DISCUSSION PAPER
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The Laws, Regulations, and Industry Practices That Protect Consumers Who Use Electronic Payment Systems: Credit and Debit Cards

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Summary: *This is the first in a series of three papers that examines the protections available to users of various electronic payment vehicles who fall victim to fraud, discover an error on their statement, or have a dispute with a merchant after making a purchase. Specifically, it examines in detail the federal and state laws that protect consumers in the three situations described above as well as the relevant association, network, and bank policies that may apply. The protection information included in this paper is derived from a wide range of public and non-public sources, including federal and state statutes, consumer-issuer contracts, and interviews with scores of payments industry experts. This first paper focuses on the two most widely used electronic payment methods: credit cards and debit cards. The second paper in the series will examine two newer electronic payment vehicles: ACH debits and prepaid cards. The third paper will discuss the broader industry and policy implications of the authors' findings.*

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I. Introduction

Never have consumers been confronted with so many options when they reach the checkout counter: checks, credit cards, signature-debit cards, PIN-debit cards, prepaid cards, "electronified" checks, and cash are some of the ways by which they can effect a purchase. While most consumers can appreciate the key functional differences between many of these payment methods, it is not likely that they understand all of the consumer-protection-related consequences of choosing to use one method over another. For example, most debit card users do not likely understand that when they choose between "debit or credit," they may be making a choice that can affect whether they can successfully enlist their bank's help in resolving a dispute with a merchant that arises after the purchase. Similarly, when check writers decide whether to allow a merchant to convert or "electronify" their checks, it is not likely that they understand that their decision will affect the kinds of protections that will be available to them if a processing or posting error occurs.

Consumers may also be surprised to learn that the payment protections they enjoy are not fully enumerated in a single piece of legislation or in the fine print of the agreement they have with the instrument's issuer. Consumer protections derive from a variety of sources, including federal law, state law, payment network rules, and internal bank policies. A consumer with a Visa credit card, for example, is likely protected by the Truth in Lending Act of 1968 and its implementing regulation, Regulation Z, state credit card laws, a host of Visa network regulations, and the written and unwritten policies of his card's issuing bank. Ultimately, for each payment card product, there is a complex web of laws, regulations, and policies that can potentially protect consumers when they experience a problem.

This is the first in a series of papers that analyzes the protections that various electronic payment systems provide consumers when they encounter three specific problems: fraud, error, and dispute with a merchant. The authors chose to focus on these three problems for various reasons. First, they are among the most common problems consumers encounter when using electronic payment methods. Second, they are among the few problems that federal law often addresses with substantive consumer protections. (Federal law addresses most other consumer-payment-related concerns with disclosure requirements.) Third, they are problems that, uniquely, are addressed by the industry with voluntary protections that often exceed federal requirements. Finally, they are problems that highlight the disparate and potentially confusing nature of consumer payment regulation.

For the purpose of this analysis, fraud occurs when an unauthorized person accesses the value associated with a payment vehicle. Error refers to a non-malicious or innocent merchant error, such as when a merchant accidentally charges someone twice for a purchase or "mis-keys" a transaction (e.g., charging a person $179 instead of $17.90). A merchant dispute is a disagreement that arises between a merchant and a consumer after payment has been made for goods or services. Such disagreements may arise when a merchant does not deliver goods to a customer as promised or when the goods a merchant delivers differ (e.g., in quality, quantity, size, or color) from those the consumer had expected to receive.

This paper's focus is on two of the most mature electronic payment vehicles: credit cards and debit cards. Together, these two payment types facilitate approximately one-third of the $6 trillion in annual consumer payments.[1] The second paper in this series will focus on two fast growing but less mature electronic payment vehicles: the ACH debit (used by many, for example, to make utility and mortgage payments) and the prepaid card. The third paper in the series will discuss the implications of the findings of the first two papers. Ultimately, the goal of this series is to provide a better understanding of the inter-related body of laws and policies that protect consumers when they face the most common electronic payment problems. As the means of consumer payment shifts from paper to electronics,[2] such an understanding becomes increasingly

[1] *The Nilson Report*, No. 823, Dec. 2004, p. 6.
[2] The recently released *Federal Reserve Payment Study* explains that, in 2003, the number of electronic payments exceeded paper checks paid in the United States. The study (of consumer *and* business payments) reports that there were 43.7 billion electronic payments and 36.7 billion checks paid. Electronic payments

important for all those with a stake in the payment system, including consumers, regulators, networks, processors, and financial institutions.

The authors gathered consumer protection information about each payment system analyzed in the paper from a variety of public and non-public sources. Details about federal and state protections are based on a review of statutes, regulations, case law, and agency interpretations. Some of the information regarding payment-network- and bank-provided protections comes from public sources, such as web sites, account agreements or contracts, press releases, and trade publications. Most of the detailed information about the internal rules and policies of banks and payment networks, however, is based on a series of interviews with scores of compliance officers, product managers, and attorneys who support the various payment card products discussed. The information gathered through the interviewing process was independently verified and reviewed by industry experts before inclusion.

The analysis that follows is organized by payment vehicle type. It discusses the applicable federal laws, state laws, payment network rules, and bank policies that aid consumers in the three situations described above when they use credit cards and debit cards (including both PIN and signature debit). Two appendices at the end of the paper summarize the protections according to the type of card.

II. How Consumers Are Protected From Fraud, Error, and Merchant Disputes

As described above, there is a complex web of protections that consumers may be able to rely on when they fall victim to payment fraud, discover an error, or experience a post-purchase dispute with a merchant. Consumers should realize, however, that the source of a particular protection (e.g., a federal or state statute, a contract, or an internal company policy) can greatly determine the protection's usefulness. The protections described in this paper that derive from

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accounted for 55 percent of non-cash payments in 2003, up from a 42 percent share in 2000. A copy of the entire study can be found at http://www.frbservices.org/Retail/pdf/2004PaymentResearchReport.pdf.

federal and state law are essentially undeniable. While statutory protections may be open to interpretation by the courts, they generally cannot be waived by the consumer or modified without legislative action. Protections explicitly described in the contracts between consumers and issuers of payment instruments also have the force of law. Contractual protections, however, can usually be modified unilaterally by an institution and may be unclear or ambiguous as to their scope or application. Payment network rules and internal bank policies that provide protections do not have the force of law. Institutions can change these rules and policies without notice to consumers and interpret them largely as they see fit. In general, how useful these protections are depends on a particular organization's business model, regard for its reputation, and attitude toward customer service.

In addition to describing the federal and state laws that protect consumers, the following analyzes the voluntary protections afforded consumers by the policies of private networks and banks. Specifically, it attempts to characterize the *general industry practice* with regard to helping consumers resolve errors, fraud, and disputes with merchants. Obviously, each bank and network has its own set of rules and policies, and the reader should not rely on this paper's characterization of these for the purpose of resolving any actual payment problem. In addition, the reader should note that this characterization of industry practice is *not* based on a survey of the more than 7500 insured commercial banks in the U.S. or the scores of payment networks in existence. Instead, it relies on conversations with many experienced bank and network professionals who have a good understanding of how the industry functions.

A. General Purpose Credit Cards

The general purpose credit card is one of the most popular electronic payment vehicles in the U.S. In 2003, it was used to make 14.8 billion consumer purchases totaling $1.3 trillion.[3]

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[3] *The Nilson Report*, February 2004, Number 805, pp. 6-9.

Almost three in four households own a general purpose credit card,[4] and one in every four dollars that consumers spend can be traced to a credit card's line of credit.[5]

The network- and bank-specific practices discussed in this section pertain to credit cards that bear the logo of either Visa or MasterCard (the associations)[6] and are issued by financial institutions, such as JPMorganChase, Capital One, or MBNA. In 2003, such "association-branded" cards were used to effect three-quarters of all general purpose credit card transactions in the U.S.[7] This section does not analyze the policies of American Express or Discover, the operators of the third and fourth largest general purpose card networks, respectively. The federal and state laws discussed in this section, however, apply to all credit cards, regardless of brand.

Visa and MasterCard facilitate the authorization, clearing, and settlement of the majority of credit card transactions in the U.S. (and the world). The two associations essentially connect the merchants who accept their branded cards with the banks that issue and service them. (See Figure 1 for a simplified illustration of how a credit card transaction is processed.)[8] For a bank to issue or a merchant to accept an association-branded card, it must affiliate with the network and agree to the rules by which it operates. As discussed below, some of these rules directly benefit consumers, and others can be relied on by banks to provide consumers with protections that exceed those required by law.

This section examines the federal and state protections available to users of credit cards who experience fraud, an error, or a dispute with a merchant. It also analyzes how the policies of the associations and their financial institution members can benefit consumers who face these problems.

