Developing an Electronic Funds Transfer System: Incentives and Obstacles

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Introduction

The purpose of this paper is to set forth the principal issues which face those responsible for decisions affecting the timing and direction of movement toward an electronic funds transfer system (EFTS) in the public and private sectors. Lest the word *issue* be read as a pale or vague generality, let us understand that we will be talking about the areas of fact or of policy around which there are sharp disagreements or controversy, either because we do not or cannot yet know what the facts are, or because we have recognized that actions may be taken which serve some interests and harm others. In developing the dimensions of these areas of disagreement or controversy, we will necessarily be confronted with the array of incentives operating on each of the interested parties, and the obstacles facing them. To tell the full story, we will find it useful to recognize some dis-incentives and some non-obstacles, as well.

The treatment of some issues in this paper will be brief, since the papers to follow will concentrate on a number of them and emphasize the perspective of each of the major payment system participants.

Background

This is neither the time nor the place for a detailed history of the development of elements of an electronic funds transfer system for the United States. That history is far from complete and a substantial number of those who have made and will make that history are participating in this conference. There are, however, several important facts in the history which must be understood because they shed considerable light on the issues.

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Earliest concern with the payment system was rooted in the fear that growing check volumes posed a threat to the continued satisfactory performance of the system. Studies sponsored by the Federal Reserve System and by several national associations of commercial banks in the 1960s placed virtually their entire emphasis on two areas: measuring the national check volume, the pattern of the flows of checks into and through the banking system, and check processing costs; and offering technical and economic feasibility assessments of electronic alternatives of the time to the check clearing and collection system. The emphasis throughout was on the use of electronic means to replace checks, or to reduce check handling, through systems created and cooperatively operated by groups of commercial banks, with a key role implied or advocated for the Federal Reserve System. The SCOPE program in California was initiated during this period, and throughout its history has reflected the emphasis and philosophy of those early studies. It was designed to create, and did eventually lead to the creation of, a regional system for displacing checks by substitution of preauthorized electronic payments.

If one grants the premise that the paper-oriented payment system was inevitably headed for operational difficulties, there is no ground for arguing with the concepts or objectives of these early studies and the California SCOPE project. Clearly, it is in the interests of the commercial banking industry, and the society it serves, to make changes that will prevent an otherwise inevitable catastrophe. I think we will all agree that serious breakdown in the check payment system — such as inability of many banks to make the proper debit and/or credit entries ordered by their customers with the accuracy and promptness they expect — would be a catastrophe. The system is the most visible and most widely relied on service provided by commercial banks; and any widely known disruption in its performance would be taken as a serious indication of not only operational but financial difficulties in the nation's banking system.

Whether the risk of such a disruption ever has or ever will exist is a question that has been debated and researched, but there is still no consensus on the point. Some observers cited the rate of growth of check volume during the 1960s, and noted as an analogue the operational difficulties in the brokerage industry, as proof that trouble with the check payment system was inevitable. The analogy was false then, and still is. Research by our company for the Monetary and Payment System Committee in 1970 indicated that the banking system had at least 10 years during which the check payment system would survive, and that these years would afford time for experimentation and evolutionary development toward an electronic funds transfer system. Our conclusion did not embody a recommendation that the banks do nothing for 10 years, nor did we imply that a breakdown in the check payment system was inevitable some time after 1980. Experience with the check processing system since 1970 shows that our finding is at least 40 percent right — we have made it through 4 years of the 10-year decade.

However, there is still varied opinion on the ability of the system to be kept in a healthy condition. Clearly, it will not remain operationally sound without continuing careful management and investment; few systems do. There are those who insist that the system is not only performing well, but could be improved through wider use of available technology and through some procedural modifications involving agreements between commercial banks and with the Federal Reserve System. Others are deeply concerned about the evidence of high costs and large and rising numbers of malfunctions in the system. A recent study of the performance of the system by the Bank Administration Institute showed that the cost of processing exception items reaching the check processing area was approximately 25 percent of the industry's 1973 direct check processing costs, and attributed the increasing number of exception items to the extraordinary higher speeds of check processing currently experienced and the increasing volume of checks. The escalating cost of handling exception items results from growth in the complexities and time involved in resolution, reconcilement and adjustment of cash letter differences and discrepancies. Thus, one might conclude that it depends not only on the evidence in hand, but also on your view of the situation — whether you think efforts to develop an electronic funds transfer system can be justified entirely on the grounds of the necessity to avert inevitable disaster in the check processing area.

It must be recognized that we are talking about a system with a high level of interdependence among the participants. One bank, or the banks in one area, may, for whatever reason, have their portion of the system under tight control. However, they cannot maintain the health of the system alone. This interdependence seems likely to continue, no matter what changes are made to the current system or new systems introduced. The system has also been characterized as highly flexible and its flexibility has been cited as one of its great strengths. Only if this flexibility is preserved, and every check can move quickly and accurately by some means from the bank of first deposit to the writer's bank, will users of the system remain satisfied.

The Federal Reserve System has taken steps to speed the movement of checks and to reduce float, both aimed at providing a more efficient payments system to the public. The step with the greatest impact to date has been the combined introduction of regional check processing centers and the changes in schedules of fund availabilities. Spokesmen for the system maintain that these actions are having the desired effect. I have no reason to take issue with that view. However, we should recognize that there are three closely related characteristics of the check payment system. The amount of float, the quality of system performance, and the total cost of the system are like three sides of a triangle; none can change without changing at least one of the others. The desire to gain fund availability spurred commercial banks to speed up check processing in every possible way. The Federal Reserve System has introduced regional check processing centers and changes in operating rules and regulations to reduce

float, and these moves have the effect of making the commercial banks try to move checks even faster. The ultimate balance among float, system performance and system cost is determined by Federal policies and the profit maximizing decisions of commercial bankers. Thus, the Federal Reserve must recognize the possibility that actions it takes to achieve entirely proper goals may have negative impacts on the quality of performance of the system. Moreover, as the Federal Reserve assumes responsibility for a larger operating role in the check processing system, its own quality of performance gains greater importance in determining overall system performance. There are commercial bankers who express critical views of the operating performance of the Federal Reserve and hold their component of the system partially responsible for deteriorating check collection performance.

To sum up this point, it is still not clear that the original reason cited for undertaking development of an electronic payment system is valid, nor is it clear that the cooperative, check-processing-oriented changes resulting from following through on that assumption would be successful in displacing enough check volume to avert the expected system breakdown.

Fortunately, commercial banks, other depository institutions, several agencies of government, and private nonfinancial corporations have shown interest — in varying degree — in participating in the development of an electronic funds transfer system, for reasons having little or nothing to do with present or possible future inadequacies of the check collection system. The most important single lesson in the brief history of the development of an electronic funds transfer system is that the original reason for advocating change did not and never would have attained the necessary broad support, but incentives unrelated to the original reason have appeared which now seem likely to bring major changes, including the displacement of a substantial portion of total check volume.

So, while events are moving ahead to replicate the results of the California SCOPE program by creating automated clearing houses in other parts of the country and coordinating this activity through the National Automated Clearing House Association, the emphasis in thinking and action in EFTS development is elsewhere.

With the exception of the concern of thrift institutions over their means of access to automated clearing houses, most of the controversy and serious policy issues now center on the point-of-sale terminal, automated banking equipment, and supporting communications facilities. These technological possibilities raise serious questions of locations, sharing, control, standards, and access because depository institutions and retailers perceive their considerable potential for improving or endangering competitive relationships in the provision of payment services and credit to consumers. Thus, most of the action in the payment system arena now results from strong competitive incentives and fears of partial or complete loss of market position. "Serving the public" is advanced as the motivation by spokesmen for financial and nonfinancial institutions involved in payment-system developments. Concern for the public may

not be lacking, but the old Quaker motto appropriately describes the real motivation — "Doing well by doing good".

