1972 Annual Report

IN MEMORIAM

AUBREY N. HEFLIN

1912 - 1973

Aubrey Newbill Heflin, President of the Federal Reserve Bank of Richmond, died in Richmond, Virginia, on January 16, 1973, in his sixty-first year. A native of Westmoreland County, Virginia, Mr. Heflin spent most of his life in Richmond, where he served the Federal Reserve Bank for over thirty years. A graduate of the University of Richmond, the University of Virginia Law School, and the Stonier Graduate School of Banking, Mr. Heflin also held an honorary Doctor of Laws degree from Hampden-Sydney College. Before joining the Bank in 1941, Mr. Heflin was an attorney with a Richmond law firm. At the Bank, he held the positions of Assistant to Counsel, Counsel, and Vice President and General Counsel. Mr. Heflin was named First Vice President in 1961 and President in 1968. Mr. Heflin also gave generously of his time to church, educational, and civic affairs. Both the Bank and the community are saddened by the loss of an esteemed leader and a good friend.

TO OUR MEMBER BANKS:

We are pleased to present the 1972 Annual Report of the Federal Reserve Bank of Richmond. The report's feature article reviews the historical development of the payments mechanism and describes the proposed Fifth District regional clearing system currently being considered by the Board of Governors. The report also includes highlights of the year's operations, comparative financial statements, and current lists of officers and directors of our Richmond, Baltimore, and Charlotte offices.

On behalf of our directors and staff, we wish to thank you for the cooperation and support you have extended to us throughout the past year.

Sincerely yours,

Robert W. Lawson, Jr.

Chairman of the Board

Robt O Black

First Vice President

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THE CHECK PAYMENTS SYSTEM AND THE FIFTH DISTRICT REGIONAL CLEARING PLAN

Throughout the United States, bankers, computer specialists, and electronics engineers are busily planning an overhaul of the nation's payments mechanism. Small wonder, for a general reconditioning is badly needed. At present, the vast majority of payments transactions are carried out through the medium of the check. Once they enter the payments stream, checks must be processed and shipped; and many checks must subsequently be reprocessed and reshipped many times. Because the volume of check transactions has burgeoned during recent years, the payments system faces the unhealthy prospect of choking on a mass of paper.

The Payments Mechanism: Problems and Prospects

CHECK VOLUME: HIGH TIDE

The accompanying charts provide some indication of the dimensions of the problem. Relatively few attempts have been made to estimate the total number of checks written annually throughout the country. Chart 1 displays the results of the three most commonly-cited studies, which developed estimates for the years 1952, 1967, and 1970. According to these estimates, total check volume grew from approximately 7.8 billion items in 1952 to around 18.7 billion in 1967 and then to about 21.5 billion in 1970. On the basis of these figures, the average annual rate of growth over the full 18-year period was approximately 6 percent. There is every reason to believe that volume will continue to rise at a comparable rate during the present decade. Chart 2 presents the rather frightening implications. If volume grows at what appears to be the

consensus forecast of around 7 percent per year, some 42 billion checks will be written in 1980. Even if the growth rate slows to 5 percent, volume will increase to 35 billion items. More pessimistically, should the rate accelerate to 10 percent, it will be necessary to cope with over 55 billion checks per year by the end of the decade.

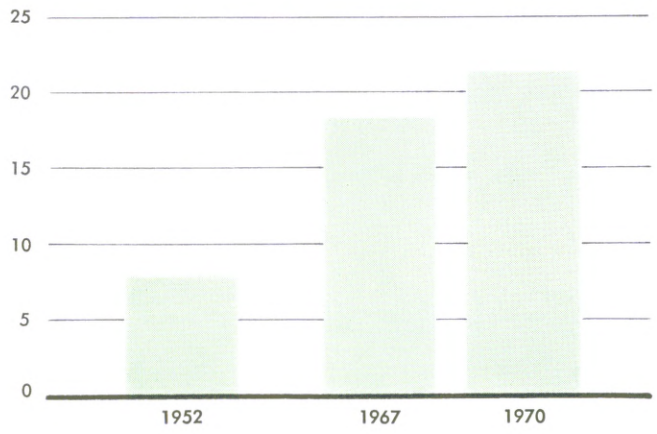
Fifth District volume growth appears to be roughly parallel to national trends. Although data on total District volume are unavailable, recent changes in the number of items processed by this Bank provide some indication of the situation. As illustrated by Chart 3, the annual processing load trippled between 1960 and 1971, and currently exceeds 700 million items.

The real costs of processing and shipping all of these checks are very high, whether one views these costs from the standpoint of the banking industry or from the standpoint of society at large. A vast array of personnel, data processing equipment, and transportation facilities supports the check payments system. To the banking industry, the costs of operating the system take the form of salaries, equipment rentals, and shipping fees. (Available evidence suggests that these costs, including the Federal Reserve System's check operations expenditures,

Chart 1

TOTAL CHECKS WRITTEN IN THE U.S.: THREE HISTORICAL ESTIMATES

(Billions of Checks)



Sources: 1952—**Study of Check Collection System,** Report of the Joint Committee on the Check Collection System to the American Bankers Association et. al., June 1954.

1967—Bank Administration Institute, **An Electronic Network for Interbank Payment Communications: A Design Study,** April 1969.

1970—Arthur D. Little, Inc., **The Outlook for the Nation's Check Payments System: 1970-1980,** December 1970.

exceed $1 billion annually.) The costs to the general public must be measured in terms of the manpower and equipment resources that could be devoted to alternative productive activities if they were not engaged in handling and moving checks. What's more, direct resource costs don't tell the whole story, for the nature of the check collection process gives rise to a variety of indirect costs. In particular, delays in presenting checks to the banks on which they are drawn can affect bank reserves, thereby contributing to disconcerting day-to-day movements in short-term interest rates.

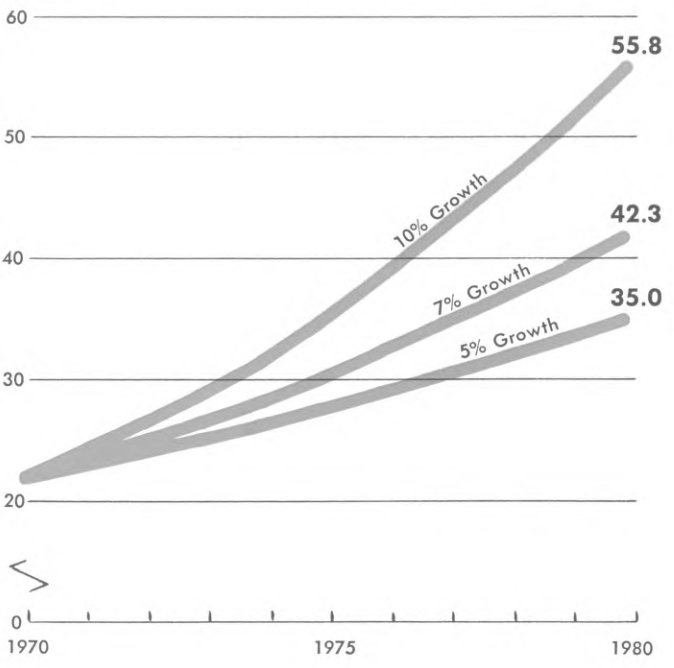
A VISION OF THE FUTURE

It would appear that something needs to be done. The essence of the problem is the need to reduce the number of checks required to complete a given volume of payments transactions or, as a second-best

Chart 2

PROJECTED U. S. CHECK VOLUMES: 1970-1980

(Billions of Checks)



Source: Arthur D. Little, Inc. **The Outlook for the Nation's Check Payments System: 1970-1980,** December 1970.

alternative, to reduce the number of times a given check must be handled and the distance it must travel. Some steps are already being taken. By using credit cards, consumers are now able to write a single check to cover several transactions. Some banks are offering consumers preauthorized payment services whereby a bank automatically pays a customer's recurring bills, debiting the customer's account accordingly. In addition, banks are making a variety of check-reducing arrangements available to business firms. Through automatic payroll services, for example, a firm can issue a single check to a bank covering all salaries due employees who maintain accounts in that bank. The bank then credits each employee's account.

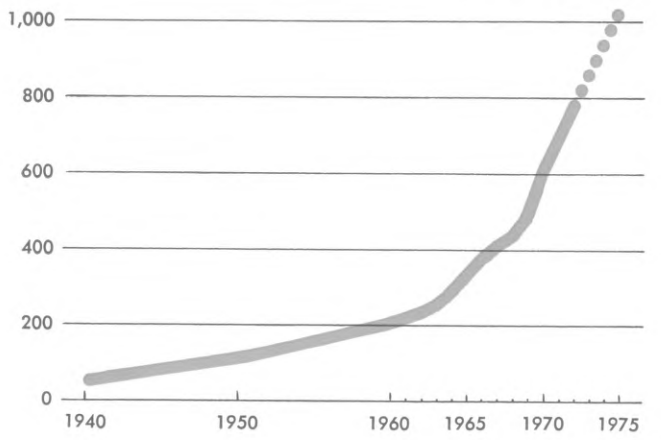
But these developments appear relatively tame when compared to some of the quite revolutionary innovations currently being studied. Most specialists in the payments field consider the ulitmate goal to be a full application of modern computer and electronic transmissions technology to the payments system. The most advanced conceptions of the future system envision a world where virtually all payments are carried out electronically. Account information will be stored on computers in banks and other institutions. Regional and nationwide communications systems will permit the instantaneous transfer of funds from accounts in one institution to other accounts in the same or in other institutions. Remote terminals will be located in commercial establishments where payments are commonly initiated. Instead of presenting a check at the

Chart 3

CHECKS PROCESSED BY FEDERAL RESERVE BANK OF RICHMOND OFFICES

Actual and Projected

(Millions of Checks)



Source: Federal Reserve Bank of Richmond records.

grocery counter, the housewife will insert a card into the store's terminal, thereby transmitting a payment message generating an automatic transfer of funds from her account to the grocer's account. In this world, the check will be eliminated as a means of payment. This vision may have an air of science fiction about it, but steps are already being taken to make the vision reality. Most notably, so-called SCOPE (Special Committee on Paperless Entries) projects, already underway in California, Atlanta, New York, and elsewhere, will lead eventually to the electronic transfer of debits and credits between banks in local and regional areas.

SOME PROBLEMS

While progress is being made, there is nonetheless good reason to believe that the paperless payments system is still at least a few years off. While the basic technology required appears to be available, a number of specific technical problems remain to be solved. First, some system must be devised whereby persons originating automatic payments at remote terminals can be positively identified. Otherwise, counterfeit payments will present serious difficulties. Second, transmission facilities must be refined to a high level of efficiency. As anyone who uses a telephone is aware, interference can occasionally distort communications between calling parties. Such interferences are merely vexing; distorted payments messages involving hundreds of dollars would be intolerable. These technical problems suggest what is probably the most formidable obstacle to the transformation: public acceptance. The average citizen does not yet view computers and sophisticated communications systems with much confidence. It will take time and a heavy dose of persuasion to induce the public to loosen its grip on the cancelled check as proof of payment. Beyond this, some incentive will have to be devised to make faster payments palatable.

These considerations suggest that the demise of the check is not yet at hand. Meanwhile, check volume continues to grow apace. It is apparent that, pending the arrival of the checkless society, interim measures are required to reduce the burdens of the **check** payments system. Several steps have already been taken. The Magnetic Ink Character Recognition (MICR) program instituted in the late 1950's has transferred many routine check processing tasks such as sorting and tabulation from people to machines, significantly reducing the time required to process a given volume of checks. Moreover, a recent change in Federal Reserve Regulation J has reduced the time required to accomplish final payment in many check transactions.

