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BUSINESS *REVIEW*

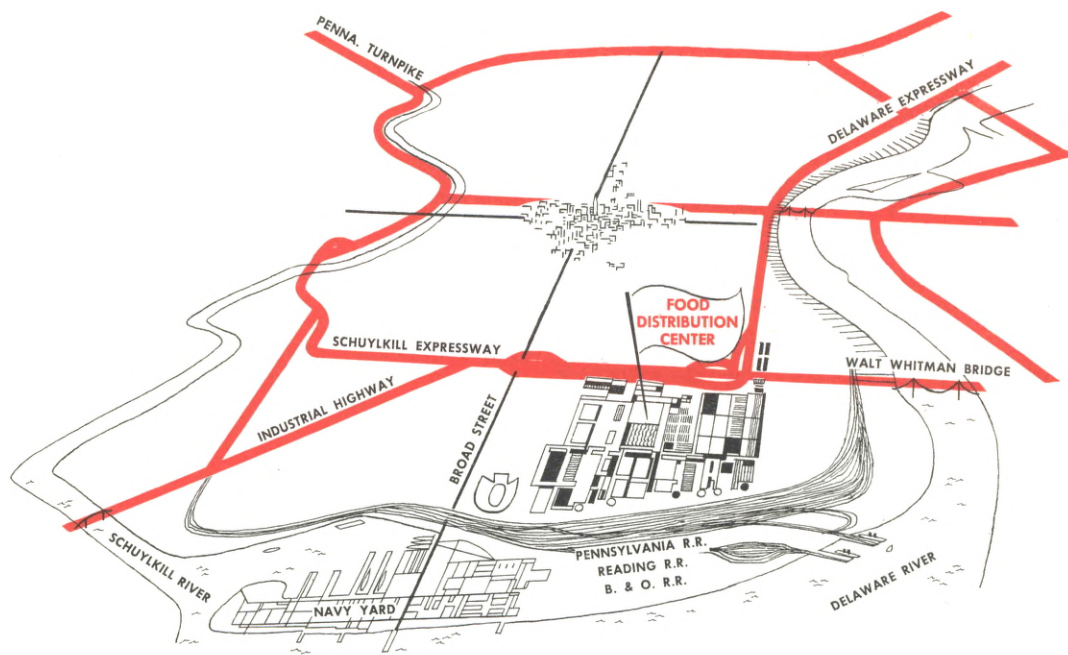
Behold the Grocers' Supermarket
How Banking Tames Its Paper Tiger—Part II



FEDERAL RESERVE BANK OF PHILADELPHIA

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BEHOLD THE GROCERS' SUPERMARKET!



A Look at Philadelphia's New Food Distribution Center After a Year's Operation

"Dinner is served," says the hostess, and you join the other guests at the dining table aglitter with silver and crystal and aglow with flickering tapers. Eating is always delightful in itself and is enhanced by conversation, lightly and sprightly interchanged with congenial friends. The beauty of the floral arrangement is a good conversation opener and compliments on the delicious cooking are good conversation sustainers, if needed. To be sure, no one would be so ungracious as to suggest it, but the repast owes its excellence not only to good cooking and good company but also to good food to begin with.

The food for this Philadelphia dinner party came from faraway places—farther than guests or hostess realized. The celery came from California and the olives from Spain. Florida supplied the grapefruit for the first course. The filet mignon, as the *pièce de résistance*, roamed the plains of Texas about four years earlier, was subsequently fattened in Iowa, abstracted in a Sioux City abattoir, refrigerated to Philadelphia, and garnished with onions from New York. The potatoes were grown in Maine, the lima beans in New Jersey, and the peas in California. The ingredients for the tomato and lettuce salad

came from Florida and California, respectively. Very likely the bread was baked in Pennsylvania but Minnesota furnished the butter. California grew the strawberries for dessert and, of course, Brazil supplied the coffee.

All of the food served was quickly and easily assembled by shopping at the corner grocery store or the nearby supermarket. But where do the Philadelphia food merchants do their shopping? Where do they go to assemble the heterogeneous assortment of foods from all over the world to stock their shelves and their coolers?

Well, from the times of William Penn they shopped in Dock Street and, in later years, also in Callowhill Street, and in still later years in still other streets—all near the waterfront of Philadelphia where the wholesale food merchants congregate. Since June 30, 1959, however, many of the grocers in the Philadelphia area have been doing their shopping at the new Food Distribution Center—a grocers' supermarket, an *entrepôt* extraordinaire.

Some quantitative notions

The millions of shoes people buy each year or the billions of cigarettes they smoke annually are readily ascertainable facts, but try to find out how much food people eat! Yet eating long antedates smoking and the wearing of shoes.

Like other people, the citizens of the Philadelphia area eat at least three times a day and it is estimated that if all the nourishment handled daily by the city's wholesalers arrived by rail it would take a four-mile-long trainload. Moreover, people eat every day of the year, including holidays, so that a year's requirements would be a trainload of 160,000 cars extending halfway across the continent. In dollars, which are more fascinating than freight cars, this would add up to a billion (wholesale value) plus or minus the

conventional margin of error.

