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ELECTRONIC PAYMENTS IN GEORGIA

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An efficient means of making payments is essential to economic growth and development. Today most of our citizens take the payments system for granted. We simply expect it to perform well, as we do other essential services. This has not always been the case in our country, nor is it the case in many countries at present. When we were a developing country we had many ups and downs in evolving a satisfactory payments mechanism.

In our early years bank notes constituted the greater part of the public's means of payment. Issued by private and state-chartered banks, these notes proved unsatisfactory, apart from their lack of stability and acceptability. As large-scale enterprise and improved means of transportation developed, the volume of transactions and the number of out-of-town payments increased. Under these conditions settling financial transactions with currency became awkward, costly, and subject to high risk of loss. By about 1850, deposits subject to check had become the principal means of making payments. We did not

have, however, a truly nationwide system for the collection of checks. The collection of out-of-town checks frequently involved circuitous routing, delays in collection, and high costs.

The framers of the Federal Reserve Act provided the necessary powers for the Federal Reserve Banks to create a nationwide check collection system. In keeping with this clear mandate, the Federal Reserve System has been continuously engaged in efforts to improve the payments mechanism. Beginning in the early 1950's the computer-based technology was applied to check processing. As most of you know the Federal Reserve System worked closely with commercial banks in establishing and implementing the standards required to make this mechanization program successful.

Our current involvement in efforts to displace checks by application of electronic technology, therefore, can be regarded as a continuation of these earlier efforts. With one important difference: The Federal Reserve System, in a policy statement issued over two years ago, stated that "modernization of the nation's means of making financial transactions through the banking system is becoming a matter of urgency." Since that time the System has accelerated its programs to improve the payments process.

Most of the current programs for improving the check collection process are aimed toward establishing regional

clearing centers and improving the transportation system. As these goals are achieved, we confidently expect that increased effectiveness in the payments system will be sufficient to meet the needs of the near future. Our ability to increase the effectiveness of systems based on the handling of paper, however, appears to be limited.

Estimates place the national check volume at an average of 62 million checks per day, and 125 million checks per day by 1980 appear to be a distinct possibility. Considering that an average check is handled ten times, it is apparent that increases in productivity are limited, since processing of checks continues to require a substantial amount of hand labor despite progress in mechanization and automation. Thus, banks are facing constantly rising costs for their check handling operations.

In the light of this trend, the future role of a physical document serving to transfer funds must be examined critically. To effect a more efficient payments mechanism and to reduce processing costs, the banking industry is devoting substantial time and resources toward development of an electronic means of payment. In metropolitan areas across the country, individual banks, banking organizations, and the Federal Reserve System are engaged in studies, projects, and experiments on electronic systems.

One of the most comprehensive endeavors is underway in Metropolitan Atlanta. In a joint effort, the Atlanta banking community, including the Federal Reserve Bank of Atlanta, has heavily invested both manpower and dollar resources in the Atlanta Payments Project. After four years of intensive effort, we expect the initial electronic system for Metropolitan Atlanta to emerge about the middle of this year. Even then, we will still be in the development stages of a mature electronic system. Such a system can eliminate an estimated 30 percent of the checks written on bank accounts in the Metropolitan Atlanta area. Even so, if check volume in the Sixth Federal Reserve District continues to increase between 8 and 12 percent annually as it has for the last decade, we will manage merely to stay even with the total growth.

Three approaches to reducing the check volume within the greater Atlanta area are being considered as a part of the Atlanta Payments Project: direct payroll deposit, "bill check," and point-of-sale.

In the direct payroll deposit procedure, individual employee paychecks are replaced by punch cards or magnetic tape sent direct to commercial banks for credit to the employee's account at the bank of his choice. In the "bill check" system, an individual receiving a bill from a utility company or retail firm

simply signs and returns an enclosed authorization for the company to debit his account at a commercial bank. In point-of-sale transactions, at the time a customer makes a purchase he authorizes the retail establishment to immediately debit his account at a commercial bank through a terminal device.

Direct deposit of payroll and "bill check," which we refer to as a batch system, may be considered as direct replacements of checks. That is, we will accumulate the electronic entries in much the same way that we accumulate checks and sort them in the automated clearing house. In effect, the operation is similar to the local clearing function being performed throughout the country. The principal advantages, of course, are that it is cheaper than paper handling, and it offers greater convenience to the consumer.

The point-of-sale system may be considered an entirely new service which will replace some checks but which is essentially a new means of payment. It resembles the bank credit card, but it is free of the relatively high processing costs associated with the credit card. In addition to offering a new means of payment the system will also provide check verification and credit card verification and data capture. Protection against losses from bad checks and improper use of credit cards is of vital importance to merchants. We estimate that bad check losses

amount to about 11 million dollars annually for merchants in Metropolitan Atlanta.

