

Board of Governors of the Federal Reserve System



***Report to the Congress
on Funds Availability Schedules
and Check Fraud at Depository Institutions***

October 1996

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Submitted to the Congress pursuant to section 333
of the Riegle Community Development and Regulatory Improvement Act of 1994

October 1996

I. Executive Summary

In 1994, the Congress directed the Board of Governors of the Federal Reserve System (Board) to study the advisability of extending the availability requirement for local checks set forth in the Expedited Funds Availability Act (EFAA) by one day, from two to three business days.¹ In conducting the study, the Board was asked to consider whether there is a pattern of significant increases in check-related losses at banks that are attributable to the EFAA's current availability provisions and whether extension of the permissible hold period by one business day is necessary to reduce those losses.² While the Board has conducted a thorough study of check-fraud losses, it is not able to answer the Congress's specific question concerning such losses because there are no comparable data available for the period before the EFAA became effective.

One of the most significant factors in assessing whether the availability schedule for local checks specified in the EFAA should be extended is the experience of depository banks in receiving checks that paying banks return unpaid. The Congress's 1987 Conference Report on the EFAA indicated that the Congress intended that the mandatory availability schedules provide sufficient time for banks to receive a significant proportion of unpaid checks—about two-thirds of checks in a given category—before they were requested to make funds available to their customers.³

Data collected by the Board show that, in 1995, depository banks received only about 48 percent of local returned checks within two business days, that is, the day on which funds from local check deposits must be made available to depositors.⁴ Lengthening the permitted hold period for local checks by one day would allow depository banks to receive about 80 percent of all local returned checks before they would be required to make funds available to their customers.

¹Section 603 of the EFAA provides that “not more than 1 business day shall intervene between the business day on which funds are deposited in an account at a depository institution by a check drawn on a local originating depository institution and the business day on which the funds involved are available for withdrawal.” (12 U.S.C. 4002(b)(1)) Regulation CC implemented this provision by requiring that funds be made “available for withdrawal not later than the second business day following the banking day on which funds are deposited....” (12 CFR Part 229.12(b))

²In this report, the term *bank* includes commercial banks, savings institutions, and credit unions.

³Conference Report on H.R. 27 (H. Rept. 100-261), 100th Congress, 1st session, 179 (1987), pp. H6906-7.

⁴The Regulation CC terminology corresponds with the terminology of the Uniform Commercial Code, with some modifications. A *depository bank* (“receiving depository institution” in the EFAA) is the bank to which a check is first transferred.

A survey of banks' check-fraud losses conducted by the Board showed that, in 1995, nearly 60 percent of banks lost money as a result of check fraud and that the value of check-fraud losses for commercial banks, credit unions and savings institutions was slightly over \$600 million, which was less than 0.001 percent of the total value of all checks written. The check-fraud losses incurred by commercial banks were about 1 percent of their profits in 1995. Because only anecdotal information is available on check-fraud losses before the EFAA became effective in 1987, the Board cannot determine whether the EFAA's availability requirements have affected the level of check-fraud losses at banks. The estimates of check-fraud losses for the years 1991, 1993, and 1995 are not statistically different from each other.

To the extent that the EFAA's availability requirements do facilitate check fraud by preventing banks from protecting themselves against some fraud losses, those requirements impose an unnecessary risk on the banking industry and should be modified. Therefore, the Board recommends that the Congress amend the EFAA to increase the maximum permissible hold period for local checks from two to three business days.

II. Introduction

The Riegle Community Development and Regulatory Improvement Act of 1994, title I, subtitle A, the Community Development Banking Act of 1994, Public Law 103-325, directed the Board to “conduct a study on the advisability of extending the 1-business-day period specified in section 603(b)(1) of the Expedited Funds Availability Act, regarding availability of funds deposited by local checks, to 2 business days.” The Congress further directed the Board to consider

- whether there is a pattern of significant increases in check-related losses at banks attributable to the provisions of the EFAA, and
- whether extension of the time period between the deposit of a local check and the availability of funds for withdrawal, to two intervening business days, would be effective in reducing the volume of check-related losses.

The Congress also asked the Board to make legislative recommendations that it deemed appropriate.

To address these issues, the Board collected data concerning dishonored checks returned through the Federal Reserve Banks (the Reserve Bank survey) and also surveyed a stratified random sample of commercial banks, savings institutions, and credit unions (the check-fraud survey). The check-fraud survey gathered information to (1) determine the amount of check-fraud losses incurred during 1995, (2) obtain information about the time needed for depository banks to receive returned checks, and (3) gain an understanding of the causes of check fraud. The survey also gathered information about the relationship of the EFAA’s availability schedules to check-fraud losses as well as specific information about the types of check fraud and the types of checks most associated with fraud losses. The Board also reviewed historical information on check fraud, consumer-complaint data, and the steps being taken by the banking industry to combat check fraud.

Section III of this report provides a brief overview of the EFAA and its legislative history. Section IV discusses the time required to deliver unpaid checks to depository banks, how that time affects the risk faced by depository banks, and industry initiatives to speed the returned-check process. Section V summarizes the results of the Board’s check-fraud survey and reviews the limited historical data available on check fraud. Sections VI through VIII describe some characteristics of check-fraud losses, banks’ funds availability policies, and consumer complaints about banks’ funds availability policies. Sections IX and X review the Board’s conclusions and recommend limited modifications to the EFAA.

The appendix discusses in more detail the findings of the Board’s check-fraud survey and provides detailed information on the methodology used in conducting the survey. A copy of the check-fraud survey distributed to banks is also included. Unless specified otherwise, the results of the Board’s check-fraud survey are the Board’s estimates for all banks.

III. Background

The EFAA, enacted in 1987, establishes the maximum hold periods that banks can place on funds deposited by check into transaction accounts before the funds must be made available for withdrawal. The EFAA contains detailed provisions governing banks' funds availability schedules, disclosure of their funds availability policies, and payment of interest on deposits. The EFAA's provisions were implemented in 1988 by the Board's Regulation CC.

During the development of the EFAA, some banks argued that their availability schedules were intended to provide a measure of protection against the risk that they could not recover funds from their depositors if paying banks returned checks unpaid. When the Congress established the funds availability schedules, it attempted to balance banks' concerns about managing their risk with consumers' concerns about funds availability. The Congress recognized that banks would be exposed to risks if they were required to make funds available before having a reasonable opportunity to learn of the return of an unpaid check. In fact, the Congress's Conference Report on the EFAA indicated that the Congress intended to set the availability schedules and maximum permissible hold periods so that banks could "reasonably expect to learn of the nonpayment of a significant number of checks." The Conference Report further suggested that the return of two-thirds of checks in a given category prior to the time funds must be made available for withdrawal would constitute a "significant number" of checks.⁵ Because of bankers' concerns, the Congress authorized the Board to develop regulations that would expedite the return of unpaid checks.

The EFAA's availability schedules provide that customers must be permitted to withdraw funds from their transaction accounts within a specified period following deposit, depending on the type of deposit. Cash deposits, electronic payments, certain check deposits, such as Treasury, cashier's, and certified checks, and the first \$100 of most other check deposits must be made available for withdrawal by the opening of business on the business day after the day of deposit (one-day, or next-day, availability). Funds from deposits of checks drawn on local banks (located in the same Federal Reserve check-processing region as the depository bank) must be made available for withdrawal by the second business day after deposit (two-day availability). Funds from deposits of checks drawn on nonlocal banks (located in a different check-processing region than the depository bank) must be made available for withdrawal by the fifth business day following the day of deposit (five-day availability).⁶ Longer hold periods (safeguard exception

⁵Conference Report on H.R. 27 (H. Rept. 100-261), 100th Congress, 1st session, 179 (1987), pp. H6906-7.

⁶Funds from deposits of local and nonlocal checks must be made available for check-writing purposes by the second business day and the fifth business day, respectively, following the day of deposit. Cash withdrawals, however, are limited to the first \$100 of a deposit on the business day after the day of deposit and \$400 by 5:00 p.m. on the second business day for local checks and the fifth business day for nonlocal checks following the day of deposit. The remainder of a deposit must be available for cash withdrawal at the start of the third business day for local checks and the sixth business day for nonlocal checks.

holds) may be imposed for certain classes of checks that are deemed to be especially risky.⁷ In addition, banks that generally make funds available for withdrawal sooner than required by Regulation CC may, on a case-by-case basis, delay the time when deposited funds are available for withdrawal up to the time periods allowed by Regulation CC.⁸

IV. Returned Checks

Checks that are dishonored by the paying bank must be returned promptly to the depository bank. The length of time taken to return a check is important because the depository bank faces some risk of loss if a depositor withdraws funds from a deposit of checks before the bank learns that one or more of the checks is being returned unpaid.

Before the implementation of the EFAA and Regulation CC, the check-return system was a slow, labor-intensive operation. Regulation CC changed the return system in several ways. First, it provided that unpaid checks could be returned directly to the depository bank or its agent, rather than being returned through all the banks that handled the check during the forward collection process. Thus, the number of banks that might handle a returned check was reduced. Second, it required paying banks to return checks expeditiously—that is, a paying bank is expected to take the steps necessary to ensure that the depository bank receives a local returned check by the second business day following the banking day on which the check was presented and a nonlocal check by the fourth business day following presentment.⁹ A check is also considered to be returned expeditiously if the unpaid check is returned as fast as it was originally presented to the paying bank. Third, Regulation CC introduced procedural changes in the returned-check process, such as indorsement standards and a standard for qualifying checks to allow for high-speed processing of returns.¹⁰

Overall, the steps that have been taken to improve the check-return system have reduced return times by about 20 percent. Specifically, a 1984-85 study of returned checks

⁷Section 604 of the EFAA allows extended “safeguard exception” holds under certain conditions, such as deposits over \$5,000, redeposited checks, deposits to accounts that have had repeated overdrafts, or deposits containing a check that the bank has a reasonable cause to believe is not collectible. In addition, deposits into new accounts are not subject to the standard local and nonlocal funds availability schedules.

⁸Under section 229.16, banks must provide a notice when the funds from a particular deposit will not be available by the time a bank generally makes funds available for withdrawal.

⁹A *paying bank* (“originating depository institution” in the EFAA) generally is the bank on which the check is drawn. For purposes of the check collection and return rules in subpart C of Regulation CC, a paying bank is the bank by, at, or through which a check is payable and to which it is sent for collection.

¹⁰A qualified returned check is a returned check that is prepared for automated processing by placing the check in a carrier envelope or placing a strip on the check and encoding the envelope or strip in magnetic ink with the routing number of the depository bank, the amount of the returned check, and a unique digit identifying the check as a returned check.

conducted by the Bank Administration Institute and J.D. Carreker and Associates, Inc., showed that, on average, it took 6.8 calendar days for a returned check to make the round trip from the depository bank to the paying bank and back to the depository bank. The 1996 Reserve Bank survey indicated that for local and nonlocal returned checks combined, the average trip took 5.5 calendar days, a reduction of 1.3 calendar days since 1985.