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[4] Ana M. Aizcorbe et al., "Recent Changes in U.S. Family Finances: Evidence from the 1998 and 2001 Survey of Consumer Finances," *Federal Reserve Bulletin* 1, 25 (January 2003).
[5] *The Nilson Report*, November 2003, Number 799, p. 6.
[6] This paper uses the term "the associations" to reference Visa and MasterCard. This term, however, no longer accurately describes MasterCard. In June 2002, MasterCard converted from a membership association to a private share corporation. As such, MasterCard now refers to itself as a global payments or bankcard "company."
[7] Together, Visa and MasterCard processed approximately 11.5 billion of the 15.1 billion credit card transactions that took place in 2003. *The Nilson Report*, September 2004, Number 818, p. 7.
[8] In actuality, the associations connect merchants' banks (not merchants) with the card-issuing banks.

1. Truth in Lending Act & Regulation Z[9]

In the late 1960s, Congress concluded that consumers required both assistance in understanding important credit terms and protection against various creditor practices it deemed unfair. The legislation that Congress subsequently enacted—the Truth in Lending Act[10]—aims to (i) protect consumers from liability for charges resulting from the unauthorized use of their credit cards (i.e., fraud), (ii) require creditors to investigate and promptly correct billing errors that consumers allege have occurred in connection with their accounts, and (iii) entitle consumers to maintain against a creditor much the same claims that they might assert against a merchant in connection with the purchase of defective or otherwise unsatisfactory goods and services. Congress charged the Board of Governors of the Federal Reserve System with the task of prescribing regulations that would effectively carry out the purposes of this statute; accordingly, the Board of Governors wrote and adopted Regulation Z.[11] This section describes in more detail each of the three protective measures specified above.

The Truth in Lending Act provides a person whose credit card has been lost or stolen—and who may subsequently become the victim of payment-related fraud—with two principal means by which to minimize, or even prevent, any resulting damage that may be done to that person's account. First, the statute limits a cardholder's maximum liability for the unauthorized use of his credit card. Second, the Fair Credit Billing Act,[12] which is a section of the Truth in Lending statute, permits a cardholder to invoke the application of "billing-error" procedures in order to remedy the results of an unauthorized use of the cardholder's credit card.

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[9] This section focuses on the parts of Truth in Lending and Regulation Z that are relevant to fraud, error, and merchant dispute. For a thorough analysis of all of the consumer protection laws that apply to credit card transactions, see Mark Budnitz, Margot Saunders, and Amy Marshall Mix, *Consumer Banking and Payments Law* (National Consumer Law Center, 2002), pp. 53-68, a book on which the authors of this paper have relied extensively.
[10] 15 U.S.C. § 1601 et seq. (2004).
[11] 12 C.F.R. § 226 (2004).
[12] 15 U.S.C. § 1666 et seq. (2004).

With respect to limiting a cardholder’s liability for an unauthorized charge to her account, Regulation Z specifically provides that a cardholder’s liability for unauthorized use of her credit card—including multiple instances of unauthorized use—may not exceed $50 or, if it is less than that, the value obtained by the unauthorized use of the card before the issuer has been notified of the card’s loss or potential misuse. For a cardholder to be subject even to this degree of liability for the unauthorized use of a credit card, the following must be true: (i) the cardholder must first have agreed to accept the card, (ii) the issuer must have notified the cardholder of the maximum liability to which she may be subject and how to notify the issuer if the card is lost or stolen, and (iii) the issuer must have provided a means—such as the requirement of a signature or the use of a PIN—by which to identify the cardholder or an authorized user of the account. This last requirement means that in cases in which a credit card is not presented in connection with a particular transaction, no liability for the unauthorized charge may be imposed on the cardholder. As such, if an unauthorized user with access to a consumer’s account number orders merchandise over the telephone or the Internet, the consumer victim is shielded from any liability.

“Unauthorized use” of a credit card is a category of fraud that is broadly defined in Regulation Z. Most generally, the term means the use of a credit card by any person who did not have the legal right to do so (and from which unlawful use the cardholder receives no benefit). Whether the authority for someone to use a credit card actually exists in any particular set of circumstances is a matter to be determined under applicable state law. However, the unauthorized use of a credit card typically includes the use of the card by (i) someone who has stolen the card, (ii) someone who discovers and unlawfully uses the card’s number, and (iii) someone who is authorized to use the card but who uses it improperly (i.e., in excess of the authorization granted by the cardholder).

The card issuer always bears the burden of establishing that any particular use of a credit card was in fact authorized by the cardholder or, if the use was unauthorized, that the conditions for imposing liability for the charge on the cardholder have been satisfied. Accordingly, the issuer is permitted to conduct a reasonable investigation of a cardholder's claim that a particular use (or series of uses) of his card was not in fact authorized.

A cardholder from whose account funds have been fraudulently debited by the unauthorized use of a credit card may, alternatively, elect to resort to the "billing-error" procedures of the Fair Credit Billing Act; these procedures are repeated, though amplified, in Regulation Z. When properly invoked, Regulation Z's "billing-error" procedures require a creditor to promptly correct any error in a cardholder's account without damage to the cardholder's credit rating. These procedures are available to a consumer to resolve all kinds of alleged errors in connection with her account, including the appearance on a cardholder's periodic statement of a charge that the cardholder did not make or authorize or did not make in the amount or on the date identified on the statement. The "billing-error" procedures may also be employed, of course, to resolve a non-malicious or innocent merchant error.

If a consumer suspects there is an error on her periodic statement, she must provide written notice to the creditor within 60 days after the mailing by the creditor of the periodic statement (i.e., the bill) that first discloses the alleged error. Notifying a creditor of an alleged billing error only orally (i.e., by telephone) does not trigger application of the billing-error provisions, nor does it preserve a consumer's billing-error rights. The consumer's notice to the issuer should identify the consumer's name and account number and state the consumer's belief that the bill contains an error and the basis for that belief, including the date, type, and amount of the alleged error. After providing the creditor with a written billing-error notice, the consumer need not pay any portion of the disputed amount, including any related finance or other charges that may apply to it.

The creditor must acknowledge (in writing) receipt of a consumer's written notice alleging a billing error within 30 days, unless the error is investigated and resolved within that period. Within two complete billing periods, but in no case longer than 90 days, the creditor must either correct the billing error or provide the consumer with an explanation stating why the creditor believes the bill is correct. Pending resolution of a billing-error claim, a creditor may not attempt to collect the amount in dispute or make (or threaten to make) an adverse report regarding the consumer's credit standing to any person or report that the consumer's account is delinquent based on non-payment of the disputed amount or related charges.

If the creditor concludes that a billing error occurred as claimed by the consumer, it must correct the error to the consumer's account and provide the consumer with a correction notice. The consumer need not pay any finance charges on the disputed amount. If the creditor determines that no error was made, it must send the consumer an explanation of the reasons for that finding, including any documentary evidence requested by the consumer, and promptly send the consumer a statement of what the consumer owes, an amount that may include any finance charges that have accumulated and any minimum payments missed while the disputed amount was under investigation. The consumer then has the time usually stated on the account to pay any outstanding balance.

If a consumer purchases defective goods or services using a credit card, whether in person or by telephone, through the mail, or over the Internet, and so refuses to accept them, or the goods he has purchased are delivered late or never at all, and the merchant who provided, or was expected to provide, the goods or services fails to satisfactorily resolve any resulting dispute, the cardholder may do one of two things. He may notify the card's issuer of the occurrence of a "billing error," since this term includes a charge appearing on the cardholder's periodic statement for goods or services that the cardholder had indeed paid for but never received or did not accept on delivery because they were not delivered in the condition agreed upon or they differed in some material respect from the consumer's expectations. Alternatively, he may use another provision of the Fair Credit Billing Act and assert against the credit card issuer the same claims (except tort claims) and defenses arising out of the transaction that he or she would be entitled to assert against the merchant.[13] The claims and defenses available to the cardholder are those available under applicable state law.[14]

If the consumer has accepted the merchant's goods or services but thereafter finds himself dissatisfied as to their *quality*, he is no longer entitled to employ Regulation Z's billing error procedures to remedy his dissatisfaction. He may, however, have a claim against the merchant under applicable state law, and, if so, this claim may be asserted against the card issuer.

The Fair Credit Billing Act permits a cardholder in the two situations described above to withhold payment—up to the amount of credit outstanding for the disputed transaction and any related finance or other charges—for missing, defective, damaged, or otherwise unsatisfactory goods or services purchased with a credit card. However, to assert a merchant-related claim against the card issuer, the consumer must satisfy three conditions: (i) he must have made a genuine attempt with the merchant to solve the problem he has with the merchandise or services, (ii) the amount of credit involved in the disputed transaction must be more than $50, and (iii) the disputed transaction must have occurred in the same state as the cardholder's current designated address or, if not in the same state, within 100 miles of that address. The determination of where a transaction has occurred (in the case of telephone, mail, and Internet orders, for example) is also to be made in accordance with applicable state law.[15]

The good faith attempt a consumer must undertake to resolve a dispute does not require any particular action on the part of the cardholder; it does not require, for example, that the consumer attempt to seek satisfaction from the manufacturer of the goods involved. Because the goods or services must be purchased directly with a credit card, transactions that may otherwise

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[13] 15 U.S.C. § 1666i (2004). See also Regulation Z, 12 C.F.R. § 226.12(c) (2004).

