
Appendixes

Appendix A

Other Questions and Issues Concerning Electronic Funds Transfer

Appendix Summary

Privacy, security, and equity in electronic funds transfer (EFT—the focus of this background paper—are only three of the many issue areas concerning EFT that are as yet unresolved.

One other cluster of major questions points to two fundamental and related issues: 1) Will the future usefulness and cost effectiveness of EFT be limited unless Federal and State laws are changed to allow EFT to operate across jurisdictional boundaries, under uniform rules and procedures? 2) Are the risks to small financial institutions and to a decentralized and disaggregated financial services industry so large that existing restrictions should be maintained and perhaps strengthened?

A second group of questions has received so little attention that they have yet to be articulated as public policy issues. These concern possible consequences of EFT for the Nation as a whole, aside from its financial structures. Some of these questions involve the effects of large-scale EFT systems on national welfare and national security. Other, broader questions relate to changes in the number and nature of jobs in the future. Many of the broad indirect, effects of EFT perhaps have not yet been anticipated.

A third group of questions relates to the effects of EFT on consumers of financial services, and equally important, on those in society who are not (or not yet) consumers of financial services. These include issues concerning the role of the Federal Government as a user, regulator, and/or provider of EFT services, as well as the issues of privacy, security, and equity discussed in chapters 4, 5, and 6 of this background paper.

The future effects of wide-scale adoption of EFT are, in fact, difficult to forecast. Much depends on the relative speed with which EFT is adopted, the level of use it finally achieves, and the changes that will occur in these and alternative technologies over time. The use of EFT could eventually be widespread, almost complete-

ly replacing some alternative means of delivering financial services and carrying out transactions.

This makes it important that attention be paid to the full range of potential impacts on society, as well as to perceived areas of concern such as privacy, security, and equity. There has been as yet no comprehensive, exhaustive search for such downstream effects.

EFT and the Structure of the Financial Services Industry

EFT systems and services affect the relationships between financial services and among providers of financial services. The changes this might bring about in the financial services industries, and whether any of these changes will significantly affect the public interest, raise a number of questions and issues.

Should automated teller machines (ATMs) and point-of-sale (POS) terminals continue to be defined as branch banks?

In January 1974, the Federal Home Loan Bank Board (FHLBB), which regulates savings and loan associations (S&Ls), allowed the Federal Savings and Loan Associations of Lincoln, Nebr., to place EFT terminals in the Hinky Dinky Supermarkets. The terminals allowed customers, with the assistance of the supermarket personnel, to make deposits or withdrawals from their savings accounts and to cash checks. Although financial institutions had been experimenting with EFT, this event shocked the industry. It involved S&Ls in an activity that looked very much like banking, and it made merchants look very much like bank officers. The Comptroller of the Currency immediately ruled that ATMs and POSs were not branch banks so that banks could deploy terminals: otherwise commercial banks in many places would be unable to compete with S&Ls (1). However, this finding was reversed in a court case that was carried to the Supreme Court (2).

The 1927 McFadden Act defined a branch bank as a location where deposits were received, checks paid, and money lent. The Banking Act of 1933 allowed federally chartered banks to have branches only where State banks were authorized to branch under State law.

Generally, only commercial banks are subjected to branching restrictions. Federally chartered thrift institutions are not so restricted, and Federal S&Ls may have branches if approved by FHLBB. However, the FHLBB usually has adhered to State or metropolitan area boundaries in allowing branches, although a recent FHLBB policy permits deployment of remote service units across State lines. Illinois and West Virginia completely forbid branching, although Illinois has passed legislation that permits the phased deployment of ATMs.

Strong opposition to branch banking developed at the turn of the century. This was based on fear that it would lead to industry concentration; place small, independent or unit banks at a disadvantage; and deprive small communities of access to credit and financial services (3). Proponents of branch banking argue that it stabilizes cash flow, prevents bank failures, provides an expanded range of services in small communities and neighborhoods, improves local sources of credit, generates economies of scale (thus reducing consumer costs), and meets the needs of a highly mobile population.