As indicated in the following table, the check-fraud survey and Reserve Bank survey found that 84 percent and 82 percent, respectively, of nonlocal returned checks were returned by the fifth business day following the day of deposit. In addition, the Reserve Bank survey found that, on average, nonlocal returned checks were received by depository banks in 4.6 business days. Thus, both surveys found that banks were likely to receive a large majority of nonlocal returned checks by the time the statutory availability schedule requires them to make funds available to depositors.

On the other hand, banks reported that only about 48 percent of local returned checks were delivered to the depository bank within two business days following the day of deposit. Commercial banks reported receiving 51 percent of local returned checks within two business days; savings institutions 17 percent; and credit unions 25 percent.¹¹

Return Times for Local and Nonlocal Checks

Cumulative percentage					
Local checks			Nonlocal checks		
Number of business days	Check-fraud survey	1996 Reserve Bank survey	Number of business days	Check-fraud survey	1996 Reserve Bank survey
0-1	14	2	0-1	10	2
2	48	15	2	17	8
3	81	66	3	32	33
4	95	85	4	65	64
5	98	92	5	84	82
6	99	95	6	92	89
7 or more	100	100	7	98	93
	...	...	8 or more	100	100

¹¹Commercial banks are more likely than credit unions or savings institutions to participate in check clearinghouses and to present checks directly to the paying bank, which enables them to collect and return checks faster.

Checks returned through one or more intermediary banks, such as Reserve Banks, generally are not received by the depository bank as quickly as checks returned directly by the paying bank.¹² Therefore, the time required to return checks handled by the Federal Reserve likely represents the upper bound of overall check-return times. The Reserve Bank survey indicated that they delivered only about 15 percent of local returned checks to the depository bank by the second business day and that, on average, local returned checks were received by depository banks in 3.6 business days. Thus, a depository bank cannot reasonably expect to receive most local returned checks before it must make funds available to its depositors.

In the check-fraud survey, banks indicated that they consider improving the process for returning dishonored checks to be fairly important in reducing check fraud. On a scale from one (not important) to five (very important), speeding or improving the check-return system received an weighted average rating of 4.0. Forty-three percent of respondents rated this action as very important.¹³

The banking industry is beginning to pursue alternatives to combat the risks associated with the returned-check process. In one initiative, participating banks exchange electronic information before paper checks are presented to the paying bank. Paying banks review the electronic information to identify checks that may not be paid and then send preliminary electronic return notifications to the depository bank on the same day that the paper checks are presented. A second initiative is planned under which qualified returned checks will be shipped to a central facility that will capture electronic information and digital images for each returned check and transmit the data electronically to the depository bank.

The Federal Reserve Bank of Boston is piloting an early return item image notification service, which provides depository banks the option of receiving images of certain returned checks one day earlier than they would receive the check itself.

V. Check-Fraud Losses

The estimated value of all check-fraud losses at commercial banks, credit unions and savings institutions in 1995 was \$615 million. There were 529,000 cases of check fraud and about 57 percent of all banks incurred check-fraud losses during the year. For banks of all types, check-fraud losses amounted to approximately 0.001 percent of the total value of checks deposited. The \$487 million in check-fraud losses incurred by commercial banks in 1995

¹²The Reserve Banks processed 168 million returned checks during 1995.

¹³Only two other possible actions to combat check fraud received higher ratings—improving communications among banks regarding check-fraud activity and training employees in check-fraud detection/prevention. Each received an average rating of 4.1.

represented approximately 1 percent of commercial banks' profits that year.¹⁴

Little historical information is available on check-fraud losses. From 1980 through the present, the American Bankers Association (ABA) reported average losses due to "bad" checks or the proportion of all checks that were bad in its annual Retail Banking Survey. The data were limited, however, and the ABA did not estimate total losses for all commercial banks. In 1992 and 1994, the ABA conducted expanded surveys to gather more comprehensive data on check fraud at commercial banks for 1991 and 1993, respectively.

In these surveys, the ABA estimated that check-fraud losses at all commercial banks amounted to \$568 million in 1991 and \$815 million in 1993. The ABA also estimated that about 56 percent of all commercial banks had incurred check-fraud losses during 1993.

Because of the small number of respondents in both surveys, the standard errors associated with the ABA's estimates of dollar losses are fairly large. As a result of those large standard errors, there are no statistically significant differences between the ABA's and the Board's estimates of the incidence and amount of check-fraud losses. Thus, the staff cannot determine whether check-fraud losses have increased or decreased from 1991 through 1995.

VI. Characteristics of Check-Fraud Losses

In aggregate, checks drawn on local banks accounted for approximately 72 percent of the total dollar losses reported in the Board's survey. Estimates of the proportion of losses attributable to local checks ranged from 76 percent for small and large banks to 61 percent for medium-sized banks. The proportion of losses attributed to local checks varied somewhat by type of bank: 82 percent for credit unions; 71 percent for commercial banks; and 69 percent for savings institutions. The high proportion of losses attributable to local checks may reflect the high proportion of local checks to total checks deposited.¹⁵

In addition, the survey found that half of the total dollar losses from check fraud were incurred by banks in their role as depository banks, where hold periods provide some measure of protection by restricting the withdrawal of funds deposited by checks that might subsequently be returned unpaid. Unfortunately, the response to questions about the amount of losses by type of check and type of fraud was not sufficient to estimate the characteristics of those types of losses for all banks. A summary of survey responses indicate that of the six types

¹⁴Because commercial banks' profits are volatile, the check-fraud losses as a percentage of commercial banks' profits have ranged from 1 percent in 1995 to 3.2 percent in 1991.

¹⁵Approximately 58 percent of the checks processed by the Federal Reserve Banks during 1995 were local checks. Because many banks belong to local check clearinghouses and larger banks exchange checks directly, the Board believes that the Federal Reserve Banks process a smaller proportion of local checks than nonlocal checks compared with the total numbers of local and nonlocal checks deposited.

of fraud, the largest proportion of losses was due to forgeries, either of the drawer's signature or of an indorsement.¹⁶

Of the twelve categories of checks listed in the survey, the highest proportion of check fraud occurred for checks written by consumers against their personal accounts.¹⁷ This observation is consistent with evidence that more than half of all checks written in this country are written by consumers. Checks that must be made available on the next business day following deposit, such as federal government, state and local government checks, money orders, cashier's or teller's checks, and certified checks, amounted to a very small proportion of total check-fraud losses.

VII. Current Availability Practices

The check-fraud survey indicated that 75 percent of banks provided better funds availability for local checks than required by the EFAA and that approximately 70 percent of banks provided better funds availability for nonlocal checks than required. More than 40 percent of banks provided immediate availability for next-day items, that is, funds were made available on the day of deposit. Respondents' comments indicated that it is a common practice for depository banks to provide either immediate or next-day availability for local and nonlocal check deposits, unless they apply a case-by-case hold or invoke a safeguard exception hold on a deposited check.

In general, commercial banks are less likely to use the maximum permissible holds for local and nonlocal checks than savings institutions and credit unions. Medium-sized banks are more likely to use the maximum permissible hold periods for local and nonlocal checks than small or large banks. When asked, the majority of banks that make funds available sooner than required by law indicated that increasing hold periods would not be important in reducing losses. Approximately 30 percent of banks that have experienced check-fraud losses use the maximum permissible hold for local checks. Of these banks, more than 70 percent indicated that they would modify their funds availability schedules if the mandatory schedule for local checks were extended by one day. Most banks, however, provide better funds availability to their customers than required by the EFAA. Similarly, a survey conducted by bank trade associations

¹⁶*Forgery* refers to stolen checks. The criminal may forge the account holder's signature or may represent himself as the payee or a holder in due course of the check. *Altered* checks have been modified without the drawer's approval. Modifications may be made to the payee or amount, for instance. *Kiting* involves accounts at two or more institutions, with float used to create fraudulent balances. *Counterfeit* checks are imitations or copies of genuine checks. A counterfeit check need not be a precise duplicate of a specific genuine check, but could just look genuine. *Paperhanging* refers to checks that are written on closed accounts. *All other fraud cases* refers to other fraudulent activity that caused a financial loss.

¹⁷The survey requested loss data for the following types of checks: federal government and state or local government; cashier's, teller's, and certified; payroll, other business-to-individual, business-to-business, consumer-initiated; postal money orders and other money orders; preauthorized drafts; and other.

and the Federal Reserve in late 1988 and early 1989, when the EFAA's temporary availability schedule permitted local checks to be held for three days, found that only 2 percent of those respondents indicated that their availability policy reflected the maximum permissible hold.¹⁸ Because many banks use the maximum permissible hold period on a case-by-case basis only, a change in the hold period for local checks is not likely to have a significant effect on consumers as a group.

VIII. Consumer Complaint Data

Data accumulated by the Board indicate that few complaints have been received concerning banks' check hold practices.¹⁹ Between 1991 and 1995, the Board logged 304 complaints concerning issues covered by Regulation CC or 2.4 percent of all complaints received. For the same period, data provided by the Federal Deposit Insurance Corporation (FDIC), the Office of the Comptroller of the Currency (OCC), and the Office of Thrift Supervision (OTS) show that, in total, they received an additional 436 complaints concerning Regulation CC requirements.²⁰ Complaints concerning Regulation CC requirements received by these agencies typically accounted for fewer than 1 percent of all consumer complaints they received annually.

IX. Conclusions

Because only anecdotal information is available on check-fraud losses before the EFAA became effective, the Board cannot determine whether the implementation of its mandatory availability schedules has affected the level of check-fraud losses. The estimates of check-fraud losses over the past five years are not statistically different from each other.

The check-fraud survey found that local checks accounted for about 72 percent of all check-fraud losses, and both the check-fraud survey and the Reserve Bank surveys indicated that depository banks still receive fewer than half of local returned checks by the second business day following the day of deposit. When it enacted the EFAA, the Congress attempted to balance banks' concerns about managing their risk with consumers' concerns about funds availability and indicated that depository banks should be allowed to learn of the nonpayment of a significant number of checks before making funds available to their depositors.

¹⁸Although the survey results provided a general indication of banks' availability policies, the sample was not designed to provide statistically valid estimates for the universe of banks.

¹⁹The Board classifies Regulation CC (EFAA) complaints as follows: availability schedules not followed, indorsement problems, exception notice not given when invoked, and other.

²⁰The FDIC, OCC, and OTS classify complaints in a variety of Regulation CC categories, such as check collection practice, availability schedule, exceptions, and disclosure not received.

Even though check-fraud losses during 1995 were small in proportion to the total value of checks written, they represented about 1 percent of commercial banks' profits. The Board believes that a bank's customers should not be able to take advantage of availability schedules dictated by law to perpetrate fraud. Because the EFAA's funds availability requirement for local checks may facilitate certain types of check fraud, that requirement exposes depository banks to the risk of loss and should be modified.

Increasing maximum permissible holds on local checks by one day would allow depository banks to receive more than 80 percent of all local returned checks before they would be required to make funds available to their customers. The Board believes that this one-day extension would be consistent with the Congress's original intent to give banks the opportunity to learn of the nonpayment of a significant number of checks and, at the same time, to address the concerns of consumers about funds availability. To the extent that banks are permitted to increase hold periods and do so, some consumers may be adversely affected. It appears, however, that a large number of banks use the provision of Regulation CC that allows them to delay funds availability on a case-by-case basis for particular deposits. Therefore, the change may not affect many consumers.