One of the most promising developments in check payments is the recent establishment by the Federal Reserve System of regional check clearing centers in various parts of the country. The purpose of such centers is to accelerate the clearing of checks within specifically defined

geographic regions where the volume of intraregional payments is heavy. The first center opened at this Bank's Baltimore Branch in January 1970. More recently, this Bank developed a plan for a regional clearing system to serve the entire Fifth District. This article will describe the proposed system and indicate how it will improve the District's check payments mechanism. To appreciate fully what the new system is designed to accomplish, however, one must first understand how the current system operates, how it evolved, and why it needs to be changed. Accordingly, the next two sections summarize the historical development of check payments in the United States and briefly outline current check collection arrangements, pointing out some of their principal deficiencies. A subsequent section will then describe the Fifth District regional clearing plan, specify as precisely as possible how the new system will improve the collection process, and indicate why the new system is a natural step in the evolution of the District's check payments mechanism.

The Check Payments System: Some History and Some Basic Principles[1]

WHAT IS A CHECK?

A check is simply a depositor's written order to his bank to pay a specified sum of money to a designated payee on demand. Checks are only one of a variety of means by which individuals and business firms can effect payment for specific obligations. By all odds, however, checks are the most important payments instrument in the United States, probably accounting for over 90 percent of the total dollar value of all payments transactions.

Figure 1 depicts a typical check. The illustrated check contains the usual information familiar to every citizen including the name of the drawee bank, the payee, the amount to be paid, the drawer of the check, and the drawer's account number. One piece of information carried on the face of the check, the meaning of which is not common knowledge, is the so-called routing symbol number given by the numbers in the upper right corner and repeated in a slightly different form in magnetic ink characters in the lower left corner. This number, a relatively recent innovation, is a code that assists in sorting checks according to the geographic location of drawee banks.

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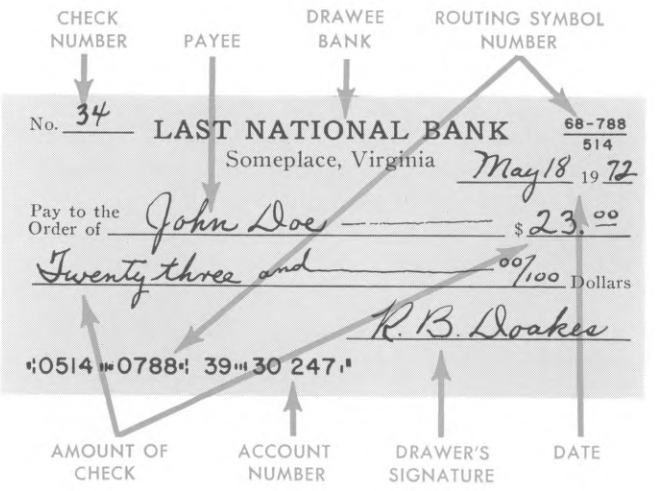
[1] Much of what follows is discussed in greater detail in Walter Earl Spahr, *The Clearing and Collection of Checks* (New York: The Bankers Publishing Co., 1926.) Even at this late date Spahr's book remains the definitive treatise on check payments. See also Claude L. Guthrie, "The Development of the Check Collection System During the Past Twenty-Five Years" (Unpublished thesis, The Graduate School of Banking, Rutgers University, 1941.)

ORIGINS

It is not entirely clear where and when the check was invented, although it is known that instruments similar in principle to the modern check were used in Italy as early as the fifteenth century and in the Netherlands during the sixteenth century. Checks first appeared in Britain around 1675, where they evolved out of the practice of depositing specie with goldsmiths. Once such deposits had become fairly widespread, they were used to make payments in two ways that served as convenient alternatives to the direct transfer of specie by a debtor to his creditors. First, the goldsmiths issued paper receipts called "goldsmiths' notes" to their depositors promising to pay a certain sum to the depositor or to the bearer on demand. The depositor could then use the notes to make payments. These notes were the forerunners of bank-issued paper currency. Second, the depositor might issue a written order to his goldsmith directing him to pay a certain sum to some specified creditor. The depositor would then send the order to the payee who would collect from the goldsmith. These orders, referred to at the time as "cash notes," had most of the basic characteristics of the modern check. They also possessed some very obvious advantages over direct specie payments. First, their use reduced the need to maintain large specie balances, with their attendant risks, to support current transactions. Second, they made it possible to tailor individual payments to the exact amount required by each transaction.

Figure 1

A TYPICAL CHECK



Finally, when the notes returned to the drawer carrying the goldsmith's statement of payment (the earliest form of the cancelled check), they served as a convenient receipt providing proof that payment had indeed been made.

In America, the first instrument similar to the modern check developed out of a financial experiment during the 1680's known as "The Fund at Boston in New England." Under this arrangement, certain wealthy individuals mortgaged their land to the Fund, receiving credit on the books of the Fund in return. Among other privileges, participants could issue "pass-bills" to other participants ordering the Fund to transfer money from one account to another. Because specie was scarce and the population was scattered, however, conditions did not favor the further development of deposit banking and the use of checks as a means of payment during the Colonial period. Consequently, other payments instruments such as bank-issued paper currency and bank drafts dominated American commerce until well into the nineteenth century. By the time of the Civil War, however, the check had become the nation's most common transactions medium.

CHECK COLLECTION AND CLEARING

Once the use of checks had become fairly widespread, check recipients were faced with a problem: how to collect final payment with a minimum of inconvenience. Obviously, merchants could not spend all of their time trekking from one bank to another collecting for checks presented to them. Sensing the opportunity to expand their operations, banks began to collect checks for their customers. A customer would deposit all of the checks issued to him at his bank. The bank would then credit the customer's account and subsequently collect payment from each designated drawee bank. The check collection process is the core of the check payments system and remains one of the most important routine services provided by commercial banks. Since its inception, virtually all efforts to improve the checking system have been aimed at accelerating or simplifying the collection process. Regional clearing centers, such as those envisioned in the Fifth District regional clearing plan, are merely the latest entries in a rather venerable tradition of innovations in collection procedures. Few subjects lend themselves so readily to historical treatment as the chesk collection process, for the existing mixture of arrangements is quite incomprehensible unless one has some idea how they evolved.

EARLY COLLECTION PROCEDURES Initially, collecting banks sorted checks by drawee banks and employed messengers to transport the resulting bundles to drawee institutions. If a drawee was located some distance from the collecting bank, the postal system or an express service was employed.

THE CLEARING PRINCIPLE Once the check had become a fairly common instrument in local commerce, banks in the larger cities found themselves collecting sizeable numbers of checks drawn on other local banks. At first, each bank sent a messenger with a bundle of checks to every other bank. The messenger would arrive at a bank, present the bundle of checks drawn on that bank, receive payment in specie, and then deliver the specie to the collecting bank. It took bankers only a short time to recognize that this procedure was woefully inefficient. Out of this recognition evolved the practice of **clearing** checks. Each bank's messenger would take all checks drawn on other banks to some central gathering place, or clearinghouse, and there exchange his bundles with all of the other messengers for items drawn on his own bank. Many such arrangements included a manager and a central set of accounts. Following the exchange, each bank's net position in the day's clearing was calculated. Each bank's account with the clearing-house manager was then credited or debited accordingly. In this way, collection was accomplished through a mutual settlement of offsetting claims.[2]

Clearing checks in this manner rather than collecting directly from each individual bank greatly increased the efficiency of the collection

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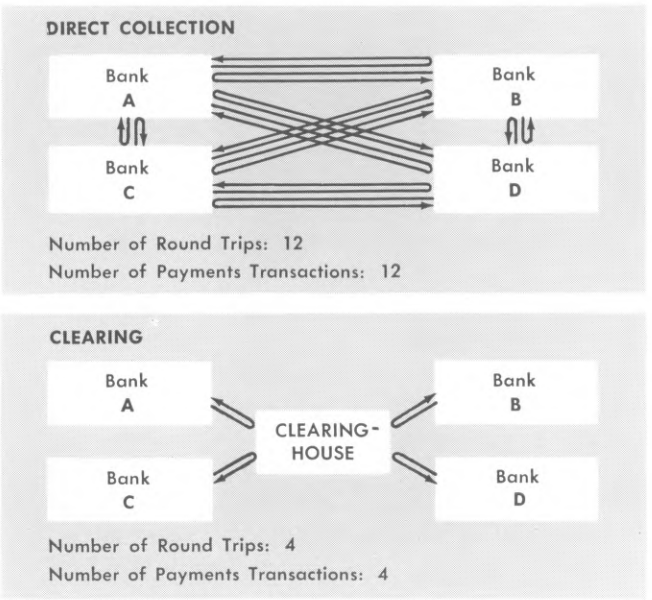
[2] The principle of clearing offsetting claims is applicable not only to check payments, of course, but to payments generally. The practice was well established several centuries before the use of checks became widespread.

Figure 2

THE CLEARING PRINCIPLE



process.[3] Figure 2 illustrates the gain for a town with four banks. The diagram at the top of the chart depicts the situation before the introduction of clearing. Each U-shaped arrow represents one round trip by a messenger between a collecting bank and another bank. Assuming that each of the four banks has checks drawn on each of the other three, 12 round trips and 12 separate payments are required to complete intra-town collection. The diagram at the bottom of the chart shows the contrasting requirements once a clearinghouse has been established in the town. Only four round trips are necessary, one between each bank and the clearinghouse. Hence, eight round trips are eliminated.[4] Moreover, the number of payments transactions is reduced from 12 separate payments to four entries, either net debits or net credits, on the books of the clearinghouse. A little thought will convince the reader that as the number of participating banks increases, the gains are magnified at an ever increasing rate.

Anticipating some of the discussion that follows, it is important to recognize that clearing associations are most effective where each participating bank is collecting a fairly sizeable volume of checks drawn on each of the other participating banks. That is, clearing areas should correspond as closely as possible to the pattern of check payments. This consideration is particularly important under modern conditions since many clearing arrangements are now regional in scope, reflecting the growth of regional commerce. Figure 3 illustrates this point. The first diagram represents the pattern of payments between the residents of four towns: A, B, C, and D. As indicated, the volume of transactions between the residents of town A and the residents of town B is heavy. In contrast, volume is light between towns A and B on the one hand and towns C and D on the other. The three remaining diagrams illustrate three alternative clearing arrangements. Ideally, towns A and B should participate in one clearing association and towns C and D in another. If, for one reason or another, separate associations are not feasible, a second-best alternative would include all four towns in a single clearing system. This arrangement is inferior to the preceding one. If the clearinghouse is situated in town C, for example, the heavy volume of town A-town B checks would have to be routed through town C. The last diagram depicts an inefficient arrangement where town B participates in a clearing association with towns C and D but town A does not. Here, the light volume of checks between town A on the one side and towns C and D on the other would be cleared, but the heavy volume between towns A and B would not be cleared.

