). This fee, which is currently \$0.03 to \$0.07 per transaction for PIN debit transactions, is typically small relative to the interchange fee and the merchant discount.

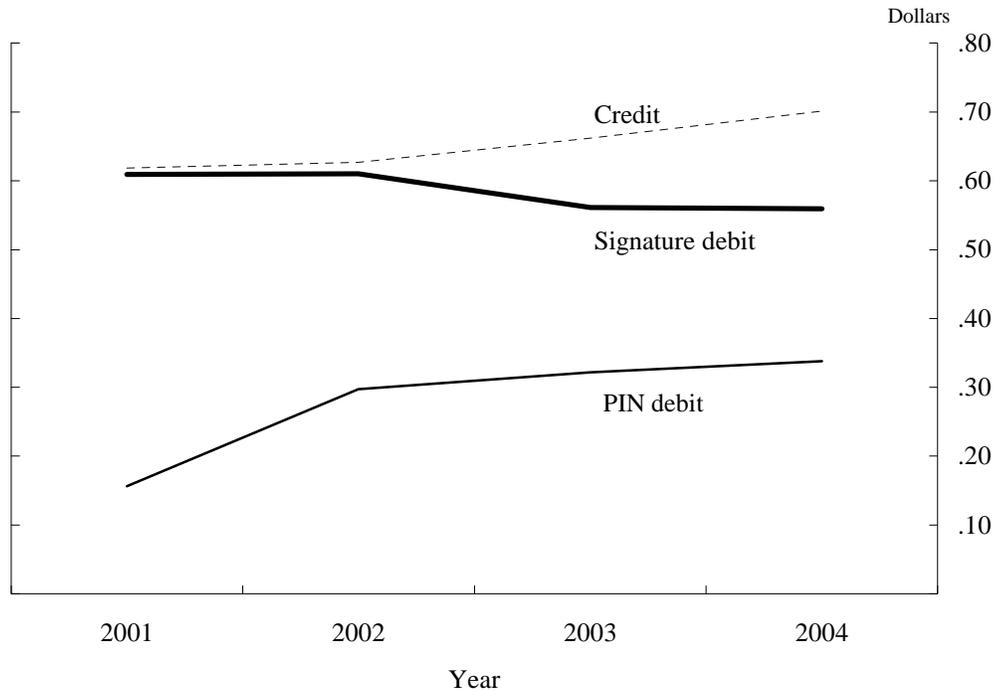
¹³ Historically, many EFT networks were run by associations of depository institutions.

¹⁴ Because Discover serves as both the card-issuing institution and the acquiring institution (the same was true, until very recently, of American Express), it does not set interchange fees but does set merchant discounts.

¹⁵ The merchant discount also varies with the method by which the transaction is submitted; for example, the rate charged for a transaction submitted electronically is lower than that for a transaction submitted on paper.

¹⁶ The regional networks established interchange fees to encourage depository institutions to issue debit cards. The networks initially set the fees sufficiently low to gain the acceptance of merchants while still providing enough financial incentive to induce banks to issue cards. As the regional networks have grown in geographic scope, and as consumers have become familiar with debit transactions and have begun to exert pressure on merchants to accept such transactions, the regional networks have been able to raise interchange fees without losing a substantial proportion of merchants.

Figure 3. Average interchange fees charged for credit and debit transactions, by type of payment, 2001-04



Note. Interchange fees are shown for a retail purchase of \$40, an average value for debit transactions. The fees are based on a purchase at a typical retailer; discounts for large retailers are not represented. The values are weighted by the total number of transactions carried by the respective networks. The weights for credit card values and signature debit card values include transactions carried by the Visa and MasterCard credit card networks. The weights for PIN debit values include transactions carried by Interlink and Maestro and by the six largest regional point-of-sale networks, which account for more than 90 percent of all PIN debit transactions.

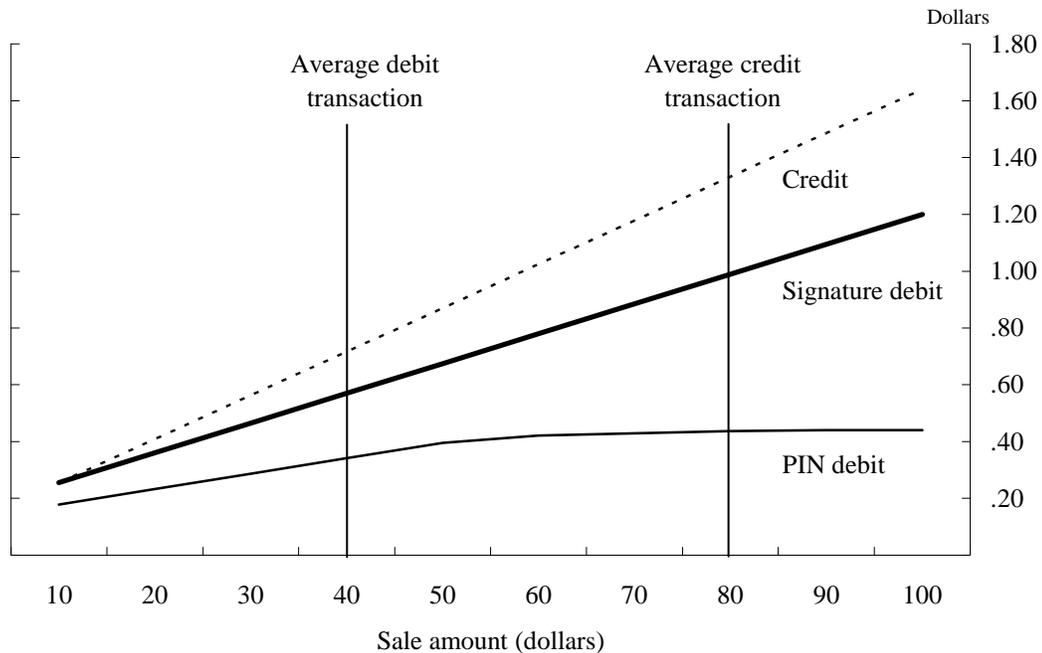
PIN Personal identification number.

Source. *EFT Data Book* (various years) and estimates by the Board's staff.

merchant acquirer for various purchase amounts. The data illustrate the differences between the pricing structures for PIN debit and those for signature debit and credit: Whereas the prices of PIN debit are capped at fixed levels, those of signature debit and credit increase with the purchase amount.

For the average debit purchase amount (about \$40), a signature debit transaction generates an interchange fee of about \$0.57; for PIN-based networks, the fee is \$0.34. The difference between the fees is even more substantial for purchases of \$80, the amount of a typical credit transaction. For a purchase of this amount, the signature debit rate is about \$0.99, more than twice the PIN debit rate of \$0.44. The fees for signature debit and PIN debit are less than those for credit (\$0.72 and \$1.33 for the two purchase amounts).

Figure 4. Average interchange fees charged for credit and debit transactions of various purchase amounts, by type of payment, September 2004



Note. See figure 3.

PIN Personal identification number.

Source. See figure 3.

One possible reason for the differences in interchange fees between PIN debit and signature debit is that depository institutions' per-transaction costs differ from one debit method to the other. These cost differences may be due to variations in operational costs or in depository institutions' liability for unauthorized transactions. Operational costs for each type of debit, however, are likely to be similar and should decline over time as economies of scale drive costs lower (that is, as transaction volume per institution increases, the per-transaction cost should decrease). Variations in operational costs, therefore, are unlikely to drive the differences in interchange fees.

Similarly, losses from unauthorized transactions probably have little effect on the differences in interchange fees between PIN debit and signature debit. The probability of fraud is likely to be higher for signature-based cards because forging a customer's signature is arguably easier than obtaining that customer's PIN.¹⁷ However, because total

¹⁷ Under Regulation E, a consumer's liability for unauthorized debit transactions is limited to \$50 if the consumer notifies the bank of a lost or stolen card within two business days and to \$500 if the consumer gives such notification within two to sixty days. Networks or their participating card-issuing banks may choose to offer customers an even lower liability level. For example, MasterCard and Visa require that their card-issuing institutions offer consumers zero liability on some transactions conducted with their signature and PIN debit cards.

fraud losses represent a very small share of total debit volume, differences in such losses are likely responsible for no more than a small fraction of the differences in interchange fees.

The difference between signature interchange and PIN interchange likely results from the ubiquity of signature debit cards. Nearly all debit cards are branded with the Visa or MasterCard logo, and consumers who hold these cards value the ability to use them at many locations. As a result, merchants are willing to pay a higher merchant discount for access to these networks.

Incentives Created by Differential Interchange Rates

The differences in interchange fees between PIN debit and signature debit give opposing incentives to merchants and depository institutions. Merchants, which typically face a higher merchant discount for signature debit than for PIN debit, have an incentive to encourage their retail customers to use PIN rather than signature. In contrast, card-issuing institutions, which receive higher interchange revenue for signature debit than for PIN debit, have an incentive to encourage their cardholders to use signature rather than PIN. Because these interchange fees are generally unknown to consumers, most people still remain unaware of the effects of their choices on merchants' costs or on card issuers' revenues.

Given the higher interchange revenue from signature debit, depository institutions have attempted to encourage signature debit use by charging fees for using PIN debit or by offering rewards (such as cash refunds or airline miles) for using signature debit. Because the networks' rules have in the past generally barred merchants from setting prices according to a customer's choice of payment type, these issuer-based programs, broadly speaking, offer the only monetary incentives for consumers to use one form of debit over another.

Some observers have argued that PIN debit interchange fees cover only some of the issuer's cost of PIN debit and that PIN fees are designed to cover the balance of the cost. Clearly, such fees increase the revenue received from those customers who make PIN debit transactions. However, by raising the relative price of PIN debit, the fees also drive some customers to use signature debit instead. Encouraging customers to use signature debit appears to be the primary motivation behind most PIN fees.

A merchant's opportunity to "steer" customers toward PIN and away from signature occurs at the POS terminal. At the terminal, the merchant may prompt the customer to choose "debit" (PIN debit) or "credit" (signature debit). Or the merchant may prompt the user to enter a PIN, thereby making PIN debit the default. The operating rules of most networks have in the past prohibited the merchant from determining which method the customer uses and from charging the customer a fee to conduct either type of debit transaction, though the rules have not explicitly prohibited steering. In the Wal-Mart

case, the settlement between the parties explicitly permits the merchant to steer customers to payment methods; however, network operating rules still generally prohibit merchants from charging customers differently based on the choice of payment method.