X. Recommendations

The Board recommends that the EFAA be amended to lengthen the maximum permissible hold period for local checks from two to three business days. Extending the maximum permissible hold period by one business day would increase the likelihood that depository banks would receive returned checks before they were required to release funds and would improve banks' ability to manage their risk.

The EFAA currently directs the Board to shorten the availability schedule for any category of check for which most of the checks can be returned to the depository bank in a shorter period of time than provided in the schedule. If continued improvements to the check-processing system result in significantly reduced return times, the Board would shorten the availability schedule to reflect those improvements.²¹

²¹In Regulation CC, the Board has required that certain nonlocal checks be made available for withdrawal within three, rather than five, business days.

Board of Governors of the Federal Reserve System

Appendix

Results of the Federal Reserve's Surveys on Check Fraud

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I. Introduction

The Board of Governors of the Federal Reserve System (Board) conducted a comprehensive study of check-fraud losses at banks. As a part of the study, the Board asked a stratified random sample of commercial banks, savings institutions, and credit unions to provide data on their losses due to check fraud during calendar year 1995.²² The Board also reviewed the returned-check process and historical information on check fraud.

The check-fraud survey gathered information about the relationship between the funds availability schedules mandated in the Expedited Funds Availability Act (EFAA) and check-fraud losses.²³ It also gathered specific information about the types of check fraud, the causes of check-fraud losses at banks, and a number of related issues.

This document presents the results of the Board's study. Section II provides background information on the EFAA and the Board's implementation of the EFAA. Section III provides an overview of the survey methodology and response rates. Section IV summarizes the Board's estimates of total losses at banks due to check fraud and compares those estimates to other estimates of check-fraud losses. Section V presents the Board's findings about various types of check fraud and some characteristics of check-fraud losses. Section VI discusses the process through which dishonored checks are returned unpaid to the depository bank and the relationship of this process to check-fraud losses. Sections VII and VIII discuss the Board's findings concerning the current availability policies of banks, the views of banks about extending their hold periods beyond the current allowable periods, and their views on the importance of possible actions to address check fraud.

Attachment A provides detailed information on the methodology used in conducting the Board's survey and detailed results of the survey. Attachment II is a copy of the check-fraud survey distributed to banks. Unless noted otherwise, the data contained in this report are the Board's estimates for all banks.²⁴

²²In this report, the term *banks* includes commercial banks, savings institutions, and credit unions. A *check* means a demand draft drawn on or payable through or at a bank or a federal government or a state or local government entity or a share draft drawn on an account at a credit union.

²³Expedited Funds Availability Act of 1987, 12 USC 4001 et. seq.

²⁴The Board's estimates are based on expansion estimators applied to random samples stratified by entity type and size. Where appropriate, sampling standard errors of the estimates have been reported. Sampling standard errors are measures of possible differences between the estimate and a total that would be obtained if all banks were included in the survey and are functions of the variability within the sample data as well as the number of survey responses. A 95 percent confidence interval around a predicted value can be approximated by taking the predicted quantity plus and minus two times the sampling standard error.

II. Background

The EFAA, enacted in 1987, established the maximum permissible holds that banks could place on checks deposited into transaction accounts before the funds must be made available for withdrawal. The EFAA contains detailed provisions governing banks' funds availability schedules, disclosure of funds availability policies, and payment of interest on deposits. The Board implemented the EFAA's provisions in 1988 through its Regulation CC.²⁵

The EFAA and Regulation CC provide that cash deposits, electronic payments, and certain check deposits, such as Treasury, cashier's, and certified checks, must be made available for withdrawal by the next business day after the day of deposit. Local checks (drawn on a bank within the same Federal Reserve check processing region as the depository bank) must be made available for withdrawal by the second business day after deposit. Nonlocal checks (drawn on a bank in a different check processing region than the depository bank) must be made available for withdrawal by the fifth business day following the day of deposit.²⁶ Longer hold periods (safeguard exception holds) may be imposed for certain classes of checks that are deemed to be especially risky.²⁷ In addition, banks that generally make funds available for withdrawal sooner than required by Regulation CC may delay, on a case-by-case basis, the time when deposited funds are available for withdrawal up to the time periods allowed by Regulation CC.²⁸

²⁵12 CFR Part 229.

²⁶Local and nonlocal checks must be made available for check-writing purposes by the second business day and the fifth business day, respectively, following the day of deposit. Cash withdrawals, however, are limited to the first \$100 of a deposit on the business day after the day of deposit and \$400 by 5:00 p.m. on the second business day for local checks and the fifth business day for nonlocal checks following the day of deposit. The remainder of a deposit must be made available for cash withdrawal at the start of the third business day for local checks and the sixth business day for nonlocal checks.

²⁷Section 604 of the EFAA allows extended "safeguard exception" holds under certain conditions, such as deposits over \$5,000, redeposited checks, deposits to accounts that have had repeated overdrafts, or deposits containing a check for which the bank has a reasonable cause to believe that the check is not collectible. In addition, deposits into new accounts are not subject to the standard local and nonlocal funds availability schedules.

²⁸Under section 229.16 banks must provide a notice when the funds from a particular deposit will not be available by the time a bank generally makes funds available for withdrawal.

III. Survey

The Board distributed the check-fraud survey questionnaire to a stratified random sample of approximately 5,100 commercial banks, credit unions, and savings institutions. These banks were classified by total assets as small, medium, or large (less than \$0.5 billion, \$0.5 to \$5 billion, and \$5 billion and greater, respectively).

In total, 1,559 banks responded directly to the survey, including volunteers and unknown respondents.²⁹ The overall response rate for the Board's survey was 29 percent. To determine if there was any sample bias in survey responses, the Board's staff contacted a number of nonrespondent commercial banks and savings institutions. This follow-up did not indicate that those banks' check-fraud experience was systematically different from the commercial banks and savings institutions that responded to the survey.

IV. Check-Fraud Losses at Banks

A. Check-Fraud Losses in 1995

The estimated value of all losses related to check fraud at banks in 1995 was \$615 million. In aggregate, total check-fraud losses amounted to less than 0.001 percent of the total value of all checks written in 1995. As Table 1 indicates, there were about 529,000 cases of check fraud and 57 percent of all banks incurred check-fraud losses during 1995.

Ninety-nine percent of all large banks incurred check-fraud losses. These banks accounted for about 58 percent of the total losses. Large banks had an average loss per bank of approximately \$2.2 million. A significantly lower percentage of small banks, 55 percent, experienced check-fraud losses. Small banks incurred the lowest average loss per bank, estimated at \$6 thousand per bank.

Credit unions incurred the lowest average loss per case but had a slightly higher number of cases. The average loss per case for credit unions amounted to about \$900, compared with average losses per case for savings banks and commercial banks of about \$1,000 and \$1,200, respectively.

²⁹Volunteers are respondents not in the Board's original sample that completed the survey. Unknown respondents provided no identifying information on the survey form. Fifty-seven volunteers and fifteen unknowns responded to the survey. These respondents may or may not have been in the Board's original sample. Responses from volunteers and unknowns were not used to calculate the estimates given in this report.

Table 1
Check-Fraud Incidence for All Banks
by Asset Size

Size group	Percentage with check-fraud losses	Losses in millions of dollars	Thousands of cases
Small	55	105.6	156.3
Medium	96	150.6	128.9
Large	99	359.2	243.9
Total	57	615.4	529.1

As indicated in Table 2, the value of commercial banks' check-fraud losses amounted to about \$487 million and constituted approximately 1 percent of the profits of commercial banks in 1995.³⁰ Savings institutions and credit unions reported substantially lower aggregate losses.

Table 2
Check Fraud Losses for All Banks
by Entity Type

Type of bank	Percentage with check-fraud losses	Losses in millions of dollars	Thousands of cases
Commercial banks	57	487.1	399.3
Credit unions	53	60.8	64.3
Savings institutions	72	67.5	65.4
Total	57	615.4	529.1

Banks were asked to report the amount of check-fraud losses recovered during 1995. These recoveries may have been associated with check-fraud losses incurred during prior years. Based on the responses, the Board estimates that the value of recoveries, in 1995, for all banks was \$256 million dollars and that these recoveries were associated with 205,000 cases. Because the number of banks that reported recoveries was small, the standard errors associated with these estimates are higher than the standard error associated with the Board's estimates of all check-fraud losses and incidences.

³⁰Because commercial banks' profits are volatile, the check-fraud losses as a percentage of commercial banks' profits have ranged from 1 percent in 1995 to 3.2 percent in 1991.

B. Trends in Check-Fraud Losses

Little historical information is available on check-fraud losses. From 1980 through the present, the American Bankers Association (ABA) reported average losses due to “bad” checks or the proportion of all checks that were bad in its annual Retail Banking Survey. The data were limited, however, and the ABA did not estimate total losses for all commercial banks. In 1992 and 1994, the ABA conducted expanded surveys to gather more comprehensive data on the check fraud experienced by commercial banks in 1991 and 1993, respectively.

The ABA estimated that the values of check-fraud losses at all commercial banks were \$568 million in 1991 and \$815 million in 1993. Overall, the ABA estimated that about 56 percent of all commercial banks incurred check-fraud losses during in 1993. By size category, 54 percent of the small commercial banks, 94 percent of the medium-sized commercial banks, and 88 percent of the large commercial banks reported check-fraud losses.

Because of the small number of respondents in both surveys, the standard errors associated with the ABA’s estimates of dollar losses are fairly large. As a result of those large standard errors, there are no statistically significant differences between the ABA’s and the Board’s estimates of the incidence and amount of check-fraud losses.

V. Characteristics of Check-Fraud Losses

A. Losses as Paying Bank Versus Depository Bank

Hold periods—the time period following deposit during which a bank will not allow its customer to withdraw funds from check deposits—protect depository banks against some losses by providing time for them to receive checks returned unpaid by paying banks.³¹ The survey data show that banks incurred losses equally as depository and paying banks (50 percent each of dollar losses and 53 percent and 47 percent, respectively, of the number of cases of check fraud).³²

³¹A *depository bank* is the bank to which a check is first transferred. A *paying bank* generally is the bank on which the check is drawn. For purposes of the check collection and return rules in subpart C of Regulation CC, a paying bank is the bank by, at, or through which a check is payable and to which it is sent for collection.

³²Although many banks were able to provide accurate information on total losses due to check fraud, only a portion of those were able to provide the losses as paying bank and depository bank. Direct estimates of paying bank and depository bank losses did not sum to the estimate of total losses. This suggests that there may be inherent differences between banks that can and cannot report detailed loss information. The estimate of total losses is based on a larger number of responses and, therefore, is likely to be more reliable than estimates of paying bank or depository bank losses individually. Thus, the estimates of paying bank and depository bank losses were constrained to sum to the estimate of total dollar losses.

