Credit, Debit, or ACH: Consequences & Liabilities
A Comparison of the Differences in Consumer Liabilities

Ann H. Spiotto
Federal Reserve Bank of Chicago

Emerging Payments Occasional Paper Series
September 2001 (EPS-2001-3)
Credit, Debit or ACH
Consequences & Liabilities
A Comparison of the Differences in Consumer Liabilities

Ann H. Spiotto

Ann H. Spiotto is senior research counsel with the Emerging Payments Studies Department of the Federal Reserve Bank of Chicago. She previously spent twenty five years as an attorney for First Chicago Corporation working with its retail banking and credit card operations – during her last ten years at First Chicago she was responsible for the legal work performed for the credit card business. Special thanks to Brian Mantel for his support in reviewing and critiquing this article. The views expressed in this article are those of the author alone and do not necessarily reflect the views of the Federal Reserve Bank of Chicago or the Board of Governors of the Federal Reserve System.

The Occasional Paper Series is part of the Federal Reserve Bank of Chicago’s Public Policy Studies series. The series includes papers on various policy issues that are generally less technical and more appropriate for a wider audience than working papers. These papers may not go through as extensive a review process as associated with some academic journals in the interest of sharing information and analysis on a more timely basis.

Address any correspondence about this paper to Ann H. Spiotto, Federal Reserve Bank of Chicago, 230 S. LaSalle Street, Chicago, Illinois 60604 or e-mail Ann at ann.spiotto@chi.frb.org. Requests for additional copies should be directed to the Public Information Center, Federal Reserve Bank of Chicago, P.O. Box 834, Chicago, Illinois 60690-0834 or telephone (312) 322-5111. This paper is available at http://www.chicagofed.org/publications/publicpolicystudies. This paper first appeared in substantially similar form in the Sept./Oct. 2001 edition of ABA Bank Compliance magazine.

Copyright © 2001, American Bankers Association, all rights reserved.
Executive Summary

A number of recent initiatives have encouraged use of debit cards and ACH debits/credits for Internet sales transactions. This paper outlines the different statutory and regulatory protections available to consumers and financial institution based upon the method by which payment is made.

The Electronic Fund Transfer Act and Federal Reserve Board Regulation E govern debit card and ACH transactions involving the removal of funds from a checking or other asset account. The Truth in Lending Act and Regulation Z govern credit transactions. Federal law provides credit card users better protection than debit card and ACH users in the following ways:

1. Under certain conditions, a credit card holder has certain protections in the case of a dispute with the merchant. Additional protection is provided for credit card holders from their card issuers if the ordered merchandise is never delivered or different merchandise is delivered than that ordered. No comparable protection is provided for ACH transactions or debit card users.

2. While a consumer’s liability for unauthorized transactions is generally limited, the liability can increase for debit card and ACH users if they do not provide timely notice of unauthorized transactions and there continue to be unauthorized transactions on the account.

Additionally, the practical consequences of unauthorized or erroneous transactions can be more severe where a debit card or the ACH is used than if a credit card is involved based upon the nature of the account being charged. This compounds the potential disadvantages of using debit cards or the ACH for Internet sales transactions.
# Table of Contents

Introduction 1  
Comparison of Federal Protections 2  
  Customer Protections in Connection with Merchant Disputes (Including Issues with Merchant Delivery) 2  
  Shifting of Liability for Unauthorized Transactions 6  
Comparison of Practical Consequences 8  
General Observations 10  
Summary of Conclusions 12  
  Exhibit 1 14  
  Exhibit 2 15  
  Quick Guide to Purchase Protection 16  
  Occasional Paper Series 17
**Introduction:** A number of recent articles have described initiatives to encourage use of debit cards and automated clearinghouse (ACH) debits/credits for Internet sales transactions.¹ These initiatives include a recent National Automated Clearinghouse Association (NACHA) change in operating regulations which permits ACH debits as a payment method over the Internet;² NACHA’s “Project Action” (which is still in the development and testing phases) which proposes to use credit pushes coming out from buyer to the sellers in connection with Internet sales transactions;³ and the initiation of “zero liability” policies for online transactions with both debit and credit cards by Visa and MasterCard (under which the customer has no liability for unauthorized transactions made using either type of card).⁴

This article outlines the different statutory and regulatory consumer protections and financial institution responsibilities depending on the method of payment. The varying protections potentially afforded to consumer purchasers in the context of the recent CyberRebate.com Inc. bankruptcy (described later in this article) are illustrative of some of these differences and raise the question, especially in the context of Internet merchandise sales transactions, of whether promoting debit card or ACH use is in the best interests of the

---


consumer. This question is one that financial institution compliance officers, financial institution management, and consumers should be concerned with.