Comparative Analysis of the Costs to Merchants of Various Payment Methods

The costs to merchants of accepting payments are likely to be passed on to consumers through the overall level of retail prices, a point that certain merchants made in their responses to the Board's notice in the *Federal Register*.¹⁸ If merchants steer customers toward the lower-cost payment methods and thereby lower their own costs, they are acting to keep retail prices low (or to preserve merchants' profits). Of course, merchants do not necessarily consider whether such steering could cause customers to incur fees assessed by their own depository institutions.

Unfortunately, performing an overall assessment of merchants' payment acceptance costs is difficult. The precise cost of cash and checks is unavailable. For card-based payment vehicles, the figures in the preceding section show that interchange fees for signature debit are higher than those for PIN debit; however, they do not show the exact level of the merchant discount, the costs to merchants of contracting with processors, or any other costs of accepting debit transactions, such as expenses related to employee training. In addition, the merchant discounts for each payment method vary across merchants. For example, the largest merchants can take advantage of preferential pricing for each payment type or can negotiate individual discounts with the networks for their transactions. In contrast, some small merchants contract with independent service organizations (ISOs) to gain access to merchant acquirers and EFT networks. Many ISOs set merchant discounts at flat rates for all types of card-based transactions. In these cases, a merchant's costs may be the same regardless of whether a customer chooses PIN debit, signature debit, or credit.

Although making direct comparisons among payment types is extremely difficult, some broad generalizations are still valid. Conversations with merchants and a merchant trade organization suggest that many merchants view cash, checks, and PIN debit as comparable in cost on an average per-transaction basis and that they view signature debit and credit as relatively more expensive.¹⁹ They further report that cash costs merchants the least of any current retail payment method.²⁰ Anecdotal reports from merchants indicate that PIN debit costs less than checks, although, as noted earlier, some large retailers that have developed the systems to efficiently process checks report their per-transaction cost for a check is lower than that for a PIN debit transaction.

¹⁸ The degree to which this transmission of cost occurs depends on the retailer's competitive environment.

¹⁹ Merchants that submitted comments to the Board also reported that because signature debit is significantly more likely to result in fraud than is PIN debit, it generates higher fraud-related costs.

²⁰ Merchants also generally consider cash the quickest method of payment at the checkout line.

Prevalence of Debit Fees

Although some reports suggest that a growing number of consumers are being charged debit fees, little empirical evidence about the national prevalence of these fees has been available. Most of the previous surveys have used small samples or covered a limited geographic area, and none have used a random sample of depository institutions.

To obtain statistically valid, nationwide information on PIN fees, the Board contracted with an independent third party to collect data about the prevalence of these fees.²¹ The data were collected in June 2004 from more than 800 banks and thrifts that compose a nationally representative sample of such depository institutions.²²

EVIDENCE FROM DEPOSITORY INSTITUTIONS

Of the 839 institutions in the survey, about 91 percent offer debit cards (table 3). About 14 percent of institutions that offer debit cards report that they charge PIN fees at the point of sale.

The percentage of institutions that charge customers PIN fees varies substantially by region. PIN fees appear to be most prevalent in the Northeast and Midwest, where 21 percent and 16 percent of institutions, respectively, report that they impose such fees. In contrast, just over 3 percent of sampled institutions in the West charge consumers for using PIN debit.

The percentage of depository institutions that charge PIN fees also varies with the size of the banking institution. Roughly 14 percent of institutions with less than \$5 billion in deposits charge the fees.²³ In contrast, about one-fourth of the institutions with \$5 billion or more in deposits charge them (as of June 2004, the approximately 120 depository institutions of this size in the United States held roughly 66 percent of U.S. deposits). About 1 percent of all institutions reported that they charge fees for signature debit (percentage not shown in table).

²¹ The depository institution survey was conducted by Moebs Services, Inc.

²² Credit unions were excluded from the survey; however, anecdotal evidence suggests that these institutions are less likely to charge PIN fees than are banks and thrifts.

²³ Within this broad size category, the institution's size does not seem to correlate with its decision to charge a PIN fee.

Table 3. Percentage of surveyed depository institutions that offer debit cards, and percentage of such institutions that charge PIN fees, by region and size of institution, June 2004

Region and size of institution	Offers a debit card	Charges a PIN fee ¹
All	90.7	14.0
<i>Region</i>		
Midwest	95.1	16.3
Northeast	90.5	20.9
South	86.6	12.1
West	86.9	3.4
<i>Size (dollar value of deposits)</i>		
5 billion or more	100.0	23.7
Less than 5 billion	90.6	13.9

1. Only those institutions that offer debit cards. The averages are calculated using weights based on the regional and size distributions in the United States. Depository institutions were sampled on the basis of headquarters location.

PIN Personal identification number.

Source. June 2004 survey of 839 depository institutions conducted by Moebs Services, Inc., under contract with the Federal Reserve Board.

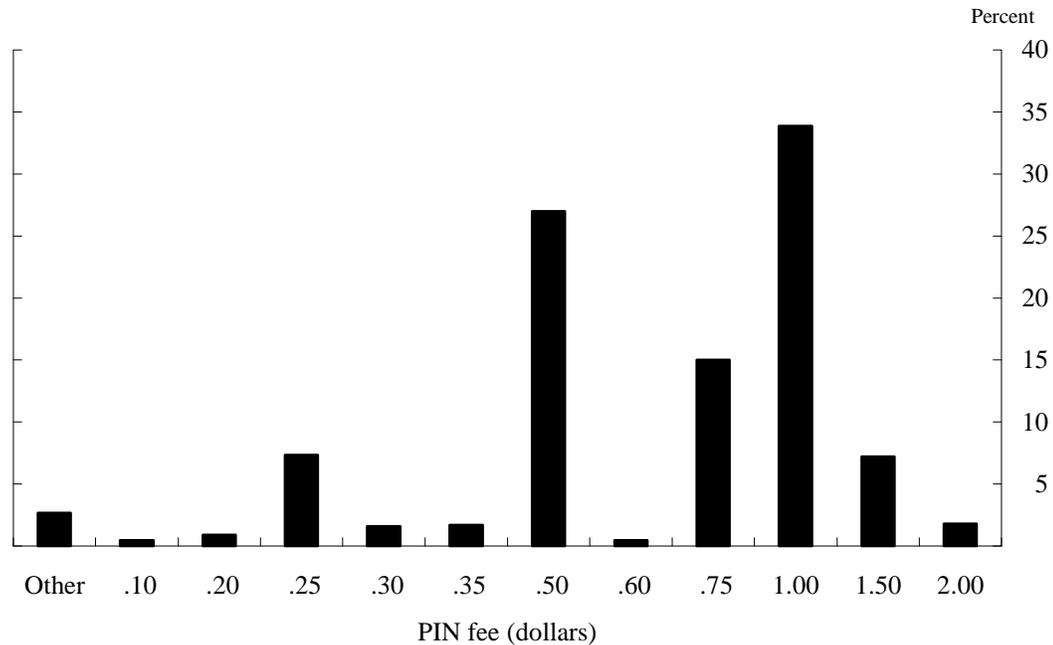
Level of Fees Reported by Depository Institutions

At sampled institutions that charge fees for PIN debit, the fees range from roughly \$0.10 to \$2.00 per transaction (figure 5). The median (and mean) fee is approximately \$0.75.

The pricing structure for PIN fees varies considerably across depository institutions. Some institutions charge this fee to all customers, while other institutions apply the fee only to certain types of accounts or account holders. A 2003 study by Dove Consulting found depository institutions split evenly between these two approaches. In addition, the fee may vary with the number of transactions each month. For any customer that is charged, most institutions assess a simple per-transaction fee. However, about 10 percent of the institutions that charge a PIN fee allow a specific number of free debit transactions and then assess the fee only after that limit has been reached. The transaction limit at which the fee applies varies among the depository institutions.

Although rare, other fee structures do exist. For example, one large institution charges customers \$1.00 if they make any debit transactions in a month, regardless of the number. Another institution charges nothing for the first two transactions, \$0.25 per month for three to five transactions per month, \$0.50 per month for six to ten transactions per

Figure 5. Distribution of PIN fees by dollar amount, June 2004



Note. "Other" includes financial institutions that charge PIN debit fees but do not charge a fixed fee per transaction. Banks that impose fees only after a transaction limit has been reached are included in the column for that fee amount.

PIN Personal identification number.

Source. See table 3.

month, and so on, up to \$1.00 per month for fourteen or more debit transactions. At other institutions, the fee may vary by the nature of the transaction: For example, at least one institution charges a PIN fee at the point of sale but only if a customer asks for cash back. Finally, some institutions assess a fee only if a customer's account balance falls below a stated minimum balance requirement. These variations in pricing structure complicate the implementation of any alternative methods for the disclosure of debit fees, as is discussed in the section on policy options and analysis.

Other Fees

Although this report focuses on per-transaction fees for PIN debit that are assessed at the point of sale, the data provide evidence on other fees related to debit cards.

Approximately 17 percent of institutions charge a monthly or an annual fee for having a debit card, while about 2 percent charge a one-time fee for a consumer to obtain a card. The data also indicate that a very small fraction (less than 1 percent) of depository institutions charge for signature debit transactions as well.

EVIDENCE FROM CONSUMERS

To gather direct evidence about consumers' experience with debit cards and fees, the Board contracted with a survey research firm to conduct a survey on households' use of debit cards.²⁴ The survey of about 500 households per month was taken during March, April, and May of 2004. This data set includes 1,501 distinct households over the three months and is nationally representative of U.S. households.²⁵ Although a small number of surveys have asked similar questions, this survey's nationally representative sampling frame allows us to provide a clear picture of debit use among U.S. households as a whole and to answer questions specifically related to the topic of PIN fees.

Use of Debit

Eighty-six percent of households reported having a checking account or a similar transaction account at a depository institution (figure 6). About 60 percent of households with a checking account reported having a debit card, an indication that about 52 percent of all households in the sample have a debit card. Among households with a debit card, about 87 percent had used the card to purchase items at stores in the twelve months preceding the survey; among all households in the sample, 45 percent had used a debit card in this way.