It is impossible to overstate the significance of the role played by the clearing principle in the development of the check collection mechanism. It is of course true that improved transportation facilities and

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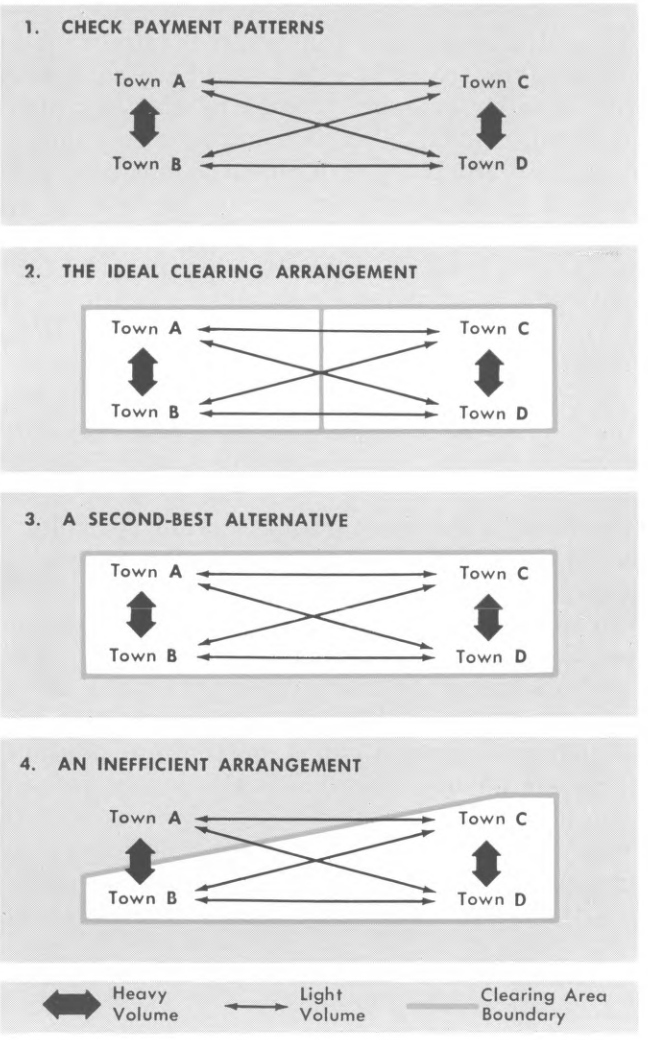
[3] Throughout the remainder of this article the term "collect" refers to sending a check to a drawee bank and obtaining payment for the check without distinction as to the means employed. The term "clear" refers to collecting items through a mutual arrangement of the sort just described.

[4] The number of trips eliminated would be somewhat less if, before the introduction of clearing, a messenger called on more than one bank on a single trip.

the substitution of data processing equipment for manual operations have significantly increased the efficiency of the system over the years. But is seems fair to say that the clearing principle constitutes the only major **conceptual** innovation in check collection arrangements in the entire history of check payments. In a broad way, the principle underlies the Federal Reserve's present collection system. It also underlies the regional clearing center concept and the Fifth District regional clearing plan. As indicated below, the basic objective of the Fifth District program is to reapply the principle in accordance with recent changes in the pattern of check payments.

Figure 3

ALTERNATIVE CLEARING CONFIGURATIONS



COLLECTION AND CLEARING IN THE UNITED STATES

THE PRE-FEDERAL RESERVE PERIOD It would be a bit misleading to refer to the hodgepodge of check collection arrangements existing in the United States prior to 1914 as a "system." Basically, each bank developed a set of collection procedures tailored to fit its particular requirements. The rather confusing array of practices that emerged during the period can best be treated under two headings: (1) collection of local items and (2) collection of nonlocal items.

Local collection. As one might expect, local area collection posed fewer problems for most banks than nonlocal collection. Clearinghouse associations were established in most major American cities during the nineteenth century, beginning with New York in 1853. These associations operated along the lines described above. For the most part, these arrangements were rather strictly circumscribed geographically. That is, membership was usually confined to banks located within or in the immediate vicinity of a given town or city. Most privately operated clearinghouses have retained their local character to the present day.

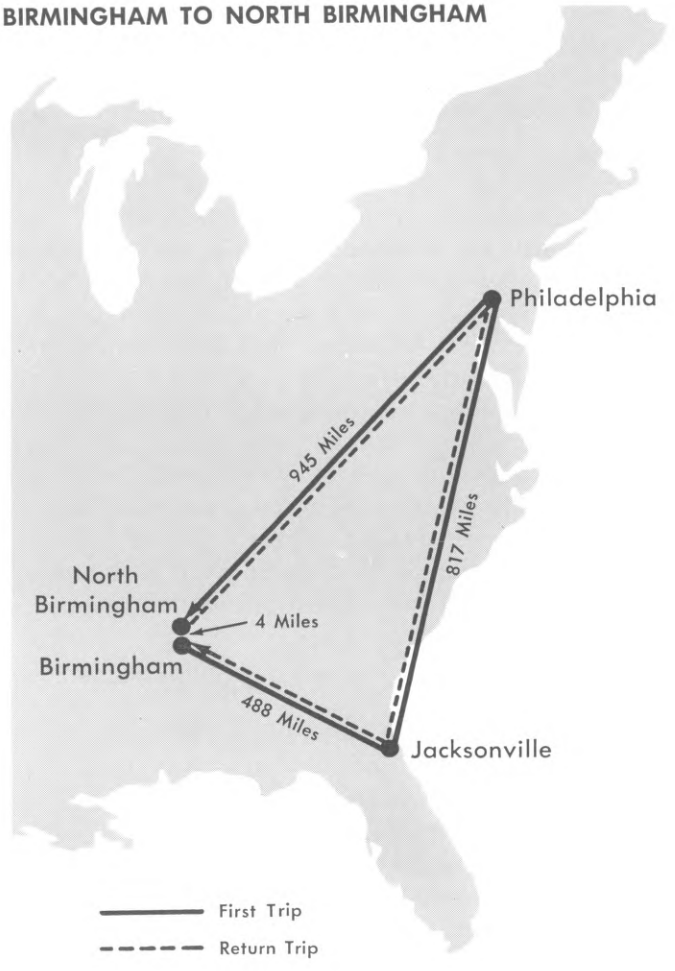
Nonlocal collection. Procedures for collecting checks drawn on nonlocal banks were far less uniform. Most such items were collected through correspondents. Discerning geographic patterns in checks deposited by their customers, banks established correspondent relationships in cities and towns where a sizeable number of items were payable. Under more favorable conditions, these arrangements might have developed into a reasonably coherent and efficient mechanism since they could be expected to reflect the natural flow of payments; however, certain institutional practices common at the time supervened. In particular, many banks followed the custom of exacting remittance charges when paying for checks drawn on themselves presented through the mail by nonlocal banks. Usually, this charge amounted to a deduction of about one-quarter of one percent from the face value of a check. The practice was defended on the grounds that paying banks incurred shipping charges and other expenses in the course of remitting to nonlocal collectors. Such "nonpar" remittances, as they were called, thoroughly disrupted the collection process. Intense competition for deposits induced collecting banks to credit depositors for the full face value of a deposited check whether the check was drawn on a par bank or on a nonpar bank. Therefore, the collecting bank was forced to absorb the charge on nonpar items unless it could pass the check either directly or indirectly to some intermediary bank having a par remittance arrangement with the drawee bank. Under these circumstances, a check often followed an extremely circuitous route between the bank of first deposit and the drawee institution. A famous example, illustrated by Figure 4, is that of a check drawn on a North Birmingham, Alabama, bank deposited in a Birmingham bank four miles away. To

avoid the North Birmingham bank's remittance charge, the Birmingham bank sent the check to Jacksonville, Florida. From there, the check was shipped to Philadelphia and finally back to North Birmingham. Because the check was dishonored, it then traveled the same circuit in reverse before being returned to the original depositor. All told, the check covered some 4,500 miles and consumed 14 days in transit. In short, nonlocal collection procedures, disorganized to begin with, were rendered almost ludicrous by nonpar remittance practices.

The Boston country clearinghouse. Prior to the establishment of the Federal Reserve System, several efforts were made by groups of banks to reduce the chaos associated with nonlocal collection. By far the most successful was the so-called country clearing arrangement

Figure 4

THE LONG ROAD FROM BIRMINGHAM TO NORTH BIRMINGHAM



initiated at the turn of the century by the Boston Clearinghouse. The plan was motivated by the desire of the large Boston banks to institute par check collection throughout New England.[5] The implications of the plan extended beyond the par collection controversy, however; and the arrangement constituted, in effect, the nation's first **regional** clearing system. Under the plan, the Boston Clearinghouse undertook to collect for its members checks drawn on outlying or "country" banks in New England in addition to Boston city items. Country items deposited at the Clearinghouse were pre-sorted by state and were handled separately from the city work. The Clearinghouse mailed the checks to the respective drawee banks, received the remittances (usually in the form of drafts on Boston banks), and settled with the collecting banks through the regular city clearing. The nonpar problem was confronted by charging back any remittance charge levied by a drawee bank to the individual or firm depositing the check, thereby disadvantaging nonpar bank customers. This approach was successful, and the great majority of banks in the region were remitting at par within a few years of the plan's initiation. The broader significance of the arrangement, however, lay in its systematic application of the clearing principle to an entire region. The region selected was particularly appropriate because it constituted an integrated trade area centered on Boston. Consequently, most checks deposited at area banks were drawn on other banks in the region and could be collected through the system. The plan fell short of a fully integrated clearing arrangement in that country banks were not Clearinghouse members. Therefore, they could not send checks directly to the Clearinghouse but had to route the items through one of the Boston city banks. Nonetheless, in addition to curtailing remittance charges and the flagrantly circuitous routing of checks that accompanied these charges, the Boston plan demonstrated the distinct advantages of clearing checks through a central facility on a regional basis. Specifically, it is estimated that the consolidated handling and shipping of checks through the system reduced collection costs from approximately $1.25 to about seven cents per thousand transaction dollars.[6] The plan provided a model for the Federal Reserve collection system set in motion 15 years later.

THE FEDERAL RESERVE CHECK COLLECTION SYSTEM: ORIGINS AND OPERATING PRINCIPLES A principal goal of the Federal Reserve Act, enacted in late 1913, was to unify the structure of the commercial banking industry through the creation of a central reserve depository. A related objective, made possible by the existence of centralized reserves, was the creation of a comprehensive check collection system that would provide an efficient mechanism for collecting and clearing nonlocal checks both regionally and nationally.

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[5] The plan was modeled on New England's earlier Suffolk System for the par redemption of bank notes.

[6] See Spahr, *op.cit.*, p. 128.

Legal basis. Sections 13 and 16 of the Federal Reserve Act provide the legal foundation for the Federal Reserve collection system. Section 13 authorizes the 12 Reserve Banks to act, in effect, as clearinghouses for Federal Reserve member banks in their respective districts. As originally enacted, Section 13 restricted this service to checks deposited by member banks that were drawn on other member banks. Subsequent amendments in 1916 and 1917 permitted the Reserve Banks to collect items drawn on nonmember banks and to accept items for collection from nonmember banks if the nonmember agreed to maintain an adequate clearing balance at the Reserve Bank. Section 16 authorizes the Board of Governors of the Federal Reserve System to act as a central clearinghouse for the Reserve Banks, thereby providing a mechanism for nationwide collection and clearing.

The deferred availability principle. On the basis of this legislation, the Board of Governors defined the operational characteristics of its check collection system in Federal Reserve Regulation J. It is important to recognize that the procedures set in motion directly reflected the Board's objectives with respect to bank reserves. Prior to 1914, a sizeable percentage of bank reserves took the form of balances at correspondent banks in the large cities and towns. When collecting an item for an outlying respondent, the correspondent bank commonly credited the respondent's account upon receipt of the item even though it might be impossible to collect the item for several days. Hence, a hefty proportion of total bank reserves at any given time was in fact nothing more than uncollected balances, or "float." The Board was determined, in designing the new collection system and its accounting procedures, to reduce float to manageable levels. Initially, the Reserve Banks, upon receipt of an item, immediately credited the collecting bank's account and immediately debited the drawee bank's account. The drawee bank learned of its reserve loss when it received the item, several days later in the case of outlying banks. This situation complicated the reserve management problem for many banks, and the practice was quickly abandoned. The alternative procedure selected was to defer credit for items drawn on banks remote from the collecting Federal Reserve office. Each Reserve Bank established a deferment schedule based roughly on the average time required to collect items in particular portions of its district and elsewhere. This deferred availability principle is in many respects the cornerstone of the existing Federal Reserve collection system. Many of the efforts to improve the system over the years, including the current trend toward regional clearing centers, have aimed at paring collection time in order to compress deferment schedules. Conversely, the extent to which these schedules have in fact contracted is an appropriate indicator of the substantive improvements actually achieved.