**Comparison of Federal Protections:** The Electronic Funds Transfer Act (EFTA) and Federal Reserve Board Regulation E govern debit card and ACH transactions involving the removal of funds from a checking or other asset account. The Truth in Lending Act (TILA) and Regulation Z govern credit card transactions.

**Customer Protection in Connection with Merchant Disputes (Including Issues with Merchant Delivery)**

With respect to claims by consumer purchasers against merchants, federal law provides superior protection where a credit card is used for the transaction. Unlike the Truth in Lending Act, the EFTA does not give consumers a legal right to assistance from their banks with respect to amounts disputed with a merchant (see Exhibit 1).

To understand the significance of these differences, it is important to remember that in most Internet merchandise sales transactions, delivery of the merchandise to the consumer will occur after the transaction is authorized, and generally after the consumer’s account is charged. This creates very different problems for the consumer than in connection with a

---


purchase transaction at a physical location where the consumer generally leaves the store with the merchandise.

If a credit card holder orders merchandise and the merchandise is not delivered, the credit card-issuing bank is required to treat the matter as a billing error and resolve it (i.e. get the card holder reimbursed or the merchandise/services delivered). However, if a debit card or ACH is used no comparable federal law requires the card issuer to become involved. For example, if a consumer uses a credit card to purchase a computer from an Internet merchant and the merchant declares bankruptcy after processing the transaction but prior to shipping the computer, the credit card holder has a right to reimbursement from the card issuer under the TILA and Regulation Z billing error provisions. The card issuer, under card association rules would then charge back the transaction to the merchant bank. However, if a debit card or ACH is used, no comparable right exists and the consumer would have to file a claim against the seller in bankruptcy court (as a general creditor) and hope for reimbursement. This reimbursement would typically not occur or, if it did, it would generally involve mere cents on the dollar.

The results are similar whenever a credit or debit card account is charged for merchandise/services to be provided at a later date or over time and the merchant fails to deliver the promised goods or services (whether due to bankruptcy, fraud, or some other cause). Examples of such failures to deliver promised goods/services have occurred historically in

---


connection with purchases of airline tickets, health club memberships, magazine subscriptions, and mail order/telephone order transactions.

Another example of a card holder/merchant dispute involves delivery of the wrong merchandise (e.g. a red chair rather than a blue chair). Again if the merchant is uncooperative in resolving the problem, the TILA and Regulation Z protect the credit card customer.9 The customer can withhold payment until the matter is resolved (either by a credit for the transaction or delivery of the correct merchandise). Federal law does not provide the debit card or ACH customer with similar protection.

A real life example of these differences in the context of Internet sales transactions may be found in the recent CyberRebate.com Inc. bankruptcy. Recent articles in The Wall Street Journal10 describe the bankruptcy of this Internet retailer, which apparently built one of the Web’s most popular shopping sites by promising merchandise that was effectively free after customers sent away for cash rebates. According to one article, merchandise offered for sale was overpriced with items being sold at six or seven times their suggested retail price and the rebates were slow in coming. CyberRebate.com Inc. filed Chapter 11 bankruptcy in May 2001, listing liabilities of over $80 million (against assets of $24.5 million), much of which was owed to consumers who were promised rebates but had yet to receive them.

---

10 Peter Edmonston, Free-With-Rebate Costs Web Buyers Some Big Bucks, WALL ST. J., May 18, 2001 at B1. According to this article, CyberRebate.com ranked among the Web’s 10 most popular retailers as recently as February 2001 and during the week ended January 27, 2001 it rose as high as the No. 3 spot. See also Paul Cox, Shoppers Learn Not Many Items are Truly Free, WALL ST. J., June 5, 2001 at B11E, which describes the rights of various credit card customers with respect to CyberRebate.com transactions.
Consumers who used a credit card for a CyberRebate.com transaction may be able to obtain relief outside of the bankruptcy proceedings by asserting directly to their credit card issuer that they are entitled to reimbursement from the card issuer pursuant to the TILA and Regulation Z.\textsuperscript{11} Whether or not the consumer actually gets reimbursed by his card issuer is going to be determined by the specific facts surrounding each claim and, in many cases, may turn on whether the card issuer is successful in charging back the transactions to CyberRebate.com's merchant bank. If not successful with the charge-back, there are technical arguments that the card issuer may raise as a defense to immediate compliance with the reimbursement requirements of TILA and Regulation Z.\textsuperscript{12} Ultimate resolution of each claim would be made by each issuer on a case-by-case basis.