The data on debit card use in the Board survey are consistent with results obtained in the 2001 Survey of Consumer Finances (SCF), another nationally representative comparable data source. In the 2001 SCF, 44 percent of *households with a checking or savings account* reported using a debit card to make purchases, while in the new survey, 52 percent of such households reported doing so. The larger number in the new survey is consistent with the growth in debit use that has occurred since 2001.

The Board survey collected data on the frequency of debit card purchases per week (table 4). The survey found that the median U.S. household performs three debit transactions per week. However, the distribution shows that many households make considerably more than three weekly debit purchases (figure 7). In fact, 22 percent of households reported seven or more debit transactions per week.

²⁴ The household survey was conducted by the Michigan Survey Research Center as part of the Michigan Surveys of Consumers.

²⁵ To ensure that each month's sample represents the population of U.S. households, sampling weights are used in the analysis for this study.

Figure 6. Percentage of surveyed households that own checking accounts, ATM cards, and debit cards and have recently used debit cards to make purchases, 2004

			Percent of all surveyed households that responded "yes"
Do you have a checking account?			
Yes – 86.1	No – 12.9	Other – 1.1	86.1
Do you have a debit card?			
Yes – 60.1	No – 39.4	Other – 0.48	51.7
Have you used your debit card in the past 12 months to make purchases?			
Yes – 86.6	No – 13.4	Other – 0	44.8

ATM Automated teller machine.

Other Don't know or refused to answer.

Source. Data are from a survey of 1,501 households conducted as part of the Michigan Surveys of Consumers in March, April, and May of 2004 by the Michigan Survey Research Center under contract with the Federal Reserve Board.

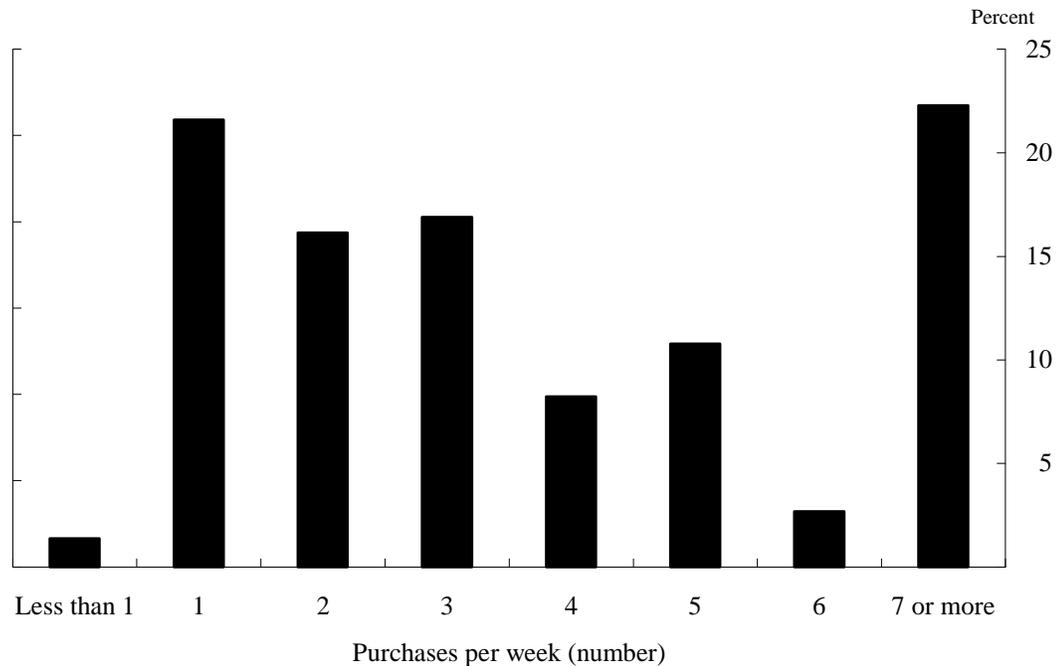
Table 4. Number of debit card purchases per week by surveyed households, by region, 2004

Region	Median	Mean
All	3	5.0
Midwest	3	4.8
Northeast	3	4.2
South	3	5.5
West	4	5.1

Note. Among households that have used a debit card at least once during the twelve months preceding the survey.

Source. See figure 6.

Figure 7. Distribution of households with debit cards by number of purchases per week, 2004



Source. See figure 6.

Knowledge and Occurrence of Debit Fees

To learn about consumers' experience with debit fees, the survey asked about households' overall familiarity with their depository institutions' fees (table 5). About three-fourths of all surveyed households said they were either very familiar or somewhat familiar with their institutions' fees (the following analysis groups these households together and refers to them as the "familiar" group).

The survey asked households familiar with their institutions' fees whether their institutions charge POS debit fees (table 6).²⁶ Of these households, 15 percent reported some type of debit fee (PIN or signature or both): About 13 percent reported a fee for each PIN debit transaction, whereas about 5 percent reported a fee for each signature debit transaction.

The regional patterns in the household survey (table 6) differed somewhat from those in the depository institution survey. Households in the Midwest reported greater prevalence

²⁶ To avoid antagonizing survey respondents, interviewers refrained from directing detailed questions about the occurrence and amount of debit fees to households that reported being "not too familiar" or "not at all familiar" with their institutions' fees.

Table 5. Percentage of surveyed households familiar and unfamiliar with debit fees, by region, 2004

Region	Familiar	Unfamiliar
All	74.3	25.7
Midwest	74.6	25.5
Northeast	67.1	33.0
South	81.2	18.8
West	70.4	29.6

Note. Households are deemed to be familiar with their institutions' fees if they report being "very familiar" or "somewhat familiar" with those fees. They are deemed to be unfamiliar with their institutions' fees if they report being "not too familiar" or "not at all familiar" with those fees.

Source. See figure 6.

Table 6. Percentage of surveyed households familiar with debit fees that report that their institutions charge such fees, by region and type of fee, 2004

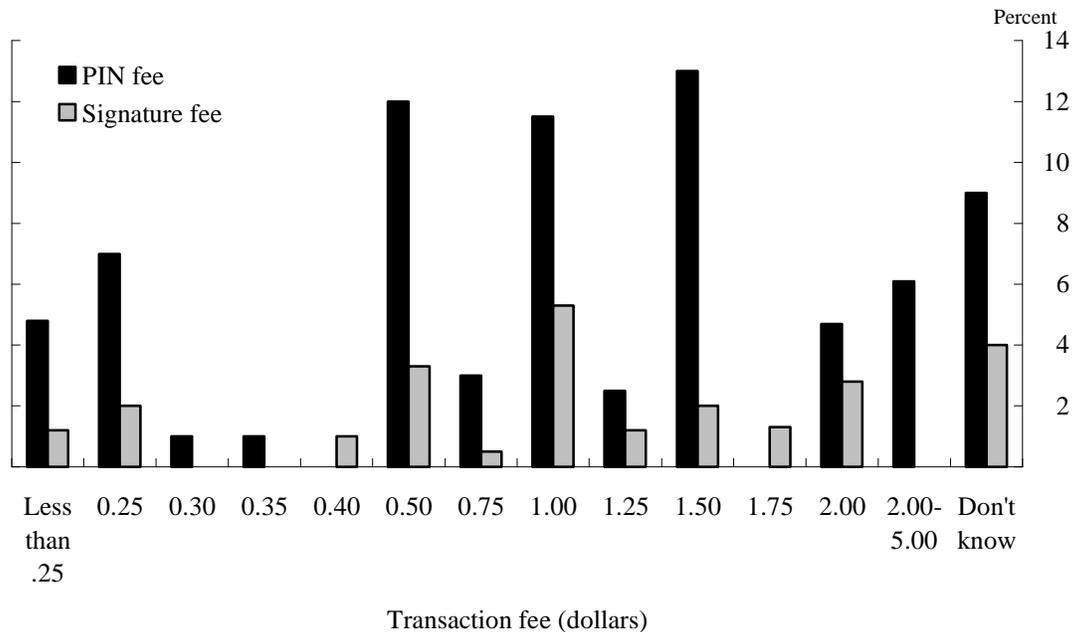
Region	PIN fee	Signature fee	PIN or signature fee
All	13.1	4.5	15.0
Midwest	18.5	5.9	20.0
Northeast	11.6	6.1	14.8
South	11.8	4.9	14.4
West	11.0	1.4	11.0

Note. For definition of "familiar," see table 5.

Source. See figure 6.

of PIN fees than did those in other regions, among which prevalence rates differed little. This finding contrasts somewhat with that of the depository institution survey, in which institutions in the Northeast reported the highest rates. The difference is due mainly to a difference in sampling methods. Whereas the depository institution survey sampled on the basis of where depository institutions' headquarters are located, the household survey sampled on the basis of where households (that is, the institutions' customers) are located. For example, the depository institution survey categorized a bank with headquarters in Chicago and additional offices in New York as being located in the Midwest.

Figure 8. Distribution of PIN fees and signature fees among households reporting that their institutions charge such fees, 2004



PIN Personal identification number.

Source. See figure 6.

Debit Fees Reported by Households

Households that reported that their institutions charge debit fees were asked for the amount of the fee per transaction (figure 8). The fees most typically charged were \$0.25, \$0.50, \$1.00, \$1.50, and \$2.00. Note that consumers responding to this survey were more likely to report PIN fees above \$0.75 than were the depository institutions discussed in the previous section; this result may indicate that some respondents in the household survey confused the debit fee with other fees, such as a foreign ATM fee.²⁷

OVERALL ASSESSMENT OF THE PREVALENCE OF PIN FEES

The depository institution survey and the household survey yield remarkably consistent results. Even with the slight differences between these two frames of reference, the data offer clear evidence about the prevalence of PIN fees in 2004. Because no comparable surveys were conducted in earlier years, the data cannot be used to determine whether PIN fees are becoming more or less prevalent over time.

²⁷ A consumer's bank imposes foreign ATM fees when the consumer uses an ATM not operated by the consumer's bank.