Since ATMs and POSS are defined as branch banks, they are subject to the same approval criteria as "brick and mortar" branches. This places commercial banks at a disadvantage compared with other financial institutions. The National Commission on Electronic Funds Transfer (NCEFT) therefore recommended changes in legislation. Illinois, a unit banking State, has now passed legislation that permits the phased deployment of offsite ATMs, although "brick and mortar" branches are still prohibited (4).

EFT devices could be exempted from laws restricting branch banking. Alternatively, States could authorize their use statewide and enter into reciprocal agreements with other States for out-of-State utilization. Or the Federal Government could preempt State action and authorize EFT devices nationwide. Such proposals have been meeting strong opposition from some small banks, from consumer groups who fear the growth of banking oligopoly, and from many States opposed to preemption (5). However, as already described in chapter 3, many nondepos-

itor financial institutions are developing interstate EFT services.

Should shared EFT networks be permitted, made mandatory, or be prohibited?

Small institutions may be unable to enter the EFT market unless they have access to EFT networks. Because investment costs for EFT networks are high and the economies of scale are large, small institutions want to be able to establish EFT networks through joint ventures or cooperative efforts. This immediately raises questions about antitrust rules. Soon after the first off site ATMs were placed in 1974, 20 States responded to this concern by passing mandatory sharing laws under which any EFT network established must grant access to any qualified institution seeking it. Nine States have "permissive" sharing laws. Some of the shared (or proprietary) systems have "like" members (e.g., all S&L associations) and some have unlike members (6).

Concerns then are raised about whether some shared systems are so inclusive as to dominate their market and preclude new entries, thus foreclosing further innovation and development. Antitrust law is meant to encourage competition among firms, rather than joint ventures; but it allows for cases where risk is greater and/or economies of scale are greater than individual firms can accommodate (7).

Some shared EFT networks have become very large. The Nebraska Electronic Transfer System (NETS) included 86 percent of all commercial banks in the State, and the Department of Justice brought action against it as anticompetitive (8). The Department of Justice issued a letter warning that automated clearing house (ACH) associations had established exclusionary policies that discriminated against some classes of institutions (9). As a result, ACHS have been directed to provide service to all depository institutions (10).

NCEFT recommended that sharing or nonsharing be left to market force determinants, subject to antitrust proceedings when reasonable bounds were exceeded. The policy issues involved are the following:

- What is the best way to assure access for small firms, yet provide the maximum competition that markets can support?
- Should shared networks that dominate a market area be regulated as a public utility?
- Should this be decided on a State-by-State basis?

Should foreign financial institutions have unrestricted entry into the American EFT market?

Foreign banks may establish branches in multiple States, while an American bank may not buy a bank or establish a branch in another State. Some argue that this puts American banks at a relative disadvantage. If foreign banks choose to expand the number of States in which they operate, and especially if they expand EFT services, Congress will be urged to address this issue.

Might EFT change the structure of the financial services industry and, in so doing, reduce the viability of small financial institutions?

There are about 40,000 depository institutions in the United States, most of which are small. In 1979, the largest bank had about \$62 billion in assets, and the bank that ranked 132 had about \$1 billion (11). There is concern that EFT may place small institutions at a greater disadvantage because:

1. of the capital costs of the EFT technology,
2. EFT may lead to a change in the laws restricting branch banking, or
3. small banks cannot gain access to important EFT communication networks.

There is no evidence that this is happening at the present time. EFT technologies, such as ATMs, are becoming less expensive while labor costs continue to rise. Some observers say that small institutions are adopting EFT systems more rapidly than larger institutions. Changes in branch banking laws, however, could change the situation in the future. The viability of small financial institutions may also be threatened, perhaps to a greater degree, by other factors such as high interest rates, deregulation, and competition from large financial services conglomerates. For example, these factors are contributing to a significant increase in the number of mergers among savings and loan institutions.