Creation of the Federal Reserve collection system constituted an application of the clearing principle to specific regions throughout the nation and, as such, extended the benefits produced earlier by the

Boston plan over a much broader area. Nonetheless, there is considerable room for improvement. The next section describes how the system currently operates and attempts to pinpoint the weak spots.

Federal Reserve Check Collection: The Present System and Its Shortcomings

THE STRUCTURE OF THE SYSTEM

The structure of the Federal Reserve check collection mechanism corresponds to the general administrative and geographic structure of the Federal Reserve System as a whole. As is well known, there are 12 Federal Reserve Banks. Each Bank serves a geographic district. Moreover, these districts (excepting the First and Third Districts) are further subdivided into territories, each of which is served by a Federal Reserve office.[7] The territory is the basic structural element in the

[7] Figure 5 shows Federal Reserve districts and their subordinate territories.

Figure 5

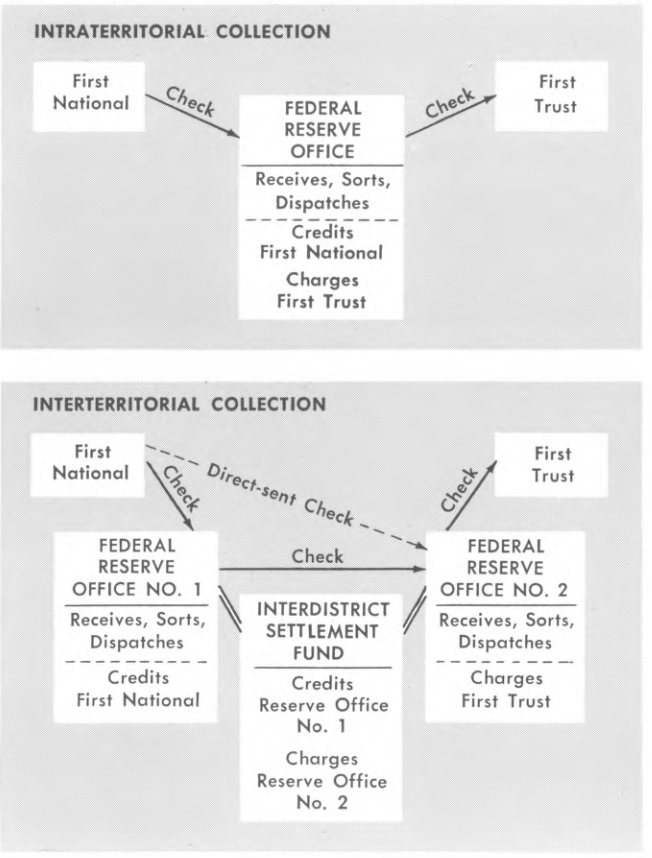
FEDERAL RESERVE DISTRICTS AND TERRITORIES

collection system. The territorial Federal Reserve office—either the head office or a branch of a Federal Reserve Bank—serves as a clearinghouse for nonlocal, intraterritorial checks. (Most local items continue to be collected through private clearinghouses or by direct over-the-counter presentment.) At the next level, the Federal Reserve Systm as a whole, through its Interdistrict Settlement Fund, acts as a clearinghouse for checks that represent transactions between parties located in different Federal Reserve territories.

Figure 6 depicts the system in somewhat greater detail. Assume that First National Bank, a Federal Reserve member bank located in a particular Federal Reserve territory, receives a check from one of its depositors drawn on First Trust Bank, another member bank. The Figure 6 diagrams illustrate the collection process under two alternative assumptions regarding the location of First Trust.

Figure 6

STRUCTURE OF THE FEDERAL RESERVE CHECK COLLECTION MECHANISM



INTRATERRITORIAL COLLECTION The diagram at the top of the figure describes the process where First Trust is situated in the same territory as First National. First National sends the check to the check collection department at its territorial Federal Reserve office. The office groups the item with other checks drawn on First Trust and, since First Trust is within its territory, dispatches all of the items directly to First Trust. Since both banks are member banks, each has a reserve account at the Federal Reserve office. The accounting department at the office credits the item to First National's account and charges the item to First Trust's account.

INTERTERRITORIAL COLLECTION The diagram at the bottom of the figure illustrates the procedure where First Trust is located in a different territory, either within the same Federal Reserve district or in a different district. First National sends the check to its Federal Reserve office. This office sorts the check with other items drawn on banks located in First Trust's territory and dispatches the item to the Federal Reserve office serving that territory. The latter office then sorts the check with other First Trust items and dispatches the resulting bundle to First Trust. Under current operating rules, collecting banks sometimes send checks directly to the Federal Reserve office serving the drawee bank's territory, bypassing the sending bank's Reserve office and reducing collection time. This variation is depicted by the dashed arrow in the diagram.

If First National and First Trust are located in different territories, reserves must be transferred from First Trust's account at its Reserve office to First National's account at its Reserve office. To accomplish such transfers, each territorial Reserve office maintains an account with the System's Interdistrict Settlement Fund, which serves as a clearinghouse for the 36 Reserve offices throughout the nation. In the present case, First National's Reserve office is credited, and First Trust's Reserve office is charged on the Fund's books. The office serving First National then credits First National's reserve account, and the office serving First Trust charges First Trust's account.

COLLECTION VS. CLEARING The above illustration considered one check traveling in one direction between two banks and therefore constitutes a description of the procedure by which an individual check is **collected.** Suppose that both First National and First Trust are receiving checks drawn on the other bank on a daily basis, and both are collecting these checks through the Federal Reserve. With both institutions maintaining Federal Reserve accounts, the Federal Reserve would then be **clearing** checks between the two banks.

SOME OPERATIONAL PRACTICES

ELIGIBLE WORK As indicated above, the Federal Reserve accepts checks for collection from all member banks and from nonmember banks that maintain clearing balances at a Federal Reserve Bank.

Checks are accepted without regard to drawee institution except that items drawn on the few remaining nonpar banks are not accepted unless they are being collected on behalf of a Government agency. In addition to ordinary checks, the Reserve Banks accept and collect U. S. Government checks, postal money orders, food coupons, and food certificates.

Strictly speaking, the Federal Reserve System functions as a clearinghouse only for banks that maintain Federal Reserve accounts. In reality, however, the System clears checks indirectly for nonmember banks not holding accounts because the larger correspondent banks, most of which are member banks, use the System's facilities to collect items for their nonmember respondents. To illustrate, suppose that nonmember bank A sends checks drawn on nonmember bank B to its member correspondent and that the correspondent collects the items through the Federal Reserve. Assume further that bank B sends checks drawn on bank A to a different member correspondent and that the latter correspondent also collects through the Federal Reserve. In essence, the Federal Reserve has cleared the items for banks A and B even though the clearing has been carried out indirectly through the reserve accounts of the two correspondent banks.

It is generally believed that the Federal Reserve receives, either directly or indirectly, about one-third of all checks written on commercial banks, amounting to about eight billion items per year at current volume levels.

CREDIT DEFERMENT TIME SCHEDULES Each territorial Federal Reserve office establishes its own credit deferment time schedule for work presented to it for collection. Because technological advances in check processing and transportation improvements have reduced the time required to collect many checks, these deferment periods have been progressively shortened. At present, credit is never deferred more than two business days following the receipt of an item. Each item is classified in one of three credit availability categories: immediate (same day) credit, one-day credit, or two-day credit.

The time schedule of this Bank's Head Office provides a representative example. Immediate credit is given for all checks drawn on Richmond city banks that are deposited by 9:00 a.m. Monday through Friday. Same day credit is also extended for U. S. Government checks and postal money orders received by 4:00 p.m. Monday-Friday. Credit is deferred one business day for items payable in the Richmond Office territory and for items payable in 17 cities where Federal Reserve offices are located, including points as distant as New Orleans, Buffalo, and Chicago. Credit is deferred two business days for all other items. The closing hour or "cutoff" for all deferred work is 4:00 p.m. Monday-Friday and 11:00 a.m. Saturday.[8] Items received after this deadline are considered received on the following business day for purposes of credit deferment computation.

[8] The deadline for work that is not amount encoded is 1:30 p.m. Monday-Friday.

CHECK SHIPMENTS At present, collecting banks arrange and pay for item shipments from their respective offices to the Federal Reserve. The Federal Reserve arranges and pays for the shipment of items between Federal Reserve offices and from Federal Reserve offices to drawee banks.

WHAT'S WRONG WITH THE SYSTEM?

Most knowledgeable observers believe that the Federal Reserve collection and clearing system functions reasonably well in view of the billions of checks that flow through its channels annually. But a number of fairly obvious flaws hamper the system's performance. Some of these shortcomings are structural in nature; others are operational.

THE CLEARING AREA PROBLEM As pointed out above, each Federal Reserve office acts as a clearinghouse for nonlocal, intraterritorial collections within the territory it serves. The reader will recall the illustration given in the preceding section of this article emphasizing the need for congruence between clearing areas and commercial trade areas. At present, Federal Reserve territorial boundaries do not generally coincide with trade area patterns due in part to shifts in regional economic configurations since the territories were drawn. In particular, many Federal Reserve territorial boundaries cut through trade areas. The Fifth District provides a good example. Figure 7 displays Fifth District territorial boundaries. Anyone familiar with the region will immediately recognize that the three territories only partially resemble regional trade areas within the District.

The most glaring mismatch is in the northern part of the District in the vicinity of Washington and Baltimore. These two major metropolitan areas, which are located within 40 miles of each other, form a highly integrated urban-commercial complex reflected in the pattern of area payments flows. For example, it is quite common for residents of Baltimore and Maryland suburban areas to shop in Washington or Washington's northern Virginia suburbs and conversely. Yet Washington and its northern Virginia suburbs are part of the Head Office Territory while Baltimore, its suburbs, and the Maryland suburbs of Washington are part of the Baltimore Branch Territory. As a result, Federal Reserve collection and clearing service to the area was, until quite recently, grossly inefficient. Checks drawn on Maryland banks deposited in Washington or northern Virginia banks were often sent to Richmond and then to Baltimore before being returned to drawee banks even though only a few miles (or, in some cases, a few blocks) separated the collecting and drawee institutions. Similarly, checks drawn on Washington or northern Virginia banks deposited in Maryland banks were sent to Baltimore and then to Richmond before returning to drawees. Obviously, these procedures wasted time and generated unnecessary shipments and handling. This situation has been corrected

by the Washington-Baltimore Clearing Center, which serves the green shaded area shown on the Figure 7 map. As one can see, this service area covers the entire Washington-Baltimore complex. Intraregional items now travel from collecting banks to the Center in Baltimore and then directly to drawee banks, bypassing Richmond.

To date, improvements such as those in the Washington-Baltimore area remain the exception rather than the rule. Many Federal Reserve territories throughout the nation include only part of a trade area or cover two or more separate trade areas. There are several instances in the Fifth District. Central West Virginia constitutes a distinct economic region centered on Charleston. As indicated by the Figure 7 map, this area is part of the Head Office Territory along with most of Virginia and eastern North Carolina. Therefore, intra-Charleston area checks cleared through the Federal Reserve must travel to and from Richmond. Further, several of the northern West Virginia counties in the Fifth District are linked economically to Pittsburgh. When residents of this area shop in Pittsburgh, however, their checks, if collected through the Federal Reserve, often flow back to the towns where they are payable by way of Baltimore. Most of the available evidence suggests that eastern North Carolina now has stronger commercial ties with western North Carolina than with Virginia. Hence, eastern North Carolina banks are most likely to receive a check drawn on, say, Charlotte than a check drawn on Richmond. If cleared through the Federal Reserve, however, the Charlotte item usually returns to Charlotte by way of Richmond. Finally, there is considerable evidence that, because of its rapid recent growth, the city of Columbia, South Carolina, has emerged as the nucleus of a trade region linking much of central South Carolina. Yet the growing volume of intraregional checks within this area is collected through Charlotte. In view of these conditions, it is evident that clearing areas should be redesigned.