The depository institution survey indicates that 14 percent of institutions charge at least some of their customers PIN fees. These numbers are somewhat lower than those reported elsewhere but represent the best estimates for the prevalence of the fees nationwide and across all sizes of institutions. For example, surveys by *ATM and Debit News* and by Dove Consulting each found that roughly 25 percent of institutions charge the fees. Both studies were based on data collected from the country's largest depository institutions. When the Board's sample is restricted to a similar group of large institutions (with at least \$5 billion in deposits), the staff finds an almost identical percentage.

The New York Public Interest Research Group (NYPIRG) also conducted a survey of debit fees, finding that 89 percent of depository institutions operating in New York State charge PIN fees. Because of problems with sample selection, this figure is a clear overestimate of the true prevalence.²⁸ New York State, however, appears to be an area where a higher-than-average proportion of institutions charge PIN fees. Using data from the Board's survey of depository institutions and from other sources, the Board's staff estimates that 40 percent to 50 percent of depository institutions that operate in New York State currently charge PIN fees to at least some customers.

Because larger institutions are more likely than smaller ones to charge the fees, and because larger institutions serve a large share of all consumers, the share of consumers whose institutions charge PIN fees is likely to be greater than 14 percent. To form a rough estimate, one can assume that the number of consumers at each bank is proportional to the deposits at that bank. In that case, according to our calculations, roughly 20 percent of consumers whose institutions offer debit cards may be subject to fees for at least some of those cards.

However, the institutions that assess PIN fees may do so only for certain customers, for certain account types, or for certain debit cards when the institutions offer more than one card. These factors complicate the inferences to be drawn from the data. The survey asked institutions about the debit cards associated with their most basic types of checking accounts. To the extent that customers with premium checking accounts do not pay PIN fees, the results of our depository institution survey may overstate the prevalence of these fees for consumers.

According to the household survey, about 13 percent of households reported that their depository institutions charge PIN fees. Because this number includes only those households familiar with their institutions' debit fees, any systematic difference between this group and households unfamiliar with their institutions' fees could affect this percentage. If unfamiliar households, for example, are more likely than familiar ones to bank at institutions that do not charge fees, then 13 percent may be an overestimate of the true percentage.

²⁸ For example, when institutions in the NYPIRG survey did not report fee information, NYPIRG dropped them from the analysis of survey results. Because these institutions are less likely to impose debit fees, dropping them leads to inflated estimates of the prevalence of such fees.

Table 7. Percentage of households that conduct each type of debit card transaction, 2004

Type of transaction	Percent
PIN only	21.0
Signature only	18.0
Both PIN and signature	60.1
Don't know	.6
Refused to answer	.3

Note. Among households that have used a debit card at least once during the twelve months preceding the survey.

PIN Personal identification number.

Source. See figure 6.

However, the household survey may include some credit union customers, whereas the depository institution survey excludes credit unions. As noted earlier, credit unions are probably less likely to charge PIN fees than are commercial banks or thrifts. Moreover, if consumers select banks, accounts, or debit methods to minimize their own costs, or if consumers are unaware of fees, then consumers may report a smaller percentage of institutions that charge these fees relative to the proportion reported in the depository institution survey.

The household survey provides some evidence on this point. Because the survey asked respondents both how they secure debit transactions and whether their institutions charge debit fees, one can observe whether customers appear to pay PIN fees at all and, in particular, whether customers appear to be using signature debit to avoid PIN fees. One question asked about customers' choice of a PIN or a signature at the point of sale (table 7). Roughly equal proportions of households that make debit card purchases reported using a PIN or a signature exclusively (21 percent versus 18 percent, respectively), while about 60 percent of debit users reported that they sometimes use PIN and sometimes use signature.

The reported fee occurrence for households familiar with their institutions' fees varies with the type of debit transaction typically conducted (table 8). Among households that use signature debit only, about 22 percent reported that their institutions charge fees for PIN debit. These households appear to use signature debit to avoid paying PIN fees. However, among households that use PIN only, about 9 percent reported PIN fees. Two conclusions can be drawn: First, these fees do seem to steer behavior, and second, the percentage of customers who pay these fees may be less than the percentage of customers who bank at institutions that charge the fees.

Table 8. Types of debit fees charged by depository institutions, by type of debit used by households familiar with such fees, 2004

Type of debit used	PIN fee			Signature fee			PIN or signature fee	
	Yes	No	Don't know	Yes	No	Don't know	Yes	No
Signature only	21.5	71.6	7.0	3.3	94.7	2.0	21.5	78.6
PIN only	9.2	90.8	.0	1.9	84.8	13.3	9.2	90.8
Both PIN and signature	9.3	88.0	2.6	4.3	92.8	3.0	12.5	87.5
Memo: All households familiar with their institutions' debit fees	13.1	83.6	3.3*	4.5	89.4	6.0*	15.0	85.0

Note. For definition of "familiar," see table 5.

PIN Personal identification number.

* Includes cases in which the respondent refused to answer.

Source. See figure 6.

Drawing on this analysis, the Board's staff estimates that about 15 percent of customers with debit cards are subject to PIN fees. In addition, both the depository institution survey and the household survey indicate that a small fraction of customers may be subject to signature fees.

Adequacy of Disclosure

In their request for this study, members of the Committee asked that the Board outline the existing provisions of the law governing the disclosure of PIN fees and the level of compliance by financial institutions with these requirements. This section first reviews the existing regulatory requirements and provides necessary context for the later discussion of how disclosures could be improved if improvement were deemed necessary. The section then addresses in two parts the level of compliance by depository institutions. The first part consists of an analysis from regulatory reports of the current level of compliance by depository institutions, while the second part describes consumers' experiences by using findings from the household survey along with information learned from consumer statements provided in response to the Board's request for public comment.

EXISTING REGULATIONS

The current disclosure requirements governing electronic funds transfers (EFTs) were established by federal statute in the Electronic Fund Transfer Act (EFTA), which is implemented by the Federal Reserve Board's Regulation E.²⁹ The types of EFTs covered by this law include POS, ATM, and automated clearinghouse transactions as well as those that are part of a telephone bill-payment plan or a remote banking program. The EFTA limits consumers' liability for unauthorized transfers, establishes procedures for resolving errors, and provides other rights and protections related to EFTs. Importantly, it expressly requires the disclosure of the terms and conditions of an EFT service, including fee information.

Generally, the statute and regulation require that consumers receive EFT-related disclosures on three occasions: (1) in the initial disclosures that consumers receive when they contract for an EFT service or before they make the first EFT involving their account; (2) in periodic statements of account activity, which are typically provided monthly; and (3) on the terminal receipt that is generated when a transfer is initiated (this disclosure is required only under certain conditions).³⁰

In the initial disclosures, the account-holding financial institution must identify any fees it imposes for EFTs or the right to impose them. The fee that an account-holding institution imposes when its customer engages in a PIN debit transaction at the point of sale is such a fee, and it must be disclosed under this initial disclosure requirement. If the institution adds the fee later after providing the initial disclosures, it must send the

²⁹ The EFTA is codified at 15 U.S.C §1693 *et seq.*, and the Board's Regulation E is found at 12 C.F.R. pt. 205.

³⁰ Regulation E—Electronic Fund Transfers, 12 C.F.R. §§ 205.7, 205.9(a), 205.9(b) (2004).

consumer a change-in-terms notice at least twenty-one days before the effective date of the fee.³¹

A financial institution must send a consumer a periodic statement for each account to or from which EFTs can be made. The institution must send this statement for each monthly cycle in which an EFT has occurred, or if no such transaction has occurred, at least quarterly. In addition to other information, the statement must disclose the amount of any fees assessed against the account during the statement period, including fees for EFTs, for the right to make EFTs, or for account maintenance. However, the fees to be disclosed in the periodic statement may include fees other than those for EFTs, such as charges for nonelectronic services (both fixed and per-item fees). These fees may be stated “as a total or may be itemized in part or in full,” as the interpretation of the regulation reads in the Board’s official staff commentary. Thus, if an account-holding institution imposes fees on a consumer for a PIN debit transaction, such fees must be disclosed in the periodic statement but may be aggregated with other fees. The regulations permit, but do not require, a per-transaction itemization of each fee that the card-issuing bank has charged for a PIN debit transaction.

Finally, the receipt generated at the terminal must include the amount of the transfer, the date the transfer was initiated, the type of transfer, and the location of the terminal. A transaction fee must be disclosed on the receipt, and displayed on or at the terminal, *only* if the fee is included in the amount of the transfer. If the fee is not included in the transfer amount, the receipt need not state the fee and the display requirements are not triggered. Because a PIN fee is not received by the merchant and is therefore not included in the transfer amount, the fee need not appear on the transaction receipt.

COMPLIANCE BY DEPOSITORY INSTITUTIONS

Currently, the Board is required to report annually on compliance with consumer protection laws by entities supervised by the various federal agencies. This annual reporting summarizes data collected from the Federal Reserve Banks and the member agencies of the Federal Financial Institutions Examination Council (FFIEC), and it includes compliance data with respect to Regulation E and several other consumer protection laws.³² From these sources, the Board’s staff obtained compliance information for the past three reporting years; a summary of that information appears below.

Generally, compliance with Regulation E’s requirements has been consistently high from one reporting period to the next. During the 2003, 2002, and 2001 reporting periods,

³¹ Regulation E—Electronic Fund Transfers, 12 C.F.R. § 205.8(a) (2004).

³² These consumer protection laws include the Truth in Lending Act, the Equal Credit Opportunity Act, and the Community Reinvestment Act, among others.

approximately 94 percent, 92 percent, and 95 percent, respectively, of the institutions examined were in full compliance with Regulation E.³³

The most commonly violated provisions pertain to the various “error resolution” procedures outlined in the rule.³⁴ Although error resolution violations were the most prevalent compliance deficiencies, some agencies identified a relatively smaller number of violations related to the initial disclosure requirements, including both the timing and the content of the disclosures.

The two disclosure provisions of Regulation E that are relevant to the imposition of debit fees are those addressing initial disclosures and periodic statements. The law’s initial disclosure requirement has two primary parts: (1) the general requirement that initial disclosures be provided in a timely way and (2) the requirement that specifies the contents of these initial disclosures. To meet the contents requirement, financial institutions must disclose eleven types of information, only one of which pertains to fees. As noted previously, if an institution adds such debit fees later, it must send the customer a change-in-terms notice that provides disclosure in lieu of the initial disclosure; the Board’s staff noted few violations related to these change-in-terms requirements.