[14] Almost every state has adopted the Uniform Commercial Code (UCC), in some cases with minor variations not pertinent here. Article 2, § 2-601 of the UCC gives buyers the right to reject a tender of goods that fail to conform to the requirements of the contract under which they are being purchased. Accordingly, a consumer has the right to refuse to pay for goods that are not commensurate with the requirements of a contract of sale. Under the Fair Credit Billing Act, the consumer may assert this defense (i.e., non-payment based on the goods' failure to conform to the requirements of the contract for sale) also against the issuer with whose credit card the goods were purchased.

[15] In general, under state law, transactions conducted over the phone, by mail, or on the Internet are considered to have "occurred" wherever the consumer was physically located when he made the purchase.

involve a credit card—to obtain a cash advance to make the purchase at issue, for example—will not be covered by this rule. Moreover, purchases made using a debit card or a credit card convenience check are also not covered. Finally, should the cardholder elect to pay the amount in dispute, he thereby waives any right he may have had under this rule to assert claims or defenses against the issuer, though he would not thereby waive his right to assert the occurrence of a billing error.

2. State Statutes That Aid Credit Card Consumers[16]

Regulation Z specifically preempts every state law to the extent that it is inconsistent with the regulation's provisions. Perhaps partly in consideration of this precept, many states have enacted consumer protection legislation that largely tracks the language of the federal Truth in Lending Act, but no state has enacted legislation that materially enhances the protective measures of this federal law. For example, two states have enacted laws that essentially provide protections similar to those of Regulation Z to consumers who experience fraud or a merchant dispute. California law provides that a cardholder is liable for the unauthorized use of his credit card only if (i) the card is accepted, (ii) the liability is not in excess of $50, (iii) the issuer has given adequate notice to the cardholder of this potential liability, (iv) the issuer has provided the cardholder with a description of the means by which the issuer may be notified of the loss or theft of the card, (v) the unauthorized use occurs before the issuer has been notified that an unauthorized use of the card has occurred or may occur, and (vi) the issuer has provided a method whereby the user of the card can be identified.[17] Under the law of the Commonwealth of Massachusetts, a credit card issuer is subject to all of the defenses of the borrower arising from transactions for which the card was used.[18] Other states have adopted similarly worded

[16] Whether state consumer protection laws actually apply to most credit card issuers (because of their national bank charter) is currently a topic of much debate. For more information about this debate, see Mark Furletti, "The Debate Over the National Bank Act and the Preemption of State Efforts to Regulate Credit Cards," Federal Reserve Bank of Philadelphia Payment Cards Center Discussion Paper (Mar. 2004).
[17] Cal. Civ. Code § 1747.10 (2004).
[18] Mass. Gen. Laws ch. 255 § 12F (2004).

legislation, but, again, no state has enacted legislation that materially enhances the protective measures set forth in Regulation Z that relate to fraud, error, or a merchant dispute.

3. Visa and MasterCard Rules

While Visa and MasterCard do not directly issue credit cards, they own their respective brands and require that their members' branded card products carry, at a minimum, certain consumer protections. These protections, which are not mandated by Regulation Z or other federal law, are described in varying levels of detail on both associations' web sites and in card-marketing materials. In addition to setting forth minimum consumer protection standards for their branded products, the associations maintain agreements with card issuers and merchants' banks that provide card issuers with a variety of rights. Some of these rights, such as the right to reverse certain transactions, may indirectly benefit consumers.[19] This subsection analyzes one relevant protection that the associations publicly advertise (i.e., zero liability) and another that derives from the internal rules and agreements that govern interactions between issuers and merchants' banks on the networks (i.e., chargebacks).

The most widely advertised protection mandated by the associations is a "zero liability" policy for fraudulent transactions. Both associations require that all of their branded products (including credit, debit, and prepaid cards) carry this protection. The policies reduce maximum consumer liability for fraudulent charges from $50 (as set forth by Regulation Z) to $0. Visa's web site explains the protection to consumers in this way: "You now have complete liability protection for all of your card transactions that take place on the Visa system. Should someone steal your card number while you're shopping, online or off, you pay nothing for their fraudulent activity."[20] MasterCard has an analogous policy, explaining to consumers, "You won't be responsible for unauthorized purchases."[21]

[19] Details about such internal policies and agreements are not generally made public.
[20] http://usa.visa.com/personal/security/zero_liability.html.
[21] http://www.mastercard.com/general/zero_liability.html.

Both associations place limits on the applicability of these policies. Visa, for example, requires that issuers extend zero liability to consumers "unless [the issuer of the card] reasonably determines that the unauthorized transaction was *caused by the gross negligence* or fraudulent action of the cardholder—which may include [the cardholder's] delay for an unreasonable time in reporting unauthorized transactions."[22] Similarly, MasterCard limits its protection to consumers who (1) have an "account in good standing," (2) "have exercised *reasonable care* in safeguarding [their] card," and (3) "have not reported two or more unauthorized events in the past 12 months."[23] Both associations' policies also seem to apply only when consumers report fraudulent use within a certain number of days after the transaction date.[24] (In contrast, there is no time limit with Regulation Z's $50 liability limit.)[25]

The internal association policies and agreements that permit banks to reverse or "charge back" a transaction can also be beneficial to consumers. A transaction is typically "charged back" after an issuer determines the transaction was erroneous, fraudulent (with the merchants' bank bearing responsibility for the transaction), or not proper because of a dispute between the merchant and the consumer. From a credit card consumer's perspective, the fraudulent and erroneous chargeback rights of banks are of little consequence because of the strong protections already afforded consumers under Regulation Z and the associations' zero liability policies.[26] An issuer's right to charge back a transaction in dispute, however, can be of great benefit, particularly if the deadline for asserting a "billing error" under Regulation Z has passed or if the transaction is

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[22] Emphasis added. Quoted portions taken from Visa's web site at http://usa.visa.com/personal/security/zero_liability.html.

[23] Emphasis added. Quoted portions taken from MasterCard's web site at http://www.mastercard.com/general/zero_liability.html.

[24] Based on a survey of various association-branded card products, it appears that issuers have flexibility in determining the length of time after the transaction date during which to honor the zero liability policy.

[25] Qualifiers, such as those mentioned in this paragraph, have drawn the criticism of consumer groups. In an open letter to Federal Reserve Chairman Alan Greenspan, consumer advocates argued that "the Visa and MasterCard policies have significant exceptions, so that they do not give consumers zero liability in all cases." Open Letter to Alan Greenspan from Gail Hillebrand of the Consumers Union (June 23, 2004) at http://www.consumersunion.org/pub/core_financial_services/001205.html.

[26] For card issuers, however, chargeback policies provide an efficient means of allowing issuers to meet their regulatory obligations.

not covered by Regulation Z's "claims and defenses" rule. (Transactions that would not be covered include the following: those taking place outside of the consumer's state of residence and more than 100 miles from the consumer's home, those for which the consumer has already paid, and those valued at $50 or less.)

To understand how issuers' chargeback rights can be of assistance to consumers who have a dispute with a merchant, we must first understand how the chargeback process works.[27] First, a consumer contacts his issuer to report that he is having a dispute with a merchant over a charge. Before initiating the formal dispute process, the issuer will typically ask the consumer to attempt to resolve the problem directly with the merchant. If the consumer is not successful, the issuer will usually ask him to dispute the charge in writing and provide support for his claim.[28] In the case where a consumer is dissatisfied with the quality of a product, for example, the issuer may ask for a copy of the sales contract (as evidence of what the consumer was supposed to have received) or an appraisal of the quality of the delivered item (as evidence that the item did not correspond to what was ordered) or both. If the consumer is not able to support his claim with any evidence (either oral or documentary), the issuer may decide not to submit the chargeback.[29]

Assuming that the consumer can support his claim that he, and not the merchant, is the injured party, the issuer might attempt to settle the dispute informally by contacting the merchant directly. If the issuer's informal attempt is successful, the parties involved can avoid the fees charged by the associations for processing a chargeback (for banks, this fee is around $10 to

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[27] For a general overview of the chargeback process, see http://usa.visa.com/business/accepting_visa/ops_risk_management/chargeback_cycle.html?it=search

[28] The kind of support the consumer must provide the issuer for his claim depends on the chargeback category into which his dispute fits. Paymentech, a large merchant processor, lists the following dispute-related categories on its web site: services not rendered; goods or services not as described by merchant; defective merchandise; "claim or defense" (under Regulation Z); cardmember was denied right to return item; cardmember cancelled order. See Paymentech's web site at http://site.yahoo.com/bank1/chargebacks.html for more details.

[29] Such evidentiary hurdles can limit a consumer's ability to get assistance. In February 2004, for example, the *Philadelphia Inquirer* reported that one issuer refused to process a chargeback for a consumer because she could not produce a receipt from the transaction. The consumer, who was overbilled, never received a receipt because she made her purchase over the phone. Jeff Gelles, "Consumer Watch," *The Philadelphia Inquirer*, Feb. 29, 2004.