If we are to deal realistically with the subject at hand, we should recognize the true incentives and obstacles that affect the behavior of government, private institutions, and individuals with respect to payment-system change. In many respects, they are not mutually compatible. Only by recognizing and understanding the basis for the forces currently operating in the payment-system area can viable public policy and private strategic and tactical plans be formulated and implemented.

Incentives and Obstacles

In searching for an appropriate title to describe the content of thi paper, we looked for a pair of words which would suggest a balance treatment dealing with the factors which are currently operating to lead i the direction of change in the payment system and those operating to pre serve the status quo. Pairs of words like pro and con, positive and nega tive, benefits and costs, and others came to mind, but each was inad equate to some degree. The longer I have lived with "incentives" an "obstacles" the more uncomfortable I have become, since there is a stron value connotation in these words. "Incentive" suggests a good or en nobling motivation and "obstacle" suggests a regrettable, negative, poten tially harmful barrier we wish were not there. Beyond that, the char acterizing of forces or realities as incentives or obstacles persumes th writer has identified with a particular perspective or viewpoint on the sit uation, since one man's incentive may be another man's obstacle. Un fortunately, we have found no better terms, so I must leave to you th discounting of the value judgments inherent in the two words.

I propose to set down briefly the incentives and the obstacles that ap pear to be operating currently for each of the participants in payment-sy tem developments and then discuss the sources of these incentives and ol stacles in terms of a series of focused issues, which have emerged fro research by the Arthur D. Little team during our current assessment the impacts of payment system changes for the National Science Found tion. Several other participants in this conference are related to th project in some way and I am sure their prepared papers or occasion comments will amplify — and perhaps occasionally differ from — m remarks.

There are three major incentives operating, and in the interest of alli eration, I will express each beginning with the letter "P" — Profit, Pe sonal Benefits, and Public Good. Profit is the ultimate aim sought by a private business organization in considering its role in the payment sy tem. This includes commercial banks, and other depository financial i stitutions, non-depository financial institutions, retailers, and all oth non-financial and non-retail private business organizations. The particul characteristics of each business organization dictate the manner in whi payment system change can influence profits, and therefore the issu which appear to dominate its thinking in this area.

For example, an integrated steel producer has devoted no thought to point-of-sale terminals, acceptance of a debit card for purchases, Bill-Check, or any other consumer-payment-oriented mechanism. The firm's financial officers may be considering the effect on payroll preparation costs and on employee attitudes — particularly evidenced through union behavior — since these are the forces operating to influence a decision to take part in a preauthorized payroll deposit program. Effects of such a program on float, and the effects on float of any change in the manner of handling business-to-business payments are of great importance to the integrated steel producer and are ultimately expressed in implications for costs, income, and profits.

The consumer-oriented, non-financial business that is not in the retail merchant category, such as a utility, a transportation company or a professional service business, is concerned with the profit implications of changes in the means of billing and receiving payments from customers, as well as changes in payroll and business-to-business payments. Retail merchants have the added requirement to weigh the profit implications of changes in the way payments are received from customers at the point of purchase and whether the payment procedure may impact current practices in the use of credit as a merchandise tool.

Finally, financial institutions recognize the possible implications on profits of providing new payment services, with attendant implications for costs and revenues. Major concerns over gains or losses in market share, opening up new markets to themselves or competition, and possibilities for cross-selling customer services make the implications of payment-system change on profit abundantly clear to financial institutions, and most particularly depository institutions. Thus, profit, or its surrogate in a cooperative or mutual organization, must be the ultimate incentive in decisions on the role of the private business in payment-system change.

Personal Benefits, when compared to personal costs, will ultimately determine the acceptance of new patterns of payment-related behavior by individuals. Thus changes which preserve or improve choice and control, offer convenience and a necessary degree of privacy at acceptable costs will be welcomed by the individual. Individuals appear from our research, and from the research of others, to be quite well satisfied with the service they receive from the present payment system; therefore, the word incentive hardly seems appropriate in characterizing current attitudes of individuals toward payment-system change. Incentives will have to be created, in the form of enhanced service characteristics and/or lower costs in time, effort, or dollars, before individual attitudes will begin to change significantly.

Public Good and its enlargement lie at the root of actions by Federal Government agencies to influence payment-system developments. The direct deposit program of the Treasury is an attempt to increase the security of the public funds distributed to individuals and lower the cost involved. The Federal Reserve System seeks to improve the efficiency of the nation's payment system, increase the efficacy of monetary control, and

reduce float. In the name of the Public Good, other regulatory agencies with the responsibility for monitoring and preserving the financial integrity of certain types of depository institutions are taking varying degrees of initiative in fostering payment-system initiatives on the part of institutions they monitor.

It is easier to catalogue the incentives than the obstacles, since the obstacles are numerous and considerably diverse in nature. The outstanding obstacle, from the point of view of those who wish to stimulate changes in the payment system, is the inertia among present users, which is rooted largely in their satisfaction with the present system. One of the ironies of the subject before us is that it is the producers, not the consumers of payment services, who find strong motivations to change.

Another obstacle of consequence is the necessity to build new interfaces between business organizations. In some cases these interfaces will be relationships involving cooperation between competing organizations, while in others they are relationships between organizations that have never been forced to interact in the area before. Commercial banks have long cooperated in check clearing, but some aspects of the operations and administration of automated clearing houses have required new forms of cooperation among commercial banks, and between commercial banks and the Federal Reserve. At the same time, the commercial banks are carefully preserving the competitive opportunities for new services they can provide through the automated clearing house. A new dimension was added by thrift institutions, which have sought, and to a degree won, new relationships with commercial banks and with the Federal Reserve System because of automated clearing houses. Their claims in this area are not yet fully satisfied. Point-of-sale technology is raising issues centered on the creation of a merchant-depository institution interface. The bank card began this process, but point-of-sale technology may carry it much farther into complexities and controversy.

The regulatory and legal environment reflects technical realities of the past, but in many areas it is unprepared to deal with the technological possibilities of the future that will quickly become the technological realities of the present. Recent events have clearly established the legal and regulatory environment as the source of serious obstacles to payment system development. To illustrate with a few examples: Is the check acceptable as, or required as, proof of payment by the Internal Revenue Service in an income tax audit? Are funds directly deposited into a demand deposit account by an employer subject to attachment when they would not be if paid in cash? Is an automated teller machine a branch of a commercial bank — or of a savings and loan association or a mutual savings bank? Can a commercial bank install an on-line terminal at a merchant location and offer the services of the terminal to other card-issuing organizations for a fee? Can a commercial bank install in a merchant establishment a terminal device allowing deposits and withdrawals by its customers? Can depository institutions of the same type or of different types share an automated teller machine owned by one of them, or

owned by an independent service organization? and, Who is liable for losses suffered by individuals or organizations through system malfunction?

Obstacles exist in a host of other areas including the absence of agreement on a number of critical, technical standards, uncertainties surrounding costs of system design and implementation, lack of agreement on pricing of new services, uncertainty regarding performance of critical system components, need for training personnel, substantial investment in present systems, concern over risks of invasion of privacy or financial fraud, and uncertainty as to the impact of float loss or gain.

In the following section of the paper several of the critical issues just mentioned will be considered at greater length. These will undoubtedly be issues taken up by subsequent speakers and examined from several perspectives.