Because the examination summaries that the FFIEC agencies reported vary to some degree in their level of specificity, the reported violations of the initial disclosure requirements cannot be assumed to relate to debit fees in particular. For example, while one agency might identify a “section 205.7(b)” violation (a deficiency generally in the contents of a disclosure), another might identify a “section 205.7(b)(5)” violation (a deficiency in initial disclosure related to fees). Even the latter violation, expressly identified as a violation of the requirement for initial disclosure of fees, can be imprecise, as it might result from a failure to provide any fee information whatsoever or from a failure to provide information for any of the various fees (not necessarily a debit fee) that relate to an EFT.

To help determine whether any of the section 205.7(b) violations identified in reports submitted to the Board pertained to a failure to disclose debit fees, the Board’s staff asked the FFIEC agencies for more information. As a result of this follow-up request, staff members determined that during this three-year period, fewer than ten of these reported

³³ The reporting periods run from midyear to midyear: For example, the 2003 reporting period reflects examination findings for the period July 1, 2002, through June 30, 2003.

³⁴ Regulation E sets out specific procedures and timelines under which a consumer can assert errors, have them investigated promptly, obtain provisional recrediting to the consumer’s account when the institution needs more time to investigate, and ultimately receive a written explanation from the institution of the results of the investigation. The most common compliance deficiencies identified for all three reporting periods involve these procedures and include failure to determine whether an error occurred and to transmit the results of the investigation to a consumer within ten business days, failure to credit the consumer’s account in the amount of the alleged error when timely notice of the error had been received but the institution did not complete its investigation within ten days, and failure to provide a written explanation of the institution’s findings and of the consumer’s right to request documentation supporting these findings.

violations appeared to involve a failure of an institution to disclose its policy of imposing fees for each debit card transaction.

Reports from trade associations of depository institutions and from individual depository institutions that responded to the Board's request for public comment were consistent with the regulatory reports. The institutions and trade associations reported uniformly that they believe their compliance with Regulation E is high.

CONSUMERS' EXPERIENCE WITH DISCLOSURE

To address the perspective of consumers on the adequacy of debit fee disclosures, the discussion below highlights a few of the statements that consumers provided in response to the Board's request for public comment and summarizes data from the household survey. A full summary of comments appears in the appendix.

Comments of Consumers

Among the consumers who expressed an opinion on the issue of disclosure, a large proportion advocated clearer disclosure of debit fees than is currently required. Several individuals reported that they learned of their institutions' debit fees on their monthly statements after having incurred one or more fees while conducting POS debit transactions. Many seemed to broadly discount the value of the initial disclosures and asserted that the information provided in the consumers' monthly statements was nothing better than an "after the fact" disclosure. A common comment was that \$20 to \$30 in charges could easily be imposed on a frequent debit user before that consumer learned of the fee in the periodic statement of account activity. Several consumers also made the point that although they considered themselves to be generally well informed, they were still surprised by the fees.

In addition, some consumers reported that their depository institution had been acquired by another and that they were surprised when the newly merged institution began charging them the fees. This comment suggests that the point at which many consumers fail to learn of the fees is when their depository institution's fee policy changes rather than when they open an account. If true, this finding implies that for these consumers, the change-in-terms disclosure, rather than the initial disclosure, would be the first source of information on the new fee. In any case, many customers appear to learn about debit fees on their monthly statements.

In addition to having been surprised by a fee, several consumers who responded to the request for public comment mistakenly thought that the *merchant* had charged the PIN fee. Upon complaining to a merchant, some consumers learned from the merchant that the depository institution had in fact charged the fee. Other consumers apparently continued to believe that the merchant had charged the fee. (Merchants' comments also

indicated this misunderstanding by many consumers.) The study addresses this topic again later, in the discussion of possible changes to disclosure requirements.

Consumers' Perceptions of Debit Fee Disclosure

The household survey data provide quantitative information about whether consumers perceive debit fee disclosure to be adequate and whether consumers tend to be surprised by debit fees.

Perceived Adequacy of Disclosure

The survey asked all customers with debit cards about their overall satisfaction with their institutions' disclosure of debit fees (table 9). Fifty-five percent of these households reported that they were very satisfied with the information their institutions provided about debit card fees; 30 percent reported that they were somewhat satisfied. The level of satisfaction varied, however, depending on households' familiarity with their institutions' fees. One might expect that customers of depository institutions that clearly disclose their fees would be both more familiar with their institutions' fees and more satisfied, on average, with the disclosure. The data support this hypothesis: Among households familiar with their institutions' fees, about 92 percent reported that they were either very satisfied or somewhat satisfied with their institutions' disclosure. In contrast, only about 65 percent of households not familiar with their institutions' fees were satisfied with the disclosure. The proportion of households satisfied with disclosure did not vary substantially according to whether the households' institutions charge debit fees.

The survey also asked customers with debit cards whether they thought their financial institutions had given them enough information to enable them to use the cards wisely. Eighty-eight percent of these households responded affirmatively. When asked, however, whether they thought their institutions had provided enough information for *others* to use their debit cards wisely, only 58 percent believed that others had sufficient

Table 9. Surveyed households' degree of satisfaction with their institutions' disclosure of debit fees, by degree of familiarity with such fees, 2004

Degree of satisfaction	Households familiar with their institutions' fees	Households not familiar with their institutions' fees	Memo: All households with debit cards
Very satisfied	65.0	26.3	55.0
Somewhat satisfied	27.1	38.4	30.0
Neither satisfied nor dissatisfied	3.5	14.4	6.3
Somewhat dissatisfied	1.7	8.7	3.6
Very dissatisfied	1.6	4.6	2.4
Don't know	.8	4.7	1.9
Refused to answer	.3	2.9	.9

Source. See figure 6.

information. These proportions showed no substantial difference between households whose institutions charge fees and those whose institutions do not.

When prompted, about 22 percent of households whose institutions charge fees indicated that they wanted additional information about their institutions' debit fees. The most frequent request was for complete information about each transaction that resulted in a debit fee, such as the date, time, purchase amount, and merchant's name and address.

Consumers Who Have Been Surprised by Debit Fees

One survey question asked households with debit cards whether they have ever been surprised by debit fees (table 10). Among households reporting that their institutions charge debit fees, about 23 percent said that they had been surprised by such fees.³⁵ This pattern suggests that almost one-fourth of households whose institutions charge fees may learn about the fees by incurring them and finding them on their account statements.³⁶ These numbers vary by region: Households in the Midwest and South are more likely to report having been surprised, and households in the Northeast and West are less likely to do so.

Table 10. Percentage of surveyed households with debit cards that were surprised by PIN fees, by region and whether they reported that their institutions charge such fees, 2004

Region	Reported a PIN fee	Memo: All households with debit cards
All	22.9	4.2
Midwest	27.4	4.5
Northeast	15.0	2.8
South	26.2	5.1
West	15.8	3.7

Note. Only respondents who said they are "very familiar" or "somewhat familiar" with their institutions' fees were asked whether their institutions charge PIN fees.

PIN Personal identification number.

Source. See figure 6.

³⁵ These households make up about 4 percent of all households with debit cards.

³⁶ Because the survey did not ask how long ago the surprise occurred, one cannot ascertain when households become familiar with the fee policy.

ADDITIONAL VIEWS OF STAKEHOLDERS ON THE ADEQUACY OF DISCLOSURE REQUIREMENTS

The discussion below highlights additional comments the Board received from merchants, depository institutions, networks, and processors on the adequacy of existing disclosure requirements.

Merchants

Merchants consistently noted that many of their customers are confused about the source of PIN fees and that these customers mistakenly attribute the fees to the merchants. This misunderstanding costs the merchants customer goodwill and the time of employees who must explain to customers the actual source of the fees.

In addition, merchants noted that consumers understand little about the effect of their choice of debit transaction (PIN or signature) on merchants' costs or card issuers' revenues. One trade association of retailers noted that its members would like to be able to (1) inform customers about the merchant discount paid by the merchant as well as the interchange fee received by the card-issuing institution, (2) notify customers that the card-issuing institution may charge a fee, and, most notably, (3) charge customers differently depending on their chosen method of payment. Merchants argued, however, that they would rather not implement the first two items without also being allowed to implement the third--that is, unless they could charge consumers differentially on the basis of their method of payment, informing consumers about PIN fees would serve only to steer customers to signature debit, thereby increasing merchants' costs.

Depository Institutions, Networks, and Processors

In addition to reporting favorable compliance, depository institutions asserted that the existing disclosure requirements are "more than adequate" to inform customers about debit fees. They stated that most institutions already disclose fees on a per-transaction basis, but they argued against making this type of disclosure mandatory because of the costs it would impose on institutions that do not provide per-transaction disclosures. The EFT networks and one EFT processor echoed these statements.

Policy Options and Analysis

Several options exist for expanding or improving the current disclosure regime for PIN fees. These options range from implementing real-time, network-based solutions to making more-limited improvements to the disclosures that the law currently requires depository institutions to provide. The discussion below provides an analysis of each option, focusing mainly on the costs involved, the parties likely to bear the costs, and the effectiveness of the option in enhancing consumer information. The costs of the alternatives are summarized at the end of the section (table 11).

SPECIFIC REAL-TIME DISCLOSURE

Network-Based Options

The most comprehensive policy change that has been suggested is to provide, for each transaction, a real-time notice that the consumer will be charged a fee for conducting a PIN debit transaction. This information would appear on the POS terminal display before the consumer committed to a method of payment. The consumer would then accept or reject the fee, and the transaction would proceed. To create this type of real-time notification system, major modifications to the existing network infrastructure for PIN debit would be necessary.

In such a scheme, the consumer would swipe a debit card, and the transaction would begin as it does today. The information necessary for authorization would travel from the merchant's terminal to the processor, then to the EFT network, and finally to the card-issuing institution or its processor. At this point, rather than sending just an authorization or a "decline" message back to the terminal, the card issuer or processor would also include information about the fee. The terminal would display the fee and offer the consumer the option to accept the fee or to choose a different payment method. The information about the consumer's decision would then be sent back to the card-issuing institution.