\textsuperscript{11} There are two arguable claims for reimbursement that the consumer can make under TILA and Regulation Z. First, the consumer could assert a "claim or defense" against his credit card issuer under Regulation Z, 12 C.F.R. §226.12(c) (2001). The consumer might also attempt to assert rights under the billing error resolution requirements of Regulation Z, 12 C.F.R. §226.13 (2001), as a "...reflection on or with a periodic statement of an extension of credit for...services...not delivered to the consumer...as agreed." In order for this to be successful, the consumer would need to comply with the notification requirements of section 226.13(b), including notification within 60 days after the creditor transmitted the first periodic statement that reflects the alleged billing error.

\textsuperscript{12} The card issuing bank could argue that the consumer is not entitled to raise this claim under section 226.12(c) because the transaction occurred over the Internet and not within the same state as the card holder's state of residence as required by that section. The Official Staff Commentary to Regulation Z provides little guidance with respect to this issue, leaving it open with the comment

12(c)(3)(ii)1. Geographic Limitation. The question of where a transaction occurs (as in the case of mail or telephone orders, for example) is to be determined under state or other applicable law.

In most cases the issue of where the transaction occurs will probably be unclear under the law of the card holder's state. Further, to assert this right the card holder would need to have amounts outstanding on the credit card account at the time the claim is raised.

With respect to an assertion of rights by the consumer under section 226.13, the credit card issuer would argue that the 60 day notification period starts on the date that the rebate was scheduled to be received by the card holder; if that date is long passed, the card holder would have to argue that this dates from the date of bankruptcy when he became aware that no rebate would be forthcoming.
The consumer participating in a debit card or ACH transaction with CyberRebate.com Inc. would have no arguments as to a right for reimbursement from the account-holding bank under the EFTA or Regulation E. Nonetheless, it may be prudent for a debit card customer to request assistance from his account-holding bank. While the bank would not have a statutorily imposed requirement to reimburse the consumer and while such protection is not generally advertised, the charge-back practices of some card associations may not distinguish between credit and debit card transactions. If the bank has the ability to charge back a transaction, it may be willing to attempt to assist the consumer.

**Shifting of Liability for Unauthorized Transactions**

Federal law generously protects consumers against responsibility for unauthorized ACH, credit card and debit card transactions. However, some of the liability for unauthorized transactions can be shifted to consumers and the amount that can be shifted to the consumer is higher if a debit card or ACH is involved than if a credit card is (see Exhibit 2).

Under TILA the credit card holder can be held liable for the lesser of $50 or the amount obtained by the unauthorized use before notification to the card issuer about the loss, theft or possible unauthorized use.\(^\text{13}\) This is the generally the maximum consumer liability irrespective of when the card issuer is notified. Under EFTA the rules are more complex -- three possible tiers of liability are specified. Simplistically, a consumer may be liable for (1) up to $50

(if notification is given to the financial institution within two business days after learning of the loss or theft of the access device); (2) up to $500 for unauthorized transactions made more than two business days after the discovery of the loss (if the financial institution is not notified within two business days); or (3) an unlimited amount depending on when the unauthorized electronic fund transfer occurs (i.e. if the consumer does not notify the financial institution within 60 days after receiving a periodic statement showing an unauthorized transaction and unauthorized transactions occur subsequent to the 60-day period that could have been avoided with appropriate notification, the consumer may be liable for those later transactions). If a stolen debit card is used to initiate the transaction, all three tiers of consumer responsibility are potentially applicable. However, if the transaction is an ACH transaction against a deposit account and no card or personal identification number is used, than only the third tier of consumer responsibility is applicable.14

Both Visa USA and MasterCard International have instituted “zero liability” policies that are equally applicable to debit and credit card transactions made through their networks. Under both policies, debit and credit card holders have zero liability for unauthorized transactions occurring over the Visa or MasterCard networks irrespective of when notification is given to the card-issuing bank about the loss or theft of the access device.15 Three facts should be noted about these zero liability policies. First: they apply only to unauthorized transactions, not to those authorized transactions with respect to which a card holder/merchant dispute later develops. Second: they are policies and could be revoked by either association at any time upon


15 Supra note 4.
notification to card holders. Third: they are policies of Visa and MasterCard; Other debit card processing associations may have different policies.