Critical Issues

On June 13, 1974 in conjunction with our technology assessment project for the National Science Foundation, Arthur D. Little, Inc. sponsored a day-long conference at which representatives of the constituencies with interest in payment-system change discussed the issues they saw as critical from their perspective. Participants included representatives of commercial banks, savings and loan associations, mutual savings banks, credit unions, consumer finance companies, large retailers, corporate financial officers, small businesses, equipment suppliers, union members, and consumers. In 3 hours of presentations and 20 hours of small group discussions among participants, several areas of consensus were established:

- The public interest is of primary importance in EFTS decisions; public policy should be guided by a determination of the economic and social costs and benefits of payment-system change and should be especially concerned with how these costs and benefits are shared.
- The technology through which possible changes in our payment system can be effected is not yet fully identified, so that even potential impacts of changes using the technology will be subject to considerable uncertainty for some time to come. Change probably will and should occur in the face of this uncertainty, suggesting that decisions in the public and private sectors must be made subject to review and change as events unfold.
- Each participant in the process of payment-system change will play his role (initiate, cooperate, resist, or prevent) according to his reading of his own interests. There is no consensus that the need for change is obvious, or that change is inescapable. Therefore, those who favor change will have to win the support and participation of those adequately satisfied with the present arrangements.

Acceptance

One of the concerns which is shared widely by government and private agencies and organizations involved in fostering payment-system change is the extent of willingness on the part of individuals and business organizations to accept change. Considerable survey research has been conducted to determine the attitudes of individuals and business organizations toward particular payment-system innovations, and we have some limited evidence of actual behavior toward new payment-system concepts as they have become available. Time and space prevent a detailed review of this evidence here. In general, individuals have not shown a strong interest in payment-system changes when they have been described to them in the abstract during an interview or on a questionnaire. Considering the fact that we see little evidence of dissatisfaction with the present payment system, this should not surprise us. In effect, people are telling us that they are well served with a system that is familiar and satis factory to their needs. An abstract description of alternatives, whicl would require new patterns of behavior and the acceptance of some risl and perhaps new costs, is unlikely to elicit strong positive support, n(matter how acceptable the alternative may later become when it is ; reality.

Usually, that which is new has a stronger appeal to the young and t(the better educated, the "style setters" and "opinion leaders" in marketin; terminology. Payment-system changes are no exception. Those who hav(already shown interest in innovative products with some characteristic: similar to those of proposed new products also tend to look with greate: favor on the new ones. Users of bank charge cards show a somewha stronger interest in payment-system innovation than non-users. Those wh are heavy users of checks show greater interest in new payment service than average or infrequent check writers.

These are survey results. What evidence do we have from actual ex perience? The results are mixed. Financial institutions that have installe automated banking equipment — cash dispensers and automated teller de vices — report reactions varying from keen disappointment to outstandin success. These reactions reflect the amount of use made of the equipmer and the evidence that it has helped increase market share by attractin new business and cross-selling present products. The growth in the num ber of bank card holders through the relatively few years of the ban cards' existence as a national phenomenon must be counted as a tribute t the marketing ability of commercial bankers. Merchant acceptance h; continued to improve, and as current volume expands, merchant sati faction grows proportionately. Banker satisfaction with the card vari(widely, depending upon the earning experience of the individual bank an belief in the card's ability to further the overall retail marketing objectiv(of the bank. In light of recent interest rate levels, the statutory ceilings c interest rates charged on outstandings have served to dampen bankers' e thusiasm with the card, at least in terms of its ability as a revenue gene ator. I recognize that there are those who do not consider the card as

precursor of payment-system changes or as an integral feature of a new payment system. My point is not to take issue with those views, but to cite the market acceptance of the card as an indicator of customer response to new banking services when they are designed and promoted with customers' needs in mind.

The checking account must be considered a phenomenal success, once again demonstrating the ability of banks to secure heavy market penetration with a product designed and promoted with customers' needs in mind.

Preauthorization is another story. Preauthorized payroll deposit has not been aggressively promoted, and has achieved acceptance to only very limited degree, primarily among salaried employees. Something under 10 percent of those on regular payrolls now have their paychecks deposited directly. Preauthorized payments of insurance premiums, utility bills, mortgage payments, and installment loan payments, while growing slightly in numbers in recent years, still are relatively rare situations affecting a very small percentage of consumer financial obligations.

The impression this varied experience creates is that consumers in substantial numbers show interest in new financial services when they meet felt needs and are aggressively promoted. Consumers are not out shopping for new financial services and are unlikely to embrace them merely because they are available.

The attitudes of business toward new payment services are best described as extremely cautious. Businesses show little interest in changing the means by which they pay or are paid by other organizations — government, business, or institutions. With the help of their bankers, the managers of financial affairs for most businesses have refined the art of cash management to minimize their balances and maximize float in their favor, and see little merit in any changes that are not to their advantage. Changes which may speed money from individuals to businesses have appeal for these same reasons, but the appeal is tempered by the desire, particularly on the part of retailers, to preserve methods which have customer support. Businesses do not want to enter into new payment mechanisms if their relations with customers or employees are threatened. Employers suggest, for example, that they might be willing to make the necessary changes to provide for direct payroll deposit of their employees' paychecks, but only after the financial institutions have convinced individuals that this is desirable, so that the business organization is not seen as the perpetrator of some new technique likely to serve its interests and not those of its customers or employees.

Merchants play a special role in payment-system change. Retailers accept a substantial percentage of checks written by individuals, either at the point of sale or by mail in payment for merchandise; they also often provide check cashing service as a customer convenience. The principal concern of merchants is that full consideration be given to the importance to them of the merchant/customer relationship in the design and introduction of new payment means. Merchants are quick to point out that the

means by which customers make payments are of little or no concern to the merchant; that his sole concern is selling merchandise to satisfied customers. Retailers large enough to preserve unique relationships with their customer group will do so as long as possible.

To sum up, new payment techniques are not being demanded actively by payment-system users, since they are satisfied with the present system. However, if new payment techniques can be designed, priced, and marketed so that early users discover genuine advantages in comparison with the present means available, acceptance will follow and penetration will occur in a way characteristic of many new consumer products. The rate and magnitude of this penetration will be known only when we have several years of experience. It is likely to be speeded if the government and business interests who favor change can make allies of the other participants in the payment system — individuals and business organizations, with emphasis on retailers. Allies are those who have recognized that common interests are served by cooperative action. If you seek allies, you must find and call attention to areas of common interest and demonstrate willingness and ability to act cooperatively. This is a lesson being learned very slowly in payment-system development.

Competition

As noted earlier, competition is proving to be a much more effective force leading to payment-system change than the early concern over the threat from growing check volumes. Commercial banks and other depository financial institutions have recognized the potential of the new technologies associated with the payment system for the creation and marketing of new products to individual and commercial accounts. Various other types of financial institutions see the promise and threat of the technological possibilities and are moving to capitalize on the promise and defend against the threat. Financial and non-financial organizations are each recognizing — in some respects with amazing slowness and hindsight — the actual or potential role that others play in the payment system.

All of this ferment contains the seeds of substantial realignment among businesses of varying types or of varying sizes within the same type group. For example, the thrift institutions and the commercial banks are jockeying for position both nationally and in local markets. Evidence of this abounds. Thrift institutions have sought and won membership in national "bank" charge card organizations. They have gained the power to offer interest on accounts which are in the consumer's eyes equivalent to demand deposit accounts. We are all aware of the dramatic breakthrough in Lincoln, Nebraska, where the First Federal Savings and Loan placed terminals in supermarkets so that its account holders can make withdrawals or deposits at the supermarket without regard to the hours of business at the savings and loan branches. Service innovations, such as the WSFS plan of the Wilmington Savings Fund Society and the shared automated facilities in Bellevue, Washington demonstrate the intention of thrift institutions to innovate.

Commercial banks have not been idle. The bank credit card certainly proved that the commercial banks can successfully innovate customer services related to the payment system. I need not belabor the thesis that the bank card in many ways is a base on which both individual banks and the commercial banking industry can build new payment-related services. The evidence is clear in the existence of a national authorization system for each of the major bank cards, and strong commitments, being backed up by action, to elaborate the systems into payment information transfer systems and ultimately fund transfer systems.