Multiple technological difficulties would arise from this scenario. The new system would require that two messages, rather than one, be sent from the debit terminal to the card-issuing institution. In addition, the information on the debit fee that the institution would charge its customer would need to reside at the institution or its processor in a form that could be transmitted to the merchant's terminal. Finally, the terminal's hardware and software would need the ability to read and display the fee information.

Converting the PIN debit system to this architecture would require major technical changes to each step in the payment process. First, card-issuing depository institutions,

their processors, and the EFT networks would all need communications infrastructure to be able to transmit approximately twice the number of messages sent between depository institutions and terminals, as the number of messages per PIN transaction would increase from one to two.

In addition, real-time, network-based debit fee disclosure would require changes to the database infrastructure at the card-issuing institution. Rather than relying on the internal database used to manage its customers' accounts, a typical institution uses a separate database to provide networks with customer information for debit transactions. The network-accessible database in use today is generally quite sparse, as it contains only the information necessary for the network to confirm that the debit card is valid and that sufficient funds are in the account. But given the possibility that institutions may charge different fees for different account types or may charge fees only after consumers have completed a specific number of transactions in a month, the information required to correctly assess PIN fees would need to be detailed. A real-time fee notification system would require that these network-accessible databases, as well as any databases used for "stand-in" processing, be upgraded to contain a far richer set of customer information. The cost of upgrading these databases is difficult to estimate.

The changes for merchants would also be substantial. Because the majority of terminals today do not have the capacity to display the fee information, most terminals would need to be replaced. Even the limited number of terminals that could display the information would need to be reprogrammed, as would any systems that the larger merchants use to drive their terminals.³⁷

Conversations with industry participants place conservative estimates of these accumulated costs in the range of \$5 billion to \$10 billion. Depository institutions, processors, networks, and merchants all rejected this option as too costly. In particular, merchants argued in their responses to the Board's request for public comment that they currently bear much of the cost of insufficient disclosure of debit fees, in terms of monetary cost and consumer dissatisfaction. They would support a real-time notification option only if (1) merchants would not have to bear any of the monetary costs of necessary upgrades and (2) merchants would be permitted to charge different retail prices (for example, offer discounts) based on the customer's method of payment.

Alternative Network-Based Options

A slightly simpler network-based solution would involve only a single message. As before, the consumer would receive the fee information with the authorization message. If the consumer declined the transaction, a "reversal" message would be sent to the

³⁷ Several of these issues arose in an earlier analysis by the General Accounting Office, which studied the disclosure of foreign ATM fees. One important difference between disclosure of foreign ATM fees and disclosure of debit fees is that real-time disclosure of debit fees would involve reconfiguring merchant terminals, which far outnumber ATMs and are run by merchants rather than by depository institutions.

issuing depository institution to cancel the charge, as with reversals that are currently sent when a consumer cancels a transaction.

Implementing this option would require fewer network changes than would the dual-message option. To provide the fee information, issuers' databases would still need to be upgraded, as would the merchants' terminals and the software driving them. But other parts of the system might not need upgrading, as the required network "bandwidth" would not be increased as much under this option. Reversal transactions, however, would need to be able to reach a consumer's account in real time to avoid the situation in which the account remained debited (with the funds unavailable) even after the reversal.

A second single-message option would be to provide the fee information to the merchant with the authorization message and to require the merchant to print that information on the customer's receipt. This type of notification would be "after the fact" but would prevent customers from conducting additional fee-based transactions without knowledge of the fees. This option would still require card issuers to make all of the changes discussed above, and merchants would still need to modify their receipt printers and the software driving them. Both single-message options are cheaper than the dual-message one; however, they remain costly alternatives.

Card-Based Options

An alternative solution to providing account-specific fee information at the point of sale would involve encoding the fee information on the magnetic stripe of the consumer's debit card. Currently, debit transactions are processed with information stored on one of three "tracks" in the magnetic stripe on the back of the card. Space on each track is limited, and card issuers have considerable discretion over how information is organized on the stripe. These facts suggest that any card-based solution would require altering the current standard for how data are stored and read from the magnetic stripe.

Implementing a card-based approach would also require the replacement of all POS terminals and all debit cards. At \$200-\$300 per terminal, the cost of replacing the 4-5 million terminals is roughly \$1.0-\$1.5 billion. A wholesale replacement of the existing 250 million PIN debit cards, including producing and mailing the cards, could cost another \$300-\$500 million. Depository institutions would also bear the costs of liability and fraud after recalling a large number of cards before their printed expiration dates. The additional costs related to consumer education and customer service issues would likely be large as well. The current industry practice is to avoid recalling cards and to implement any changes only as cards expire; this approach would be cheaper, but fully implementing it would take a minimum of about five years.³⁸

³⁸ Some depository institutions issue debit cards with no expiration dates--these cards would still need to be recalled.

Pricing Structures and Real-Time Options

The current variety of pricing structures for PIN fees complicates the implementation of any real-time solutions. As described earlier, one approach is to charge no PIN fee for a small number of transactions per month but to charge a fee for any transactions beyond that limit. More-complicated schemes than this one would be extremely difficult to incorporate. For example, what fee would a depository institution disclose if its policy was to charge a consumer \$1 per month for making any debit transactions in a given month but to charge no fee otherwise? A policy that allowed a consumer to conduct two to five transactions for \$0.25 per month would present a similar challenge.

For a card-based solution, two special considerations arise. First, to allow for any type of nonstandard pricing, the terminal would have to write data to the card. For example, if the consumer were not charged for the first three transactions, then the card would need to be able to store the number of transactions to date in order to present the correct fee. Debit cards today have a read-write track; however, it is not used for PIN debit. The second complication is that a card-based solution limits depository institutions' opportunities to alter their fees for PIN debit because any change requires them to reissue all their debit cards.

NONSPECIFIC REAL-TIME DISCLOSURE

Disclosure of the *possibility* of PIN fees, as opposed to disclosure of consumers' actual fees, could be achieved if merchants were to post signs to this effect at the point of sale. As with existing disclosures of foreign ATM fees, merchants could post signs at the POS terminal indicating that consumers *might* be charged fees by their depository institutions if they chose to conduct PIN-based transactions. Only a nonspecific warning would be possible because merchants have no way of knowing what institutions charge fees, whether an institution charges for PIN debit only or also for signature debit, or which customers of a given institution are charged fees.

Several issues arise under this scenario. First, the signs might encourage a customer to switch from PIN debit to a more costly payment method, even when the customer's bank did not charge a PIN fee. Merchants expressed concern that the signs could "scare" a customer away from PIN debit to signature debit or to credit, which is more costly for merchants. Retail prices could rise if merchants were to pass on these costs. Alternatively, a move away from PIN debit to checks or cash would be more costly to the financial system. An increase in the use of checks would drive up costs to depository institutions, while greater use of cash would increase the government expenditures necessary to maintain the supply of cash.

Second, this solution would impose the cost of maintaining notification signs on merchants, though the fees are charged by depository institutions. (Some merchants might nonetheless find value in posting the notifications, as merchants currently bear the

burden of addressing the complaints of customers who mistakenly believe that merchants rather than card-issuing institutions charge debit fees.)

Finally, other forms of payment may have charges attached but are not currently subject to disclosure at the point of sale. For example, some depository institutions charge customers per-check fees, but merchants are not required to warn customers of the possibility of such fees. Introducing a requirement for only one payment option would seem arbitrary.

DISCLOSURE AT OTHER TIMES

Other options could alert consumers to the possibility of PIN fees. These options include disclosure on the card itself, improved initial or change-in-terms disclosure, and improved per-item disclosure on the periodic statement.

Disclosure on the Card

One card-based option, a visible notification printed on the card itself, would notify a consumer of the possibility of a fee but give no specific details. This type of notification could read, for example, “PIN debit use can result in a fee of \$0.50 per transaction, subject to change.” The notification could also direct cardholders to obtain additional information from their depository institutions (for example, from a website or a toll-free number). This solution would be similar to the stipulation in the Wal-Mart settlement that the words “debit card” must appear on all cards that could be used in signature debit transactions.

The primary cost of this option would arise from the need to issue new cards to all customers who are subject to fees. To the extent that consumers looked at their cards as they made their purchases, they would be well informed that a fee might be charged. As a practical matter, the type size would need to be small enough to permit the notification to fit on the card, a requirement that could reduce the visibility and thus the value of the disclosure.

Improved Initial or Change-in-Terms Disclosure

As described earlier, current regulations mandate that a consumer be alerted to any fees when an account is opened or when any changes are made to the terms of an account. As part of this study, the Board’s staff examined several examples of these initial disclosures. Discerning whether or in what circumstances a customer would be charged a PIN fee proved to be anything but simple (some of the consumer respondents expressed a similar sentiment). In particular, a disclosure was most difficult to understand when a financial institution offered more than one card and the cards had varying fee structures

(for example, an ATM card that allowed PIN debit but not signature debit and a check card that allowed both types of transactions). In these cases, ascertaining which fees applied in which circumstances, and to which card, was problematic.

Standardizing or improving the initial or change-in-terms disclosure could improve customers' awareness to the extent that customers examined these disclosures. Unfortunately, the evidence from the household survey, as well as other evidence about consumers' awareness of the contents of mandated disclosures, indicates that consumers seldom read these disclosure statements thoroughly and often do not understand all the items on the statements.

Improved Per-Item Disclosure on the Periodic Statement

As discussed above, many consumers appear to learn about debit fees from their periodic statements. Currently, many depository institutions that charge PIN fees report the charges as separate transactions on the periodic statements, which itemize the fees and list the locations where the fees were incurred. However, as commenters to the Board have pointed out, not all institutions itemize debit fees.³⁹ Some institutions simply aggregate debit (and potentially other) fees on the statement, as is permitted by the current disclosure requirements. Moreover, and perhaps more important, even when institutions itemize fees, the descriptions often do not make clear that the institutions rather than the merchants impose the fees. As noted earlier, in comments to the Board, merchants indicated that many consumers "blame" the merchants for the fees and demand refunds or request explanations for the charges.