$25).[30] If the issuer is not able to resolve the dispute directly with the merchant, the issuer then begins the process of having the transaction "charged back" by electronically notifying the merchant's bank and charging it for the amount in dispute. The merchant or its bank then has the option of either accepting the chargeback or essentially rejecting it and disproving the consumer's contention. If the merchant rejects the chargeback, the issuer must weigh the proof offered by the consumer and the merchant and determine whether to (i) do a "pre-arbitration" (for Visa disputes) or a "second chargeback" (for MasterCard disputes) or (ii) notify the consumer that he cannot get his transaction reversed. If the issuer decides to charge back the transaction a second (and final) time and the merchant again refuses to accept the chargeback, the matter is referred to a panel of arbitrators operated by each of the associations. There are two reasons, however, why few disputes ever get this far in the process (and why merchants typically accept the second chargeback): many merchants view the arbitration process as biased in favor of consumers (even though consumers are not directly involved in the arbitration hearing) and both parties dislike the arbitration fee of $400 or more that the loser typically pays.

In general, the associations allow issuers to process a chargeback up to 120 days after the transaction date. Chargeback time frames vary, however, based on the type of transaction underlying the dispute. For example, disputes over international transactions and transactions involving the delivery of future services (e.g., an airplane ride or a cruise) can be initiated after 120 days.[31] According to the issuers and merchants the authors interviewed, reputable merchants that recognize the legitimacy of a consumer complaint may accept a chargeback on a "good faith" basis after the association-mandated time frame has expired. Consumers should also note that

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[30] Merchants can face onerous fees and risk losing the ability to accept credit cards if too many of their transactions result in a chargeback. As such, some merchants welcome the opportunity to directly settle disputes. For a description of the rules and fees associated with excessive chargebacks, see Christi Frum, "Visa and MasterCard Policies Threaten E-Tailers," Workz.com, available at http://www.workz.com/cgi-bin/gt/tpl_page.html?template=1&content=1039&nav1=1&user=cc5b369e490c.

[31] If the disputed charge involves delivery of services in the future, the associations do not begin counting the 120 days until the date of service.

different chargeback rules apply to disputed services that have already been rendered and that cannot be returned (e.g., restaurant services and hotel stays).[32]

Issuers can also use the chargeback process to reverse erroneous charges (e.g., double charges or charges in the wrong amount). In this way, issuers have the option of assisting consumers who report errors after the period allowed by Regulation Z (60 days as measured from the consumer's statement date) but before the chargeback period expires (normally 120 days after the transaction date).

4. General Industry Practice with Regard to Credit Card Transactions

In their agreements with consumers, issuers generally limit their discussion of error, fraud, and merchant disputes to disclosures required by Regulation Z regarding "billing errors" and "claims and defenses." In practice, however, many issuers provide greater levels of consumer protection by adhering to (or expanding on) the associations' zero liability policies, using the associations' chargeback procedures, and implementing other pro-consumer internal policies.

One common way that issuers provide greater protection to consumers who fall victim to fraud is by enhancing the associations' zero liability policies. In general, card issuers have flexibility in how they implement the associations' zero liability policies, particularly with respect to the length of time for which they will honor them. For example, many issuers will provide zero liability for unauthorized use that is reported as many as 90 days after the date of the transaction. Some issuers claim that they "never" charge the $50 they are permitted to charge under Regulation Z. A minority of issuers, by contrast, will cut off the zero liability protection in 60 or fewer days after the date of the transaction. (Regulation Z's $50 liability cap for unauthorized use does not have a time limit.)

Interviews revealed that issuers may also provide greater protection than is otherwise required by helping consumers resolve disputes that cannot be processed through the associations' systems. An issuer, for example, may contact a merchant on behalf of a consumer to

[32] "Some Welcome Chargeback Relief," *Credit Card Management*, Nov. 2, 2000, p. 6.

see if it can help negotiate an end to a dispute. In some instances, if an issuer believes that a consumer's claim against a merchant is legitimate, the issuer will credit the consumer for the disputed amount even if the issuer loses on its claim against the merchant in arbitration. Conversely, some issuers, from a consumer's perspective, are less generous with their chargeback rights. Some strictly hold their account holders to the established time frames and limit chargebacks to those required under Regulation Z. Others refuse to process chargebacks without clear proof from the consumer.

Overall, there is significant variation in how issuers handle disputes that fall outside of Regulation Z. As a general rule, the extent to which an issuer will assist a consumer with a dispute is ultimately related to the issuer's business model and the length and profitability of the relationship it has with the complaining consumer.[33]

Finally, banks may help consumers who discover erroneous transactions by taking advantage of the associations' chargeback procedures. In most cases, banks can reverse an erroneous transaction up to 120 days after the transaction date.

5. Comparison of Protections

Regulation Z provides strong protections for "unauthorized" credit card use by capping liability at $50 regardless of when a consumer notifies his issuer of the fraud. As such, the dollar value of the associations' zero liability policies as they apply to credit card transactions is limited. The associations' policies also have restrictions (e.g., consumers "must exercise reasonable care" or not be "grossly negligent") that result in liability protection that is more narrow than Regulations Z's. Some individual issuers expand on the association-mandated protections by extending zero liability to all unauthorized transactions regardless of when they are reported.

While their zero liability policies have a dollar value of up to $50 (because of Regulation Z), the associations' chargeback policies can potentially provide consumers with substantial

[33] The cost of processing consumer disputes is a significant one for the card industry. One industry observer estimated that issuers spend between $1 billion and $2 billion each year processing them. Diogo Teixeira, "Dispute Resolution Needs Web and Some Creativity," *American Banker*, Dec. 30, 2002, p. 5.

dispute-related protection beyond that afforded by Regulation Z. As described above, Regulation Z protects consumers from paying for merchandise or services that are never delivered or not accepted (as long as consumers report the problem within 60 days of receiving the statement on which the charge appears). Regulation Z also provides “claims and defenses” protection when a dispute arises with a merchant if the consumer meets four conditions (i.e., the consumer tries to resolve the problem herself, does not pay the issuer for the item, paid more than $50 for the disputed item, and purchased the item from a merchant in her state or within 100 miles of her home). In situations where there is a dispute that does not meet Regulation Z’s “claims and defenses” criteria (e.g., because the consumer already paid the issuer for the charge) or where delivery of the product is not an issue, the associations’ chargeback policies may be leveraged to obtain a refund for the consumer. Individual issuers may expand on this protection by providing consumers with up to 120 days during which to report a problem transaction or by helping settle disputes that fall outside of Regulation Z and the associations’ chargeback policies.

Regulation Z’s strong “billing-error” protection essentially insulates consumers from any liability for erroneous transactions, such as those that result from a merchant’s mis-keying an amount. The associations’ chargeback procedures, however, can be used to provide billing-error protection beyond the 60 days prescribed by Regulation Z to up to 120 days after the transaction date.

Please refer to Appendix A for a chart that summarizes the various protections relevant to credit cards.

B. Debit Cards

Unlike a credit card, which draws its value from a line of credit extended to a consumer, the source of a debit card’s value is a consumer’s checking account. The debit card, which can be used at over 5 million U.S. retailers,[34] recently dethroned the credit card as the most popular form of electronic payment (as measured by the number of purchases).[35] In 2003, consumers made over 16.2 billion purchases with debit cards, using them to draw almost $600 billion out of their checking accounts.[36] Between 1995 and 2003, the percentage of U.S. households that used debit cards rose from 20 percent to 54 percent.[37]

This section focuses on the two different types of debit card transactions: those initiated with a signature and those initiated with a personal identification number (PIN). (For a simplified illustration of how a debit card transaction is processed, see Figure 2.) While this distinction is irrelevant for federal and state law purposes, the two types of transactions are processed over different networks with different rules. Signature-based debit transactions are authorized and settled through the same networks operated by Visa and MasterCard for credit card transactions. Most PIN-based debit transactions, by contrast, are authorized and settled through the regional electronic funds transfer (EFT) networks (e.g., Star, NYCE, Pulse) that historically processed automated teller machine (ATM) transactions.[38] In 2003, approximately 60 percent of debit transactions were signature-based and the remaining 40 percent were PIN-based.

This section examines the federal and state protections available to consumers of debit cards who face fraud, error, and a dispute with a merchant. It also analyzes how the policies of banks and the signature- and PIN-based networks can be used to benefit consumers in these situations.

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[34] Burney Simpson, "Selling Merchants On PIN Debit," *Credit Card Management* (Apr. 1, 2004) p. 28.
[35] Credit cards were used for 14.8 billion purchases, while debit cards were used for 16.2 billion transactions in 2003. *The Nilson Report*, No. 809, April 2004, p. 6.
[36] *The Nilson Report*, No. 809, April 2004, p. 6.
[37] Christoslav E. Anguelov et al., "U.S. Consumers and Electronic Banking, 1995-2003," *Federal Reserve Bulletin*, p. 6 (Winter 2004).
[38] For a history and description of the development of EFT networks, see Stan Sienkiewicz, "The Evolution of EFT Networks from ATMs to New On-Line Debit Products," Federal Reserve Bank of Philadelphia Discussion Paper (April 2002) available at http://www.phil.frb.org/pcc/workshops/workshop8.pdf.