B. Losses Due to Checks Drawn on Local and Nonlocal Banks

Overall, checks drawn on local banks accounted for approximately 72 percent of the total dollar losses reported in the check-fraud survey. Estimates of the proportion of losses attributable to local checks ranged from 76 percent for small and large banks to 61 percent for medium-sized banks. The proportion of losses attributed to local checks varied somewhat by type of bank: 82 percent for credit unions; 71 percent for commercial banks; and 69 percent for savings institutions.³³

Approximately 58 percent of the checks processed by the Federal Reserve Banks during 1995 were local checks. Because many banks participate in local check clearinghouses and the use of direct check presentments between banks is growing, the Board believes that the Federal Reserve Banks process a larger proportion of nonlocal checks than is the case for the total number of local and nonlocal checks deposited. Thus, the higher proportion of fraudulent local checks appears to be consistent with the number of local checks written generally.

C. Losses by Type of Check and Type of Fraud

The survey requested data on the amount of losses based on the type of check and the type of fraud. The number of respondents that answered these questions was not sufficient to estimate the losses for all banks by type of check or type of fraud.

Based on a summary of survey responses, of the twelve categories of checks listed in the survey, the highest proportion of check fraud occurred for checks written by consumers against their personal accounts.³⁴ This observation is consistent with evidence that more than half of all checks written in this country are written by consumers. Checks that must be made available on the next business day following deposit, such as federal government and state and local government checks, money orders, cashier's or teller's checks, and certified checks, amounted to a very small proportion of total check-fraud losses.

Of the six types of fraud, the largest proportion of losses were attributed to forgeries, either of the drawer's signature or of an indorsement.³⁵ While prompt posting and

³³For the reasons discussed in the preceding footnote, losses for local and nonlocal checks were also constrained to sum to total losses.

³⁴The survey requested loss data for the following types of checks: federal government and state or local government; cashier's, teller's, and certified; payroll, other business-to-individual, business-to-business, consumer-initiated; postal money orders and other money orders; preauthorized drafts; and other.

³⁵*Forgery* refers to stolen checks. The criminal may forge the account holder's signature or may represent himself as the payee or a holder in due course of the check. *Altered* checks have been modified without the drawer's approval. Modifications may be to the payee or amount, for instance. *Kiting* involves accounts at two or

(continued...)

return can identify certain problem checks, forged checks may not be detected until the check appears on the check writer's account statement.

D. Losses by Age of Account

The EFAA permits banks to delay the availability of funds for checks during the first 30 days after an account is opened. The survey requested data on the amount and number of losses by the age of the account on which the fraud was perpetrated.³⁶ The number of respondents that answered this question was not sufficient to support an estimate for all banks. Based on a summary of responses, however, the highest proportion of fraud appeared to be perpetrated against accounts open for over one year, likely reflecting the age of most accounts. The lowest proportion of check fraud was perpetrated against accounts open 91 days to one year.

VI. Returned Checks

A. The Returned-Check Process

Checks that are dishonored by the paying bank must be returned to the depository bank so that they can be charged back to the depositor. The length of time needed to process, dishonor, and return checks is important because the depository bank faces some risk of loss should a deposit containing a fraudulent check be withdrawn before the depository bank learns that the check was returned unpaid.

Before Regulation CC's provisions to expedite the check-return process were implemented, there were numerous delays in processing returned checks. Generally, if a check was handled by several correspondent banks and other intermediaries on its forward journey, it was returned through the same chain. A 1984-85 study of returned checks conducted by the Bank Administration Institute and J.D. Carreker and Associates, Inc., (BAI study), showed that, on average, it took 6.8 calendar days for a returned check to make the round trip from the depository bank to the paying bank and back to the depository bank. The study showed that about 40 percent of all returned checks took 7 days or longer to complete the circuit and 15 percent took 10 days or more.

³⁵(...continued)

more banks, with float used to create fraudulent balances. *Counterfeit* checks are imitations or copies of genuine checks. A counterfeit check need not be a precise duplicate of a specific genuine check, but could just look genuine. *Paperhanging* refers to checks that are written on closed accounts. *All other fraud cases* refers to other fraudulent activity that caused a financial loss.

³⁶Age of account categories were defined as up to 30 days, 31 through 90 days, 91 days through 1 year, and over one year.

Regulation CC changed the return system in several ways. First, it provided that unpaid checks could be returned directly to the depository bank or its agent, thereby reducing the number of banks that might handle a returned check. Second, it required banks to return checks expeditiously—that is, so that returned checks would be received by the depository bank by the second business day following the banking day on which the check was presented to the paying bank for local checks and by the fourth business day following presentment for nonlocal checks. A check is also considered to be returned expeditiously if the unpaid check is returned as fast as it was originally presented to the paying bank. Third, it introduced procedural changes in the returned-check process, such as setting mandatory indorsement standards and a standard for qualifying checks to allow for high-speed processing of returns.³⁷ A survey of returned checks processed by the Federal Reserve Banks in February 1996 (Reserve Bank survey) indicated that the average time taken for depository banks to receive returned checks was 5.5 calendar days.³⁸ Thus, average return times have declined by about 1.3 days, or 20 percent, compared with the experiences reported in the BAI study.

Table 3
Return Times for Local and Nonlocal Checks

Cumulative percentage					
Local checks			Nonlocal checks		
Number of business days	Check-fraud survey	1996 Reserve Bank survey	Number of business days	Check-fraud survey	1996 Reserve Bank survey
0-1	14	2	0-1	10	2
2	48	15	2	17	8
3	81	66	3	32	33
4	95	85	4	65	64
5	98	92	5	84	82
6	99	95	6	92	89
7 or more	100	100	7	98	93
	...	...	8 or more	100	100

On average, local returned checks processed by the Federal Reserve were received by depository banks in 3.6 business days, and only 15 percent of local returned checks were

³⁷A qualified returned check is a returned check that is prepared for automated processing by placing the check in a carrier envelope or placing a strip on the check and encoding the envelope or strip in magnetic ink with the routing number of the depository bank, the amount of the returned check, and a unique digit identifying the check as a returned check.

³⁸The Reserve Banks processed 168 million returned checks during 1995.

delivered to the depository bank by the second business day, that is, the day on which funds from local check deposits must be made available to depositors.³⁹ In addition, the check-fraud survey asked respondents to indicate the proportion of returned checks that they typically received on each business day following the initial deposit of a check. As shown in Table 3, depository banks reported that about 48 percent of local returned checks were delivered to the depository bank within two business days following the day of deposit. Table 8.2 in Attachment A shows that, on average, commercial banks received about 50 percent of local returned checks within two business days; savings institutions 17 percent; and credit unions 25 percent.⁴⁰

The check-fraud survey found that 84 percent of nonlocal checks were returned by the fifth business day following the day of deposit, that is, the day on which funds from nonlocal check deposits must be made available to depositors. The Reserve Bank survey indicated that 82 percent of nonlocal returned checks were received by the fifth day.

B. Large-Dollar Notices of Nonpayment

As part of its provisions to improve the efficiency of the return process, Regulation CC requires that, when a paying bank decides to return a check of \$2,500 or more, it must provide a notice of nonpayment to the depository bank. The notice must be received by 4:00 p.m. local time for the depository bank on the second business day following the banking day on which the check was presented to the paying bank.⁴¹

Overall, 79 percent of banks indicated that, as depository banks, they use large-dollar notices to extend the hold periods on check deposits. These banks indicated that they used about 57 percent of the notices they received.⁴² When asked if, as paying bank, they could

³⁹Checks returned through one or more intermediary banks, such as Reserve Banks, generally are not received by the depository bank as promptly as checks returned by the paying bank. Therefore, the time required to return checks handled by the Federal Reserve is likely to represent the upper bound of overall check return times.

⁴⁰Commercial banks are more likely than credit unions or savings institutions to participate in check clearinghouses and to present checks directly to the paying bank, which enables them to collect and return checks faster.

⁴¹A paying bank may provide a large-dollar notice of nonpayment by any of several means, including return of the check to the depository bank, telephone call or telex to the depository bank, a special, nonvalue Fedwire funds transfer notice, or a telephone call to a Reserve Bank with a request to forward the notice.

⁴²Some banks may not use the large dollar notices for the following reasons: they have already received the returned check, which can be provided in lieu of the notice; the information in the notice was not sufficient for the bank to determine the appropriate action; or the customer maintained a high enough balance to cover the returned item

provide the notices one full day earlier than currently required by Regulation CC, 88 percent of banks said that they could do so.⁴³

VII. Bank Availability Policies

The check-fraud survey indicated that the funds availability schedules of 75 percent of banks promised better availability for local checks than required by the EFAA. Approximately 70 percent of banks promised better availability than required for nonlocal checks. For next-day checks, over 40 percent of banks promised immediate availability, that is, funds were made available on the day of deposit. In the case of local and nonlocal check deposits, respondents' comments indicated that it is a common practice for depository banks to provide either immediate or next-day availability, unless they apply a case-by-case hold or invoke a safeguard exception hold on a deposited check.

Based on survey responses, availability policies vary across the type and size of banks. Commercial banks are less likely to use the maximum permissible holds for local and nonlocal checks than savings institutions and credit unions. Medium-sized banks are more likely to use the maximum hold periods for local and nonlocal checks than small and large banks.

VIII. Actions to Address Check Fraud

A. Check-Fraud Losses and Modifications to Availability Schedules

Survey participants with check-fraud losses were asked if they would modify their banks' current availability policy if Regulation CC were modified to allow one additional day for holds on next-day, local, and nonlocal checks. As indicated in Table 4, less than one-half of these banks indicated that they would extend their funds availability policies even if they were permitted to do so.

The survey results also indicated that credit unions were more likely than other types of banks to modify their local and nonlocal funds availability policies. Each type of bank indicated that it was more likely to modify its local and nonlocal availability policies than its next-day availability policy.

Small banks indicated that they would be somewhat less likely than other banks to extend their hold periods, while large banks would be more likely to modify their policies. Banks

⁴³In 1990, the Federal Reserve Board requested comments on a proposal to require large-dollar notices to be provided to depository banks earlier. The Board did not adopt a change to the notice requirement because, based on the comments it received, the Board did not believe that the benefits of an earlier notice deadline to depository banks would outweigh the burdens that would be imposed on paying banks (55 FR 21852, May 30, 1990).

in every asset size group were more likely to change the local availability policy than the next-day availability policy and more likely to extend the nonlocal policy than the local policy.⁴⁴

Table 4
Percentage of Banks with Check-Fraud Losses that Would
Modify Current Funds Availability Policies if the Maximum Permissible Hold Period Were
Extended by One Business Day

Percent			
Size or type of bank	Next-day checks	Local checks	Nonlocal checks
<i>Size group</i>			
Small	33	44	46
Medium	41	54	53
Large	43	59	63
<i>Type of bank</i>			
Commercial banks	31	37	41
Credit unions	35	55	55
Savings institutions	38	48	50
<i>Overall</i>	33	44	47

Interestingly, although only about half of local returned checks were received by depository banks within the current allowable hold period and over 80 percent of nonlocal returned checks were received within the allowable hold period, a slightly higher proportion of banks that had incurred check-fraud losses indicated that they would extend their nonlocal, rather than their local, hold policies.