EFT and the National Welfare

Aside from the potential impacts on individuals and groups, and on payment systems and the financial services industries, there are potential impacts of a more general nature that should be considered. One is the dependence on a complex technological system or systems for functions that are essential to the Nation's welfare and security. Another is the effects on nonfinancial businesses and commercial activities and on employment throughout all economic sectors. A third is the

impact on Government itself and on the delivery of Government services.

Would increased dependence on EFT create increased vulnerability to national enemies, terrorists, or natural disasters?

When a community or society becomes dependent on a complex technological system and allows older, perhaps less efficient alternatives to disappear, any failure or disruption of the system can create a crisis—sometimes a catastrophe. A city can be thrown into turmoil by disruption of a number of systems, such as potable water supply, waste pickup, sanitation, telephone, transit, etc. But an electrical blackout has more serious and immediate effects, and if citywide or prolonged it can be disastrous. There are few or no practical alternatives left for most of the functions performed by electricity, at least in the short run. Even at the national level, any disruption of systems on which people have become dependent (such as air travel, mail service, or petroleum delivery) can cause severe economic loss and personal suffering.

Complex systems can be disrupted for many reasons, such as normal component failure, human error, sabotage, or a natural disaster. The question is whether the Nation as a whole can be put at risk or coerced by the threat of disruption of EFT systems by, for example, violent political dissent, terrorism, or attack by external enemies (12). (See table A-1.)

Terrorists might attack EFT systems for several rather different reasons. One is to gain funds (and conceivably data) to support revolutionary activities. Other, more direct motivations might be: 1) to disrupt a system essential to the economic functioning of a community or region in order to demonstrate the power, commitment, and ruthlessness of a terrorist group, or 2) to lend

Table A-1.—A Comparison of EFT Threat Levels by Source of Threat

	Past threat all computer crime	Future threat massive EFT losses
Amateur white-collar criminals	High	Low
Deranged individuals	Low	Medium
Unethical business enterprises	High	High
Career criminals	Low	Low
Organized criminal groups	Low	Medium
Extreme economic advocates	Low	Medium
Extreme political advocates	Medium	High
Foreign powers	Low	High

SOURCE: Donn B. Parker, SRI International, in "The Potential Effects of Electronic Funds Transfer Systems on National Security Session 19," International Conference on Computer Communication, Atlanta, Georgia, 1980.

credibility to their threats in order to force governments to take some action (e. g., to release 'political' prisoners or pay a ransom).

It is possible to "harden" the security of EFT systems and/or provide backup computer capability as such threats materialize. However, this would increase costs and thus slow the adoption of EFT systems. It is unlikely to be undertaken on a major scale unless and until the threat to national security has been demonstrated to be real.

How would nonfinancial businesses and general employment levels be affected by widespread use of EFT?

Little systematic attention has been given to this question. It is clear that all businesses—not merely financial institutions—will feel the impact of EFT; indeed some are already affected. Many, and quite possibly most, businesses will eventually use EFT for some or all of the following functions:

- automatic deposit of payrolls;
- automatic registration and cataloging of accounts receivable by the bank;
- payment of bills; and
- general management of financial assets.

It is reasonable to assume that the clerical work force will be affected, both by microeffects (on the number and kinds of office workers needed by individual businesses) and by macroeffects (on the kinds of workers in demand and on the level of employment in some categories of jobs, on a national level). The exact nature and degree of such changes is poorly understood at present. EFT will tend to reduce the number of clerical jobs, but how much is still unclear.

One organization that may experience adverse effects is the U.S. Postal Service. Much of the volume of first class mail is related to financial transactions, probably about 60 to 70 percent (13). Roughly 50 percent of postal revenues are generated by first class mail (14). The costs of handling this category of mail are relatively insensitive to volume; large decreases in the volume of first class mail handled would have serious consequences for the financial viability of the Postal Service as now constituted.