There are some in the commercial banking community who have committed substantial effort and financing to concepts which may prove to be successful in displacing or substantially altering the role of the national bank credit card as we have come to know it. It is my impression from published information that Citibank has been hard at work in technical and market research designed to help reach decisions leading to a major entry by the bank into payment-system activity involving individuals, other depository financial institutions, and other business organizations in new patterns of relationships and using new technologies. The commitment to these research and development activities is consistent with Citibank's highly articulate and well-reasoned presentation to the Federal Reserve Board of Governors in response to the invitation for comments on proposed changes in Regulation J. The theme of the Citibank response is that any governmental actions should be grounded in the principle of maintaining a free marketplace for the introduction of payment services, consistent with the public need for service. Donald Baker of the Justice Department has stressed this reasoning in his compelling statements in this area.

The views of retailers on payment-system change are consistent with this philosophy to the extent that they urge a minimal role for the Federal Government, both in the regulatory and the operations aspects of the payment system. The retailers are also very clear in their view that they want to retain their freedom and ability to establish and maintain relationships with customers without a financial institution being involved. Major retailers want to preserve their freedom to compete with each other and with medium and smaller-sized retailers. But with regard to the payment system, their greatest concern is the preservation of their freedom to compete with financial institutions in the offering and management of credit—an activity they regard as vital to their marketing.

Businesses outside the depository financial institution and retail categories have not made much impression thus far, but what little has been said also carries the sense of preservation of existing independence and options. In effect, no one wants to give up any real or perceived independence and freedom to act in his own interests.

Consistent with this philosophy is the widespread view that the role of the government in the payment system should be restrained. However, the point at which the restraint should be exercised depends heavily on

each organization's reading of the potentials for benefit or harm to it arising from government involvement. Thus, commercial banks, which have long accepted the key role of the Federal Reserve System in the payment system, have, with few exceptions, supported the notion that there is a proper operational role for the Federal Reserve System in an electronic funds transfer network. This role, by almost unanimous consent, includes the operation of automated clearing houses and their interconnection to form a national network. Where the matter was under active consideration, commercial banks seemed to favor the Federal Reserve's operation of switching and processing centers in support of point-of-sale networks for limited geographic areas.

Could it be that the commercial banks see the Fed as a friendly and cooperative ally in protecting their role in the payment system? Certainly, the savings and loan institutions, and their regulatory agency, the Federal Home Loan Bank Board, see it this way and have flexed their muscles at every opportunity to gain parity in the payment system. Where legal or regulatory opportunities opened, thrift institutions have taken several significant steps in payment-system activity beyond anything that commercial banks can presently achieve. Depending on your point of view, the savings and loans have either narrowed the disadvantage gap which still exists between themselves and commercial banks with respect to payment-system powers, or gained a new competitive edge which is unfairly detrimental to commercial bank interests.

Lest we forget, there are several powerful points to be aired on the negative side of the competition issue. We are talking about complex and expensive technology. The claim is made that only the rich, i.e., large and well-financed members of any constituency, will be able to establish a position of independence and control in an electronic payments environment, so that the vast majority of banks, merchants, and other organizations which rely heavily on efficient payment services will become dependent upon the few who are large enough to "play the game." Thus, the glories of competition are sung most loudly by the few who know that they have the resources to play the game, while everyone else quivers at the thought that they may lose some of their independence and options when the smoke on the battlefield of competition clears. At the extreme, this concern leads to the conclusion that the government, directly or through sanctioned and closely regulated private organization(s), should pursue whatever electronic fund transfer system is deemed "best" and be sure that it is available on equitable terms to all who wish to use it. Any policy falling short of this will confer unfair, and, in some sense, undeserved advantages to organizations which are either larger than or different in nature from those making this argument. The rebuttal, in its simplest form, is that relying on actions in an open, competitive marketplace will improve the chances that society will ultimately be served by a "better" system at the lowest cost with options preserved in terms of both sources of service and services to choose from.

The technology likely to characterize the future electronic funds transfer system is such that major investment will be required to bring the system to maturity and large transaction volumes will be required to realize low costs, and thereby low prices, for users. The competitive approach is likely to involve substantial duplication of investment and fragmentation of volumes among competing systems. Therefore, those who question allowing free reign for competitive efforts assert that the costs to society will be much greater than if government action or government-sanctioned private action is relied on to bring about the ultimate system. Using the present dual bank charge card systems as an example, proponents of this viewpoint submit that merchant discounts could be lowered and bank card operating results improved for the banks if the duplication of investments and operating costs were eliminated. Further support for this view is argued from the fact that, from an early multiplicity of competing private telephone companies, a single national company has emerged to dominate the scene, with only pockets of independence remaining and those dependent on the national system for survival.

A third argument, which is related in degree to the earlier two, but sufficiently different for separate discussion, is that new payment-system technology requires such a degree of cooperative effort among participants that only a single monopolistic system, separate from the control of any of the participants, can avoid the legal roadblocks which will thwart realization of the full potential of an electronic payment system as long as initiative and control from the private sector are relied on. The sharing of facilities by different financial institutions is both possible and desirable from the technical and customer point of view, but there is much in present law and regulation frustrating the introduction of shared facilities. Single, full inter-connected communications systems are essential if the ultimate of convenience and control sought by consumers is to be achieved.

Summing up this area of concern, the merits of preserving an atmosphere in which all who elect to are free to create and market payment services deserve serious consideration, together with the goals of the preservation of options for system users, the achieving of maximum efficiency at minimum cost, and the need for cooperation to achieve the full potentials for service and economy.

Impacts

Much of the preceding discussion dealt directly or indirectly with concern over the implications of changes in the payment system on various parties at interest, i.e., the impacts of these changes. There are several areas that hold the potential for important impacts which deserve mention that they have not yet reached.

Consumers have not been represented by any organized voice in discussions of the pros and cons of payment-system change, since these discussions have usually gone on at conferences sponsored by national or local groups of financial or nonfinancial business organizations. In the

conference I earlier referred to, spokesmen from labor and consumer groups raised several serious concerns. Consumers fear that the advent of a national integrated electronic payment system will deprive them of choice in a variety of ways. They feel they may have to concentrate all their financial relationships with one depository institution. They may no longer have the varying sources of credit now available to them if retailers turn over the credit-rating function to financial institutions. Preauthorization arrangements, direct payroll deposit, point-of-sale terminals, and other innovations present the image of submission by the individual to the requirements of a complex, impersonal, massive and unresponsive system. Make no mistake about it, descriptive statements, non-return of checks, direct payroll deposit, preauthorized payments, plastic cards, computerized audio responses, and the other innovations allowed by or required by technology seem to be dehumanizing influences. Individuals are concerned with the matter of privacy, fearing that the further accumulation of information about them, in places and under jurisdictions they neither know nor control, can only expose them to unfair harassment. The very capability that leads some bankers to emphasize the possibility of offering consumers services designed to help them manage their financial affairs is a menace some consumers fear. Furthermore, consumers cannot believe that a new system which requires some visible and vast amounts of invisible investment in hardware and software is not going to increase the costs of getting and spending money; and they are convinced that they will pay the bill. Consumer and labor spokesmen are alarmed at the possible "disenfranchisement" of members of lower income and minority groups from their right to participate in the payment system. Any suggestions that the receipt of a paycheck or any form of payment from public funds may require the recipient to have a bank account is seen as an unfair form of compulsion. From first-hand experience or rumor, many in these segments of the population believe they cannot establish a banking relationship. Others feel that a banking relationship will expose their personal affairs to agencies of government they do not trust. There is also the feeling that participation in the new ways of receiving money will inevitably lead to some restriction on the freedom to use that money as they wish. The possibility of wages deposited directly into a banking account being attached by a creditor alarms those familiar with the money management habits of the poor.