Of the banks that would change their funds availability schedules for local and nonlocal checks, only about half of them currently use the maximum hold period allowed (51 percent for local checks and 54 percent for nonlocal checks). The most common reasons banks gave for not changing their current funds availability policies were that they had not experienced significant losses with their current funds availability policies and that customer service and competition would limit any changes. Of the 60 percent of banks that experienced check-fraud losses, 45 percent indicated that they would modify their funds availability schedules if the maximum permissible hold period for local checks were extended by one day. Nevertheless, only about one-half of these banks currently use the maximum permissible hold period for local checks. At the same time, approximately 30 percent of banks that experienced check-fraud losses used the maximum permissible hold for local checks. Over 70 percent of these banks indicated that they would modify their funds availability schedules if the mandatory schedule for local checks were extended by one day.

⁴⁴The population of small banks is dominated by commercial banks.

B. Important Actions to Address Check Fraud

All participants were also asked to rate, on a scale from one (not important) to five (very important), the importance of certain actions in addressing check-fraud issues. The three highest rated responses, which were rated as very important by over 40 percent of banks, were (1) improving communications among banks regarding check-fraud activity, (2) training employees in check-fraud detection/prevention, and (3) speeding/improving the check-return system. Conversely, on average, respondents rated modifying the Regulation CC next-day and local availability schedules as having the least importance to them in addressing check fraud. Only 20 percent of banks rated modifying the hold period for local checks as very important and 16 percent rated modifying the hold period for next-day checks as very important. Conversely, 13 percent and 15 percent of respondents rated modifying the local hold period and the next-day hold period, respectively, as not important.

Attachment A
Technical Data From the Federal Reserve’s Check-Fraud Surveys⁴⁵

I. Sampling and Survey Methodology

Table 1.1
Number of Banks in Population and in Sample by Size and Type

Type of Bank	Population				Total in sample
	Small	Medium	Large	Total	
Commercial banks	9,119	522	132	9,773	4,493
Credit unions	6,085	59	1	6,145	325
Savings institutions	1,328	252	28	1,608	319
Total	16,532	833	161	17,526	...
Total in sample	4,315	670	152	...	5,137

The survey questionnaire was sent to a stratified random sample of 5,137 commercial banks, savings institutions and credit unions. The bank population included all federally-insured commercial banks, credit unions, and savings institutions as well as some uninsured commercial banks and savings institutions that had transaction account balances greater than zero on December 31, 1995.⁴⁶ Population estimates are based on year-end transaction account balances as reported in the “Consolidated Report of Condition and Income” filed by banks as of December 31, 1995. These banks were classified by total assets as small, medium, and large (less than \$0.5 billion, \$0.5 to \$5 billion, and \$5 billion and greater, respectively).

The sample size requirements for the survey were based upon the proportions of commercial banks estimated to have experienced check-fraud losses in the American Bankers Association’s 1994 check-fraud survey. These proportions were used to determine the sample size necessary for all entity types to achieve the desired sampling standard errors and confidence intervals.

⁴⁵Percentages in tables may not equal 100 due to rounding.

⁴⁶Credit card banks, grandfathered nonbank banks, as well as uninsured commercial banks and savings institutions for which the Board did not have financial data, and credit unions that did not file a condition report with the National Credit Union Administration were excluded.

Table 1.2
Number of Survey Responses by Type and Size of Bank

Type of Bank	Small	Medium	Large	Volunteers	Unknown	Total respondents
Commercial banks	1,066	138	71	28	n.a.	1,303
Credit unions	55	21	1	2	n.a.	79
Savings institutions	63	58	14	27	n.a.	162
Unknown	n.a.	n.a.	n.a.	n.a.	15	15
Overall	1,184	217	86	57	15	1,559

Note: n.a. refers to not available

In total, 1,559 banks responded to the Board’s survey, including volunteers and unknown respondents.⁴⁷ To determine if there was a bias in survey responses, the Board’s staff contacted a number of small nonrespondent commercial banks and savings institutions. This follow-up did not indicate any pattern of reporting differences by nonrespondents that would suggest any systematic bias in the observed responses.

The number of respondents reported in subsequent tables may differ from Table 1.2. The differences reflect consolidated reporting by some respondents and additional responses obtained through telephone follow-ups with a random sample of nonrespondents.⁴⁸ The overall response rate for the Board’s survey was 29 percent.

⁴⁷Volunteers are respondents not in the Board’s original sample, who completed the survey. Unknown respondents did not provide any identifying information on the survey form. These respondents may or may not have been in the Board’s original sample. Responses from volunteers and unknowns were not used to calculate the estimates given in this report.

⁴⁸Several commercial banks consolidated their reporting either at the holding company level or over the total of their subsidiary banks included in the Board’s sample. In such cases, the dollar losses were credited to the combined “mega bank” and all the subsidiaries represented by the consolidated report were recorded as having incurred check-fraud losses. In all instances, losses were experienced by all parts of the holding company, not just the reporting bank.

II. Check-Fraud Incidence

Table 2.1
Incidence of Check Fraud by Size and Type of Bank

Size Group	Commercial banks		Credit unions		Savings institutions		All banks	
	Number of responses	Percent with check-fraud losses	Number of responses	Percent with check-fraud losses	Number of responses	Percent with check-fraud losses	Number of responses	Percent with check-fraud losses
Small	1,066	55 (52-57) ¹	55	53 (41-65)	63	67 (56-76)	1,184	55 (52-57)
Medium	138	96 (92-98)	22	95 ² (88-98)	58	97 (92-99)	217	96 (92-98)
Large	71	99 (97-100)	...	...	14	100 (96-100)	86	99 (97-100)
Total	1,275	57 (54-60)	77	53 (43-65)	135	72 (65-79)	1,487	57 (55-60)

¹ Numbers in parentheses represent a 95 percent confidence interval.

² Medium and large credit unions were combined.

III. Historical Trends in Check-Fraud Losses

Table 3.1
Comparisons of ABA and Federal Reserve Check-Fraud Survey Results
for Commercial Banks Only

	ABA results				Federal Reserve results	
	1991	Standard error	1993	Standard error	1995	Standard error
<i>Incidence of check fraud</i> ¹						
(percent)						
Small	63.8	n.a.	53.8	n.a.	54.5	1.4
Medium	82.9 ¹	n.a.	93.5	n.a.	95.7	1.5
Large	See note ¹	n.a.	87.9	n.a.	98.6	1.0
<i>Dollar losses</i>						
(millions)						
All commercial banks	568	n.a.	815	295 ³	487	59
	n.a.		(225-1,405) ²		(369-605)	
<i>Number of cases</i>						
(thousands)						
All commercial banks	537	n.a.	1,267	n.a.	399	36
	n.a.		n.a.		(327-471)	

¹The medium and large size categories were combined in the ABA's 1992 *Check Fraud Survey*, which reported data for 1991.

²Number in parentheses represent a 95 percent confidence interval.

³The standard error and confidence interval estimates for the ABA's survey results were calculated by the Board's staff and based on data provided by the ABA.

The Board received about four times as many responses to its survey than the ABA and the Board's methodology for estimating universe population figures treated the largest banks reporting consolidated data separately to minimize sample bias. Specifically, the Board employed a fourth stratum—in addition to the three pre-defined asset size groups—to construct the universe estimate. The fourth stratum was created by separating the very largest banks from the large asset group. To ensure that the estimate of total check-fraud loss would not be biased by the loss experience of the largest banks, these banks' data were not used to estimate losses or cases for other commercial banks. The larger sample size and the treatment of the largest banks' data significantly reduced the standard error for the estimate of aggregate losses.

IV. Total Losses at Banks

**Table 4.1
Check-Fraud Losses for All Banks by Size and Type of Bank**

Size or type of bank	Losses		Cases	
	Millions of dollars	Standard error	Thousands of cases	Standard error
<i>Size Group</i>				
Small	105.6	15.2	156.3	16.5
Medium	150.6	33.9	128.9	17.8
Large	359.2	53.3	243.9	32.5
<i>Type of Bank</i>				
Commercial banks	487.1	58.7	399.3	36.1
Credit unions	60.8	14.7	64.3	10.9
Savings institutions	67.5	23.5	65.4	14.9
<i>Total</i>	615.4	64.9	529.1	40.6

V. Check Fraud For Paying and Depository Banks⁴⁹

Table 5.1
Check-Fraud Losses at Paying and Depository Banks by Size and Type of Bank

Size or type of bank	Paying bank		Depository bank	
	Millions of dollars	Percent of loss	Millions of dollars	Percent of loss
<i>Size Group</i>				
Small	41.3	39.1	64.3	60.9
Medium	74.8	49.7	75.8	50.3
Large	194.5	54.1	164.7	45.9
<i>Type of Bank</i>				
Commercial banks	271.0	55.6	216.1	44.4
Credit unions	16.0	26.4	44.8	73.6
Savings institutions	23.6	35.0	43.9	65.0
<i>Total</i>	310.6	50.5	304.8	49.5

Table 5.2
Check-Fraud Cases at Paying and Depository Banks by Size and Type of Bank

Size or type of bank	Paying bank		Depository bank	
	Thousands of cases	Percent of cases	Thousands of cases	Percent of cases
<i>Size Group</i>				
Small	75.7	48.5	80.5	51.5
Medium	66.4	51.5	62.5	48.5
Large	135.9	55.7	108.0	44.3
<i>Type of bank</i>				
Commercial banks	223.7	56.0	175.6	44.0
Credit unions	24.7	38.4	39.6	61.6
Savings institutions	29.6	45.2	35.8	54.8
<i>Total</i>	278.0	52.5	251.1	47.5

⁴⁹ Although many banks were able to provide accurate information on total losses due to check fraud, only a portion of those were able to provide the losses as paying bank and depository bank. Direct estimates of paying bank and depository bank losses did not sum to the estimate of total losses. This suggests that there may be inherent differences between banks that can and cannot report detailed loss information. The estimate of total losses is based on a larger number of responses and, therefore, is likely to be more reliable than estimates of paying bank or depository bank losses individually. Thus, the estimates of paying bank and depository bank losses were constrained to sum to the estimate of total dollar losses.