1. Electronic Fund Transfer Act and Regulation E[39]

In the late 1960s, Congress recognized that the explosive growth in the use of electronic systems to transfer funds made it imperative that it clarify, and where necessary establish, the rights of consumers who elect to take advantage of the benefits of these systems. Accordingly, Congress enacted the Electronic Fund Transfer Act.[40] Congress charged the Board of Governors with prescribing regulations that would carry out the purposes of this statute and the Board, in response, wrote and issued Regulation E.[41] Regulation E, among other things, limits a consumer's liability for an unauthorized electronic fund transfer from his account (provided the consumer notifies the financial institution in a timely manner) and establishes procedures that a consumer may employ to remedy alleged errors that occur in connection with his account.

If a consumer's debit card is stolen and used to initiate an unauthorized electronic fund transfer from the consumer's account, Regulation E provides the debit card holder with two means by which to limit or prevent any damage that may subsequently be done to her account. The first is described in provisions of the regulation that specifically address consumer liability for unauthorized transfers; the second, which applies more broadly to any debit posted in error, is described in provisions of the regulation that set forth procedures for resolving consumer-reported errors.

Under Regulation E, an unauthorized electronic fund transfer, including one involving the use of a debit card, means such a transfer from a consumer's account that is initiated by a person without the lawful authority to do so (and from which the consumer herself receives no benefit). Given this, if a consumer's debit card has been lost or stolen, whether through fraud or robbery, any resulting use of the card is unauthorized. An unauthorized transfer does *not* include

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[39] This section focuses on the parts of the Electronic Fund Transfer Act and Regulation E that are relevant to fraud, error, and merchant dispute. For a thorough analysis of all of the consumer protection laws that apply to debit card transactions, see Mark Budnitz, Margot Saunders, and Amy Marshall Mix, *Consumer Banking and Payments Law* (National Consumer Law Center, 2002), pp. 69-107.
[40] 15 U.S.C. § 1693 et seq. (2004).
[41] 12 C.F.R. § 205 (2004).

an electronic fund transfer that was initiated (i) by a person to whom the consumer voluntarily gave her debit card, (ii) with fraudulent intent by the consumer or any other person acting in concert with her, or (iii) either erroneously or fraudulently by the account holder's financial institution or its employee.

A consumer's liability for an unauthorized withdrawal, or series of related withdrawals, from his account using a lost or stolen debit card varies, depending on the circumstances and, most important, the degree of promptness with which the consumer reports the loss or theft. Regulation E prohibits a financial institution from subjecting a consumer to a greater degree of liability for an unauthorized transfer than would otherwise apply because of a consumer's negligent conduct (e.g., writing his PIN directly on the back of his debit card).

The three tiers of consumer liability that Regulation E has established—which are distinguished solely on the basis of the consumer's promptness in reporting the loss or theft of her debit card or an unauthorized debit card transfer—are as follows: The consumer's liability is limited to $50, and may be less, if she notifies the financial institution within two business days[42] after first learning of the loss or theft of the card. However, if the consumer fails to alert the financial institution within this time frame, her liability may be as high as $500, though, again, it cannot exceed the total amount of any actual unauthorized transfers from her account. Moreover, a consumer's liability may exceed $50 up to a maximum of $500 only if the financial institution can establish that any transfers made after the expiration of the two business days following the date on which the consumer first learned of the loss or theft of the debit card and prior to notice being given to it would not have occurred had the consumer notified the institution within that two-day period.[43] Finally, if the consumer fails to report an unauthorized transfer that appears on

[42] The referenced two-business day period does not include the day on which the consumer learns of the loss or theft or any day that is not a business day for the relevant financial institution. The rule is calculated based on two 24-hour periods, without regard to the financial institution's business hours or the time of day the consumer learns of the loss or theft.
[43] The $50 and $500 tiers of liability do not apply when an unauthorized transfer from a consumer's account is made without the consumer's access device (i.e., when the consumer's actual card is not lost or

her periodic statement within 60 calendar days after the financial institution's transmittal of the statement, the consumer's liability may be unlimited on transfers made after the 60-day period.[44] Accordingly, if a consumer fails to provide the appropriate notice to her financial institution once she learns of the loss or theft of a debit card or an unauthorized transfer, it is possible that the consumer could be liable for the loss of all the money in her account, plus the maximum amount of any applicable overdraft line of credit.[45]

Imposition of any liability under Regulation E is conditioned on the issuer of a debit card providing some means for those who accept the card to identify the consumer using it. In face-to-face transactions, merchants typically rely on a consumer's signature or PIN for this purpose. For transactions conducted by phone, through the mail, or over the Internet, however, card issuers generally do not provide any means for identifying a consumer. As such, consumers do not face any liability under Regulation E's three-tiered liability scheme for fraudulent purchases that are made online or by mail or phone.

In addition to relying on the provisions of Regulation E that address liability for unauthorized use, a victim of fraud can protect himself by complying with the error resolution procedures contained in Regulation E. These procedures are described below.

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stolen). For example, if a criminal were to create a replica of a consumer's debit card based on information he "skimmed" from the consumer's card during a legitimate transaction, the consumer would not have any liability as long as he reported any resulting unauthorized use within 60 days of being transmitted the statement on which the unauthorized charge appeared.

[44] Calculating a consumer's liability under this three-tiered system can be complicated. Consider, for example, a consumer whose debit card is stolen by a thief on a Monday morning. The thief uses the card to make one purchase of $200 each day for five days (Monday through Friday). The consumer realizes the card is missing on Monday morning immediately after it is stolen but does not report the theft to her issuer until early Friday morning (before the thief's last purchase). The consumer is liable for $50 of the $600 in unauthorized purchases made on Monday, Tuesday, and Wednesday. (This is the case because the "two-day" period of $50 maximum liability does not include the day on which the consumer discovers the loss.) She is also liable for the $200 transfer on Thursday because it would not have occurred had she notified her bank in time. She is not liable for the $200 taken on Friday, because she gave her bank sufficient notice to stop this transaction from occurring.

[45] Again, the consumer is only liable for unauthorized transfers that occur after the close of the 60-day period if the relevant financial institution can establish that the transfers would not have occurred had the consumer notified the institution within the 60-day period.

Regulation E contains detailed procedures for the resolution of errors related to an electronic fund transfer.[46] These procedures require a financial institution to investigate in a timely fashion a consumer's allegation that an error has occurred in connection with her account and promptly correct any error that such an investigation substantiates. Under Regulation E, the term "error" is defined to include both an unauthorized electronic fund transfer and an incorrect electronic fund transfer to or from a consumer's account; the term also includes a non-malicious computational or bookkeeping error made by the financial institution relating to an electronic fund transfer.

If a consumer believes that an error has occurred in connection with his account, Regulation E provides that he should telephone or write his financial institution immediately but, in any event, not later than 60 calendar days following the transmittal by the institution of the periodic statement that first reflects the existence of an alleged error. In the notice, the consumer is instructed to provide his name and account number and an explanation of why he believes there is an error, and, to the extent feasible, the consumer should explain the kind of error that has occurred and the dollar amount and date in question. The financial institution may require the consumer to submit written confirmation of an alleged error within 10 business days after oral notification to the institution. If a consumer's debit card has been lost or stolen, the consumer, in reporting the loss or theft, is well advised to simultaneously allege the possible unauthorized use of the card as a result of the loss or theft.[47]

The financial institution must promptly investigate an alleged error and resolve it within 45 days. However, for the resolution of errors that involve a point-of-sale debit card transaction or that were not initiated within the U.S., the financial institution may take up to 90 calendar days

[46] 12 C.F.R. § 205.11 (2004).
[47] Even if a consumer is not certain that an unauthorized use of his or her debit card has occurred, the Official Staff Commentary appears to suggest that a financial institution need not comply with Regulation E's error-resolution procedures unless the allegation of unauthorized use is made. Accordingly, it appears to be a simple exercise of common sense to make the allegation of unauthorized use. Official Staff Commentary on Regulation E § 205.11(a)-3.

to complete its investigation. If the financial institution elects to take longer than 10 business days to conduct its investigation of an alleged error, generally it must provisionally credit the consumer's account in the amount in question (including any applicable interest) while it continues the investigation.[48] Within three business days after completing its investigation, a financial institution must notify the consumer of its results. If the institution determines there was an error, it must correct it promptly by, for example, making a provisional credit final. If it determines there was no error, the financial institution must explain in writing why it believes no error occurred and notify the consumer that it has deducted from her account the amount of any provisional credit made during the investigation. A consumer may request, and the institution must promptly furnish, copies of the documents on which the institution relied in the conduct of its investigation.

It is noteworthy that the kinds of errors that Regulation E addresses are confined to errors involving electronic fund transfers to or from a consumer's account. That is, Regulation E's error-resolution procedures are of no assistance to a consumer who has purchased allegedly defective goods or services using a debit card and who attempts unsuccessfully to resolve any resulting dispute directly with the merchant. This contrasts sharply with the provisions of Regulation Z, which permit a consumer who uses a credit card to purchase allegedly defective goods or services to maintain against the card issuer the same claims and defenses that he would have against the merchant (subject to certain limitations).