Some EFT services would tend to increase the volume of payments-related mail; e.g., a switch from passbook savings to services where monthly printed statements must be sent to customers. However, this is likely to be far outweighed over time by the negative impacts of other EFT services, such as automatic bill paying and the direct deposit of paychecks and social service checks.

Even monthly statements may eventually be sent electronically to business computers or home terminals for printout onsite.

The Government Role in EFT

Another controversial issue is the question of the appropriate role for the Federal Government. Federal agencies will continue to be among the largest users of EFT services. What, then, are the potential impacts of EFT on delivery of Government services, and what might be the secondary impacts of reliance on EFT? Because payment systems are intimately related to the integrity and health of the Nation's economy and social well-being, their proper functioning is a matter of public interest and national concern. How should responsibility for their monitoring and regulation be allocated among Federal, State, and local governments and industry self-regulation? A Federal entity, the Federal Reserve Board, now operates ACHS, a crucial link in the developing network of EFT services, Is this a necessary and appropriate role? Should it be expanded or contracted?

Thus, the Federal Government has at least three roles in relation to EFT—user, regulator, and provider. Each role causes some concern or controversy on the part of some other actors in EFT development. The question of possible abuse of EFT systems for Government surveillance is considered in chapter 4.

As a user of EFT, the Federal Government already makes a significant portion of social security payments through EFT (about 30 percent in 1980), as well as some payroll deposits (15). Potentially all payrolls, retirement benefits, unemployment checks, veterans benefits, disbursements to State and local governments, and payments to contractors could be handled through EFT. Federal law now prohibits mandatory automatic deposit of benefit checks into a depository institution, but the costs of maintaining dual-payment systems will eventually have to be balanced against these other potential social costs.

The financial services industry generally would prefer a minimum of regulation, except that each category of financial institution wishes its competitive position vis-a-vis other kinds of institutions to be protected. Because States may have different policy positions toward such issues as branching and sharing of EFT networks, they are reluctant, for the most part, to have their regulatory responsibilities preempted by Federal ac-

tion. Dual systems of regulation can cause problems for the industry in the future, but many smaller institutions are fearful that Federal preemption would void State laws designed to protect them against any tendency toward concentration in the financial services industry.

Many consumer groups, on the other hand, want, stronger Federal legislation in the areas of privacy, security, and equity. Civil libertarians argue for stronger laws in these areas to limit access to data for the Federal Government, as well as for State and local governments and private sector organizations. Some observers believe that the Federal Government has a responsibility? to aggressively protect EFT systems from potential abuse or illegitimate and/or illegal use. Extension of the Bank Protection Act and Regulation P to cover EFT systems and services has been suggested.

The Federal Reserve System (FRS) now operates all but one of the 32 ACHS. This developed as an extension of the FRS role in operating a check-clearing network, an activity based on the Federal Reserve Act of 1913. This act was passed following the financial crisis of 1907 when it became clear that the private sector was not performing this task effectively (16). FRS provided the check-clearing service in a cost-effective manner, assuring access to the system for all depository institutions (17). This has also been true of ACH operations.

In 1978, the regional ACHS were linked by a communication system. FRS and the American Bankers Association have developed standards that will permit ACHS to clear customer-initiated individual entries originated by telephone, ATM, or POS (18). FRS is now implementing a new communication network that will carry ACH and Fedwire transactions as well as administrative messages. These activities suggest that FRS intends to maintain a major role as a provider of EFT services (19).

FRS became the major ACH service provider because of its early development of and support for ACHS and because its services were supplied for the most part without charge to its members. However, the Financial Institutions Deregulation and Monetary Control Act of 1980 (20) forced FRS to charge for its services.