The automated clearing house for batch entries will be operated under the auspices of the Georgia Automated Clearing House Association, a nonprofit organization. The Federal Reserve Bank of Atlanta will provide the physical facilities and underwrite the cost of sorting the electronic items. Access to the automated clearing facilities is available to any bank in Georgia that agrees to abide by the rules established by the clearing house. The Atlanta Committee on Paperless Entries is now enlisting the participation of all Georgia banks. The commercial banks in Atlanta have already made a commitment to support and participate in the batch system. This support will involve intensive marketing efforts to the banks' customers and modification of their own internal processing systems for sending and receiving electronic entries for clearing.

At this point the Atlanta banks are still evaluating the point-of-sale system. Point of sale involves a much larger capital investment and a somewhat greater risk. The financial rewards, however, are much greater than those of the batch system. If the Atlanta commercial banks do implement a point-of-sale system, the switching and

processing system probably will not be provided by the Federal Reserve Bank. By its very nature the point-of-sale system involves direct contact by commercial banks with their customers. The stance of the Federal Reserve has traditionally been to work through the commercial banking system in providing benefits to the public. For this reason, we feel that the facilities for point-of-sale systems should be owned and administered by private interests.

In giving you this brief description of the electronic funds transfer system being implemented in Atlanta and Georgia, I should remind you that we are in an evolutionary process. As we proceed, the details of the system may change. Your interest, as does mine, probably lies more in the implications of such a system and the role of the various participants than in the mechanics. Although the Federal Reserve has been welcomed into the payments improvements arena, the activist role taken by the Fed in the last few years has aroused some fears that we may wish to control the payments mechanism. Among our more visible moves are the establishment of regional clearing centers, the amendment to Regulation J, the enhancement of our own internal wire network, and our active support of projects such as this one in Atlanta.

"Control is probably the wrong word in this context. When one considers the sheer volume and complexity of the payments

transactions consummated each day in this nation, it is almost inconceivable that any organization could "control" the process by which these payments are effected. A more realistic view is that the Federal Reserve System might support development of payments systems that will provide the public with more convenient, economical, and secure means of moving funds. How the Federal Reserve might further the electronics system can be inferred by examining the history of the check collection process. Even though the Federal Reserve did establish a nationwide system for collection of checks, well over half the nation's checks continued to be collected by the private banking systems through a correspondent network. The Federal Reserve simply offered an alternative means for collecting checks, and the public benefited from a cheaper, faster, and more convenient service than might otherwise have been available.

We seem to be at about the same juncture now with respect to electronic systems. The Federal Reserve is attempting to provide viable alternatives and to encourage the banking community to take initiatives of its own. Our local effort here in Atlanta is following this pattern very closely. We have supported the research and development effort required to create an electronic payments system for the Atlanta area and Georgia. We are proposing to operate an automated clearing house in response, and this should

be emphasized, to a request by the commercial banks that expect to use the clearing house. The concern of the Federal Reserve Bank of Atlanta is certainly not to control the process. Our principal interest is in seeing the improvement brought about and developed in such a way as to benefit the customers of the commercial banks.

I mentioned the issue of control by the Federal Reserve Bank simply because it has been raised elsewhere. Interestingly enough, the charter members of the Atlanta Committee on Paperless Entries, who were participants of the informal group that preceded it, have not been concerned about the "control" issue. I believe that our friends from the commercial banks have looked upon the Federal Reserve as a valuable resource and an appropriate catalyst that will help bring about the desired changes. We in the Federal Reserve, on the other hand, clearly understand that any payments improvements that benefit the public must, of necessity, be effected through the commercial banks.

To a large degree, the role of the Federal Reserve has been influenced by economic considerations. The basic research conducted by Georgia Tech, for example, was of such nature and scope that an independent bank or even a group of banks would have found the work difficult to justify in economic terms. Like most basic research, no clearly defined payoff was possible.

Likewise, the creation of an automated clearing house poses some difficult start-up problems, even for a group of commercial banks. If our market projections are anywhere near correct, the volume of transactions handled by an automated clearinghouse will build rather slowly from a small base, and it may take several years to develop a volume that will generate substantial cost savings. The hardware and software costs in creating an automated clearing house are only a part of the cost of the total system. The legal work, marketing, and the necessary redesign of each individual bank's data processing system represent substantial investments. If the commercial banks also had to provide the physical facilities for the automated clearing house, they probably would be somewhat reluctant to undertake the project. Fortunately, our decision within the Federal Reserve Bank involves only marginal costs. With very minor enhancements to our existing data processing facilities, we can accommodate the volume of transactions likely to be generated for the next several years.

Electronic funds systems also raise the issue of cooperation versus competition. Developing a local payments system such as the one we are engaged in here requires a very high order of cooperation among the banks involved. The necessary cooperation must be achieved without sacrificing or compromising competition. This was true even in the early stages of the payments study. Some of

the data and information needed were of a kind ordinarily considered privileged or confidential by banks. The Federal Reserve Bank assumed the responsibility for maintaining the confidentiality of the data until they could be reduced to a form suitable for use by the entire project team. No difficulties were experienced in achieving full cooperation among the banks involved. Our experience suggests that the competition versus cooperation issue is not a serious obstacle to the study and planning necessary to create an automated clearing house.