2. State Statutes That Aid Debit Card Consumers

Regulation E preempts state laws that are inconsistent with its provisions, but it specifically provides that a state law that is more protective of consumers than is Regulation E is

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[48] The section of Regulation E that requires issuers to provisionally credit a consumer for the *full* amount (plus interest) of an alleged error (§ 205.11) appears to conflict with the section that permits the imposition of three tiers of liability (§ 205.6). This conflict raises the following question: Is a consumer who asserts that a fraudulent charge is an "error" liable to the extent permitted by the section of the regulation that sets forth the three-tiered liability structure? Stated differently, can a consumer avoid all liability for a fraudulent charge by asserting that the charge is an error as defined in section 205.11 (as opposed to asserting that it is simply an unauthorized transaction under section 205.6)?

not preempted.[49] A few states have enacted legislation that satisfies this requirement. For example, Kansas law provides that a consumer's liability for an unauthorized transaction or series of transactions by a machine readable instrument shall not exceed $50, unless the consumer fails to notify the creditor within *four* business days after learning of the loss or theft of a debit card. The same Kansas statute then provides that a consumer's maximum liability for an unauthorized transaction shall not exceed $300.[50] A few other states have also acted to limit a consumer's maximum liability in connection with unauthorized withdrawals from her account. For example, Massachusetts law provides that a consumer is liable for any unauthorized electronic fund transfers arising from a single loss or theft of the access device up to a maximum of $50; the issuer of the access device must also have provided the consumer with a self-addressed, pre-stamped notification to be mailed by the consumer in the event of the loss or theft of the access device.[51] However, beyond modest expansions of the time permitted to furnish notice of a lost or stolen debit card, or a lower maximum liability in connection with the loss or theft of a debit card, states generally have not enacted legislation that enhances the consumer protection measures contained in Regulation E.

3. Visa and MasterCard (Signature Debit) Rules

Debit card transactions that are signature based (i.e., initiated with a signature) essentially have the same two protections mandated by Visa and MasterCard (the associations) that extend to credit card transactions: zero liability and chargeback procedures. As in the credit card context, both can help consumers who experience fraud, discover an error, or have a dispute with a merchant.

The associations' zero liability policies, described in detail in section II.A.3 of this paper, apply to fraudulent signature debit transactions in the same way they apply to fraudulent credit

[49] Of course, other federal statutes may explicitly preempt, or be interpreted by the government agencies charged with their enforcement, or by the courts, so as to preempt relevant consumer protections adopted under state law.
[50] Kan. Stat. Ann. § 9-1111d (2004).
[51] Mass. Gen. Laws ch. 167B § 18 (2004).

card transactions. As long as consumers meet certain association-mandated criteria (e.g., they exercise "reasonable care" in the handling of their card), they will be absolved of any liability in the event their card is misused. In the credit card context, as mentioned above, the dollar value of this protection is limited to the $50 not covered by Regulation Z. For debit card users, however, the zero liability policy can have greater dollar value. This is due to Regulation E's tiered liability structure which imposes up to $500 of liability for unauthorized use that goes unreported for more than two days and unlimited liability for unauthorized use that goes unreported for more than 60 days (as measured from the statement date on which the fraudulent use first appears).[52]

In addition to offering enhanced liability protection, as compared to Regulation E, the associations' zero liability policies provide for faster re-crediting of fraudulently withdrawn funds. As described above, Regulation E requires that issuers provide consumers with a "provisional credit" for any unauthorized transactions that have not been resolved within *10* business days of receiving notice from the consumer. The associations' zero liability policies, however, require that provisional credits for reportedly unauthorized signature debit transactions be issued within *five* business days.

Signature debit card users can also benefit from the chargeback rights of their cards' issuers. As described in the credit card section of this paper, agreements between issuers, merchants, and merchant banks permit issuers to reverse or charge back certain transactions. While consumers do not have any formal right to use the associations' chargeback procedures, issuers will often initiate a chargeback in an effort to assist consumers who discover an error or who are involved in a merchant dispute. For example, if a consumer discovers an error on his

[52] Of late, the associations have been aggressive in their marketing of "zero liability," emphasizing how it protects consumers who choose to shop online with their signature debit card. Some legal experts contend, however, that the associations' policies do not provide on-line shoppers with any liability protection beyond what they already have under Regulation E. Regulation E imposes the three-tiered liability scheme only when an issuer has the "means to identify the consumer," such as a signature or PIN. For an online transaction, where neither a PIN nor a signature is typically captured, Regulation E essentially already provides consumers with "zero liability." See, e.g., James L. Brown, "Federal Law Gives Cardholders Zero Liability on Web," *American Banker* (Mar. 26, 2004) p. 11.

debit card statement and reports it to his issuer after the 60-day Regulation E time frame, issuers may still help the consumer resolve the error by charging it back to the merchant. In general, issuers have the option of doing this for up to 120 days (as measured from the date of the transaction). In addition, if a consumer has a dispute with a merchant, her card issuer can rely on the chargeback process to reverse the transaction and credit the consumer's account—something issuers are not required to do under Regulation E. Overall, the chargeback rules that apply to signature debit card transactions mirror those that apply to association-branded credit card transactions. Please refer to section II.A.3 for more detail about these rules.

4. EFT Network (PIN Debit) Rules

The regional EFT (PIN debit) networks, such as Star, NYCE, and Pulse, do not have analogs to the associations' zero liability policies or dispute-related chargeback procedures. Such protections, the networks would likely assert, are not necessary because of the security and structure of the PIN debit system.

For the purpose of this analysis, there are two key differences between the PIN and signature debit payment methods. The first relates to the authentication of transactions and the second to card acceptance. Unlike their signature-based counterparts, PIN-debit transactions require "two token" authentication. The first token is something the consumer possesses (i.e., the card itself), and the second is something only the consumer knows (i.e., the PIN). Because it is more difficult for thieves to obtain this second token from a victim (as compared to forging a victim's signature), there are allegedly far fewer incidences of unauthorized use in the PIN debit system as compared to the signature debit system.[53]

[53] While logic and anecdotal evidence support the contention that PIN debit losses are much lower than signature debit losses, it is difficult to find data that address this issue explicitly. An executive at one large PIN debit network believes that PIN-based debit card fraud is "insignificant" compared to signature-based debit card fraud. Signature debit proponents argue, however, that their use of real-time, online authorization and neural networks that can detect and prevent fraud help close the perceived gap in security between signature and PIN.

The other key difference is the type of merchants that will accept each system's transactions. In general, signature debit is accepted by all merchants that accept credit cards, including online retailers, department stores, and restaurants. PIN debit, by contrast, cannot currently be used for most internet purchases and is accepted only by merchants that have devices that can capture consumers' PINs.[54] Historically, PIN debit was most popular among merchants that operated on relatively thin margins, such as grocery stores and gas stations. However, because of differences in how much it costs merchants to accept the two products (PIN is cheaper), PIN debit acceptance is growing.[55]

The two major differences between PIN and signature debit likely affect the kinds of network- and association-mandated protections the products carry. Regional PIN debit networks, for example, do not require banks to provide consumers with zero liability protection. Proponents of regional PIN debit would likely argue that such protection is less necessary because the incidence of PIN debit fraud is very low. In addition, regional PIN debit networks do not provide consumers with protections related to merchant disputes. The networks would likely contend that such protection is less necessary because of the face-to-face nature of all PIN debit transactions. They also would likely assert that the associations' chargeback policies primarily help consumers who do not receive goods they purchase over the phone or over the Internet—a problem PIN debit users do not face.[56]

While the regional EFT networks do not mandate zero liability or provide comprehensive chargeback rights, they do allow banks to "return" erroneous transactions. In general, banks have between 120 and 180 days from settlement date (depending on the network) to initiate such a

[54] The PIN debit networks have introduced some "PIN-less" debit products that can be used on the Internet. Such products, however, are typically used for payments to entities, such as utility or mortgage companies, that have other ways (beyond the use of a PIN) of authenticating a consumer's identity online.
[55] For example, *Credit Card Management* reported in October 2004 that Gap Inc. began accepting Pulse and other PIN debit brands in all of its clothing stores.
[56] According to one regional EFT network, if it begins supporting the use of PIN debit over the Internet, its rules will likely be modified to provide consumers with protection against non-delivery of goods.

return. Banks can use this return policy to allow consumers more time (as compared to Regulation E) to report errors.

The rules described above apply to transactions processed by the *regional* PIN debit networks. The regional networks process approximately 85 percent of all PIN debit transactions at the point-of-sale. Most of the remaining 15 percent is processed by Interlink, a national PIN-debit network owned by Visa.[57] Interlink rules that address how errors are processed essentially mirror those of the regional networks, permitting returns for up to 120 days after the date of the transaction. Interlink's fraud and dispute rules, however, are more similar to the rules that apply to Visa signature debit transactions. In the case of fraud, banks that accept Interlink transactions must provide the same zero liability protection that Visa mandates for all of its card products. In the case of a merchant dispute, Visa recently announced that PIN debit users (whose transactions terminate at their bank over the Interlink network) will have access to the same chargeback policies that apply to signature debit transactions.[58]

5. General Industry Practice with Regard to Debit Card Protections

As a result of differences among the various network and association rules and the complexities of the PIN- and signature-debit card products, the additional consumer protections that banks explicitly offer their debit-card-carrying customers vary widely.