Nevertheless, some financial institutions and associations object to FRS as a provider of EFT services, claiming that it unnecessarily competes with private sector institutions, and that the inevitability of cost- subsidy will discourage private

entry. Critics also say that the FRS role as a provider of services conflicts with its role as regulator of financial service providers, and that it provides a dangerous invitation to Government surveillance (21).

On the other side, including the National Commission on Electronic Funds Transfer, are those who argue that the clearinghouse function is one that should be considered a natural monopoly because the economies of scale are so large; yet the investment required makes it impractical for any one private sector organization to fulfill this role as efficiently as can FRS (22). In addition, they argue, FRS can be counted on to provide service to all, i.e., to guarantee equity of access.

Appendix A References

1. Working Paper A. Imperial Computer Services, *Electronic Funds Transfer: The Policy Issues* (May 1979), p. 14.
2. *Independent Bankers Association of America v. Smith*, No. 75-1786 (D.C. Cir., Mar. 27, 1976, Aff'g 402 F. Supp. 107 (1975).
3. Working Paper A., p. 23.
4. 111. Rev. Stat. ch. 16^{1/2}, par. 105, sec. 5(16), as amended by Public Act No. 81-841 (1979).
5. working Paper A, pp.23-24.
6. *Ibid.*, pp. 26-30.
7. *Ibid.*, p. 27.
8. Letter from Donald I. Baker, U.S. Assistant Attorney General, Department of Justice Antitrust Division, to William B. Brandt, pursuant to business review requested Mar. 7, 1977.
9. NETS requested and received a Business Review Letter from the Department of Justice which suggested that the mandatory sharing of Nebraska law and in turn NETS could be anticompetitive. As a result of this suggestion, NETS restructured itself but the law remains the same. (Sept. 30, 1981 letter to OTA from William H. Riley.)
10. *U.S. v. Rocky Mountain Automatic Clearinghouse Association*, Civil No. 77-A 319 (C. D. CO10. filed Apr. 27, 1972); *U.S. v. California Automatic Clearinghouse Association*, Civil No. 77-1643, filed May 6, 1977. See Working Paper A.
11. There are approximately 14,000 commercial banks, 4,850 savings and loan associations, 22,000 credit unions, and 470 mutual savings banks. See Working Paper A, p. 9. and *Moody's*, 1979.
12. For a discussion of this issue see Dorm B. Parker, "The Potential Effects of Electronic Funds Transfer Systems on National Security", in Session 19, Applications of Communications Technology? Electronic Funds Transfer, of the International Conference on Computer Communications, Atlanta, Ga., 1980.

13. Working Paper A, p. 59; see also *The Report of the Commission on Postal Service*, April 1977.
14. Ibid.
15. Ibid., p. 60. See also "Automated Clearing House Network, Its Progress, Problems, Potential," *Banking*, March 1979.
16. Eger, "The Role of the Federal Reserve in Electronic Funds Transfer—An Executive Perspective," 25 *Catholic University Law Rev.* 139 (1976).
17. "Federal Reserve Options in Payment Mechanisms: A Summary," 62 *Federal Reserve Bulletin* 485 (1976); "Social Security Direct Deposit is only the Beginning," *Savings and Loan News* (July 1978), p. 66.
18. Working Paper A, p. 52. See also, Sept. 17, 1981 letter to OTA from Elliot C. McEntee of the Federal Reserve System.
19. See 58 *Federal Reserve Bulletin*, 1010, 1972: It is anticipated that the Federal Reserve System will install and manage a nationwide communications network through which inter-regional settlements between financial institutions will be made.
20. Public Law 96-221.
21. For a further discussion of arguments for and against continued Federal Reserve operation of ACH, including the privacy issue, see Working Paper D: Irvine Research Corp., *An Assessment of Equity and Privacy Issues in Electronic Funds Transfer* (September 1980), pp. 163-168.
22. Ibid., p. 167. See also Working Paper A: Imperial Computer Services, *Electronic Funds Transfer: The Policy Issues* (May 1979), pp. 48-51.