VI. Check-Fraud Losses Attributed to Local and Nonlocal Checks⁵⁰

Table 6.1
Check-Fraud Losses Attributed to Local and Nonlocal Checks by Asset Size

Size or type of bank	Local checks		Nonlocal checks	
	Millions of dollars	Percent of loss	Millions of dollars	Percent of loss
<i>Size Group</i>				
Small	80.4	76.2	25.2	23.8
Medium	91.3	60.6	59.3	39.4
Large	271.8	75.7	87.4	24.3
<i>Type of Bank</i>				
Commercial banks	347.2	71.3	139.9	28.7
Credit unions	50.0	82.2	10.8	17.8
Savings institutions	46.4	68.7	21.2	31.3
<i>Total</i>	443.5	72.1	171.9	27.9

Table 6.2
Check-Fraud Cases Attributed to Local and Nonlocal Checks by Entity Type

Size or type of bank	Local checks		Nonlocal checks	
	Thousands of cases	Percent of cases	Thousands of cases	Percent of cases
<i>Size Group</i>				
Small	117.2	75.0	39.1	25.0
Medium	93.2	72.3	35.7	27.7
Large	187.2	76.8	56.7	23.2
<i>Type of Bank</i>				
Commercial banks	295.0	73.9	104.4	26.1
Credit unions	52.1	80.9	12.3	19.1
Savings institutions	50.6	77.3	14.8	22.7
<i>Total</i>	397.6	75.2	131.5	24.8

⁵⁰ Although many banks were able to provide accurate information on total losses due to check fraud, only a portion of those were able to provide the losses as paying bank and depository bank. Direct estimates of local and nonlocal check losses did not sum to the estimate of total losses. This suggests that there may be inherent differences between banks that can and cannot report detailed loss information. The estimate of total losses is based on a larger number of responses and, therefore, is likely to be more reliable than estimates of local or nonlocal check losses individually. Thus, the estimates of local and nonlocal check losses were constrained to sum to the estimate of total dollar losses.

VII. Recoveries of Check-Fraud Losses⁵¹

**Table 7.1
Check-Fraud Recoveries by Asset Size and Type of Bank**

Size or type of bank	Recoveries		Cases	
	Millions of dollars	Standard error	Thousands of cases	Standard error
<i>Size Group</i>				
Small	58.8	15.0	66.6	8.7
Medium	55.0	12.7	49.3	20.1
Large	142.2	33.3	88.7	25.4
<i>Type of Bank</i>				
Commercial banks	195.2	35.7	164.4	32.6
Credit unions	43.1	14.3	20.3	6.3
Savings institutions	17.7	4.2	20.0	5.0
<i>Total</i>	256.0	38.7	204.7	33.5

⁵¹Recoveries during 1995 may be associated with losses incurred in prior years.

VIII. Returned-Check Cycle

Table 8.1
Return Times for Local Checks by Asset Size

Cumulative percentages, except for average

Number of business days	1996 Check-fraud survey				1996 Reserve Bank survey	1990 Reserve Bank survey
	All	Small	Medium	Large		
0-1	14	9	11	17	2	n.a.
2	48	37	43	56	15	3
3	81	73	85	83	66	63
4	95	89	97	98	85	85
5	98	95	99	99	92	91
6	99	97	100	100	95	96
7 or more	100	100	100	100	100	100
Average	n.a.	n.a.	n.a.	n.a.	3.63	3.65

Table 8.2
Return Times for Local Checks by Type of Bank

Cumulative percentages, except for average

Number of business days	1996 Check-fraud survey				1996 Reserve Bank survey	1990 Reserve Bank survey
	All	Commercial banks	Credit unions	Savings inst.		
0-1	14	15	6	2	2	n.a.
2	48	51	25	17	15	3
3	81	83	51	56	66	63
4	95	97	79	80	85	85
5	98	99	89	90	92	91
6	99	99	92	93	95	96
7 or more	100	100	100	100	100	100
Average	n.a.	n.a.	n.a.	n.a.	3.63	3.65

Table 8.3
Return Times for Nonlocal Checks by Asset Size

Cumulative percentages, except for average

Number of business days	1996 Check-fraud survey				1996 Reserve Bank survey	1990 Reserve Bank survey
	All	Small	Medium	Large		
0-1	10	2	2	17	2	n.a.
2	17	8	7	25	8	2
3	32	25	28	37	33	21
4	65	48	54	79	64	47
5	84	74	82	91	82	73
6	92	86	91	96	89	88
7	98	94	97	100	93	92
8 or more	100	100	100	100	100	100
Average	n.a.	n.a.	n.a.	n.a.	4.61	4.93

Table 8.4
Return Times for Nonlocal Checks by Type of Bank

Cumulative percentages, except for average

Number of business days	1996 Check-fraud survey				1996 Reserve Bank survey	1990 Reserve Bank survey
	All	Commercial banks	Credit unions	Savings inst.		
0-1	10	11	0	1	2	n.a.
2	17	18	2	3	8	2
3	32	33	12	23	33	21
4	65	67	32	43	64	47
5	84	86	54	69	82	73
6	92	93	81	82	89	88
7	98	98	91	95	93	92
8 or more	100	100	100	100	100	100
Average	n.a.	n.a.	n.a.	n.a.	4.61	4.93

Table 8.5
Return Times for Local and Nonlocal Checks (Combined)

Cumulative percentages, except for average

Number of calender days	1996 Reserve Bank survey	1990 Reserve Bank survey	1984-85 BAI survey ¹
0-1	1	0	1
2	8	2	5
3	27	19	17
4	38	27	27
5	62	50	42
6	78	67	59
7	88	83	73
8 or more	100	100	100
Average	5.5	6.1	6.8

¹J.D. Carreker and Associates, Inc. *Return Items Study Final Report*. Bank Administration Institute, 1985.

IX. Large-Dollar Return Items

**Table 9.1
Percent of Banks Using Large-Dollar Return-Item Notifications (LDRIN)¹**

Percent

Size or type of bank	Percentage of banks using LDRIN	Standard error	Percentage of cases in which these banks use LDRIN	Standard error
<i>Size Group</i>				
Small	78.3	2.1	56.7	2.6
Medium	87.2	2.1	69.2	2.5
Large	81.9	3.2	68.0	4.2
<i>Type of Bank</i>				
Commercial bank	76.1	1.2	50.9	1.4
Credit unions	82.4	5.3	66.2	6.4
Savings institutions	80.7	4.9	60.9	6.1
<i>Total</i>	78.7	2.0	57.2	2.4

¹Section 229.33 of Regulation CC provides that “a paying bank that determines to return a check in the amount of \$2,500 or more must provide notice of nonpayment to the depository bank. The paying bank must ensure that the notice is received by the depository bank by 4:00 p.m. (local time for the depository bank) on the second business day following the banking day on which the check was presented to the paying bank.”

**Table 9.2
Percentage of Banks that Could Provide
Large-Dollar Return-Item Notifications (LDRIN)
by 4:00 p.m. on the Day Following Presentment**

Percent

Size or type of bank	Percent of banks that could provide LDRIN by 4:00 p.m. on the Day Following Presentment	Standard error
<i>Size Group</i>		
Small	88.8	2.0
Medium	83.7	2.3
Large	67.4	3.9
<i>Type of Bank</i>		
Commercial bank	91.6	0.7
Credit unions	84.3	5.0
Savings institutions	84.0	4.5
<i>Total</i>	88.3	1.8

X. Funds Availability Policies⁵²

**Table 10.1
Published Funds Availability Policies - All Banks**

Percent				
Availability	Consumer Policy		Business Policy	
	Percent	Standard error	Percent	Standard error
<i>Next-day checks</i>				
Same day	42	2.6	43	2.6
Next day	58	2.6	57	2.6
<i>Local checks</i>				
Same day	36	2.6	37	2.7
Next day	39	1.9	38	1.9
Two days	26	2.5	25	2.6
<i>Nonlocal checks</i>				
Same day	26	2.5	26	2.6
Next day	30	1.5	29	1.4
Two to four days	14	1.9	14	2.0
Five days	30	2.6	30	2.7

**Table 10.2
Published Funds Availability Policies by Asset Size**

Percent						
Availability	Consumer policy			Business policy		
	Small	Medium	Large	Small	Medium	Large
<i>Next-day checks</i>						
Same day	43	25	15	44	26	14
Next day	57	75	85	56	74	86
<i>Local checks</i>						
Same day	37	12	4	38	12	3
Next day	38	46	54	38	47	56
Two days	25	43	42	24	41	42
<i>Nonlocal checks</i>						
Same day	27	10	3	27	11	3
Next day	30	30	38	29	31	26
Two to four days	13	19	31	14	20	44
Five days	30	41	28	30	39	27

⁵²These tables reflect the longest funds availability policy by classification of check.

Table 10.3
Published Funds Availability Policies by Entity Type

Percent						
Availability	Consumer policy			Business policy		
	Commercial banks	Credit unions	Savings inst.	Commercial banks	Credit unions	Savings inst.
<i>Next-day checks</i>						
Same day	28	65	36	28	68	38
Next day	72	35	65	72	32	62
<i>Local checks</i>						
Same day	29	52	18	28	54	21
Next day	56	12	33	56	11	30
Two days	16	36	49	15	34	48
<i>Nonlocal checks</i>						
Same day	21	35	13	21	36	15
Next day	46	6	28	46	5	26
Two to four days	14	15	11	14	16	10
Five days	19	44	49	19	43	48

XI. Modifying Funds Availability Schedules

Table 11.1
Percent of Respondents with Check-Fraud Losses that Would
Modify Current Funds Availability Policies

Percent

Size or type of bank	Next-day policy		Local policy		Nonlocal policy	
	Percent	Standard error	Percent	Standard error	Percent	Standard error
<i>Size Group</i>						
Small	33	3.5	44	3.6	46	3.6
Medium	41	3.1	54	3.1	53	3.2
Large	43	4.4	59	4.3	63	4.1
<i>Type of Bank</i>						
Commercial banks	31	1.8	37	1.9	41	1.9
Credit unions	35	8.7	55	9.1	55	9.1
Savings institutions	38	7.3	48	7.4	50	7.5
<i>All Banks</i>	33	3.3	44	3.4	47	3.4

Table 11.2
Percent of Banks with Check-Fraud Losses by Whether They Currently Use Maximum Permitted
Hold Periods and Whether They Would Modify Funds Availability Policies

Percent

Schedule	Currently using maximum holds			Not currently using maximum holds		
	Percent using maximum	Preference for changing policy		Percent not using maximum	Preference for changing policy	
		Would change	Would not change		Would change	Would not change
Next day	64	41	59	36	21	79
Local	32	72	28	68	32	68
Nonlocal	34	74	26	66	33	67

Note: This table tabulates a bank's preference for modifying their availability schedules, by whether their consumer policy is to use the maximum holds.

Table 11.3
Percent of Banks with Check-Fraud Losses by Whether
They Would Modify Funds Availability Policies and Their Current Hold Policy

Percent						
Schedule	Would change policy			Would not change policy		
	Percent	Current hold policy		Percent	Current hold policy	
		Use maximum	Do not use maximum		Use maximum	Do not use maximum
Next day	33	78	22	67	57	43
Local	44	51	49	55	17	83
Nonlocal	47	54	46	53	17	83

Note: This table tabulates what the current consumer funds availability schedules are for those banks that incurred check-fraud losses.

XII. Actions to Address Check Fraud⁵³

Table 12.1
Average Rating of Importance of Actions in Addressing Check Fraud by Asset Size

Action	Small	Medium	Large	Overall
Improving communications among banks regarding check-fraud activities	4.1	4.3	4.4	4.1
Training employees in check-fraud detection/prevention	4.1	4.3	4.5	4.1
Speeding/improving the check return system	4.0	4.3	4.1	4.0
Speeding/improving large-dollar return-item notifications	3.9	4.1	4.2	3.9
Requiring additional security features on all check stock	3.5	3.9	3.8	3.5
Using automation and software applications	3.4	4.1	4.4	3.5
Modifying Regulation CC nonlocal availability schedule	3.3	3.6	3.6	3.3
Modifying Regulation CC new-customer exception holds	3.2	3.5	3.7	3.2
Converting business/consumer payments to electronic form	3.1	3.5	3.6	3.2
Modifying Regulation CC local availability schedule	3.1	3.6	3.6	3.2
Modifying Regulation CC next-day availability schedule	3.0	3.3	3.4	3.0

⁵³Banks rated the importance of modifying next-day, local, and nonlocal availability schedules on a scale of one (not important) to five (very important).