The possible impact on the ability of individuals to obtain credit in the new payment system environment has been argued from all sides. Some argue that the possibilities will be restricted and that is bad, while others see the same possibility and label it good. Some feel the possibilities for credit will be increased and that this is bad — or good — depending on the point of view. I think the truth of the matter is that there is no way to know now how the situation will develop, but some reason to conclude that accessibility to credit will improve. As long as merchants see the extension of credit as a useful adjunct to their total merchandizing

strategy, they will continue present practices. So long as financial organizations see the extension of credit as a profitable business, they will maintain present practices. Changes in the factors influencing decisions of merchants, or of other lenders, will, as they always have, affect the availability and terms of consumer credit. The most likely development is one leading to a lower cost for credit as lenders find better and lower cost information available on which to base credit decisions. As the element of risk is reduced in credit decisions, the cost to the borrower can be reduced. This need not mean that persons who previously received credit will no longer get it if information suggests that the risk associated with lending to them is higher than it seemed to be in a less "information-rich" environment. Rather, it means that the pricing of credit can be refined so that those who are in fact better risks will pay less, while those who are poorer risks will pay more. However, some will find that they can borrow from new, and lower-cost sources of credit that were closed to them in the past. Thus, on balance, it appears that consumers will be better served with respect to the availability and cost of credit under an electronic payment system.

Concern over the impact of an electronic funds transfer system on the float position of various participants depends, naturally, on what each expects the effect to be. Individuals express some concern when they recognize that it may become more difficult for them to obligate funds not yet credited to their accounts. However, their degree of concern over this is tempered by recognition that they do not yet understand the timing of credit for a deposit, or debit for a withdrawal, under the new system. The managers of funds for business organizations, on the other hand, perceive with much greater accuracy the possibilities under the present system, and under an electronic based system, for managing float in their behalf. They are aware and quite negatively influenced by the probability that float will be diminished to their detriment. Consequently, business spokesmen tend to favor those features of an electronic funds transfer system that increase float in their interest and strongly oppose those that affect their float adversely. The income represented by float will have to be replaced by at least equal reductions in cost before cash managers will support payment-system innovations harming their float positions. Moreover, any change in business payment practices will have to be adopted universally and at the same time if the effects are to be uniform; piecemeal change will not be acceptable if it alters float relationships, aiding some and harming others.

An area not often mentioned by spokesmen for individuals or interest groups in the private sector which must necessarily be of considerable importance to policy makers in the public sector is the impact of payment-system change on the nation's money supply and the means to monitor and influence that supply. The architects of our current instruments of monetary policy were able safely to assume that expansion and contraction of the money supply could be influenced through changes in reserve requirements and the rediscount rate, and through open market operations. The technology of an electronic funds transfer system offers the

possibility of significant increases in the velocity of circulation of money and may force the monetary authorities to devise new instruments for monitoring and influencing the money supply in light of changes.

Conclusion

Significant progress toward widespread use of electronic funds transfer may occur in a number of ways, but two major issues must be resolved for the progress to occur.

First, the organizations which seek change, for whatever reason, must find ways to win participation by the customers — individual and corporate — who now appear apathetic, and to a degree negative, toward change. These attitudes are not eternal; they may not be difficult to overcome. But they will persist widely until the attempts to overcome them are based on genuine efforts to understand and deal with their causes.

Second, the role of government, as lawgiver, regulator and system operator must be clarified. A number of the early attempts to innovate payment-system change have been limited or frustrated by constraints rooted in law or regulation. Others have been possible only because of silences or quirks in law or regulation, perhaps unforeseen or unintended. These situations are inevitable as technology opens possibilities not considered when past governmental actions were taken. However, we now understand the possibilities of payment-system technology well enough, and are rapidly coming to understand the potentials for beneficial or harmful impacts so that law and regulation can be brought up-to-date in this area. I do not mean to minimize the difficulty of this effort, or imply that it is devoid of serious value conflicts calling for resolution through the legislative process. Rather, I urge recognition of the fact that continuing ambiguity or silence in the legal and regulatory areas will frustrate progress. For the same reasons, decisions on the nature and degree of government's role as an active participant in the design, implementation or operation of an EFT system are needed to clarify where private sector emphasis should be placed. The cost of progress will be substantial, whatever the final mix of government and private sector roles. Let us not enlarge the cost through unnecessary duplication of effort.

I think it is reasonable to conclude that we can not entirely rely on profit maximization and consumer sovereignty to determine the configuration of our payment system, including the relative roles for electronic funds transfers, checks, and cash. We should rely on government action where it is required to preserve endangered social goals or personal freedoms. It is the balance of these reliances which we may help clarify in this conference.

Discussion

Robert H. Long

I believe that Ed Cox has given us an excellent beginning for the consideration of the incentives and obstacles affecting EFTS development. For the most part, I am in full agreement. However, there are a few differences in our viewpoints. I offer them not as criticism but as considerations. Throughout the conference, I expect that we will find many such differences arising. Hopefully, by considering each other's views, we will all leave with a little more accurate perception of the mountain we call EFTS and how it might best be climbed.

One System or Many?

In reading Ed's paper, I ran into trouble right at the title "Developing An Electronic Funds Transfer System . . ." Even though anyone can call anything a system — the boundaries of a system are completely arbitrary — I prefer to believe that it is perhaps more productive to think of EFTS in the plural. I don't believe that we have either the systems or the political skills to build *one* effective system. Today we are building and must continue to build numerous systems. They will serve different, but perhaps overlapping constituencies, that will cater to different specialized interests. They will compete with one another and at some point they will interchange information.

Secondly, in his background presentation, Ed seems to feel that "concern over check volume" was really one of the driving forces in EFTS development. From my point of view this was not so. Since the implementation of MICR, I have found no EFTS implementor who believed that check volume was a serious problem. Rather, I believe this fear was and is a straw man, a useful prod that EFTS promoters used to arouse some degree of cooperation and support from the industry at large.

It appeared to me at the time, and it still does, that the central drive for the development of EFTS systems has always been composed of (1) a desire to develop a more flexible and profitable financial service system; (2) a desire to use the new technology to lap the competitive field; and (3) a fear that others would do it first and thus gain ascendancy in the marketplace.

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If ever there is any concern about the check system, it seems to me that it centers on fraud, costs, and float.

Thirdly, while Ed seems to have stressed the flexibility of the check system, I feel that it is important to realize that this may be true if we consider "operational flexibility," but not true if we consider "service flexibility." The check system is very inflexible from a service standpoint and that is one of its major defects.

Ed has correctly noted the high degree of interdependence in today's check collection system. And, it is this need that constitutes one of the chief obstacles in the development of an electronic system. It would appear that the nation needs "a basic standardized payment system," but one that allows various specialized competitive systems to overlap and detour around it. We need standardization too, but not so much that it unduly hinders competition.

We have had the check system as a "basic" system with lock box, bank wire, credit card, Fed wire, etc. acting as special purpose "overlap" systems. This basic pattern is being repeated in EFTS with greater variety.

The EFTS developmental field looks confusing because all systems are being built at once. It is a bit like building a beehive by building all layers at once. It looks confusing, but if the top layers don't get too far along before the foundation develops, it will come out all right.

The ACH is perhaps our best example of one of the more standardized EFT "base layers". And I have every reason to believe that it is coming along satisfactorily. The first experiments concentrated on technicalities, but with the excellent example set by the Upper Midwest Automated Clearing House Association (UMACHA), I have every reason to believe that we have moved out of this technical stage of development into the marketing and educational and promotional stage — which will begin to generate ACH volume.

Ed notes the increasing interest in POS. This is expected. POS relates directly to established marketplace desires. It is a promising new pathway. But it is one of the more specialized overlay systems. ACH provides a great capability for EFT services that have not yet been developed. But they will be, as the competitive forces begin to come into play. Bill paying, credit transfers, credit receipts and even the handling of POS transactions that have been validated or guaranteed by an on-line inquiry response system seem to be looming in the near ACH future.

Incentives and Obstacles

Except for man's innate desire to explore and to try out new things, I believe that most of the incentives and obstacles revolve around one word . . . FEAR. Only a few really want to take the risk simply for the sake of improvement. Only a few are in a position to really use the leverage of successful innovation to obtain a satisfactory profit. The rest move because they are afraid of:

— Losing out in the marketplace.