The cooperation versus competition issue is most crucial in the design and operation of the clearing house. Here we followed two principles, (1) there should be as little cooperation as necessary to achieve the common goal, and (2) the banks should cooperate only in areas in which they are roughly equal in terms of resources. A minimal amount of cooperation is required for the operation of a clearing house, especially if it is physically located at a Federal Reserve Bank.

At this time one can only speculate as to the effects that electronic funds transfer systems may have on the geography of banks' markets. The effects will begin to emerge more clearly when local or regional automated clearing facilities are linked together to provide a truly nationwide electronic funds transfer system. This may be several years down the road. The Federal

Reserve has indicated its interest in developing a national system. Many of us believe, however, that we must have viable local systems in operation before we can speak realistically about a nationwide system. This is not because the architecture of the nationwide system is extremely difficult. The essential features of such a system have been identified by several research groups. The necessary commitment of resources for the creation of a national system, however, is not likely to come until such time as the prospective participants can reasonably project benefits commensurate with the costs. It seems probable, therefore, that we must develop several viable local systems, link them together, and from this base move on to the nationwide system. For this reason, we feel that the SCOPE development in California, the effort here in Atlanta and the similar projects underway in other cities should be the primary focus of the Federal Reserve's commitment at this point in time.

The effects of electronic funds transfer systems on float have received a great deal of attention, much of which has been theoretical and speculative. Float is created by delays in payments. A mature, electronic funds transfer system which settles all transactions instantaneously has

no float. As we approach such systems, float will tend to disappear. One of the solid accomplishments of the Atlanta study team was a detailed analysis of float. We can now bury some of the myths and allay some of the fears that have been expressed about float. First, local electronic funds transfer systems will have no significant float effects on banks, companies, or individuals. Second, a significant impact on float will not occur until local systems are linked together on a rather wide scale. In this connection, it should be noted that much of the inter-regional float is already being reduced by regional clearing centers. Thus, we can say with some confidence that electronic funds transfer systems will merely hasten the movement toward the "less-float" payments system.

The prospect of substantial enhancement in the quality, cost, and variety of financial services is the most exciting feature of electronic funds transfer systems. We no longer see electronic funds as simply a way to eliminate some checks. We see it as a new and valuable service.

For the consumer, the demand deposit account will become more valuable and desirable. Direct deposit of payroll, with its greater convenience, security, and timeliness, will not be limited by lack of a coordinated mechanism for making credit transfers from one bank to another. Point-of-sale systems will make the

check more universally acceptable; the point-of-sale cash card will offer a convenient check-less way to pay from a demand deposit account. Electronic bill payment will make it easier to pay bills from the checking account. The descriptive payments information required by electronic systems will make the bank statement a more valuable financial record. Most importantly, the replacement of labor-intensive processing procedures with electronic data processing and data communications will permit banks to offer these and other new services at an attractive price.

For the merchant, electronic systems for bill payments offer more rapid final credit and a potential for cost savings as merchant and bank data processing systems become more closely integrated. The point-of-sale terminals offer a reduction in losses from bad checks and improper use of credit cards, as well as better service to customers.

Regardless of the attractiveness and practicalities of electronic payments systems, however, it is unlikely that users will embrace them without substantial marketing efforts by banks. As far as the consumer is concerned, there is no ground swell of dissatisfaction with the existing means of payment. Our check system is efficient, and we have not exhausted the possibilities for improvement. It is likely to become more expensive but at a moderate rate.

We are faced, therefore, with a need to help the potential users perceive the value of the new services. Marketing efforts by the commercial banks will have to be intensive and skillful. This is a very vital requirement. To be economically feasible, the electronic system must generate a substantial volume of transactions. For the batch system, where the entries will flow through the automated clearing house, the costs of implementing and operating the system are moderate and a slow growth in volume is acceptable. For the point-of-sale system, on the other hand, implementation costs are substantial and volume must be generated quickly in order to avoid heavy operating losses in the early years.

The Atlanta banks are keenly aware of the required marketing efforts. Since the joint project was started in 1971, they have continued to make substantial commitments of money and excellent full-time people. With this background there is every reason to expect that the marketing effort will be fully supported. We in the Federal Reserve, therefore, are very optimistic about the success of the automated clearing house and we look forward to continued Federal Reserve participation. We are equally optimistic about the future of the point-of-sale system even though the costs and difficulties of implementing it may be great.

The spirit of cooperation and willingness to innovate that has been demonstrated in Atlanta cannot be quantified or measured. It has brought us this far down the road toward creating a successful electronic payments system. We believe that it will take us all the way.