Disclosing fees individually on the periodic statement appears to be a viable option. For example, depository institutions could improve the current practice of disclosure by itemizing fees by transaction, or by enhancing the current reporting of fees, on the periodic statement. Each line item would indicate

- the transaction to which the fee related
- the action of the cardholder that resulted in the fee (for example, a PIN debit transaction)
- the card-issuing institution as the source and recipient of the fee
- the location of the transaction

³⁹ The household survey addressed the empirical question of what proportion of institutions itemize debit fees and what proportion sum up the fees on the periodic statement of account activity. Among consumers whose institutions charge debit fees, 65 percent reported that their institutions itemize fees separately on the statement, 24 percent said that their institutions do not itemize fees, and 12 percent did not know whether their institutions itemize fees. Seventy percent reported that their institutions total the fees over the month, 18 percent said that their institutions do not total the fees, and 10 percent did not know whether their institutions total the fees.

This change would impose some moderate costs on depository institutions, particularly those that do not currently itemize fees for each transaction on the periodic statement. Comments from depository institutions listed statement costs as an important consideration regarding new disclosure requirements. However, merchants, processors, and networks would not incur new costs, and depository institutions' costs would be far less than those associated with infrastructure upgrades for real-time notification.

In addition to requiring moderate costs of implementation, improved itemization on the statement disclosure would provide consumers and merchants with a clear benefit and would apply some competitive pressure to the depository institutions that charge these fees. Consumers could clearly discern the recipients of the fees as well as the transactions that triggered the fees. Because consumers would be better informed about the recipients of the fees, merchants should see consumer complaints decline. If a consumer failed to read or understand an initial or change-in-terms disclosure of the fee, this type of notification would result in after-the-fact disclosure; nevertheless, upon learning of the fee, the consumer could alter his or her behavior, either by using another method of payment or, ultimately, by changing depository institutions.

Table 11. Changes to equipment and procedures implied by selected policy options for disclosing debit fees, by option and stakeholder

Policy option	Merchant	Acquirer or processor	Network	Issuer or processor
Real-time, network-based disclosure at point of sale	<ul style="list-style-type: none"> Upgrades to or replacement of terminals Employee training 	<ul style="list-style-type: none"> Upgrades to communications infrastructure to increase capacity Upgrades to hardware and software for dual-message functionality 	<ul style="list-style-type: none"> Upgrades to communications infrastructure to increase capacity Upgrades to hardware and software for dual-message functionality Enhanced “stand-in” processing Additional data storage 	<ul style="list-style-type: none"> Upgrades to communications infrastructure to increase capacity Enhanced authorization functionality (hardware and software, including databases)
Disclosure on the receipt at the terminal	<ul style="list-style-type: none"> Upgrades to or replacement of terminals Employee training 	<ul style="list-style-type: none"> Upgrades to hardware and software for transmission of fee information 	<ul style="list-style-type: none"> Enhanced “stand-in” processing Additional data storage 	<ul style="list-style-type: none"> Enhanced authorization functionality (hardware and software, including databases)
Real-time, card-based disclosure at point of sale	<ul style="list-style-type: none"> Upgrades to or replacement of terminals Employee training 	<ul style="list-style-type: none"> Upgrades to ensure conformity with new standards for magnetic stripe Upgrades to hardware and software 	<ul style="list-style-type: none"> Upgrades to ensure conformity with new standards for magnetic stripe Upgrades to hardware and software 	<ul style="list-style-type: none"> Upgrades to ensure conformity with new standards for magnetic stripe Upgrades to hardware and software Issuance of new cards and recall of existing cards Customer service
Nonspecific disclosure at point of sale	<ul style="list-style-type: none"> Signage Employee training 	<ul style="list-style-type: none"> Assistance of merchant clients 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None
Disclosure on the card	<ul style="list-style-type: none"> Employee training 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Issuance of new cards and recall of existing cards Customer service
Improved initial or change-in-terms disclosure	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Mailing costs
Improved per-item disclosure on periodic statement	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Upgrades to software for enhanced statements Mailing costs

Economic Effects of Alternative Disclosure Methods

The payments industry is currently in flux. Recent developments include the Check Clearing for the 21st Century Act (Check 21), which establishes a substitute check as a legal document; check truncation, which allows merchants to process a check image without having to transport the paper check; conversion of checks into automated clearinghouse transactions; and innovations in debit and prepaid cards. These advances are proceeding at a rapid pace, leaving the future landscape of the payments market uncertain.

Any regulatory change in disclosure that could affect the development of this landscape should focus ideally on improving the market's ability to function efficiently. This approach should include considering how existing or new incentives for consumer payment choice could affect the cost to the entire financial system. As discussed earlier, fees and rewards programs that encourage customers to use signature debit already give customers incentives to use a form of payment that, from the perspective of the financial system as a whole, is more costly. Enhanced disclosure (particularly nonspecific disclosure) would likely reinforce these incentives and cause consumers to switch from PIN debit to some other form of payment, at least in the short term.

Current data do not tell us for certain whether a shift from PIN debit would favor signature debit, credit, checks, cash, or a combination of these methods. Signature debit is the obvious first alternative because it is the most similar form of payment. If consumers were simply to switch from PIN debit to signature debit, the main effects would be higher merchant discount costs for merchants, higher interchange revenue for depository institutions, and higher prices for consumers if merchants passed along these costs. From a societal perspective, signature debit transactions are arguably less secure and slower than PIN debit transactions.

With the recent removal of the honor-all-cards rule, merchants now have the option of refusing signature debit as a form of payment while continuing to accept credit cards. If consumers were to respond to incentives to use signature debit, then some merchants could decide not to accept signature debit. However, because consumers are now accustomed to signature debit as a widely accepted method of payment, many merchants would likely be unable to drop signature debit without losing customers. Similarly, a scenario in which many moderate-sized or smaller merchants would find it profitable to drop signature debit seems unlikely.

Consumers could also choose to continue conducting PIN debit transactions despite the fees. With adequate fee disclosure, this situation could put some pressure on depository institutions to compete on the basis of PIN fees. The intensity of this competitive pressure would depend on two factors. The first is merchants' acceptance of signature debit products. If merchants were to stop accepting signature debit, banks would be more likely

to limit or drop PIN fees. This dynamic may have been at work, for example, when Fifth Third dropped its fee soon after Wal-Mart refused to accept MasterCard-branded signature debit cards (a decision Wal-Mart has since reversed).

The second competitive factor is consumers' willingness to change depository institutions to avoid PIN fees. The empirical evidence on this point suggests that most consumers tend to change banks infrequently and that a large proportion of bank switches occur only after a household relocates. Although some consumers change banks in response to a fee increase, particularly after a merger, the most intense competition among banks for customers appears to occur among households new to an area. Because of the inconvenience of changing banks, one may not expect improved notification about PIN fees to result in a large degree of consumer switching; however, improved disclosure would at least provide the consumer with sufficient information to increase the competitive pressure among depository institutions regarding debit fees.

If consumers turned away from debit altogether, their purchases would be spread across nondebit forms of payment: cash, checks, and credit. The evidence on this point suggests that debit has tended to replace cash and checks, not credit, particularly for frequent transactions of moderate size.

If consumers were to switch to cash or checks, the societal costs could be substantial. Although most merchants find these payment methods to be of moderate cost (as noted earlier, large retailers have developed technologies that have lowered the cost of processing paper checks, and Check 21 will lower the overall cost of processing checks even further), depository institutions' costs would almost certainly increase. Overall, checks remain an expensive form of payment from the perspective of the total cost to the financial system; the same is true of cash because of the government outlays necessary to manufacture and maintain the supply of cash.

In summary, policymakers have compelling economic reasons for making sure that consumers are aware of any fees that they will incur. Informed consumers are, by definition, likely to make better choices. However, the long-run effects of any changes to the regulatory regime are uncertain and would depend critically on consumers' choices of financial institutions and payment types, merchants' choices regarding payment acceptance, and financial institutions' choices of fees. The interactions among these three sets of players will determine the future of the payments market.

Appendix: Responses to the Board's Request for Public Comment

The Board solicited comments from the public in a Notice of Study published in the *Federal Register* in May 2004.⁴⁰ The Notice of Study, which provided the public with a sixty-day comment period, posed questions to address the issues identified by Congress regarding the existing disclosure requirements for PIN fees and the effectiveness of these requirements.

In response, the Board received 120 comments. A majority of these comments (66 percent) came from individual consumers. Comments from banks, credit unions, and their respective trade associations accounted for more than 23 percent of the total. Detailed comments were also submitted by large merchants and retailers, including merchant trade associations, which contributed 6 percent of the comments received. Networks and processors submitted just less than 3 percent of the comments received, as did the Reserve Banks. A summary of these comments follows.

VIEWS OF CONSUMERS

Many consumer commenters expressed general opposition to PIN fees and stated no disclosure preference. A fair number also expressed general opposition to imposing a fee on those who choose PIN debit because, in their view, PIN debit is more secure than signature debit. Some considered a fee that causes consumers to migrate to a less secure form of payment to be bad public policy. Others thought that imposing such a fee contradicted financial institutions' statements (and efforts) encouraging consumers to move from check payments to debit payments, as debit payments would result in cost savings for both institutions and consumers. Some argued that fees should reflect costs and that if PIN debit transactions did not generate higher costs to institutions, such fees were unjustified.

Of those consumer commenters who expressed clear positions on the issue of disclosure, an overwhelming number advocated clearer disclosure of PIN fees than is presently required. Specifically, this group generally favored a disclosure at the point of sale that would inform the consumer of the fee before the consumer committed to a form of payment for the transaction. Although some commenters were aware that account-opening disclosures contain fee information, many found such disclosure inadequate, as it is often provided within a lengthy document, rendered in small print, identified unclearly, or made generally inaccessible to most consumers. As an account-opening disclosure, it is also not provided near the time when the PIN fee is assessed. Similarly, commenters

⁴⁰ See Board of Governors of the Federal Reserve System (2004), "Notice of Study."

pointed out that the statement of periodic account activity provides an after-the-fact disclosure and is therefore less useful than a real-time disclosure.

A minority of consumers expressed surprise that any institutions were imposing PIN fees, and a small number also noted that they were unaware that they were being charged such fees themselves until they saw the fees on their periodic statements. These comments suggest that certain groups of consumers find information on PIN fees difficult to discern from account-opening disclosures or notices of changes-in-terms, that customers fail to review such disclosures adequately, or that both possibilities are likely.