By no means do all foods move in by rail. Some—in fact, more and more—come by motor truck and some by boat. Things like bananas from Ecuador or Honduras, horse-radish from Japan, and Spanish melons from Spain are brought by boat. Foods of various kinds come here from all fifty states in the Union and from numerous foreign countries.

Comestibles classified

In the wholesale food business, foods are classified like this:

- Fresh fruits and vegetables
- Dry groceries
- Meats
- Frozen foods
- Poultry and eggs
- Butter and cheese
- Seafoods

The seven major types are listed in approximate order of importance from the standpoint of bulk of shipments. Wholesalers are prone to specialize in one or two of the major classes, each of which embraces many items. Fresh fruits and vegetables, for example, include more than fourscore items ranging from anise and apples to turnips and watermelons. The varieties of dry groceries are even more imposing. Fresh fruits and vegetables, dry groceries, and meats, however, make up about 90 per cent of the bulk of incoming shipments.

The life and times of Dock Street

Dock Street was to food wholesaling what Sansom Street is to the jewelry trade. But in the beginning there was no food wholesaling nor a Dock Street.

Philadelphia was founded, well founded, at the intersection of good routes of transportation.

It was a natural head-of-navigation point for sailing vessels that brought in sugar, tea, and spices, and it was at a good river crossing between Pennsylvania and New Jersey. And so it came to pass in the early days that where these lines of transportation crossed, a farmers' market grew up at the foot of Market Street (then High Street) hard by the Delaware River.

Time passed and Philadelphia flourished, so that eventually the food business became too big to be transacted directly between farmers and consumers. This created a need for retailers and wholesalers. Retailers followed their market as the growing population spread; and the wholesalers, who took over the farmers' market, were pushed down river by other commercial establishments to Dock Creek and up river to Callowhill Street. The meat wholesaling business crept westward on Callowhill Street and ultimately congregated around 8th and Noble Streets. About 1784 a street was built over the course of Dock Creek, which explains the many turns in the short, wandering course of Dock Street from the Delaware River to Third Street. Dock Street, just three blocks long, was the only street from the river leading into the city without a sharp hill and was favored by the teamsters. Buildings along Dock Street were "converted with varying degrees of ingenuity" to serve the wholesale produce trade that continued to operate there until June 1959.

Famed in the old days were the old Blue Anchor Inn, Joe's Oyster House, St. Alban's Hotel, the blacksmith around the corner, and Dave Wick who was reputed to be the only man on the street who could jump into and out of an apple barrel without touching it.

As the city grew, other business establishments completely surrounded the Dock Street produce center so that it became locked tightly

into its small area. By 1870 the Dock Street pattern of wholesale food distribution in Philadelphia was firmly established. Philadelphia retailers serving the city's 674,000 population and retailers from nearby communities came to Dock Street in their horse-drawn wagons very early in the morning to replenish their supplies of fruits and vegetables, meats, and groceries of all kinds and, heavily laden, they hastened back to their stores.

More and more retailers came to Dock Street as the city grew and its population spilled over into the suburbs, but Dock Street was hemmed in. Grocers from nearby communities also relied on the Street for their supplies and the traffic steadily became heavier.

Time went on. One after another came improvements in the arts of growing, preserving, processing, packaging, and retailing food but very few improvements penetrated Dock Street. On the farms the quality of food was greatly improved and the quantity produced was increased manyfold through mechanization, the use of fertilizers, the use of chemicals to fight insects and disease, and the application of genetics to promote the growth and health of meat-producing animals. The invention of the refrigerator car enlarged the area for marketing fresh foods. The preservation of food was advanced by perfection of the art of hermetic sealing and later by the invention of mechanical refrigeration and quick freezing. Advances in processing and packaging foods, too numerous to itemize, have virtually transplanted cooking from the kitchen to the factory. And the strides that have been made in retailing of foods are most apparent in our modern self-service stores and supermarkets where attractive and sanitary displays of food are a constant temptation to the housewife to overbuy.

It seems ironic that for almost a century while every other branch of the food industry was undergoing modernization, wholesaling remained virtually static and stagnant. The obsolete operations in food wholesaling during the 1950's differed little from methods prevailing in the 1870's with, however, one major exception—the motor truck had replaced the horse and wagon. But in Dock Street the motor truck only served to compound the congestion to the point of intolerability. Truckers delivering food to the wholesale market had to inch their way through traffic jammed from curb to curb, and retailers coming to market to buy and pick up produce encountered delays stretching into hours and sometimes had to retreat through sheer inability to reach their destination in the market.

The physical facilities, mostly makeshift to begin with, became regressively inadequate, dilapidated, unsafe, unsanitary, and repulsive. The buildings were antiquated, outmoded, rust-ridden architectural wrecks with little or no plumbing, and often had only



one entrance facing what served as an apology for a combined shipping and receiving platform, if indeed there was a platform. Leaky crates of produce crowded the sidewalks, and the gutters were littered with broken box tops, discarded produce in various stages of decay, and segmental remains of porcine or bovine spines. The Street had all the appearance of a commercial slum, which it was, and as such it was prone to attract the transient type of intermittent workers who derive most of their nourishment out of bottles

and work only long enough for money wages to turn green.