Table 12.2
Average Rating of Importance Actions in Addressing Check Fraud by Entity Type

Action	Commercial banks	Credit unions	Savings institutions	Overall
Improving communications among banks regarding check-fraud activities	4.1	4.2	4.3	4.1
Training employees in check-fraud detection/prevention	4.1	4.2	4.1	4.1
Speeding/improving the check return system	3.9	4.1	4.3	4.0
Speeding/improving large-dollar return-item notifications	3.8	4.0	4.2	3.9
Requiring additional security features on all check stock	3.4	3.7	3.5	3.5
Using automation and software applications	3.4	3.6	3.6	3.5
Modifying Regulation CC nonlocal availability schedule	3.1	3.5	3.7	3.3
Modifying Regulation CC new-customer exception holds	3.1	3.2	3.5	3.2
Converting business/consumer payments to electronic form	3.1	3.2	3.2	3.2
Modifying Regulation CC local availability schedule	2.9	3.4	3.5	3.2
Modifying Regulation CC next-day availability schedule	2.9	3.2	3.2	3.0

Table 12.3
Distribution of Ratings for Importance of Actions in Addressing Check Fraud

Percent, except for average

Action	Importance of Action					Weighted average rating
	Not <-----> Very					
	1	2	3	4	5	
Improving communications among banks regarding check-fraud activities	4	2	17	32	46	4.1
Training employees in check-fraud detection/prevention	3	4	17	30	47	4.1
Speeding/improving the check return system	5	4	16	32	43	4.0
Speeding/improving large-dollar return-item notifications	6	5	21	29	39	3.9
Requiring additional security features on all check stock	8	9	35	26	24	3.5
Using automation and software applications	8	9	31	32	20	3.5
Modifying Regulation CC nonlocal availability schedule	11	14	31	19	25	3.3
Modifying Regulation CC new-customer exception holds	15	14	30	18	23	3.2
Converting business/consumer payments to electronic form	11	14	36	27	13	3.2
Modifying Regulation CC local availability schedule	13	15	34	18	20	3.2
Modifying Regulation CC next-day availability schedule	15	18	34	17	16	3.0

Table 12.4
Importance of Actions in Addressing Check Fraud by Current Funds Availability Policy

Percent

Schedule	Currently use maximum hold				Currently do not use maximum hold			
	Percent using maximum	Bank rating of importance of change			Percent not using maximum	Bank rating of importance of change		
		Not Important	Neutral	Important		Not Important	Neutral	Important
Next day	58	29	36	35	42	39	31	30
Local	25	11	25	64	75	35	37	29
Non-local	30	14	27	59	70	31	33	37

Note: This table tabulates, by a bank's current funds availability policy, the importance the bank places on modifying the schedules.

¹Banks rated the importance of modifying next-day, local, and nonlocal availability schedules on a scale of one (not important) to five (very important). For this table, ratings of one and two are shown as not important, ratings of three are classified as neutral, and ratings of four or five are classified as important.

Table 12.5
Current Funds Availability Policies by Importance of Actions in Addressing Check Fraud

Percent

Type of check	Rated change in schedule as not important			Rated change in schedule as neutral			Rated change in schedule as important		
	Percent giving rating	Current use of maximum holds		Percent giving rating	Current use of maximum holds		Percent giving rating	Current use of maximum holds	
		Use maximum	Do not use maximum		Use maximum	Do not use maximum		Use maximum	Do not use maximum
Next day	33	51	49	34	61	39	33	62	38
Local	29	10	90	33	19	81	38	43	57
Non-local	26	16	84	31	26	74	44	40	60

Note: This table tabulates, by a bank's rating of the importance of modifying next-day, local, and nonlocal funds availability policies, what percentage of banks currently use the maximum permissible holds.

¹Banks rated the importance of modifying next-day, local, and nonlocal availability schedules on a scale of one (not important) to five (very important). For this table, ratings of one and two are shown as not important, ratings of three are classified as neutral, and ratings of four or five are classified as important.

XIII. Expenditures to Prevent, Detect, and Prosecute Check Fraud

Table 13.1
Expenditures by Percentage of Total in Each Category by Asset Size

Percent				
Expenditure	Small	Medium	Large	Overall
None	6.6	1.0	0.0	6.3
Less than \$10,000	65.8	16.4	2.8	62.9
\$10,000 - \$49,999	12.9	30.3	4.5	13.6
\$50,000 - \$249,999	2.9	34.6	18.8	4.5
\$250,000 - \$499,999	0.1	3.1	21.6	0.4
\$500,000 - \$999,999	0.1	1.5	17.0	0.3
More than \$1 million	0.0	1.5	24.0	0.2
Don't know	11.7	11.6	11.2	11.6
Total	100.0	100.0	100.0	100.0

Table 13.2
Expenditures by Percentage of Total in Each Category by Entity Type

Percent				
	Commercial banks	Credit unions	Savings institutions	Overall
None	5.5	7.9	5.2	6.3
Less than \$10,000	65.4	61.6	53.0	62.9
\$10,000 - \$49,999	11.4	16.1	17.7	13.6
\$50,000 - \$249,999	4.0	4.2	9.1	4.5
\$250,000 - \$499,999	0.6	0.1	0.6	0.4
\$500,000 - \$999,999	0.4	0.0	0.4	0.3
More than \$1 million	0.4	0.0	0.1	0.2
Don't know	12.3	10.0	14.0	11.6
Total	100.0	100.0	100.0	100.0

2.3 Can you reasonably estimate the amount of check–fraud losses during calendar year 1995 that would have been avoided had the Regulation CC availability schedule permitted your institution to place a hold of two business days rather than one business day on **next–day availability items**?

- a. Yes If Yes, please specify: \$ _____
b. No

2.4 Can you reasonably estimate the amount of check–fraud losses during calendar year 1995 that would have been avoided had the Regulation CC availability schedule permitted your institution to place a hold of three business days rather than two business days on deposits of **local checks**?

- a. Yes If Yes, please specify: \$ _____
b. No

2.5 Can you reasonably estimate the amount of check–fraud losses during calendar year 1995 that would have been avoided had the Regulation CC availability schedule permitted your institution to place a hold of six business days rather than five business days on deposits of **nonlocal checks**?

- a. Yes If Yes, please specify: \$ _____
b. No

2.6 If Regulation CC were modified to allow one additional day for holds to be placed on deposits of checks, would your institution modify its current availability policy for check deposits?

- a. Next–day availability items
1. Yes If Yes, please briefly explain why: _____
2. No If No, please briefly explain why: _____
b. Local
1. Yes If Yes, please briefly explain why: _____
2. No If No, please briefly explain why: _____
c. Nonlocal
1. Yes If Yes, please briefly explain why: _____
2. No If No, please briefly explain why: _____

2.7 Specify or estimate the level of your check–fraud losses during calendar year 1995 by check type. (Enter '0' if none)

	# of cases	Est?	amount (\$000)	Est?
a. Federal government checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
b. State or local government checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
c. Cashier's checks or teller's checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
d. Certified checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
e. Payroll checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
f. Other business-to-individual checks (e.g., business travel, dividends, etc.)	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
g. Business-to-business checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
h. Postal money orders	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
i. Other money orders	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
j. Consumer-initiated checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
k. Preauthorized drafts	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
l. All other types of checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
m. Total of all categories (sum of items a through l) (2.7.m must equal 2.1.c and 2.9.g).	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>

If detail is not available for items a through l, provide total on line m. If total is unknown, write NA on line m.

2.8 Specify or estimate the level of your check-fraud losses during calendar year 1995 attributable to transaction accounts opened for:

	<u># of cases</u>	<u>Est?</u>	<u>amount (\$000)</u>	<u>Est?</u>
a. Up to 30 days	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
b. 31 days to 90 days	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
c. 91 days to 1 year	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
d. Over 1 year	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>

2.9 Specify or estimate your actual check-fraud losses by category¹: (If detailed data are not available for items d.1 through d.8, provide total counterfeits on line d.9)

	<u># of cases</u>	<u>Est?</u>	<u>amount (\$000)</u>	<u>Est?</u>
a. Forgery (either the maker's signature or an endorsement)	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
b. Altered checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
c. Kiting	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
d. Counterfeit checks				
1. Payroll checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
2. Other corporate checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
3. Personal checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
4. Money orders	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
5. Cashier's checks or teller's checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
6. Certified checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
7. Preauthorized drafts	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
8. All other	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
9. Total counterfeits (sum of items 1 through 8)	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
e. Paperhanging (checks written on closed accounts)	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
f. All other fraud cases	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
g. Total (Sum of items a, b, c, d.9, e, and f) (2.9.g must equal 2.1.c and 2.7.m)	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>

If detailed data are not available for items a through f, provide total on line g. If total is unknown, write NA on line g.

¹ If reliable data on the categories of check fraud are not available, please make every effort to categorize the type of check fraud that has caused losses to your institution.

- **Forgery** refers to stolen checks. The criminal may forge the account holder's signature or represent himself as the payee or a holder in due course of the check.
- **Altered** checks are checks that have been modified without the account holder's approval. Modifications may be to the payee, amount, date, etc.
- **Kiting** involves accounts at two or more institutions, where float is used to create fraudulent balances.
- **Counterfeit** checks are imitations or copies of genuine checks. A counterfeit check need not be a precise duplicate of a specific genuine check, but could just look genuine or "official." Today, personal computers and desk-top publishing capabilities are frequently used to prepare counterfeit checks.
- **Paperhanging** refers to checks that are written on closed accounts.
- **All other fraud cases** refers to check fraud that caused your institution a financial loss. This category includes various types of NSF checks that resulted in a loss and other incidents of check fraud not otherwise categorized.

III. Check Volume

3.1 Provide the number and dollar value of all checks that your institution handled during calendar year 1995. Include all checks deposited to customer accounts and all checks drawn against customer accounts. Omit checks processed for other financial institutions, for example, as correspondent service.

<u>Source of checks</u>	<u># of checks</u>	<u>Est?</u>	<u>amount (\$000)</u>	<u>Est?</u>
a. Deposited to accounts at your bank but not drawn on your bank	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
b. Deposited to accounts at your bank and drawn on your bank	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
c. Received for payment from other institutions; including clearinghouses, direct presentments, and Federal Reserve Banks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>

3.2 Provide the number of checks drawn on your bank that were returned (as paying bank)

	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
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IV. Funds Availability Policy

4.1 Indicate your published funds availability policy for deposits to established transactions accounts that do not qualify as exceptions under Regulation CC. Check all that apply. Assume that "same business day" is day 0.