— Allowing someone else to achieve a more dominant position.

— Losing image or status.

— Missing out on cost saving and other benefits.

— Being left behind.

Furthermore, they don't move because they are afraid that:

— The cost or trouble of changing is more than the gain.

— A change to a new system will result in a loss of control or benefits that they currently enjoy.

— Employees or customers won't like the system.

— The system will fail and they will look like fools.

— They will lose important relationships.

— They will be caught in an unresponsive, complicated system or in the middle of a competitive war between redundant systems.

— The new system is too vulnerable to fraud.

This may not be an exhaustive set of the fears that keep people from moving, or that make them decide to move, but it is representative. The problems that EFTS developers have been having in getting marketplace support for their new systems is natural. They simply have not yet strengthened the perceptions of the fears that cause people to move, nor weakened those that anchor them in place. In general, they have been too preoccupied with EFT technicalities to structure the necessary examples or communications. But that phase is passing.

Ed mentions the problem of antiquated laws and regulations. They do contribute some serious obstacles, but there are signs that many of them will be remedied. The chief thing to remember here is that generally "law follows, it seldom leads." The pioneers and experimenters have to "do their thing" and then the law comes along and either approves or disapproves. Thus, no one should be dismayed that we do not yet have all the necessary legal structures for EFTS. Rather, I believe that we should be optimistic because there are signs that we have intelligent and concerned legislators and regulators who have shown that they are giving these matters serious consideration.

Ed mentions that there seem to be some obstacles in the area of standards. That is true if you think of EFT as one coordinated system, but it is hardly true if you view it as a number of developing separate but overlapping and interconnected systems. The situation is not as bad as it

looks. It is important that the "basic system" standards be set. But the overlay systems will always be somewhat out of phase with one another. They serve different purposes and being competitive, they thrive on being different.

Acceptance

One of the concerns seems to be that "the public is not clamoring for EFTS." My reply is, naturally, the public never clamors *for* anything! They only clamor *against*. If you run a survey, you should really ask them what they don't like — not what they might like in the future. In general, they know what they want to get away from, but not what they want to get into . . . They will not make that decision until they actually stand at the fork in the trail. By and large, people act to minimize inconvenience, to get away from insecurity and to escape from uncertainty. Anything new that does not directly relate to any of their current dissatisfactions appears at first glance as uncertain and inconvenient.

In general, the public or the marketplace does not "demand," it simply chooses between alternatives. When people say that they like checks, I ask you what alternative do they have?

The public did not clamor for TV to be invented; they did not ask for the touch-tone phone; nor did they ask for the horseless carriage or the airplane. Yet, despite all the negative surveys and predictions (at the time of these developments) the public has embraced these devices . . . simply because, when the choice was presented, they appeared to be the more convenient or the more appropriate to the way they would like to live. The same will be true of EFTS, which I wish we would call Electronic Financial Transaction Systems — when they are available and proven and properly designed and marketed.

Our present day EFT services are much like the smoky, balky, flat-tire-prone early autos. With the poor road systems and the scarcity of service, they were considered rich man's toys. But, as they were perfected, it became a different story.

Competition

Ed has rightly identified competition as one of the prime driving forces in EFT development. The fear of being out of the marketplace is one of the strongest in our present day environment.

More and more businessmen are coming to realize that money and credit and financial information will flow over the most convenient channels. If they do not have these "most convenient" links, they may be bypassed.

The real competition in EFT is that of developing and strengthening important relationships and assuring continued flows of financial data.

Retailers are guarding their customer links for fear that banks or other financial organizations may weaken them. Banks are trying to become "the" bank for their customers and S&Ls and others are trying to strengthen their relationships and expand their services.

As Ed points out, we are talking about a highly expensive and complex technology and not every institution can afford it. That is true. There will be few, if any, solo climbs up the EFTS mountain. Roles will change and new climbing teams will be formed. That is really what is happening in the midst of the confusion and dust in the EFTS field today.

In the auto industry, most of the two or three hundred auto makers of the early 1900s moved into roles of sales and service agencies when mass production techniques reduced the price and made "cottage industry" manufacturing uncompetitive. This will happen in the financial industry. Those that do not become manufacturers will become agents, surviving on their ability to service their customers. And who today would not rather be a Cadillac dealer than a defunct Stanley Steamer manufacturer, or a McDonald's owner than a struggling hot-dog-stand operator?

Impacts

Perhaps the most important negative impact of EFT services will be in the area of dehumanizing financial services. This is where the service "agents" will gain in value. In the world of more complicated money management, it is highly likely that a financial account manager, counselor or guide backed up by an array of terminals, information and computer programs will take on the importance equal to that enjoyed today by the family doctor or the personal psychiatrist. These analogies are not lightly chosen. Poor money management already causes as much mental anguish, broken homes, unhappiness and lost productivity for the nation as bona fide physical ailments. By delegating routine to the computers, we can free up people and train them to be financial service guides and attack these problems.

Thus it would appear that, as financial services become more and more automated, there is a necessity for a parallel development of a personal banker or account management program . . . or its equivalent. But to a realist, the incentive to do so is there. I am ever mindful of the IBM/UNIVAC computer competition in the early '50s. IBM chose to educate the marketplace, UNIVAC tried to win it through superior equipment and systems.

UNIVAC used to be synonymous with the word computer. Today, to the man on the street any computer is an "IBM." Whether or not they have the best systems, IBM owns the marketplace . . . simply because they took the trouble to educate it. The same will be true in financial services. Whoever takes the trouble to build a "people system" that educates and serves can with barely adequate systems dominate the marketplace. They'll have the relationships and the money flows.

This of course means that, with all of our emphasis on systems and hardware and software, at some point in time we will have to shift gears and "humanize" the systems. The personal banker programs that some banks have been experimenting with have met with good marketplace response. It appears that "humane" systems are good business!

Finally, Ed has surfaced two important final questions:

— What should be the role of government?

— How can financial institutions convert customers to new EFT services?

It seems to me that the time has come for the government to stop trying to do things that private institutions can do as well or perhaps even better. It may have been necessary for the Fed to step in and operate the check collection system years ago. It is not self-evident that such is the case today with regard to every aspect of EFTS. Their excellent efforts in the ACH area can be described as aid in modernizing the check system. This effort ensures the development of a basic EFT system. I think that is proper, but that their operational efforts should stop there. Too much involvement in operations weakens their role as a regulator. It appears to me that there is a basic conflict between being an operator *and* being a regulator.

I would further suggest that government should not undertake any additional EFT operations until it is clearly evident that private enterprise cannot carry the burdens of development. However, it does appear to be necessary and appropriate for government to act in a guidance and regulatory role to insure reasonably orderly development, interchange and to act as a central funds settlement facility. If it is necessary for government organizations to act as "operators" of EFTS systems, such operations should be limited to the most basic and most standardized operations. Above all, their operations should not infringe in an operating way on the leading edge of new service developments.

Secondly, causing customers to switch to new EFT services once they are developed may be expensive but certainly can be solved. For example, in the retail sector I would suggest — develop the personal banker sales effort, strengthen the contact, and then offer a choice of EFT or check services — priced according to their real cost. Also sell against the check. Sell against its inconvenient reconciliation, against the uncertainty of the mail systems, against its cost and against its vulnerability to theft. These things have been buried too long. Of course, when we do this, we will need to have a good, secure, proven EFT system in operation — an alternative.

There are two remaining comments relating to competition as the appropriate driving force and about the so-called evil "duplication of effort."