Of the consumers who commented more specifically, a fair number called for improved disclosure from their periodic statements of account activity. A majority of them favored itemizing debit fee charges, tallying total PIN fees for the period and the year to date, and providing more information about the source of the fees. Several noted that even when their periodic statements itemize such fees, the consumers cannot discern from the statements who exactly is imposing the fees (that is, their bank and not the merchant), as the line entries are often incomplete, use unfamiliar acronyms, or are vague or misleading.

A large, not-for-profit consumer organization argued that existing disclosures of PIN fees are inadequate. It asserted that the distinctions between signature debit and PIN debit transactions are “largely lost” on consumers. This commenter advocated (1) that the Board require the disclosure of debit card fees as a separate category on the consumer’s periodic statement and (2) that real-time disclosure at the point of sale be required and that it be given on the receipt generated at the terminal. This commenter also urged the Board to review and address the disclosure needs of consumers engaged in debit transactions in “nontraditional” settings, such as purchases over the Internet or by telephone.

VIEWS OF FINANCIAL INSTITUTIONS

Comments from financial institutions and their trade associations broadly opposed any revisions to the existing disclosure scheme. These commenters almost unanimously believed that the initial and periodic statement disclosures, taken together, adequately inform consumers of PIN fees when institutions assess them. Moreover, all opposed any change in the law that would require notification at the point of sale, whether through the POS card terminal or on the receipt provided at the terminal.

All financial institution commenters believed that, although disclosures at the point of sale might incrementally assist consumers, the costs of implementing the technical changes and the burdens of providing such disclosure would be quite high and would clearly outweigh any benefits to be achieved for consumers.

A primary argument made by financial institutions against a required disclosure at the point of sale focused on technological burdens and costs. They asserted that, to varying degrees, current POS terminals employed by merchants lack the ability to display a notification about the PIN fee imposed by the card-holding customer's financial institution. If merchants lack the POS equipment to receive and display a notice, such equipment must be obtained, and doing so is costly.

This discussion of costs, they further contended, assumes that the merchant can retrieve information on each bank's fee over the networks used for debit card transactions. Financial institutions pointed out two problems with retrieving fee information: (1) Institutions that impose PIN fees do so in a non-uniform manner⁴¹ and (2) network traffic could potentially double to allow merchants to retrieve the fee information from the customer's bank and to obtain authorization for the amount of the transaction.

A large trade association for financial institutions, and some institutions themselves, argued that the General Accounting Office (GAO) had already addressed many of the potential technical issues that arise from the disclosure of PIN fees in its report of July 2000 on the possibility of real-time disclosure of foreign ATM fees. (The trade association submitted the GAO study as a component of its comments.) A consumer's bank imposes foreign ATM fees when the consumer uses an ATM not operated by the consumer's bank. The GAO reported that real-time disclosure of foreign ATM fees was feasible but would require significant restructuring and alteration of existing systems, would significantly increase network "traffic," would take two to three years to implement, and could cost tens of millions of dollars. Financial institution commenters stated that the disclosure of foreign ATM fees and the disclosure of PIN fees raise parallel concerns. Some argued further that the concerns noted in the GAO study might be heightened in the debit context because the number of POS terminals exceeds the number of ATMs.

With respect to existing disclosures, financial institution commenters asserted that existing initial and periodic statement disclosures are adequate. Regarding the periodic statement disclosures in particular, several commenters noted that they currently itemize fees on the periodic statement but believe that itemization should not be mandated. Some suggested that an itemization requirement would result in longer statements, which would be more costly. They made similar arguments concerning the proposals to include a monthly or yearly total of PIN fees as well as additional information about the source of the fees. Finally, several commenters questioned the policy of emphasizing only certain fees in the disclosures.

⁴¹ For example, as noted earlier, some institutions may choose to assess a PIN fee whenever a PIN is used, while others may permit customers a set number of "free" debits per period before assessing a fee. These fees may vary not only across institutions but also within an institution from one type of account to another.

VIEWS OF MERCHANTS

Generally, merchant commenters challenged the need for and purpose of PIN fees. All asserted that financial institutions impose PIN fees merely to give consumers the incentive to choose signature debit over PIN debit and that these fees enable banks to obtain significant interchange revenue from merchants when consumers choose signature debit. Merchants also believed that even if the technical and cost issues related to disclosing PIN fees could be overcome, POS disclosure would ultimately delay the processing of transactions, increasing the time that customers spend in merchants' checkout lines and annoying customers.

Merchant commenters also asserted that PIN fees' promotion of signature debit results in perverse market consequences that ultimately harm both merchants and consumers. First, they argued that PIN debit is more secure than signature debit and that any fee structure that encourages a less secure form of payment (for example, signature debit) can lead to increased fraud. Second, merchants believed that the enhanced disclosure of such fees at the point of sale would be costly for many of the technical reasons that financial institutions suggested and that merchants should not bear responsibility for such costs, as these costs would be incurred to disclose a fee that benefits only financial institutions.

One merchant trade association broadly advocated disclosure of both PIN fees and interchange fees paid by merchants. This policy of greater transparency might give consumers a clearer understanding of how the choice of payment affects the price of goods and might "even the scales" with respect to PIN debit, which consumers view as more secure than signature debit. If only PIN fees--and not interchange fees--were disclosed, consumers would migrate to signature debit to avoid (they think) additional costs, and, as a result, merchants would have to pay greater interchange fees. Ultimately, this increase in merchants' costs would result in their having to raise the prices of goods and services. The trade association further advocated that merchants be permitted to charge customers differentially depending on the customers' chosen methods of payment.

Although merchants voiced little opinion on depository institutions' initial disclosures--other than to note that such disclosures do not provide consumers with a complete understanding of how fees will be imposed on the parties to a debit transaction--merchants strongly believed that disclosures in periodic statements should be improved. Several commenters noted that entries in periodic statements, even when itemized, do not clearly identify who is imposing and who is receiving the PIN fee. For example, if an entry on line 1 of a statement reads, "2/14/04 ACME Department Store \$32.15," and is immediately followed by an entry on line 2 that reads, "2/14/04 Debit Fee \$.75," the consumer remains ignorant of who imposed and who received the fee. As mentioned earlier, several merchants pointedly stated that they often get complaints from customers who believe that the merchants impose the charges.

VIEWS OF NETWORKS AND PROCESSORS

Commenters representing payment networks and processors, like those representing financial institutions, contended that the existing disclosure regime under Regulation E is adequate. The commenters concluded that additional disclosures on the periodic statement would be costly, would detract from existing disclosures, and would add little value for consumers.

One large processor stated that real-time disclosure would demand prohibitive retooling costs, raise technical issues, and threaten the performance of the overall POS payment system. Although the commenter supported these conclusions with reasons that mirrored those given in the July 2000 study conducted by the GAO, the commenter said that the difficulties and costs associated with disclosure of PIN fees at the point of sale would “dwarf” similar costs associated with the disclosure of foreign ATM fees because of the retooling needed for a much higher number of POS terminals. This commenter also noted that retrieving this fee information at the point of sale would have a substantial, negative effect on transaction-processing times and that the delays could cause merchants to question the value of accepting PIN debit altogether.

VIEWS OF RESERVE BANKS

One of the four Reserve Bank commenters acknowledged that consumers may have difficulty in identifying EFT-related fees on the periodic statement of account activity when the statement presents such fees as an aggregate sum and fails to itemize them. Although the Bank thought that amending the existing disclosure requirements would be premature, it recommended that the Board consider issuing written guidance or a statement of “best practices” to assist financial institutions in the responsible disclosure of debit card fees.

Another Reserve Bank also addressed the issue of disclosure on the periodic statement, noting that because some banks already itemize PIN fees on their periodic statements, the costs of doing so are likely not prohibitive. Nevertheless, this Bank advised that before the Board imposed a more detailed disclosure scheme, the Board should collect more information about the prevalence of itemization in statements and use the information to better assess the costs and benefits of requiring a more detailed breakdown of fees.

Another Reserve Bank advocated amending the regulations to require that POS debit fees be segregated from other fees, rather than itemized, on the periodic statement. The commenter also suggested that these fees, if segregated, could be itemized or aggregated, provided that the statement clearly indicated which transactions triggered the fees.

Finally, the fourth Reserve Bank commenter urged the Board to revise the regulation and commentary language as necessary to improve initial and periodic statement disclosures. The commenter suggested that the Board enhance Regulation E by amending the

requirements for initial disclosures to clearly mandate a description of the circumstances under which PIN fees would be imposed. The Bank also recommended that the periodic statement expressly itemize PIN fees, although it viewed an aggregate total of such fees (either for the period or for the year to date) as unnecessary.

References

- American Bankers Association and Dove Consulting Group (2003). *2003/2004 Study of Consumer Payment Preferences*. Washington: ABA and Dove Consulting.
- Dove Consulting Group (2002). *Debit Issuer Survey: Cardholder Fees and Industry Outlook*. Boston: Dove Consulting.
- Food Marketing Institute (1998). *A Retailer's Guide to Electronic Payment Systems Costs*. Washington: FMI.
- Garcia Swartz, Daniel D., Robert W. Hahn, and Anne Layne-Farrar (2004). *The Economics of a Cashless Society: An Analysis of the Costs and Benefits of Payment Instruments*. Related publication 04-24. Washington: AEI-Brookings Joint Center for Regulatory Studies, September.
- General Accounting Office, General Government Division (2000). *Automated Teller Machines: Issues Related to Real-time Fee Disclosure*. Report to congressional committees, GAO/GGD/AIMD-00-224. Washington: GAO.
- Hayashi, Fumiko, Richard Sullivan, and Stuart E. Weiner (2003). *A Guide to the ATM and Debit Card Industry*. Kansas City: Federal Reserve Bank of Kansas City.
- HSN Consultants, Inc. (2004). *Nilson Report*. Oxnard, Calif.: HSN.
- Shelton, Tracy, Susan Craine, Katie Nadeau, and Kate Sabato (2004). *Pricey Plastic: A Report and Survey of Plastic Card Fees*. New York: New York Public Interest Research Group, images.ibsys.com/2004/0630/3479188.pdf.
- Thomson Financial and *ATM and Debit News* (various years). *EFT Data Book: The Complete Guide to the ATM and POS Debit Markets*. Chicago: Thomson Financial.