The rights with respect to unauthorized transactions described in this section and the differences between them are not relevant in situations like the CyberRebates.com Inc. bankruptcy. There consumers participated in and authorized the original transactions and have no rights for reimbursement from their account-holding institution based on claims of unauthorized use.

**Comparison of Practical Consequences:** Unauthorized debit card or ACH transactions can be more inconvenient to the consumer than similar transactions made using a credit card. The most obvious inconvenience is that the consumer’s checking account is out actual money from the posting date of the unauthorized transaction until the bank is advised that it has occurred and provides a provisional or final credit. If the unauthorized transaction causes a low or negative balance on the checking account, checks legitimately written by the consumer could bounce without advance notice creating embarrassment and financial problems for the consumer with other service providers/vendors. With respect to unauthorized transactions on a credit card account, the card holder might surpass the credit limit, and transactions would be denied. However, the consumer generally has the option to immediately discontinue using the compromised account and to use another card until credit is given for the disputed transaction.

If there is a dispute over non-delivery of merchandise or delivery of the wrong merchandise that cannot be resolved, the debit card holder or consumer participant in an ACH
transaction may ultimately need to sue the merchant to receive funds (or else simply abandon his efforts and take a loss). Given the difficulty of determining where to sue an Internet merchant, the costs of litigation, and the less trustworthy or solvent nature of many merchants as compared to account-holding financial institutions; if a merchant is not cooperative in resolving a dispute, the general result may be abandonment of efforts and loss borne by the debit card holder or ACH participant. Also, if the merchant has gone out of business or can’t be found, the debit card holder or ACH participant is left with no statutory protection from its account-holding bank.

Additionally, if the consumer and his debit card-issuing/asset-account-holding bank disagree about whether a transaction is unauthorized, the bank may refuse to reimburse the consumer. The burden would then fall upon the consumer to sue or take other action (e.g. complaints to bank regulators) to get the bank to reimburse the checking account. From a practical standpoint, this may leave the consumer out money. However, if similar disagreements involving a credit card account are not resolved to the card holder’s satisfaction, ultimately the credit card holder can refuse payment. This theoretically leaves the bank having to sue the credit card holder for the disputed amount or to write that amount off as a concession. These differences in “who holds the cash” may frequently determine whether the bank or the consumer takes the loss – practically, few consumers or banks are willing to get involved in a collection action against each other over a small dollar disputed amount.

Acting as a restraint upon a “grab-law” type of approach by the bank is the
significant penalties that can be imposed on it for violating either the EFTA or the TILA. These penalties, which include actual damages, monetary penalties, attorneys’ fees and court costs, provide a strong incentive to take care of the consumer whenever it is arguably required by law, particularly if the bank has an ability to charge back the disputed transactions to the merchant-acquiring bank. Network operating rules (albeit with differing technical requirements) generally permit charge-backs for the entire amount of an unauthorized transaction irrespective of whether an ACH transaction or a debit or credit card is involved.

Another difference between Internet debit and credit card use is the timing of payment. Consumers who pay their credit card balances in full each month generally receive an extended period of time to pay for new transactions at no charge (a “free ride”). If a debit card or ACH transaction is used, the consumer must pay for each new transaction immediately or within a few days.

**General Observations:** These comparisons raise the question of whether the differences in consumer protection based upon the payment mechanism used for a transaction continue to make sense given the current state of the marketplace, i.e. that all three mechanisms discussed can increasingly be used to make purchases of merchandise/services from retailers. If the conclusion is that they do not make sense, the next question is whether such protections should be removed entirely or whether they should be provided consistently, irrespective of which payment mechanism is used.

---

At this time, the basic protections for unauthorized transactions are very similar (subject to differing technical requirements and limitations), regardless of whether the payment is via ACH, debit card or credit card. The current differences in the treatment of customer/merchant disputes (including delivery or fulfillment disputes) may be attributed to historical factors related to the types of transactions conducted using each payment mechanism when the Fair Credit Billing Act and the EFTA were initially enacted in the 1970s. At that time, debit card and ACH transactions were not generally used for purchasing merchandise or services from a retailer. Because these differences are disappearing as we move along into the 21st century, there may be value in making them uniform.