	<u>Consumer</u>	<u>Business</u>
a. Next-day availability items:		
1. Same business day (day 0)	<input type="checkbox"/>	<input type="checkbox"/>
2. Next business day (day 1)	<input type="checkbox"/>	<input type="checkbox"/>
b. Local checks:		
1. Same business day (day 0)	<input type="checkbox"/>	<input type="checkbox"/>
2. Next business day (day 1)	<input type="checkbox"/>	<input type="checkbox"/>
3. Two business days (day 2)	<input type="checkbox"/>	<input type="checkbox"/>
c. Nonlocal checks:		
1. Same business day (day 0)	<input type="checkbox"/>	<input type="checkbox"/>
2. Next business day (day 1)	<input type="checkbox"/>	<input type="checkbox"/>
3. After next business day and before five business days (days 2, 3, and 4)	<input type="checkbox"/>	<input type="checkbox"/>
4. Five business days (day 5)	<input type="checkbox"/>	<input type="checkbox"/>

If your policy differs from the above, please specify: _____

V. Return Items

5.1 Estimate the timeliness of receipt of checks returned to your institution. Assume that the original deposit of the check at your institution is day 0.

Local checks:

Nonlocal checks:

a. One business day	_____%	a. One business day	_____%
b. Two business days	_____%	b. Two business days	_____%
c. Three business days	_____%	c. Three business days	_____%
d. Four business days	_____%	d. Four business days	_____%
e. Five business days	_____%	e. Five business days	_____%
f. Six business days	_____%	f. Six business days	_____%
g. Seven or more business days	_____%	g. Seven business days	_____%
		h. Eight or more business days	_____%
 Total	 100%		 100%

5.2 Does your institution use large-dollar return-item notifications from the paying bank to place holds on depositors' accounts?

- a. Yes If Yes, specify the percentage of cases _____% Est?
 b. No If No, please briefly explain why: _____

5.3 Can you reasonably estimate the amount of check-fraud losses that would have been prevented if the large-dollar return-item notification was made by 4 p.m. on the first business day following the day of presentment?

- a. Yes If Yes, specify the amount: \$ _____ Est?
 b. No

5.4 As the paying bank, could you provide large-dollar return-item notifications by 4 p.m. of the day following presentment?

- a. Yes
 b. No If No, please briefly explain why and indicate the earliest time at which notification could be provided: _____

5.5 Did your institution incur check-fraud losses during calendar year 1995 because you failed to receive timely notification of returned checks that exceeded \$2,500 as required by Regulation CC?²

- a. Next-day availability items
 1. Yes If yes, specify the amount \$ _____ Est?
 2. No
- b. Local checks
 1. Yes If yes, specify the amount \$ _____ Est?
 2. No
- c. Nonlocal checks
 1. Yes If yes, specify the amount \$ _____ Est?
 2. No

² Under Regulation CC, if a paying bank decides not to pay a check of \$2,500 or more, it must notify the depository bank by 4:00 p.m. on the second business day following the banking day on which the check was presented.

VI. Check-Fraud Prevention

6.1 Approximately what level of resources does your institution devote annually to the prevention, detection, investigation, and prosecution of check fraud (for example, training, computer systems, operational procedures, product management, security, and audit)?

- a. None
- b. Less than \$10,000
- c. Between \$10,000 and \$49,999
- d. Between \$50,000 and \$249,999
- e. Between \$250,000 and \$499,999
- f. Between \$500,000 and \$999,999
- g. More than \$1 million
- h. Don't know

6.2 Specify the number and dollar amount of **unsuccessful** check-fraud attempts (no loss sustained at your institution) that your institution experienced during calendar year 1995 by category.

	<u># of attempts</u>	<u>Est?</u>	<u>potential loss (\$000)</u>	<u>Est?</u>
a. Forgery	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
b. Altered checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
c. Kiting	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
d. Counterfeit checks	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
e. Paperhanging	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
f. Other	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>
g. Total (sum of items a through f)	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>

If detail is not available for items a through f, provide total on line g. If total is unknown, write NA on line g.

6.3 Please indicate the importance of the listed actions in addressing the check-fraud issue.

	Not Important			Very Important	
	1	2	3	4	5
a. Modifying the Regulation CC next-day availability schedule	1	2	3	4	5
b. Modifying the Regulation CC local availability schedule	1	2	3	4	5
c. Modifying the Regulation CC nonlocal availability schedule	1	2	3	4	5
d. Modifying the Regulation CC new-customer exception hold	1	2	3	4	5
e. Converting business/consumer payments to electronic form (financial EDI, direct deposit, home banking, etc.)	1	2	3	4	5
f. Speeding/improving the check return system	1	2	3	4	5
g. Speeding/improving large-dollar return-item notifications	1	2	3	4	5
h. Training employees in check-fraud detection/prevention	1	2	3	4	5
i. Improving communications among depository institutions regarding check-fraud activities	1	2	3	4	5
j. Requiring additional security features on all check stock	1	2	3	4	5
k. Using automation and software applications (positive pay systems, automated signature verification, negative file, etc.)	1	2	3	4	5
l. Other, specify: _____	1	2	3	4	5

VII. Comments

Please provide any comments that would be useful in assessing the extent of check fraud.
(attach additional pages if desired.)

Public reporting burden for this collection of information is estimated to average nine hours per response, including the time to gather and maintain data in the required form and to review instructions and complete the information collection. Send comments regarding this burden estimate or any other aspect of this collection, including suggestions for reducing this burden, to: Secretary, Board of Governors of the Federal Reserve System, 20th and C Streets, NW, Washington, DC 20551; and to the Office of Management and Budget, Paperwork Reduction Project (7100-0279), Washington, DC 20503.

Federal Reserve Check-Fraud Survey

This report is authorized by law [Pub. L. 103-325, Title III, §333]. Your voluntary cooperation in submitting this report is needed to make the results comprehensive, accurate, and timely.

The Federal Reserve may not conduct or sponsor, and an organization (or a person) is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Purpose

The Federal Reserve Check-Fraud Survey will help to determine the extent of losses related to check fraud that are caused by the availability schedules, which are mandated by the Expedited Funds Availability Act and implemented through Regulation CC. The data will provide input to a study that the Congress has directed the Federal Reserve Board to conduct concerning the advisability of extending the permissible hold period for local checks by one business day. All participants will receive a copy of the final report to Congress.

Instructions

Survey period

The survey covers losses caused by check fraud during the one-year period from January 1, 1995, through December 31, 1995.

Organization

The survey document consists of seven sections. If your institution did not incur a loss caused by check fraud during the survey period, answer 'No' to question 1.2 and complete sections III through VII. Return the completed survey in the envelope provided.

NOTE: Report dollar amounts to the nearest thousand (\$000s). Report percentages in whole percents.

NOTE: If you are unable to isolate your response by category, please provide the total. If you are unable to provide any information, please write "NA" on the "Total" line.

Section II seeks (1) to quantify the number of cases and amount of losses resulting from check fraud during the survey period, (2) to determine whether some portion of your institution's losses related to check fraud could have been avoided if Regulation CC allowed an additional day to hold funds, and (3) to categorize the losses from check fraud.

NOTE: The totals for questions 2.1.c, 2.7.m, and 2.9.g should equal your institution's total losses from check fraud.

Section III asks for the number and dollar value of checks handled by your institution during the survey period.

Section IV asks about your institution's funds availability policy.

Section V seeks to determine your institution's experience with timely receipt of returned checks and large-dollar return-item notifications.

Section VI seeks information concerning actions your institution is taking to prevent check fraud and your priorities for further action to address check fraud.

Section VII requests comments that may assist the Federal Reserve in its assessment of check fraud.

Reporting estimated data

Your institution may not maintain data on check-fraud losses in the same categories or in the same detail requested on the survey form. In these cases provide an estimate of your losses. Some questions are accompanied by the term "Est? " next to the place for your answer. Check this box to indicate

that your response is an estimate. If your response to a question is based on reliable data, or is based on what you believe to be a precise estimate, then do not check the box.

Check-Fraud Survey Hotline

If you have any questions about how to complete this survey, please call the Check-Fraud Survey Hotline: 1-800-281-4930.

Return of the completed survey

Please make sure that you have provided the name and phone number of a person who should be contacted if there should be any questions about your response. Send the completed form to:

Mr. Nicholas Gerbino, Manager, Internal Reports Unit, Mail Stop #170, Federal Reserve Board, 20th and C Streets, NW, Washington, DC 20551, in the envelope that has been provided, by **April 12, 1996**.

Glossary

The meaning of the terms used in the survey generally correspond to the definitions in Regulation CC.

Bank means an "insured bank" as defined in section 3 of the Federal Deposit Insurance Act, including commercial banks, mutual savings banks, and savings banks. The term also includes insured credit unions as defined in the Federal Credit Union Act, a "member" as defined in section 2 of the Federal Home Loan Bank Act, an "insured institution" as defined in section 401 of the National Housing Act, and an agency or branch of a foreign bank as defined in section 1(b) of the International Banking Act.

Bank of first deposit means the depository bank; the first bank at which a check is deposited.

Check is a demand draft drawn on or payable through or at a bank or a state or local government entity. For purposes of this survey, the term check also refers to a share draft drawn on an account at a credit union.

Check fraud includes altering an authorized check, forging the maker's signature, forging the payee's endorsement, creating unauthorized check stock, and check kiting. Check fraud could be perpetrated by an authorized person or by a person unknown to the account holder. Check fraud also includes dishonored checks, that

is, checks returned for non-sufficient funds (NSF), account closed, and stop payment, where a depository institution is not able to recover the funds. Internal check fraud (by employees) is not to be included unless it was part of an organized effort that involved parties outside of your institution.

Consumer-initiated check means a check written and drawn on the personal account of the maker.

Dollar amount of losses means losses before recoveries associated with the cases identified.

Expedited Funds Availability Act refers to the federal law enacted by Congress in 1987 that requires banks to follow uniform funds availability schedules in processing checks or drafts deposited into an account.

Local check means a check payable by a local paying bank. A local paying bank is a paying bank located in the same Federal Reserve check processing region as the depository bank.

Next-day availability means that funds deposited in an account are available for withdrawal not later than the business day after the banking day on which the funds were deposited. Types of checks with next-day availability include, under certain conditions: Treasury checks; U.S. Postal service money orders; Federal Reserve Bank or Federal Home Loan Bank checks; state or local government checks; cashier, certified, or teller's checks.

Nonlocal check means a check payable by a nonlocal paying bank. A nonlocal paying bank is a paying bank that is not located in the same Federal Reserve check processing region as the depository bank.

Number of cases means the number of incidences of check fraud that occurred during calendar year 1995. Each fraudulent check should be counted as one case.

Paying bank means the bank through which a check is payable and to which it is sent for payment or collection.

Recoveries means monies recovered during calendar year 1995. Recoveries may not directly correspond to the number of cases or dollar amount of losses during 1995.

Regulation CC is the Federal Reserve regulation implementing the Expedited Funds Availability Act. The regulation specifies funds availability schedules with which banks must comply and procedures for returning dishonored checks.

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