DAILY OPERATING SCHEDULES A principal reason why existing clearing areas pose a problem is that poorly delineated clearing boundaries retard Federal Reserve collection of many items. Collection delays are also caused by some of the operational practices that characterize the present system. One difficulty is the daily operating schedule. Most Federal Reserve offices receive and process the majority of their work during the day and deliver to drawee banks at night. Consequently, the cutoff for deferred items is commonly some late afternoon hour such as 4:00 p.m. Unfortunately, this schedule and commercial bank schedules are no longer synchronized. Many banks, particularly in urban areas, remain open later than in the past. Coupled with rising volume, the trend toward later closing hours prevents banks from depositing many of the items they receive on a given day prior to that day's cutoff at the Federal Reserve, thereby delaying collection one day. Later cutoffs would significantly reduce the volume of such work. In order to achieve later deadlines, it will be necessary for Federal Reserve collection departments to compress processing schedules as

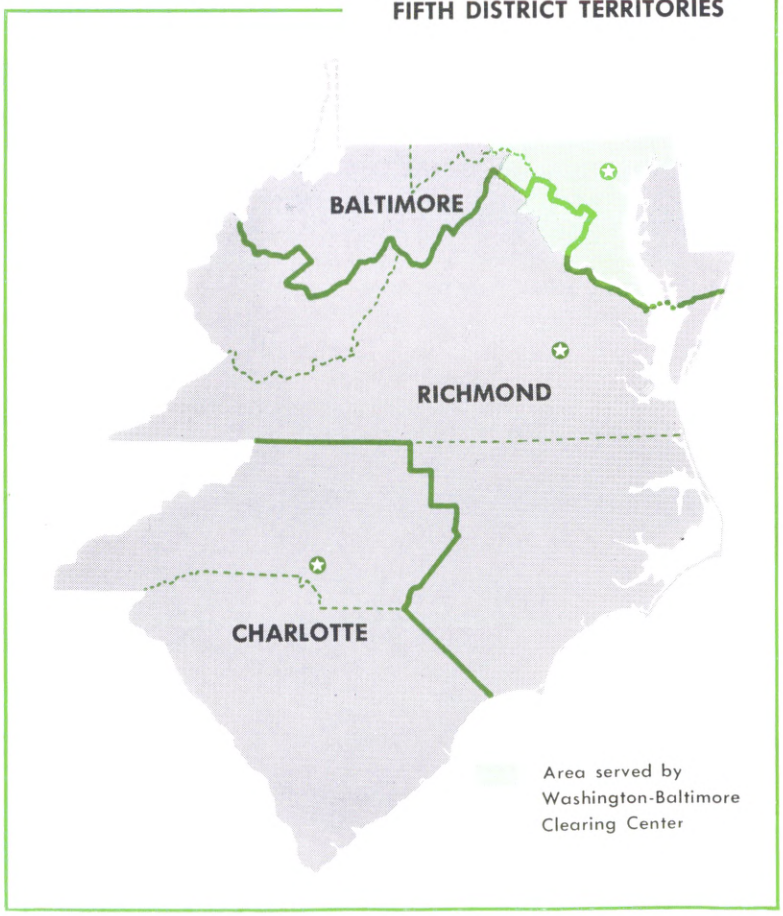
much as possible and to shift the bulk of processing operations from the daytime to the night hours.

NONMEMBER BANKS Clearing arrangements can serve a given clearing area with maximum efficiency only when most banks in the area participate. A majority of the nation's banks are not Federal Reserve members. Most nonmember banks take part in the territorial clearing of their respective Federal Reserve offices only indirectly through correspondent member banks. Nonmember work collected in this manner must be sent to a correspondent and handled by the correspondent before it reaches a Federal Reserve office. While there are reasons for withholding direct Federal Reserve collection services from nonmember banks, the practice is inefficient from the standpoint of the collection and clearing mechanism.

TRANSPORTATION FACILITIES As stated earlier, Federal Reserve offices ship processed checks to drawee banks; incoming transportation is the responsibility of sending banks. Consequently, a mishmash of in-

Figure 7

FIFTH DISTRICT TERRITORIES



coming shipment arrangements has developed over the years. Correspondent banks have partially filled the void by offering consolidated shipments to banks in certain areas. Nonetheless, the system is inadequate, particularly for transporting work from rural banks located some distance from a Federal Reserve office. Unnecessary delays are the result.

THE COSTS The shortcomings of present Federal Reserve collection practices have this in common: they all tend to delay collection and to waste resources.

Commercial bank float. Commercial banks normally credit a customer's account immediately when the customer deposits a check drawn on another bank. So-called commercial bank float arises whenever a depositing customer's account is credited for a check before the item is collected. During the collection period, the collecting bank cannot employ the funds represented by the deposit. The longer the delay, the greater the resulting loss.

Federal Reserve float. Federal Reserve float arises whenever a sending bank's reserve account is credited for an item before the drawee bank's reserve account is charged. Such float develops because, as noted above, reserve credit to sending banks is currently deferred no more than two business days after receipt of an item at a Federal Reserve office, even though many items require three or more days to collect. Federal Reserve float represents, in effect, an interest free Federal Reserve loan to commercial banks. Moreover, its existence makes it more difficult for the Federal Reserve to manage the collective reserve position of the banking system.

Circuitous routing. Several of the collection system deficiencies outlined above cause checks to be routed between the collecting bank and the drawee bank in a highly indirect fashion. When a check travels from Bluefield, West Virginia, to Huntington, West Virginia, by way of Richmond, basic economic resources are obviously wasted.

A WAY OUT Clearly, many of the problems associated with check payments will be overcome when checks are eliminated as a means of payment. In the meantime, the Federal Reserve has developed a two-pronged, near-term strategy designed to improve the check payments mechanism. The first element of this program has already been put into effect. In the past, many banks located outside of Federal Reserve office cities did not ordinarily remit for items presented to them for payment until one or two days after receipt. On November 9, 1972, Federal Reserve Regulation J was amended to require banks to remit on the day of receipt in immediately available funds.

The second element of the program, already in progress, is the creation of regional clearing centers similar to the pilot Washington-Baltimore Center both at existing Federal Reserve offices and, where necessary, at new facilities. The purpose of the Regulation J amend-

ments is to eliminate remittance delays **after** items have reached drawee banks. The principal goal of regional clearing centers is to accelerate presentment; that is, to reduce the time consumed between the dispatch of an item to the Federal Reserve and its delivery to a drawee bank. The final section of this article describes the Fifth District regional clearing program and indicates how the program deals with the defects of the existing system.

The Fifth District Regional Clearing Plan

AN OVERVIEW

This Bank's regional clearing plan is essentially an effort to apply the clearing principle to Fifth District collections more effectively than under current arrangements. The program's basic operational goal is to provide facilities permitting the overnight settlement of most deferred credit items drawn on Fifth District banks.[9] The program consists of two stages, hereinafter referred to as Phase 1 and Phase 2. The following paragraphs describe the more important features of the proposed system. As indicated, the existing Washington-Baltimore Regional Clearing Center is an integral part of the system.

Phase 1. During the first phase of the program, the District will be partitioned into clearing regions, clearing centers will be established in each region, and overnight settlement will be provided **within** each region. These regions have been drawn to coincide with the current geographic pattern of check payments. The delineation of the regions is such that one clearing center would be situated in each Fifth District state. In addition to the centers themselves, the plan calls for the establishment of relay stations to facilitate the shipment of incoming work from collecting banks to the centers. Each region is to be served by a transportation system that will (1) transport incoming checks from the relay stations to the center by air or nonstop ground means and (2) deliver processed items to drawee banks. Evening cutoff hours are to be put into effect both at the processing centers and at the relays. Within each region, cutoffs at the relays will be identical to deadlines at the center. Items will be processed during the night hours and delivered

[9] Overnight settlement means that a bank that presents a check for collection prior to the cutoff on one business day will receive credit for the item no later than the next business day.

to drawee banks the following morning. Sending banks are to receive credit each day for all work deposited prior to the cutoff hour the night before. Drawee banks will be charged each day for items presented to them for payment that day. By the completion of Phase 1 implementation, all centers would be accepting items drawn on banks in their respective regions from (1) any par bank in their region, (2) any direct-sending member bank, and (3) other Federal Reserve offices.

Phase 2. The second phase of the program would extend overnight settlement **between** regions throughout the Fifth District by means of a rapid transit network linking the five regional centers. Following the completion of this phase of the program, the District regional clearing system would be considered fully operational. Inter-District volume might justify further extensions of overnight settlement thereafter between Fifth District regions and clearing regions in other Federal Reserve districts. Such arrangements would be planned and implemented jointly with other Reserve Banks.

THE CLEARING REGIONS AND FACILITY LOCATIONS

Figure 8 shows the geographic boundaries of the proposed clearing regions.[10] In order to overcome the clearing area problem that arises out of the present three-territory configuration, the new regions have been drawn to conform to regional check flow patterns within the District, insofar as these patterns are known. Several detailed studies of regional trade areas were employed in delineating the new regions. In particular, extensive use was made of recent surveys conducted by the Office of Business Economics of the Department of Commerce and by the Rand McNally Company.[11] Using commutation statistics, retail market area surveys, and other data, these studies have defined geographic regions of substantial economic and commercial intercourse throughout the United States. Wherever possible, the information provided by these studies was supplemented by additional information from other sources such as banks familiar with particular local areas.

The Washington-Baltimore region. The region presently served by the Washington-Baltimore Center will be expanded by the addition of several counties on the Maryland Eastern Shore, in western Maryland, in northern Virginia, and in eastern West Virginia. The Center will continue to operate at the Baltimore Branch, and a relay station will remain in operation in Washington.

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[10] The Washington-Baltimore region is an extension of the area presently served by the Washington-Baltimore Center. Small changes in the boundaries shown on the map may be made prior to program implementation.

[11] The results of these studies are summarized by the following: (1) Office of Business Economics, U. S. Department of Commerce, "OBE Economic Areas," map dated September 29, 1967; and (2) "Trading Areas" in *Commercial Atlas and Marketing Guide* (New York: Rand McNally & Company, 1972), pp. 64-65.

The Charleston, West Virginia, region. This region includes central and southern West Virginia. The processing center for the region would be located in the vicinity of Charleston. Relay locations have not yet been determined. Through an arrangement with the Federal Reserve Bank of Cleveland, seven Fifth District counties in northern West Virginia will become part of the clearing region to be served by the Cleveland Bank's Pittsburgh Branch. The counties are: Monongalia, Marion, Preston, Doddridge, Harrison, Taylor, and Barbour. Both regional studies cited above indicate that area check flows are oriented toward Pittsburgh rather than Charleston. In this instance, the program goes beyond territorial boundaries within the District in dealing with the clearing area problem.

The Richmond region. This region encompasses all of Virginia except for the northern Virginia counties included in the Washington-Baltimore region. The processing center would be located at the Rich-

Figure 8

FIFTH DISTRICT CLEARING REGIONS AND FACILITIES

mond Head Office, with relay stations in or near Roanoke, Charlottesville, Hampton, and Norfolk.

The Charlotte region. This region coincides with the state of North Carolina. The processing center will be operated at the Charlotte Branch. Relay stations will be located in or near Asheville, Greensboro-Winston-Salem, Raleigh, and Lumberton, and at least one additional site in the eastern part of the state.

The Columbia region. This region includes all of South Carolina. The processing center will be established in the vicinity of Columbia. Relay stations would be established in or near Greenville, Florence, and Charleston.