Alternatively, one might question whether such generous protections should continue to be provided given other historical changes over the past 25 years. In the 1960s when credit cards were new, Congress feared consumers might be at a disadvantage with credit cards. For example, consumers disputing a purchase made by check could stop payment. However, because checks today are processed so much more quickly, the period for stopping payment is much shorter. In addition, the lack of familiarity with a new product could have made Congress more cautious. Card issuers also complain about customer abuses of these protections. Additionally, back in the 1970s fewer merchants accepted credit cards and there was some perception that the credit card accepting merchant had been given a seal of approval by the card associations. As time has passed and most merchants now accept credit/debit cards, perhaps this seal of approval or guarantee concept is no longer appropriate. Accordingly, a strong

---

17 See Brian Mantel, Why Don’t Consumers Use Electronic Banking Products? Towards a Theory of Obstacles, Incentives and Opportunities, Federal Reserve Bank of Chicago Emerging Payments Occasional Paper Series (September 2000) at 19-20 for a discussion of possible reasons behind the increasing use of debit cards despite the apparently lesser utility than a credit card.
argument can be made that these generous merchant dispute protections are unnecessary today. Others might argue for more generous consumer protections on the basis that, practically, the “system” remains in a much better position than the consumer to evaluate the merchant and to police or eliminate “bad actors” from accepting card transactions; the system may also be in a better position to absorb losses and to cover them by pricing higher risk categories of merchants, such as some of those selling merchandise over the Internet, at a higher level. By imposing liability upon the account-holding bank, federal law forces such banks to work with the various payment associations to allocate these responsibilities among those who may be better able to prevent problems or absorb losses.

What the best solution is in addressing this set of issues remains largely an open question. The net short term and long term costs and benefits must carefully be considered in evaluating potential solutions. Nonetheless, financial institution management and compliance officers should be aware of these emerging issues.

**SUMMARY OF CONCLUSIONS.**

*Federal law provides credit card users better protection than debit card and ACH users in the following ways:

1. *When certain conditions are satisfied, a credit card holder is provided with protection from his card issuer in the case of a dispute with the merchant. Additional protection is provided for credit card holders by their card issuers if the ordered merchandise is never delivered or different merchandise is delivered than that ordered. No comparable protection is provided for ACH transactions or debit card users.*
2. While the amount of a consumer’s liability for unauthorized/fraudulent transactions is generally limited; the amount of liability that can be shifted to consumers by their account holding banks is greater with debit card or ACH transactions than credit cards.

The practical consequences of unauthorized or erroneous transactions can be more severe where a debit card or the ACH is used than if a credit card is involved based upon the nature of the account being charged. This compounds the potential disadvantages of using debit cards or the ACH for Internet sales transactions.
EXHIBIT 1

If a merchant goes bankrupt after charging a customer’s account for a sales transaction but prior to shipping the purchased merchandise, under current federal law and regulations the determination of which party bears the financial risk for the transaction may depend on the payment vehicle used to pay for it. The following table illustrates the general results.

<table>
<thead>
<tr>
<th>Payment method used</th>
<th>Consumer</th>
<th>Account holding bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACH TRANSACTION</td>
<td>Takes the loss</td>
<td>No legal responsibility to consumer</td>
</tr>
<tr>
<td>CASH</td>
<td>Takes the loss</td>
<td>No legal responsibility to consumer</td>
</tr>
<tr>
<td>CHECK</td>
<td>Takes the loss</td>
<td>No legal responsibility to consumer</td>
</tr>
<tr>
<td>CREDIT CARD</td>
<td>Reimbursed by bank if technical</td>
<td>Takes the loss if technical requirements are satisfied*</td>
</tr>
<tr>
<td></td>
<td>requirements are satisfied*</td>
<td></td>
</tr>
<tr>
<td>DEBIT CARD</td>
<td>Takes the loss</td>
<td>No legal responsibility to consumer</td>
</tr>
</tbody>
</table>

Note: Even though the credit card issuing bank may be required by federal law to “take the loss”, that bank may have rights under processing association rules to “charge-back” the transaction to the merchant’s bank (subject to compliance with various technical requirements).

*Under the “claims and defenses” sections of TILA [15 USC §1666i] and Regulation Z [12 CFR §226.12(c)], a card holder may withhold payment up to the amount of credit outstanding on the disputed transaction (plus finance and other charges imposed on that amount) at the time the claim or defense is raised IF the original transaction exceeded $50 and occurred in the same state as the card holder’s address or, if not in the same state, within 100 miles from that address. Under the “billing error” sections of TILA [15 USC §1666] and Regulation Z [12 CFR §226.13], the creditor must be provided with a “billing error” notice meeting designated criteria within 60 days after the creditor transmitted the first periodic statement that reflected the billing error. Failure to satisfy these technical conditions can result in responsibility for the loss shifting from the account holding bank to the customer.
EXHIBIT 2