Competition is a good way to achieve progress, but it needs mature management or it gets out of hand. Headlong, fear-driven stampedes into fields which it doesn't understand has cost banking dearly in the near past — especially in credit card competition. I believe that this could happen again in EFTS. Such stampedes are not only expensive — but they can easily cause the implementation of hastily designed systems that may give rise to massive fraud. I have reason to believe that computer fraud and

automated terminal fraud are greater than generally believed. In a competitive stampede, perhaps only the crooks will win. This in itself might be argument enough for a number of non-standard specialized systems — simply to cut losses and to experiment with different varieties of security.

The duplication of effort argument is not universally applicable. If you are seeking to just do the same old thing more efficiently, it may be valid. But if you are really seeking to determine which of many new things should be done, operational efficiency is not what you are after. What you are after is finding the best things to do and that requires experimentation, which essentially is duplication of effort. However, the payoff is great. Thus, the duplication can be justified. EFTS is in the formative stage. We are still seeking "the best things to do." The best way to find them is to have many different groups experimenting.

In summary, the obstacles facing EFT are the same that have faced every major system change in any society. They will be reconciled. Those who are most able to cope with the difficult formative pressures will be the new institutions of power in the new structure of society. It is not clearly evident that banks will continue to dominate the financial-services arena. There is a tendency to drive for progress only until we reach a level of satisfaction. Too many bankers have been satisfied with the status quo for too long. Their climbing muscles have atrophied. In addition, they have accumulated a fatty burden of restrictive legislation which may not be worked off in time. It is entirely possible that, despite bankers' experience on the financial-services mountainside, they may well be outpaced by fresher and younger climbers who will form appropriate teams and who will open up trails that bankers consider too difficult or too risky.

Discussion

John S. Reed

It's good to be here. I suspect as I look around that a lot of us in this room spend a lot of our life talking to each other because we keep seeing each other in these types of sessions. Hopefully, the word is slipping out to new people also.

I share with Bob Long the feeling that Ed Cox laid out the issues for us this morning as well as they can be laid out. He set down the basic outline of what is concerning all of us here with regard to the developing payment mechanism. I do not expect to add in any material way to what Ed has given us nor do I intend to make a speech myself. What I will do is, first, comment on the two hooks that Ed baited for me and, second, I will expand somewhat and emphasize his list of incentives and obstacles.

The first of the two hooks that I was provided concerns paper substitution and the driving force of many involved in the early EFTS efforts to seek an alternative to the check processing system based on the view that the system was potentially fragile. I would, however, disagree with Bob Long's comments about the reality of that as a driving force today.

I do believe that at least in Washington and possibly elsewhere a number of people once honestly and thoughtfully felt that there was a real possibility that the paper system could crack. They felt that, for reasons of public policy, the crack-up should not occur and much of the original driving force in the change to the EFT system and in the role of the Fed has come from a very legitimate belief that collapse was possible. Because this was, in fact, a legitimate concern, it justifiably caused the banking industry to look into the issue and to commission various studies as to the likelihood of a breakdown of the paper-based payment mechanism.

My own perception, however, having had responsibility for the operations at Citibank for a number of years, is that there is no serious likelihood of a failure in the paper-based system. On the contrary, it is possible — if bankers are willing to invest in the required managerial disciplines — it is possible to run an extremely efficient paper-based system. At Citicorp, we certainly view our terminal system as an add-on cost

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which can only be traded against changes in marketplace. It is not a cost substitution effort and we don't anticipate it ever will be. If, using our technology, we cannot deliver services that are in some sense more desirable to our customers, we will simply scrap the effort, because it certainly is not going to cut our paper processing costs in any way. Across the United States banks that have been innovating in managing their back offices have all pretty well concluded the costs are rising. There is no reason why they need rise even as fast as the inflation within the economy, and I have every reason to believe that we could face the '80s and '90s in a paper-based system that would be totally manageable from a quality point of view and quite desirable to the banks from a cost point of view. So the view that developments in EFTS are today being motivated by an effort to get away from paper does not, in my mind, have much substance. In fact, if that were to be the sole source of justification for EFTS development, I would argue very hard that we should all discontinue and go back to work right now.

The second hook that was provided me had to do with competition. You may all be relieved to hear that I am going to leave that to our next speakers. I am on record many times, as is Citicorp, with regard to our feeling about competition, and I do not really believe there is any need to burden you all again with that. I think our next speakers will get into it hot and heavy and I have always felt that I could trust the Department of Justice to defend the little people of the world, so . . .

Now that that issue has been effectively handled, let me go on to expand or really to emphasize the list of incentives and obstacles which I think are the key to framing the discussions that we will be having in the next couple of days. I will begin with incentives.

One thing that is immensely interesting to me by its absence from all of these discussions is a discussion of the changing EFT system insofar as it affects distribution mechanisms and distribution costs. Let me talk here specifically about an industry which has generally been left out of a lot of these discussions, namely, the consumer finance industry. It has been left out primarily because it has no Washington-type regulators. And, I might add, it volunteers to be left out because its members are scared to death that if they appear in Washington, they will get a Washington regulator.

The consumer finance industry is extremely important in the United States in the extension of credit to consumers. It also is an extremely high-cost source of credit to these consumers. The reason for a high cost is not that the consumers who receive the credit are necessarily higher risks than those receiving credit through a commercial banking system — I think we can demonstrate that mathematically. Nor does the cost reflect the fact that this industry is more profitable to its stockholders than the commercial banking industry. The extremely high cost of the consumer finance companies and the rates that they charge on commercial loans result from their distribution costs.

Consumer finance companies make loans in small dollar amounts, and they have to build very large branch distribution systems in order to get the customers to stop by. There are some extraordinary self-selection phenomena within the marketplace. It can be demonstrated that well over half the people who go to consumer finance companies could in fact get the same loan at substantially less cost were they to present themselves at the offices of a commercial bank. They don't do so primarily because there is a psychological self-selection phenomenon having to do, I'm afraid, with the way people view commercial banks. There's a general feeling on the part of these people that if they come into a bank, they would be given bad treatment, if any. And so these consumers tend to go to the consumer finance industry. However, one of the impacts of the changing EFT system that must be taken into consideration is that in a card-driven electronic environment, the viability of that consumer finance industry in a branch distribution system is probably questionable. The question arises out of the distribution costs in the consumer finance area.

I speak with some knowledge on this subject because, as you may know, Citicorp has bought some consumer finance companies as have many of the larger banks within the United States. We have also operated consumer-finance activities overseas for many, many years, and so we have some first-hand internal knowledge as to what cost structures look like. Typically, in the United States, if you charge 25 percent interest on a consumer loan, which is not unusual for a consumer finance company, two-fifths of that 25 percent is branch delivery costs. When I say branch, I mean central loan administration as well as branch costs. Of the remaining three-fifths some is accounted for by money costs which, under a normal interest rate environment, if we can ever have one, would be 8 percent to 9 percent. The rest is split about equally between pre-tax profits and write-offs.

The money costs for commercial banks are conceivably somewhat different but nonetheless within the ballpark. The write-off experience in personal bank lending is not substantially different, and the profit margins of this type of business, pretaxed, are also not substantially different. The difference is that in a commercial banking operation distribution costs are more typically about 5.5 percent as opposed to the 10 percent figure. And on a credit card-based system — and all of us are tending to put our small dollar items onto credit cards — it is more likely to be 3 percent.

Now, assuming underlying laws of physics towards which we all tend, and, being an engineer by training, I hold that assumption, I just don't believe that an industry that has that extra 7 percent built into its cost structure can easily survive. So if we accept that the changing payment mechanism will make credit available to the consumer at a substantially lower cost i.e., those who are paying 25 percent can conceivably pay 18 percent, which is a typical bank kind of number — we ought to consider the effect of that upon the market. And I'm always interested that no one does consider that when we talk about various issues in EFTS.