OPERATING CHARACTERISTICS OF THE NEW SYSTEM

In addition to surmounting the clearing area problem, the program is designed to eliminate some of the operational deficiencies associated with the present system.

Operating schedules. The work schedule of each center is to be built around a night processing operation, enabling the centers to offer evening cutoff hours for checks drawn on banks in their respective regions.[12] The evening cutoffs will apply to work that must be fully processed by the centers. To accelerate collection as much as possible, each center will accept work that is presorted by individual drawee banks up to some early morning hour. The centers will dispatch processed checks to drawee banks around 7:00 a.m. The delivery system has been designed so that the vast majority of items will be in the hands of drawees no later than 11:00 a.m.

Eligible work. Both member and nonmember banks will be permitted to send checks drawn on banks in the same region directly to the centers. Nonmember banks will continue to settle through a member bank's reserve account; however, nonmembers will no longer have to route checks through a member bank's transit department.

Transportation. Each center will operate a regional transportation system that will transport incoming work from strategically-located relays to the center and deliver processed work to drawee banks. Under the plan, the Federal Reserve will absorb all costs of operating these systems. Sending banks will provide for the shipment of incoming work from their respective offices to the point of deposit at a relay station or a center. These transportation networks should significantly improve incoming shipment arrangements and reduce the cost of these

[12] All of the centers will operate Sunday-Thursday.

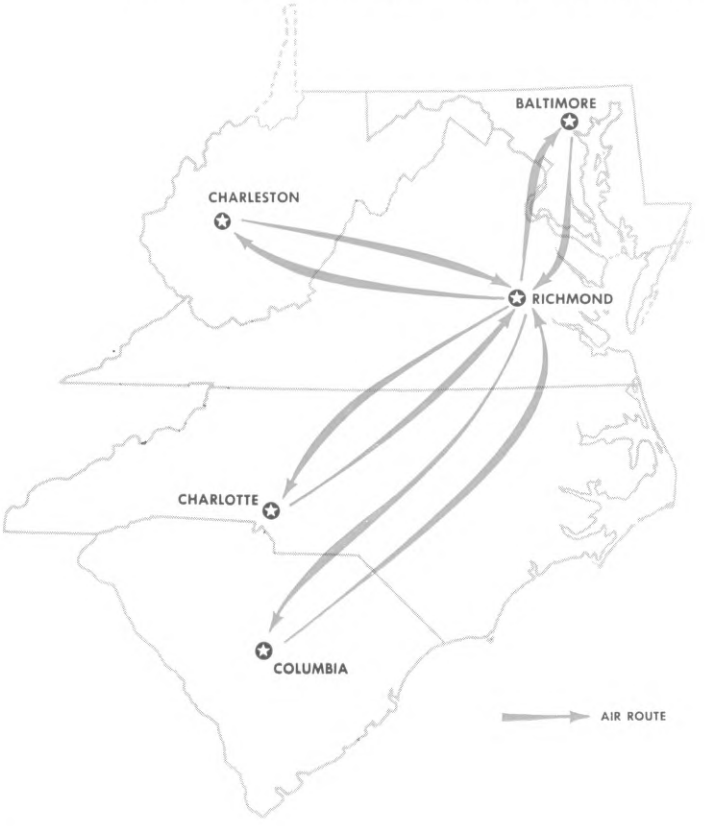
shipments to outlying banks. Outgoing delivery will also be carried out more efficiently than at present since delivery routes will cover more compact areas.[13]

Phase 2. Phase 2 of the program would extend many of the features of the intraregional clearing system to the District as a whole. Specifically, a member bank situated in one region would be able to collect checks drawn on banks in the other four regions overnight through its own center. Evening cutoffs for such work are to be in effect at all centers. An air transit network has been planned to support the interregional clearing operation. The network's design, shown by Figure 9, resembles a hub. Aircraft would fly from the various centers to some central point, possibly Richmond, with packages of checks drawn on banks in the other regions. There, the packages would be exchanged, and the aircraft would return to their respective centers with checks

[13] All delivery route systems have been restructured with the aid of a computer simulation model.

Figure 9

THE PHASE 2 INTERREGIONAL TRANSPORTATION NETWORK



drawn on that center's regional banks. Hence, the system would clear items between the five centers in the same manner that a local clearinghouse clears items among its participants.

Implementation schedule. To facilitate an orderly transition, Phase 1 of the program is to be implemented in a series of steps over a two-year period. The Phase 2 interregional clearing network would be set in motion as soon as possible thereafter.

THE BENEFITS

The regional clearing system will significantly improve check collection in the Fifth District, to the benefit of banks and the general public.

CURTAILMENT OF CIRCUITOUS ROUTING The program's redefinition of clearing area boundaries will sharply diminish the circuitous routing of checks between collecting banks and drawee banks, thereby saving time and reducing shipment costs. While this improvement will benefit banks throughout the District, its impact should be particularly great in the regions to be served by the new facilities planned for Columbia, South Carolina, and Charleston, West Virginia.

FASTER COLLECTION By providing later cutoffs, improving transportation, and reducing circuitous routing, the regional clearing system, in conjunction with the Regulation J revision, will accelerate the collection of many items.

Collection within a region. Many intraregional checks will be collected one day earlier than in the past. As an illustration, assume that a Fredericksburg, Virginia, bank sends a check drawn on a Norfolk bank to the Richmond Office prior to the Monday closing hour. Formerly, the check reached the Norfolk bank on Tuesday and was collected on Wednesday. As a result of the Regulation J revision, the check would now be collected on Tuesday. The regional clearing system will speed up the collection process even further by providing later closing hours for intraregional work. Consequently, the Fredericksburg bank would be able to enter for collection a greater portion of the checks it receives on a given day drawn on Norfolk and other Richmond region points.

Collection between regions. With the implementation of Phase 2 of the program, many interregional items would be collected two business days earlier. For example, suppose that the Fredericksburg bank of the preceding illustration enters a check drawn on an Asheville, North Carolina, bank at Richmond prior to the Monday closing hour. In the past, the check was delivered to the Charlotte Branch on Tuesday, reached Asheville on Wednesday, and was collected on Thursday. The Regulation J revision has accelerated collection to Wednesday. Under

Phase 2 of the regional clearing program, the check would be dispatched to Charlotte by air Monday evening, delivered to the Asheville bank on Tuesday, and collected on Tuesday. Moreover, interregional collection, like intraregional collection, would be facilitated by the proposed later closing hours.

Effects of faster collection. Because it will hasten collection, the new system will reduce the volume of checks in the process of being collected at any given time, thereby reducing commercial bank float and giving collecting banks earlier access to the funds represented by deposited checks. In conjunction with the Regulation J revision, the system should also reduce Federal Reserve float arising in the Fifth District. Finally, faster collection should reduce the incidence of check kiting schemes.

A Summing Up

The payments mechanism is to a modern economy what the bloodstream is to the human body. If the mechanism does not function efficiently, the economy it supports cannot operate at full efficiency. For the moment, at least, this nation's payments mechanism is largely a check payments system. Consequently, any evaluation of the performance of the system as a whole is essentially an evaluation of the efficiency with which check transactions are carried out. Moreover, any short-run effort to improve the mechanism must focus its principal attention on check payments.

As indicated by the estimates presented in the first section of this article, the current volume of check payments is, by any standard, staggering. Moreover, volume is certain to increase rapidly during the present decade. Since the era of fully automated payments is not yet at hand, the check payments system must be rejuvenated before it is engulfed.

The existing mechanism comprises a mixture of elements—local clearinghouses, collection through correspondent banks, and collection through the Federal Reserve—that have evolved from a long and tortuous history. The system's principal deficiency is that its structure reflects past rather than present structural conditions in the economy it serves. As a result of improvements in transportation and communications during the past half century, much of the nation's commerce is now regional in character and a pattern of fairly well-defined trade areas has arisen. The collection system needs to be reoriented to fit this pattern.

This Bank's regional clearing program will restructure Federal Reserve collection and clearing services within its jurisdiction. The basic

idea underlying the new system is a simple but powerful one: to apply the clearing principle to the regional economic configuration that has emerged in the Fifth District while taking advantage of better transportation facilities and a more realistic operating schedule. The resulting increase in efficiency will enable the new system to handle the estimated four to six million items it would be receiving daily at the time the five centers become operational and to accomodate subsequent volume increases without disruption.

Because the ultimate objective of payments mechanism improvements is to eliminate transactions by check, one might be tempted to regard regional check clearing facilities as nothing more than temporary measures designed to patch up an old machine before it is replaced. This is not the case. No matter how sophisticated its technological characteristics, the payments system of the future will also be a clearing mechanism, and the conditions for efficient clearing will be at least as relevant to it as to checks. By reshaping clearing areas so that they conform more closely to the form of transactions flows, regional check clearing arrangements such as the system that has been designed by this Bank provide an appropriate structural foundation on which the future system can be built.

HIGHLIGHTS

EARNINGS AND CAPITAL ACCOUNTS

Net earnings before payments to the United States Treasury decreased $4,071,915.71 to $243,900,073.47 in 1972. Six percent statutory dividends totaling $2,419,254.13 were paid to Fifth District member banks, and $238,204,519.34 was paid to the Treasury as interest on Federal Reserve notes.

Capital stock rose $3,276,300.00 to $41,564,950.00 as member banks increased their stockholdings in this Bank, as required by law, to reflect the rise in their capital stock and surplus accounts. The Bank's surplus account increased $3,276,300.00 to a total of $41,564,950.00.

NEW BANK BUILDINGS

Plans for the construction of a new building to house the Richmond Office have progressed satisfactorily. The general program was completed and approved by the Board of Governors in June. Both the building scheme and the preliminary sketches, developed by the internationally famous architectural firm of Minoru Yamasaki & Associates, Troy, Michigan, were approved in October. By year end, the design development phase was well under way.

The building, containing 1,160,000 square feet of floor space will include 29 stories above grade, three levels below grade, and an underground garage. The lower levels will be designed to accommodate security functions, which include vaults, money and securities operations, and delivery courts. The tower section will rise 461 feet above grade and will be approximately 150 feet square. The tower, which is designed with a center service core, will provide more than 16,000 square feet of column-free office and work space on each floor.

Among the many factors considered in the selection of the seven-acre site on the James River were size, proximity to the financial area, convenient access to city streets and major highways leading into and out of Richmond, and potential contribution to the future development of the city. The new Manchester Bridge and the proposed Richmond Metropolitan Expressway will provide easy ingress and egress for the Bank's more than 1,000 employees as well as for the heavy volume of trucks carrying currency, coin, and checks, which require quick connections with major highways.

The new building will be the third location for the Federal Reserve Bank of Richmond. Following its organization on May 18, 1914, the Bank's first office was opened at 1109 East Main Street in November of that year. In 1921, the Bank moved to its present location at Ninth and

Franklin Streets, where it has made several additions over the years. The new building should be ready for occupancy in late spring or early summer of 1976.

Preliminary studies and space planning for the new Baltimore Branch building were begun early in the year by the architectural firm of Hellmuth, Obata & Kassabaum of St. Louis, Missouri. A long-range space needs plan was substantially completed by year end, and negotiations for the acquisition of a 91,366 square foot site along the waterfront within Baltimore's Inner Harbor Redevelopment Area were in process.

CHECK COLLECTION

On November 9, Regulation J, "Collection of Checks and Other Items by Federal Reserve Banks," of the Board of Governors of the Federal Reserve System was revised as part of a major program to modernize the nation's payments mechanism. This change, one of the most significant in the area of check collection in recent years, provides for faster payment of checks when they are presented to the bank on which they are drawn. The amended Regulation J requires all banks served by the Federal Reserve check collection system to pay for checks in immediately available funds the same day the checks are presented for payment by the Federal Reserve.