If a merchant processes a sales transaction that is not authorized by the consumer (i.e. the payment mechanism used was stolen from the customer and used by a thief), under current federal laws and regulations the consumer’s bank generally is responsible to reimburse the consumer for the transaction. The following table illustrates the general results:

<table>
<thead>
<tr>
<th>Payment method used</th>
<th>Consumer</th>
<th>Account holding bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACH TRANSACTION</td>
<td>Reimbursed by bank*</td>
<td>Takes the loss*</td>
</tr>
<tr>
<td>CASH</td>
<td>Takes the loss</td>
<td>No legal responsibility to consumer</td>
</tr>
<tr>
<td>CHECK</td>
<td>Reimbursed by bank**</td>
<td>Takes the loss**</td>
</tr>
<tr>
<td>CREDIT CARD</td>
<td>Reimbursed by bank***</td>
<td>Takes the loss***</td>
</tr>
<tr>
<td>DEBIT CARD</td>
<td>Reimbursed by bank*</td>
<td>Takes the loss*</td>
</tr>
</tbody>
</table>

NOTE: Even though the account holding bank may be required by federal law to “take the loss”, that bank may have rights under the rules and regulations of the various processing associations to “charge-back” the transaction to the merchant’s bank in connection with an ACH, debit card or credit card transaction (subject to compliance with various technical requirements).

*Under the EFTA [15 USC §1693g] and Regulation E [12 CFR §205.6] the bank is required to reimburse the consumer for the unauthorized transaction. This obligation is subject to the bank’s right to hold the consumer responsible for varying amounts specified in the EFTA and Regulation E depending upon the fact situation. As a practical matter, if a Visa or MasterCard debit card is used, both Visa and MasterCard have made a public commitment with their “Zero Liability” policies not to hold the consumer liable for any portion of an unauthorized transaction.

**Under the Uniform Commercial Code [UCC §§ 3-401 and 4-401], a customer has no responsibility for any check which bears a forged maker signature, so long as the customer fulfills his duty to promptly examine his bank statement and report the forgery within a reasonable time.

***Under TILA [15 USC §1643] and Regulation Z [12 CFR §226.12(b)] the card holder’s liability for an unauthorized transaction is generally limited to $50. The card holder has no obligation to notify the card issuer of loss or theft of the access device in a timely manner or within any set number of days. Additionally TILA [15 USC §1666] and Regulation Z [12 CFR §226.13] define unauthorized use of a credit card as a billing error – these sections requires a card issuer to follow certain procedures if appropriate notification is provided by the card holder, including correcting the “billing error” and crediting the consumer’s account with any disputed amount. As a practical matter, Visa and MasterCard have made a public commitment with their “Zero Liability” policies not to hold the consumer liable for any portion of an unauthorized transaction.
Quick Guide to Purchase Protections

<table>
<thead>
<tr>
<th>Protection</th>
<th>Statutory/Regulatory Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reimbursement of credit card holder in general customer/merchant disputes or in the event of non-delivery of merchandise or services</td>
<td>TILA - 15 USC §§1666 and 1666i; Regulation Z - 12 CFR §§226.12(c) and 226.13</td>
</tr>
<tr>
<td>Limitation of credit card holder liability for unauthorized use</td>
<td>TILA - 15 USC §1643; Regulation Z – 12 CFR §226.12(b)</td>
</tr>
<tr>
<td>Limitation of debit card holder/user of ACH transaction liability for unauthorized electronic fund transfer</td>
<td>EFTA – 15 USC §1693g; Regulation E – 12 CFR §205.6</td>
</tr>
</tbody>
</table>
**Occasional Paper Series**

**Why Don’t Consumers Use Electronic Banking Products?**
Towards a Theory of Obstacles, Incentives, and Opportunities  
*Brian Mantel*  
EPS-2000-1

**Legal Analysis of a Banking Industry Online Identity and Attribute Authentication Service for Consumers and Merchants: The Financial Services Technology Consortium’s FAST Initiative**  
*William Gram*  
EPS-2000-2

**Who Pays for Credit Cards?**  
*Sujit Chakravorti and William R. Emmons*  
EPS-2001-1

**A Study of the Interrelated Bilateral Transactions in Credit Card Networks**  
*Sujit Chakravorti and Alpa Shah*  
EPS-2001-2

**Credit, Debit and ACH: Consequences & Liabilities**  
A Comparison of the Differences in Consumer Liabilities  
*Ann H. Spiotto*  
EPS-2001-3