For that reason, we have urged that the Presidential Commission about to be set up should certainly include representatives from the consumer finance industry because that industry will be very much affected by some of these issues. As you may know, in most of the states in the United States, it is against the law for a consumer finance company to extend revolving credit, which is probably a requisite to get into an EFTS-type of situation. But if the thrifts have already asked for membership in the national cards, it certainly won't be long before Household Finance and Beneficial and others will be asking for it. It clearly is something that must come. And I would argue that that is an incentive that one should add to the list of incentives.

The second incentive that I would urge adding to the list has to do with customer satisfaction. Here I tend to agree with some of the comments Bob Long made. Customers tend not to express themselves very well on the subject or their needs, particularly not to large, bureaucratic institutions. It has been our experience that things that we do not believe are of any significance to our customers have turned out in retrospect to have been quite important to them. You may know that in all our branches we have put terminals that are available to customers where they can inquire about their balances and various details about transactions in their accounts. We did that thinking it was essentially a freebie — we already had paid the base cost of the system, and while the service would not be used very much, it might be nice. Inquiries have been running in excess of 100,000 per day over that system. Now when you're talking about 250 branches, 100,000 inquiries represent a lot of people who went by a branch of their bank to find out the amount of money in their account or whether a specific check had cleared, people who previously had never asked because of their inhibitions in having to go up to a teller who basically was not prepared to provide that kind of answer. Now this costs customers nothing; it's a freebie, but it has absolutely amazed us that you could get 100,000 people per day continually for the last six or seven months to do that.

Obviously, I am a private sector advocate and I believe that the private sector is in the business of seeking to know its customers, gauging what they want, and providing it. If we are wrong we simply will lose money, which is what the game is all about, and if we are right, we will have more satisfied customers. I would suggest to you that customer satisfaction really has to be viewed as a tremendous incentive, because I personally believe the banks have done a lousy job of providing consumer financial services. I think we have done a first-class job of providing consumer financial services, but in the consumer sector, every little bit of innovation that we have been involved in suggests to me that there is a level of frustration — at least in the New York environment (which admittedly is not typical of the world) — a level of frustration hidden beneath the surface that is there to be tapped precisely because we have done a lousy job. The fact is, we haven't changed our market share in 15

years, and our customers do not know if they deal with us or the Chase. We all spend $10 million a year trying to remind them, and it does not make any difference. There is no product differentiation; I do not believe there is particularly good service. So I would suggest to you, on the incentive list, that although customer satisfaction is difficult to quantify, you've got to take a businessman's bet and go for it. If you are wrong, you will lose money; if you are right, you will gain customers. But it is there and I believe it is going to be a big incentive.

As to my list of obstacles, I really have only three. The first has already been mentioned, and I just want to emphasize it again because I feel it is extremely, extremely important — that is, technology itself. I list technology as an obstacle because technical decisions are something that we have to manage, and it is not going to be easy for a service type of organization to manage them. But they are issues that are of extreme importance to the effective cost and quality characteristics of any of these EFT systems. If you go into the systems business on the assumption that you go to your local IBM salesman and buy an EFT system, you are talking about quite a different type of technological service than that which you might have under a managed approach. A full range of technology is available to the world here, in terms of solving some of the fundamental problems that we are trying to solve. And the key point is that the decisions made and the process by which one manages this technology will be as important to the eventual outcome of any specific development as the decisions made with regard to the marketplace.

I would say that there is a factor of 10 in the difference in cost between alternative available technologies, and no one, not even the Federal Government, can look at a factor of 10 and simply smile. George Mitchell's comments today gave us some numbers and I think you have to look at those numbers and ask are they right or are they wrong. Again, and this is from first-hand experience, there are better and worse paths by which to approach these EFT systems. The technological decisions that will have to be made constitute a very important part of the development of the systems. I view the decision-making as an obstacle because the decisions will be difficult ones.

I do believe sufficiently, however, in the flexibility of the American economy, providing we don't have a depression that ends absolutely everything. That means that I don't think that those who provide EFT systems need do what Citicorp has done — namely, try to integrate some of the technical development. There are tons of suppliers around who can supply the appropriate technologies. They are not going to be found in the list of the *Fortune* 500, but there is tremendous motivation on the part of entrepreneurs who are on the technical side of things to become suppliers. And these people are going to be around knocking on doors, providing we don't preclude them of the opportunity by organizing ourselves in such a way that we can only deal with one or two potential vendors.

The problem, the real heart of the obstacle for bankers, is: do we have the mental capacity to handle that dimension of the set of definitions that are before us? If we were a class in the Harvard Business School, and the instructor described the banking industry and some of its attributes and asked, now is this a likely group to be an innovator in a technical side of life, I suggest that answer would be no. There are organizations that could probably get into the service business more easily from a technical base than we're going to be able to go from our service base into the technology business. But making the move is just going to be absolutely fundamental and should get some emphasis, so I would like to add it to the list of obstacles.

A second obstacle on that list has to do simply with the distribution of what I call "intellectual capital." The banking industry really does not have at this time the managerial capital, if you will, to manage its way over this transition in the payment mechanism. That seems to be abundantly clear also to the many bankers who throw up their hands and say: "Look we just can't handle this kind of thing. Why don't we all either give it to the Fed or, you know, hand it out to somebody else?" This obstacle ranks with that inertia in the marketplace that Ed talked about. It is managerial inertia within the institutions that must be the innovators — and I am talking now about collectives or what have you.

The organization that in my mind has done the best job today is BankAmericard. It is interesting to me that this group had to extract resources away from any given bank, which is really designed to do other things, and set up a stand-alone, independent organization that was totally dedicated to trying to get some of this stuff done. I think they have done a first-rate job. By the same token, it has been very, very difficult for any of us involved in this transition who are also part of traditional banking organizations to break free. And so I would add that the inertia of the organizations that are crucial to EFTS is an important obstacle.

The final obstacle I would list has to do with the retailer. The retailer has two problems that are going to interact with us, as these developments proceed. One has to do with the fact that the retailer very properly has a deathly fear that banks could disintermediate him from his customer franchise. If we think branch banking is subject to change, do not be surprised to know that retailers are very convinced that for a large number of the items they handle, store retailing is also becoming obsolete. For example, catalog sales, as you know, represents one of the rapidly growing parts of the retail industry. There are people who are very concerned about the fact that banks, through the payment mechanism could in fact get into this catalog-selling business. Already, most people who issue Master Charge and BankAmericard are offering different kinds of goods and services to cardholders. So the retailers, looking across a long-time horizon toward the end of this century, naturally fear that the development of EFTS is going to lower the entry barriers to certain types of retailing business. They fear its being lowered to the point where they will

be entirely disintermediated by anybody who is in the payment mechanism side of things and who captures the customer franchise by a card. A likely example is the American Express card which has been superbly effective in a narrow range of the market so the retailer's fear of such a card has to be viewed as an obstacle.

The second problem in the retailer's obstacle, as I see it, has to do with the fact that the retailers are following a totally separate chain of development with regard to the installation of electronic point-of-sale devices. This separateness puts them totally out of synch with what is going on here, and there is some question whether the financial side of the service community may not find itself in a funny position vis-à-vis some of the changes taking place in the retailing area. We are, after all, both doing very similar things, but from a totally different motivation and with a different time-frame and a different sense of rhythm and according to a different pattern. So I would suggest that, on these grounds, the retailer should definitely be added to the list of obstacles.

But that is why we are here — to talk about the incentives and obstacles to EFTS development. And more than just adding items to lists, I think the issue here is one of adding to understanding for all of us. I think the issue we must understand is the role of the private financial sector in providing some of these consumer financial services. I don't think the issue is earthshaking. I would rather solve the oil crisis. I do think that the people in this room collectively are going to feel the frustration of seeking to solve some of these problems at the macro level, because we are not smart enough, nor is any other gathering of such people smart enough to solve them. I think we could exchange views and ideas and maybe achieve some kind of consensus as to what is up, but I think that we would be kidding ourselves if we believe that a session such as this will leave us with some master plan for changing the world that everybody could embrace and rapidly go out and sell. Thank you very much.