As of January 1, the Washington-Baltimore Regional Clearing Center was serving 117 banks in the metropolitan areas of Washington, D. C. and Baltimore, Maryland. Since January 1, 1972, 20 banks in Maryland and eight in West Virginia have been added, bringing the total to 145 banks. Originally, the Washington-Baltimore Regional Clearing Center encompassed the area within a 40-mile radius of Washington, D. C. The Regional Clearing Center now extends to additional banks in Maryland and also includes banks in the area of Martinsburg, West Virginia. Further expansion is planned for the future.

The Federal Reserve Bank of Richmond is in the process of developing a regional check clearing system that will facilitate the clearing of checks throughout the Fifth District. The existing Washington-Baltimore Regional Clearing Center will be an integral part of the new System which is described in some detail in the feature article of this Annual Report.

RESERVES OF MEMBER BANKS

Regulation D, "Reserves of Member Banks," has been revised to restructure member bank reserve requirements, making like percentage requirements applicable to member banks of comparable size, regard-

less of location. The date of implementation was timed to phase in with seasonal reserve needs and to give commercial banks time to make necessary adjustments to the revised regulation. This revision of Regulation D was also implemented simultaneously with the changed Regulation J.

PLANNING

The Planning Department increased its utilization of computer modeling techniques in the fields of transportation and check collection. This change enabled the Department to design more effective pick-up and delivery routes for checks. Additionally, a computer model was utilized to forecast check volumes and flows in preparation for the establishment of regional clearing centers in the Fifth District.

DISCOUNT RATE

The discount rate was lowered to 4½ percent late in 1971, where it remained throughout 1972.

CHANGES IN DISCOUNT PROCEDURES

On September 14, the Board of Governors acted to make possible the extension of Federal Reserve credit to nonmember commercial banks to mitigate any possible hardships that might temporarily be placed on these banks or their communities by the implementation of changes in Regulation J, "Collection of Checks and Other Items by Federal Reserve Banks." Under this program, member banks are permitted to act as the medium or agent of a nonmember commercial bank applying for or receiving credit from this Bank.

ADVANCES AND DISCOUNTS BY FEDERAL RESERVE BANKS

In November, the Board of Governors published a proposed revision of its Regulation A, "Advances and Discounts by Federal Reserve Banks." The revised Regulation would permit banks with significant seasonal needs to have access to Federal Reserve credit on a longer-term basis and with greater assurance than heretofore. Although there would be no other substantial change from the present rules for borrowing at the discount window, the proposed revision would simplify and modernize the Regulation. The Board invited comments on the contemplated changes through February 28, 1973.

CULPEPER FACILITY

During 1972, a 20 percent increase in average daily traffic was experienced by the Federal Reserve Communications System, centered at the Communications and Records Center in Culpeper, Virginia.

In order to keep pace with rapidly increasing transactions, the Switching Center continues to expand its computer-to-computer links with Federal Reserve Banks. During 1972, the Federal Reserve Banks of New York, Kansas City, and Cleveland activated computer links with Culpeper. These offices, plus Chicago and San Francisco, which were connected via computer in 1971, account for approximately 30 percent of the Communications System's traffic.

MONEY

In August, armored car service for currency and coin was expanded to include one-third of the local branches of member banks where this was possible. This service is in addition to that provided to the member banks' main locations in each town or city. Additional expansion of this service is planned for the future.

CHANGES IN DIRECTORS

Early in the fall, Fifth District member banks elected one Class A and one Class B Director to three-year terms on the Richmond Board of Directors. John H. Lumpkin, Chairman of the Board and Chief Executive Officer, The South Carolina National Bank, Columbia, South Carolina, was elected a Class A Director to succeed Hugh A. Curry, President, The Kanawha Valley Bank, Charleston, West Virginia, whose term expired December 31. Osby L. Weir, General Manager, Metropolitan Washington-Baltimore Area, Sears, Roebuck and Co., Bethesda, Maryland, was elected a Class B Director to succeed Robert S. Small, President and Chief Executive Officer, Dan River, Inc., Greenville, South Carolina, whose term also expired December 31.

The Richmond Board of Directors appointed William W. Bruner, Chairman of the Board and President, First National Bank of South Carolina, and President, First Bankshares Corporation of South Carolina, Columbia, South Carolina, to a three-year term as a Director at the Charlotte Branch. He succeeded J. Willis Cantey, Chairman of the Board, The Citizens & Southern National Bank of South Carolina, Columbia, South Carolina, whose term expired December 31.

The Richmond Board reappointed James R. Chaffinch, Jr., President, The Denton National Bank, Denton, Maryland, to a three-year term on the Baltimore Branch Board of Directors.

The Board of Governors reappointed Robert W. Lawson, Jr., Managing Partner, Charleston Office, Steptoe & Johnson, Charleston,

West Virginia, to a three-year term as a Class C Director and redesignated him Chairman of the Board of Directors and Federal Reserve Agent for 1973. Renamed as Deputy Chairman of the Board of Directors for 1973 was Stuart Shumate, President, Richmond, Fredericksburg and Potomac Railroad Company, Richmond, Virginia.

The Board of Governors appointed David W. Barton, Jr., President, The Barton-Gillet Company, Baltimore, Maryland, to a three-year term as a Director at the Baltimore Branch. Mr. Barton succeeded Arnold J. Kleff, Jr., Retired Manager, Baltimore Refinery, American Smelting and Refining Company, Baltimore, Maryland, whose term expired December 31. Robert C. Edwards, President, Clemson University, Clemson, South Carolina, was reappointed by the Board of Governors to a three-year term on the Charlotte Board of Directors.

FEDERAL ADVISORY COUNCIL

The Board of Directors selected Thomas I. Storrs, President, NCNB Corporation and North Carolina National Bank, Charlotte, North Carolina, to serve a one-year term as the Fifth Federal Reserve District representative on the Federal Advisory Council for 1973. The Council, which consists of a representative from each of the 12 Federal Reserve Districts, meets quarterly with the Board of Governors in Washington, D. C., to discuss business conditions and Federal Reserve affairs.

NEW MEMBER BANKS

First Virginia Bank of Orange, Orange, Virginia, opened for business in January. During the same month, First Virginia Bank, Annandale, Virginia, became a state member bank; and Union Trust and Deposit Company, Parkersburg, West Virginia, converted from a state member bank into a nationally chartered bank under the title of Union Trust National Bank. First & Merchants National Bank of the Peninsula, Williamsburg, Virginia, was established in July. The Raleigh County Bank, Beckley, West Virginia, was converted from a state member bank into a nationally chartered bank in August. The Bank of Buckingham, Dillwyn, Virginia, started operations in October. Old Colony Bank & Trust Company of Williamsburg, Williamsburg, Virginia, opened in November; in December, the First Virginia Bank of Roanoke Valley, Roanoke, Virginia, began serving the public.

CHANGES IN OFFICIAL STAFF

The following changes in the official staff of the Bank occurred during 1972.

G. Harold Snead, Senior Adviser in the Auditing Department, retired April 1 after 31 years of distinguished service. He joined the Bank staff as an Examiner on March 1, 1941.

In July, J. Alfred Broaddus, Jr. and Clyde H. Farnsworth, Jr., both members of the Research Department, were named to the position of Assistant Vice President.

In November, Andrew L. Tilton was promoted to Vice President in charge of the Check Collection Department. Also promoted at this time was H. Lewis Garrett, who was elevated to the position of Auditing Officer in the Auditing Department. Joseph C. Ramage, Assistant Vice President, was transferred to the Check Collection Department from the Discount and Credit Department; and John C. Horigan was named Assistant Vice President in charge of the Discount and Credit Department. At our Baltimore Branch, Gerald L. Wilson was promoted to Vice President with general administrative responsibilities and direct supervision of the Planning Department and New Building Program. William E. Pascoe, III, was named Assistant Vice President in charge of the Money, Accounting, and Personnel Departments.

Clifford B. Beavers, Vice President, who joined the Bank on September 1, 1926, retired December 1 after more than 46 years of distinguished service. Immediately prior to his retirement, Mr. Beavers supervised the Check Collection Department.

The following promotions and changes were effective January 1, 1973. William H. Wallace was promoted to Vice President in charge of the Planning Department. Elevated to the position of Assistant Vice President were Hobert D. Pierce of our Building and Equipment Department and Barthonhue W. Reese, Training & Staff Section of the Personnel Department. James R. Slate was named Assistant Counsel in the Legal Department. At the Culpeper Facility, Charles H. Imel was promoted to Assistant Vice President and Dale M. Cunningham was elected Assistant Cashier. Ronald B. Duncan was named Assistant Cashier at the Baltimore Branch with responsibilities in the Personnel and Protection Departments. A. A. Stewart, Jr., Vice President of the Baltimore Branch of the Federal Reserve Bank of Richmond, retired January 1 after 30 years of distinguished service. Mr. Stewart joined the Bank's staff on November 1, 1942.

Summary of Operations

	1972	1971
CHECK CLEARING & COLLECTION		
Dollar amount		
Commercial bank checks[1]	245,977,101,000	218,118,784,000
Government checks[2]	20,677,704,000	18,416,145,000
Return items	2,101,786,000	2,167,970,000
Number of items		
Commercial bank checks[1]	772,507,000	708,860,900
Government checks[2]	71,386,000	71,728,000
Return items	8,272,000	7,753,000
CURRENCY & COIN		
Currency disbursed—Dollar amount	4,085,751,200	3,625,049,840
Coin disbursed—Dollar amount	181,897,550	170,541,920
Dollar amount of currency destroyed	1,046,249,600	1,091,826,100
Daily average of currency destroyed		
Dollar amount	4,151,784	4,298,528
Number	807,585	793,837
DISCOUNT & CREDIT		
Dollar amount		
Total loans made during year	2,246,741,000	3,450,100,000
Daily average loans outstanding	12,046,191	19,924,479
Number of banks borrowing during the year	67	67
FISCAL AGENCY ACTIVITIES		
Marketable securities delivered or redeemed		
Dollar amount	25,193,356,872	20,518,332,102
Number	154,412	202,519
Coupons redeemed		
Dollar amount	110,934,583	103,284,799
Number	324,027	335,884
Savings bond and savings note issues		
Dollar amount	467,752,563	413,299,400
Number	10,549,691	9,667,352
Savings bond and savings note redemptions		
Dollar amount	480,893,174	478,247,164
Number	11,078,409	11,297,295
Depositary receipts for withheld taxes		
Dollar amount	11,815,820,483	9,903,179,888
Number	2,725,952	2,508,511
TRANSFERS OF FUNDS		
Dollar amount	588,289,391,128	453,010,466,662
Number	576,707	491,238

[1] Excluding checks on this Bank.
[2] Including postal money orders.