In their agreements with consumers, all banks printed the language required by Regulation E describing unauthorized use and its associated three-tiered liability structure (i.e., $50/$500/unlimited). Most banks also explained how consumers using signature debit could be shielded from any liability imposed by Regulation E if they met the associations' zero liability criteria. Beyond this, the authors observed much variation among banks' disclosures as to how zero liability was implemented and the extent of its reach. For example, the most generous banks

[57] *The Nilson Report*, No. 809, April 2004, p.7.
[58] Prior to December 2004, the Interlink network, much like the regional EFT networks, did not give banks access to any non-error chargeback procedures. Industry observers speculate that Visa's change in position could cause the regional EFT networks to offer some type of analogous procedures to its bank customers. David Breitkopf, "Will Visa's Dispute Rule-Change Be Copied?," *American Banker*, Dec. 3, 2004, p. 6.

provided zero liability for 60 days, extended the policy to PIN debit transactions, promised to provisionally credit consumers within one business day, and did not place any additional limits on the types of "unauthorized use" the policy covered. Other banks provided zero liability protection for fewer days (e.g., for two days with $500 liability thereafter), limited zero liability exclusively to signature debit transactions, promised to provisionally credit consumers within five days only for signature-debit transactions, placed additional limitations on the types of unauthorized use that their zero liability policies covered, and required signed affidavits to begin processing a fraudulent claim. Overall, the fraud protections banks disclosed in their contracts with customers varied greatly.

According to industry experts, the fraud protections that banks explicitly describe in their contracts are not as generous as the fraud protections that they actually afford consumers. For example, one large regional EFT network reported to the authors that an internal survey it conducted found that every one of their 20 largest financial institution customers expanded the scope of zero liability to cover PIN debit transactions. In addition, banks claimed that while they may promise five-day provisional crediting, they credit 90 percent of customers within 48 hours. Finally, banks said they will typically honor the zero liability pledge for the same amount of time during which they must limit liability under Regulation E—60 days.

As described above, merchant disputes are handled very differently by the PIN and signature debit systems. The regional PIN debit networks do not permit a transaction to be charged back to the merchant.[59] As such, banks that rely on regional PIN networks for transaction processing cannot provide PIN debit users with any merchant dispute protection (unless a merchant voluntarily cooperates with the issuer in order to help the consumer). The associations' signature debit networks and now Interlink, by contrast, permit banks that issue debit cards to use the same chargeback procedures available to credit card issuers. As in the credit card context,

[59] As noted above, this may change. Shazam, the ninth largest EFT network, announced in December 2004 that it will follow Interlink's lead and offer chargeback procedures to its bank customers. *Ibid.*

whether a bank will process a chargeback for a consumer is ultimately at the discretion of the bank. In their agreements with consumers, some debit card issuers explicitly inform consumers that any disputes that arise with a merchant must be settled directly with the merchant. Most debit card issuers, however, do not explicitly address dispute procedures in their consumer agreements. In practice, debit card industry experts assert that chargeback protection is made available to signature debit card users just as it is to credit card users. In most cases, as long as consumers meet the associations' evidentiary requirements (described in section II.A.3), issuers will attempt to assist the customer by charging back the disputed transaction. As described in the section on credit card disputes (II.A.4), a bank's willingness to process a chargeback may depend on its business model and its relationship with the individual customer requesting assistance.

The strength of Regulation E's error protection coupled with the associations' and networks' internal policies leave little room for banks to provide consumers with much additional protection in the event of error. In general, banks will return an erroneous charge for as long as association or network rules permit, which usually ranges between 120 and 180 days after the transaction settles.

6. Comparison of Protections

Regulation E protects consumers who discover unauthorized debit card use with three tiers of liability ($50/$500/unlimited) that vary based on when the fraudulent use is reported to the issuer. Some states build on this protection by either extending the period of reduced liability (e.g., from two days to four) or further reducing a consumer's total exposure (e.g., from $500 to $300). The card associations go further by voluntarily providing zero liability for unauthorized signature debit card use (and Interlink PIN debit card use). The associations' zero liability policies, however, apply to a narrower range of fraudulent use claims than does Regulation E. In addition, the associations permit banks to determine the period of time during which zero liability applies (e.g., for two days or 60 days). Some debit card issuers extend the association protections by honoring zero liability for extended periods of time or extending zero liability to regional EFT network PIN debit transactions.

Regulation E provides very strong protections (essentially “zero liability”) to the debit card user who discovers an innocent error on her statement and reports it to her issuer within 60 days of receiving that statement. The associations, EFT networks, and banks extend this protection by generally providing consumers with more time (between 120 and 180 days) to report the error.

Regulation E does not give debit card users the right to get assistance with merchant-related disputes from their debit card issuer. The associations’ rules, however, permit banks to charge back signature debit transactions and Interlink PIN transactions if they choose. Regional EFT network PIN debit transactions, however, do not have an analogous feature. In general, banks will assist a signature debit user and an Interlink PIN debit user engaged in a dispute with a merchant by initiating a chargeback when there is sufficient proof that such a chargeback is appropriate.

A chart that summarizes the various protections relevant to debit cards can be found in Appendix B.

III. Conclusion

Despite the nearly identical appearance of credit and debit cards, users of these two products are afforded vastly different sets of federal protections when they encounter instances of fraud, error, or a dispute with a merchant. Credit card users benefit from a federal scheme of regulation that is arguably more generous and protective than that afforded any other payment mechanism. This federal scheme, embodied in Regulation Z, shields consumers from liability for all but $50 of the financial damage that may result from the fraudulent use of their credit cards (regardless of when a consumer reports the fraud), permits consumers to assert merchant-related claims against their credit card issuers, and provides for the prompt investigation of erroneous charges. The associations and financial institutions that issue these products, presumably driven by competition and other market forces, have enhanced these federal protections by further limiting liability (to $0 in some instances) and by permitting consumers to request transaction reversals (i.e., "chargebacks") when a purchase does not meet their expectations. Taken together, the mandatory and voluntary protections provided to credit card users who experience fraud, error, and dispute shield consumers from virtually any liability in connection with each of these common payment-related problems.

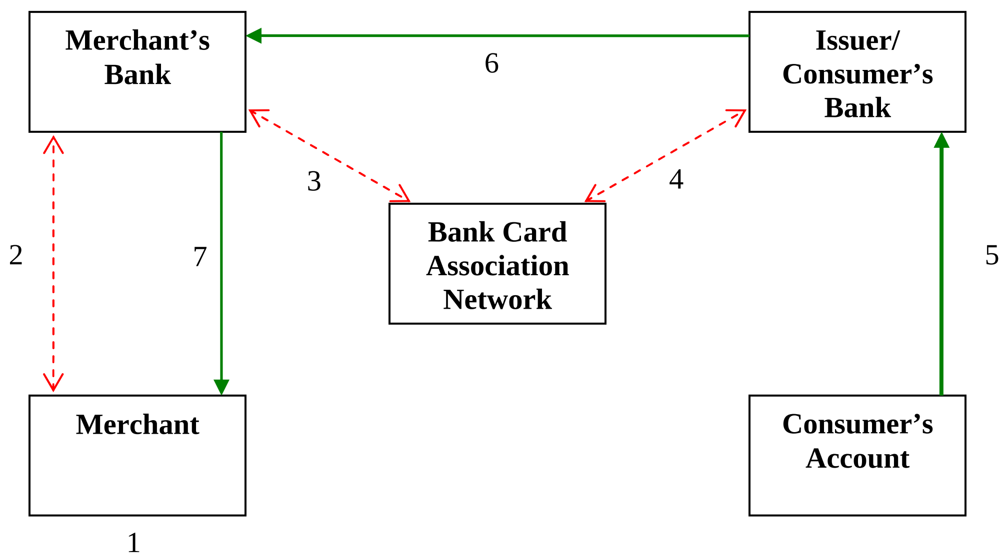
Debit cards, by contrast, are protected by a federal scheme that assists consumers to a lesser degree and in fewer situations. Regulation E, the federal regulation that applies to debit cards, can leave consumers exposed to unlimited liability for fraudulent card use and provides no protection for consumers who experience a merchant dispute. To a large extent, however, debit card issuers and the associations have voluntarily closed the protection gap between credit and signature/Interlink PIN debit with internal policies, including zero liability and chargeback procedures.

Notwithstanding the card industry's efforts to make credit and debit card protections more uniform, the laws and regulations that apply to these two products remain complex, and the internal policies that apply to them are largely inaccessible to the general public. The protections that derive from federal law, for example, are complex in part because they are subject to a series of (sometimes puzzling) exceptions and conditions. Similarly, the few protections that card issuers explicitly advertise are complex because they are conditioned on consumers' meeting standards that are ambiguous and open to broad interpretation by card issuers (e.g., consumers exercising "reasonable care" or not being "grossly negligent"). In addition, details of the network and association rules that determine whether issuers can provide protections beyond those mandated by federal regulation are essentially secret.