COMPARATIVE STATEMENTS

Condition

ASSETS:	Dec. 31, 1972	Dec. 31, 1971
Gold certificate account	$1,013,447,540.79	$ 893,888,219.95
Special Drawing Rights certificate account	36,000,000.00	36,000,000.00
Federal Reserve notes of other Federal Reserve Banks	120,854,413.00	99,994,310.00
Other cash	35,597,950.72	37,588,915.00
LOANS AND SECURITIES:		
Loans to member banks	52,150,000.00	2,950,000.00
Federal agency obligations	97,975,000.00	36,286,000.00
U. S. Government securities:		
Bills	2,216,307,000.00	2,256,080,000.00
Certificates	----------	----------
Notes	2,740,543,000.00	2,659,964,000.00
Bonds	258,681,000.00	245,866,000.00
TOTAL U. S. GOVERNMENT SECURITIES	5,215,531,000.00	5,161,910,000.00
TOTAL LOANS AND SECURITIES	5,365,656,000.00	5,201,146,000.00
Cash items in process of collection	965,382,347.55	1,087,551,283.61
Bank premises	13,200,002.95	13,065,841.52
Other assets	80,609,222.97	54,806,430.19
TOTAL ASSETS	$7,630,747,477.98	$7,424,041,000.27
LIABILITIES:		
Federal Reserve notes	$5,315,476,419.00	$4,802,937,861.00
DEPOSITS:		
Member bank reserves	1,247,850,926.16	1,514,666,753.97
U. S. Treasurer—general account	164,018,215.05	98,035,104.43
Foreign	15,080,000.00	14,280,000.00
Other	30,656,816.19	41,252,085.39
TOTAL DEPOSITS	1,457,605,957.40	1,668,233,943.79
Deferred availability cash items	734,371,794.22	833,605,551.88
Other liabilities	40,163,407.36	42,686,343.60
TOTAL LIABILITIES	7,547,617,577.98	7,347,463,700.27
CAPITAL ACCOUNTS:		
Capital paid in	41,564,950.00	38,288,650.00
Surplus	41,564,950.00	38,288,650.00
TOTAL LIABILITIES AND CAPITAL ACCOUNTS	$7,630,747,477.98	$7,424,041,000.27
Contingent liability on acceptances purchased for foreign correspondents	$ 9,308,000.00	$ 12,999,900.00

Earnings and Expenses

EARNINGS:	1972	1971
Loans to member banks	$ 538,548.45	$ 968,532.33
Interest on U. S. Government securities	279,471,257.95	270,720,509.91
Foreign currencies	57,654.65	135,076.52
Other earnings	33,324.64	34,681.04
TOTAL CURRENT EARNINGS	280,100,785.69	271,858,799.80
EXPENSES:		
Operating expenses (including depreciation on bank premises) after deducting reimbursements received for certain Fiscal Agency and other expenses	28,999,822.45	27,284,368.86
Assessment for expenses of Board of Governors	1,821,100.00	1,674,400.00
Cost of Federal Reserve currency	3,015,016.90	2,203,948.20
NET EXPENSES	33,835,939.35	31,162,717.06
CURRENT NET EARNINGS	246,264,846.34	240,696,082.74
ADDITIONS TO CURRENT NET EARNINGS:		
Profit on sales of U. S. Government securities (net)	213,655.97	7,629,141.53
All other	128,737.23	117,201.74
TOTAL ADDITIONS	342,393.20	7,746,343.27
DEDUCTIONS FROM CURRENT NET EARNINGS	2,707,166.07	470,436.83
NET ADDITIONS OR DEDUCTIONS	— 2,364,772.87	+ 7,275,906.44
NET EARNINGS BEFORE PAYMENTS TO U. S. TREASURY	$243,900,073.47	$247,971,989.18
Dividends paid	$ 2,419,254.13	$ 2,261,033.34
Payments to U. S. Treasury (interest on Federal Reserve notes)	238,204,519.34	243,122,855.84
Transferred to surplus	3,276,300.00	2,588,100.00
TOTAL	$243,900,073.47	$247,971,989.18

SURPLUS ACCOUNT

Balance at close of previous year	$ 38,288,650.00	$ 35,700,550.00
Addition account of profits for year	3,276,300.00	2,588,100.00
BALANCE AT CLOSE OF CURRENT YEAR	$ 41,564,950.00	$ 38,288,650.00

CAPITAL STOCK ACCOUNT

(Representing amount paid in, which is 50% of amount subscribed)		
Balance at close of previous year	$ 38,288,650.00	$ 35,700,550.00
Issued during the year	3,333,550.00	2,737,100.00
	41,622,200.00	38,437,650.00
Cancelled during the year	57,250.00	149,000.00
BALANCE AT CLOSE OF CURRENT YEAR	$ 41,564,950.00	$ 38,288,650.00

DIRECTORS *(December 31, 1972)*

Robert W. Lawson, Jr.	*Chairman of the Board and Federal Reserve Agent*
Stuart Shumate	*Deputy Chairman of the Board*

CLASS A

Hugh A. Curry	*President, The Kanawha Valley Bank* *Charleston, West Virginia* *(Term expired December 31, 1972)*
	Succeeded by: John H. Lumpkin *Chairman of the Board and Chief Executive Officer* *The South Carolina National Bank* *Columbia, South Carolina* *(Term expires December 31, 1975)*
Edward N. Evans	*President, The Farmers and Merchants National Bank* *Cambridge, Maryland* *(Term expires December 31, 1974)*
Thomas P. McLachlen	*President, McLachlen National Bank* *Washington, D. C.* *(Term expires December 31, 1973)*

CLASS B

Henry Clay Hofheimer, II	*Chairman of the Board, Virginia Real Estate Investment Trust* *Norfolk, Virginia* *(Term expires December 31, 1974)*
H. Dail Holderness	*President, Carolina Telephone and Telegraph Company* *Tarboro, North Carolina* *(Term expires December 31, 1973)*
Robert S. Small	*President and Chief Executive Officer, Dan River, Inc.* *Greenville, South Carolina* *(Term expired December 31, 1972)*
	Succeeded by: Osby L. Weir *General Manager, Metropolitan Washington-Baltimore Area, Sears, Roebuck and Co.* *Bethesda, Maryland* *(Term expires December 31, 1975)*

CLASS C

Robert W. Lawson, Jr.	*Managing Partner, Charleston Office, Steptoe & Johnson* *Charleston, West Virginia* *(Term expires December 31, 1975)*
Stuart Shumate	*President, Richmond, Fredericksburg and Potomac Railroad Company* *Richmond, Virginia* *(Term expires December 31, 1973)*
E. Craig Wall, Sr.	*Chairman of the Board, Canal Industries, Inc.* *Conway, South Carolina* *(Term expires December 31, 1974)*

MEMBER FEDERAL ADVISORY COUNCIL

Joseph W. Barr	*President, American Security and Trust Company* *Washington, D. C.* *(Term expired December 31, 1972)*
	Succeeded by: Thomas I. Storrs *President, NCNB Corporation and North Carolina National Bank* *Charlotte, North Carolina* *(Term expires December 31, 1973)*

OFFICERS

(January 1, 1973)

Richmond

Aubrey N. Heflin	*President*
Robert P. Black	*First Vice President*
Welford S. Farmer	*Senior Vice President and Special Legal Adviser*
James Parthemos	*Senior Vice President and Director of Research*
John F. Rand	*Senior Vice President*
Raymond E. Sanders, Jr.	*Senior Vice President*
Lloyd W. Bostian, Jr.	*Vice President*
W. Thomas Cunningham, Jr.	*Vice President*
John G. Deitrick	*Vice President*
J. Gordon Dickerson, Jr.	*Vice President*
H. Ernest Ford	*Vice President*
William C. Glover	*Vice President*
Arthur V. Myers, Jr.	*Vice President*
John L. Nosker	*Vice President*
Chester D. Porter, Jr.	*Vice President*
Aubrey N. Snellings	*Vice President*
Andrew L. Tilton	*Vice President*
Albert D. Tinkelenberg	*Vice President*
William F. Upshaw	*Vice President and General Counsel*
William H. Wallace	*Vice President*
J. Lander Allin, Jr.	*Assistant Vice President*
Elizabeth W. Angle	*Assistant Vice President*
Fred L. Bagwell	*Assistant Vice President*
J. Alfred Broaddus, Jr.	*Assistant Vice President*
Wyatt F. Davis	*Chief Examiner*
George B. Evans	*Assistant Vice President*
Clyde H. Farnsworth, Jr.	*Assistant Vice President*
William C. Fitzgerald	*Assistant Vice President*
John E. Friend	*Assistant Vice President*
John C. Horigan	*Assistant Vice President*
Charles H. Imel	*Assistant Vice President*
William D. Martin, III	*Assistant General Counsel*
William E. McLean	*Assistant Vice President*
Robert D. McTeer, Jr.	*Assistant Vice President*
Hobert D. Pierce	*Assistant Vice President*
Joseph C. Ramage	*Assistant Vice President*
Barthonhue W. Reese	*Assistant Vice President*
Frank D. Stinnett, Jr.	*Assistant Vice President*
John G. Stoides	*Assistant Vice President*
Wilbur C. Wilson	*Assistant Vice President*
Jack H. Wyatt	*Assistant Vice President*
Jackson L. Blanton	*Examining Officer*
James R. Slate	*Assistant Counsel*
Dale M. Cunningham	*Assistant Cashier*
Joseph F. Viverette	*General Auditor*
H. Lewis Garrett	*Auditing Officer*

Baltimore Branch

H. Lee Boatwright, III	*Senior Vice President*
Gerald L. Wilson	*Vice President*
B. F. Armstrong, Sr.	*Assistant Vice President*
E. Riggs Jones, Jr.	*Assistant Vice President*
Charles P. Kahler	*Assistant Vice President*
William E. Pascoe, III	*Assistant Vice President*
Ronald B. Duncan	*Assistant Cashier*

Charlotte Branch

Jimmie R. Monhollon	*Senior Vice President*
Stuart P. Fishburne	*Vice President*
Boyd Z. Eubanks	*Assistant Vice President*
Winfred W. Keller	*Assistant Vice President*
Fred C. Krueger, Jr.	*Assistant Vice President*
O. Louis Martin, Jr.	*Assistant Vice President*

BRANCH DIRECTORS *(December 31, 1972)*

Baltimore

James R. Chaffinch, Jr.	*President, The Denton National Bank* *Denton, Maryland* *(Term expires December 31, 1975)*
Tilton H. Dobbin	*President and Chairman of Executive Committee, Maryland National Bank* *Baltimore, Maryland* *(Term expires December 31, 1974)*
*John H. Fetting, Jr.	*President, A. H. Fetting Company* *Baltimore, Maryland* *(Term expires December 31, 1973)*
James G. Harlow	*President, West Virginia University* *Morgantown, West Virginia* *(Term expires December 31, 1974)*
Arnold J. Kleff, Jr.	*Retired Manager, Baltimore Refinery, American Smelting and Refining Company* *Baltimore, Maryland* *(Term expired December 31, 1972)* *Succeeded by:* David W. Barton, Jr. *President, The Barton-Gillet Company* *Baltimore, Maryland* *(Term expires December 31, 1975)*
J. Stevenson Peck	*Chairman of the Board and Chief Executive Officer, Union Trust Company of Maryland* *Baltimore, Maryland* *(Term expires December 31, 1973)*
James J. Robinson	*Executive Vice President, Bank of Ripley* *Ripley, West Virginia* *(Term expires December 31, 1973)*

Charlotte

Charles F. Benbow	*Vice President, R. J. Reynolds Industries, Inc.* *Winston-Salem, North Carolina* *(Term expires December 31, 1974)*
H. Phelps Brooks, Jr.	*President and Trust Officer, The Peoples National Bank* *Chester, South Carolina* *(Term expires December 31, 1973)*
C. C. Cameron	*Chairman of the Board and President, First Union National Bank of North Carolina* *Charlotte, North Carolina* *(Term expires December 31, 1973)*
J. Willis Cantey	*Chairman of the Board, The Citizens & Southern National Bank of South Carolina* *Columbia, South Carolina* *(Term expired December 31, 1972)* *Succeeded by:* William W. Bruner *Chairman of the Board and President, First National Bank of South Carolina, and President, First Bankshares Corporation of South Carolina* *Columbia, South Carolina* *(Term expires December 31, 1975)*
L. D. Coltrane, III	*President and Trust Officer, The Concord National Bank* *Concord, North Carolina* *(Term expires December 31, 1974)*
*Charles W. DeBell	*General Manager, North Carolina Works, Western Electric Company, Inc.* *Winston-Salem, North Carolina* *(Term expires December 31, 1973)*
Robert C. Edwards	*President, Clemson University* *Clemson, South Carolina* *(Term expires December 31, 1975)*

*Branch Board Chairman