Overall, this paper finds that the consumer protections associated with credit and debit cards are complicated, largely inaccessible, and disparate. Such a finding raises a number of important policy-related questions. For example, what are the implications of federal laws that protect credit and debit cards, two products that look nearly identical, in fundamentally different ways? What are the costs and benefits of the current regime of protection? What impact do mandatory and voluntary protections have on the card industry's market structure? Policy-related questions such as these will be addressed in the third paper in this series.

Figure 1: Simplified Illustration of the Typical Credit Card Transaction*

This is a highly simplified illustration of a typical credit card transaction. The dotted arrows represent the authorization process (steps 2 through 4), by which the merchant obtains clearance to charge the consumer's credit card account. The solid arrows represent the clearing and settlement process (steps 5 through 7), by which the merchant receives payment from the consumer's credit card issuer.

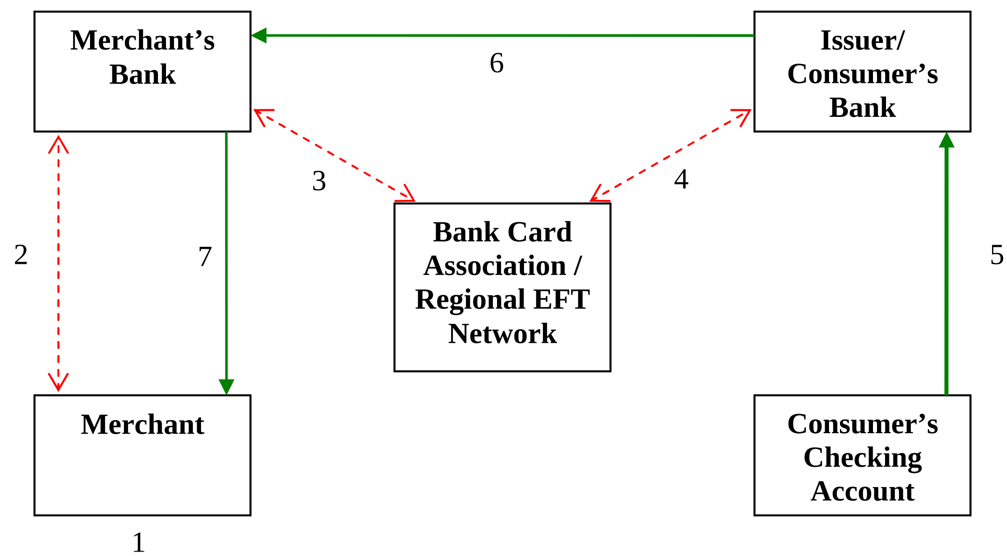


Cardholder presents card to merchant for payment.

* For more detailed information about credit card transaction processing, see David Evans and Richard Schmalensee, *Paying With Plastic* (MIT Press, 2000), pp. 7-10.

Figure 2: Simplified Illustration of the Typical Debit Card Transaction*

This is a highly simplified illustration of a typical debit card transaction. The dotted arrows represent the authorization process (steps 2 through 4), by which the merchant obtains clearance to charge the consumer's checking account. The solid arrows represent the clearing and settlement process (steps 5 through 7), by which the merchant receives payment from the consumer's bank.



Cardholder presents card to merchant for payment.

* For detailed information about debit card transaction processing, see Fumiko Hayashi, Richard Sullivan, and Stuart E. Weiner, *A Guide to the ATM and Debit Card Industry* (Federal Reserve Bank of Kansas City, 2003), pp. 57-68.

Appendix A: Summary of Credit Card Protections Related to Fraud, Error, and Merchant Dispute

	Federal Law (Regulation Z)	State Law (Various State Statutes)	Association Rules[+]	General Industry Practice[+]*
PROTECTIONS	**FRAUD:** Caps liability for fraudulent transactions at $50, regardless of consumer's negligence in handling card. Liability limits apply regardless of when the consumer ultimately reports the fraud. Limits liability to $0 for mail, phone, and Internet charges that are fraudulent.	Relevant state statutes mirror federal law as to fraudulent use.	Zero liability policies require issuers to shield consumers from any liability for fraudulent use. Policies, however, are subject to various association- and bank-imposed limitations.	Many issuers will honor the associations' zero liability policies for 90 days or more. A minority will assess the $50 permitted by Regulation Z after 60 or fewer days.
	ERROR: Requires card issuers to investigate and resolve a consumer's claim that a transaction is in error. Consumers must notify issuers of the suspected error within 60 days of receiving the statement on which the alleged error appears.	State statutes generally do not address this specific situation.	"Chargeback" policies permit issuers to assist consumers who discover erroneous transactions for up to 120 days after the date of the transaction.	Issuers will generally leverage the "chargeback" procedures of the associations and assist consumers who discover an error for as long as they are permitted (i.e., 120 days).
	DISPUTE: Permits consumer to assert that a charge for goods that were never delivered was an "error," triggering error resolution procedures described above. **DISPUTE:** Permits consumer to assert merchant-related claims against the card issuer as long as the consumer (i) has not yet paid for charge, (ii) made a good faith attempt to settle dispute, (iii) lives in same state as or within 100 miles of the merchant, and (iii) paid more than $50 for the item.	In some states, a creditor in a consumer loan transaction is subject to all of the defenses of the borrower arising from the consumer sale for which the proceeds of the loan were used.	"Chargeback" policies permit issuers to return a transaction if a dispute arises up to 120 days after the date of transaction. While ultimately done at the issuer's discretion, dispute-related chargebacks may not be subject to the same distance or amount limitations as the Regulation Z "claims and defenses" protection.	Most issuers will leverage the associations' chargeback procedures to assist a consumer who is in a dispute with a merchant as long as the consumer provides sufficient proof of her claim. If the issuer cannot charge back the transaction, it may call merchant directly and attempt to settle dispute on behalf of the consumer.

[+] Please note, these protections are provided by card issuers/networks on a voluntary basis and do not have the force of law. Issuers or networks can generally change them unilaterally or decide not to abide by them.

* Information only intended to give the reader an idea of general industry practice. Consumers should consult their individual bank's policies for further information.

Appendix B: Summary of Debit Card Protections Related to Fraud, Error, and Merchant Dispute

	Federal Law (Regulation E)	State Law (Various State Statutes)	Association/Network Rules[+]	General Industry Practice[+]*
PROTECTIONS	**FRAUD:** Limits liability to $50 if consumer reports loss/theft of card within 2 days of learning of it and $500 if consumer reports after 2 days but within 60 days of being sent statement reflecting fraudulent transaction. Consumer's own negligence is not a factor in assessing liability. Limits liability to $0 for mail, phone, and Internet charges that are fraudulent.	Beyond modest expansions of the time permitted to furnish notice of a lost or stolen card, or a lower maximum liability, states generally have not enhanced the consumer protection measures contained in Regulation E	Signature Debit and Interlink: Zero liability policies require issuers to shield consumers from any liability for fraudulent use. Policies, however, are subject to various association- and bank-imposed limitations. Regional EFT Network PIN Debit: Policies require no additional protection.	Practices vary. The most generous issuers provide $0 liability for 60 days for PIN and signature debit. Others provide $0 liability for as few as 2 days for signature debit only.
	ERROR: Permits consumers 60 days from statement date during which to notify bank about an erroneous transaction.	State statutes generally do not address this specific issue.	Signature Debit and Interlink: "Chargeback" policies permit issuers to return erroneous transactions for up to 120 days. Regional EFT Network PIN Debit: Network rules give issuers 120 to 180 days from settlement date (depending on the network) to return erroneous transactions.	Most issuers will return an erroneous transaction for as long as they are permitted under applicable network rules (120 to 180 days).
	FRAUD & ERROR: Requires banks to investigate claims in a timely manner and provisionally credit if investigation exceeds 10 days.	State statutes generally do not address this specific issue.	Signature Debit and Interlink: Requires banks to provisionally credit within 5 days. Regional EFT Network PIN Debit: Policies do not require faster provisional crediting.	Practices vary. Some issuers promise to provisionally credit immediately. Most credit within 5 days.
	DISPUTE: Does not address merchant disputes or claims.	State statutes generally do not address this specific issue.	Signature Debit and Interlink: "Chargeback" policies permit issuers to return a transaction if a dispute arises up to 120 days after the date of transaction. Chargeback is ultimately done at the issuer's discretion. Regional EFT Network PIN Debit: Policies do not provide dispute protection.	Most issuers will leverage the signature debit and Interlink chargeback policies to assist a consumer who is in a dispute with a merchant as long as the consumer provides sufficient proof of her claim.

[+] Please note, these protections are provided by card issuers/networks on a voluntary basis and do not have the force of law. Issuers or networks can generally change them unilaterally or decide not to abide by them.

* Information only intended to give the reader an idea of general industry practice. Consumers should consult their individual bank's policies for further information.