The overflow

Although a substantial part of the wholesale food business was transacted in Dock Street, it could not accommodate the entire trade.

Reference has already been made to the early development of the Callowhill Street market where a number of meat and poultry dealers are still operating under conditions similar to those that prevailed in Dock Street.

A comprehensive survey of the food and distribution facilities of Philadelphia, made by the Agricultural Marketing Service of the U. S. Department of Agriculture in the mid-1950's, revealed that there were 491 independent wholesalers, five chain-store organizations, two stockyards, nine branch houses of national meat packers, two railroad produce terminals, and eight cold-storage warehouses. The study also showed that 313 of the independent wholesalers, five of the packer branch houses, and three of the cold-storage warehouses were located within the Dock Street and Callowhill Street areas. The other wholesale establishments—independent operators, chain-store warehouses, cold-storage warehouses, stockyards, and produce terminals—



occupied various locations throughout the city, largely though not exclusively between the Dela-

ware and the Schuylkill rivers. Both the Baltimore & Ohio-Reading Produce Terminal and the Pennsylvania Railroad Terminal are in southeast Philadelphia in the vicinity of Oregon and South Delaware Avenues about two miles south of the Dock and Callowhill Street markets.

The diffusion of markets only added to the confusion. Pick-up retailers encountered not only the intolerable delays in the Dock and Callowhill Street markets but met with further inconveniences by the need for



going farther afield through traffic-congested streets in calling on outlying wholesalers to complete their line of purchases. Losses arising from such split operations, food spoilage, lack of direct rail connections, traffic congestion, irregular operating hours, and inadequate sanitation have been estimated to cost consumers \$7 million yearly.

THE NEW FOOD DISTRIBUTION CENTER

The Dock Street Market is no more. It has been razed by demolition crews for redevelopment and has been superseded by the new Food Distribution Center which is completing its first year of operations this month. Apparently numerous Philadelphians returning from seashore resorts late at night are surprised, on crossing the Walt Whitman Bridge, to see on their left a vast expanse of new streets laid out in rectangular fashion, brightly illuminated, and huge motor trucks in parallel backed to the shipping and receiving platforms of new buildings harboring nocturnal business activity. Well they

may be surprised because for years this area of southeast Philadelphia was a smoke-ridden, waterlogged lowland serving as a city dump. Now, after redevelopment, it is the strategically located Food Distribution Center in Philadelphia, attracting visitors from all parts of the world. But it didn't just happen. It was planned that way.

The new Food Distribution Center is the fulfillment of a dream, the product of basic research, the result of a master plan. It is the result of a joint venture representing the cooperation of Philadelphia's leading citizens associated with the Greater Philadelphia Movement, the City Administration, and the Planning Commission, the Redevelopment Authority, and the food wholesalers, along with assistance from the Pennsylvania State University and the United States Department of Agriculture. Wholesale food markets of leading cities throughout the world were scoured for ideas, the best of which were incorporated into a comprehensive plan to construct an integrated food center providing all, absolutely all, of the essential services indispensable to a modern food mart.

The place

The new Food Distribution Center has a perfect location in the southeastern quadrant of the Philadelphia peninsula formed by the Delaware and Schuylkill rivers. There on the delta of the Delaware sits the new food market in untrammelled grandeur, hemmed in by nothing and accessible to everything. It is just beyond the southeastern edge of the city from which it is separated by the curving and straightaway approaches to the Walt Whitman Bridge. On its west is the Municipal Stadium and vacant land, on the east is an expanse of vacant land extend-

ing to the Delaware River, on the south are the tracks of the Pennsylvania, Reading, and B. & O. railroads and beyond that vacant land to the Delaware River. Its location is a planner's dream of centralized isolation completely surrounded with accessibility.

All forms of transportation smile down upon it. It is virtually on the Port of Philadelphia and just off the International Airport. It is served by the city's three major trunkline railroads with sidings to roll incoming cars of produce right up to the unloading platforms. From the Food Center, the Industrial Highway reaches southward to Wilmington, Baltimore, and Washington. High-speed access to the Food Center is afforded by the Schuylkill Expressway which feeds directly into the Pennsylvania Turnpike to Harrisburg and the west and the Turnpike's Northeastern Extension to Allentown and the north. The Walt Whitman Bridge affords easy access to all parts of New Jersey by means of the New Jersey Turnpike, and upon completion of the Delaware Expressway the Food Center will have still another main trunkline to the north. The Food Distribution Center is only ten minutes from City Hall, only 35 minutes from King of Prussia, and is hard by the city's two railroad produce terminals.

The space

Space, which the old Dock Street Market lacked, the new Food Center has in abundance—380

acres of it. In laying out the project, 80 acres were reserved for streets, most of which criss-cross at right angles, and both the streets and the parking areas for vehicular traffic are sufficiently generous to accommodate the big vans of produce constantly descending upon the market from all directions. Even the biggest vans that bend in the middle look little on the Food

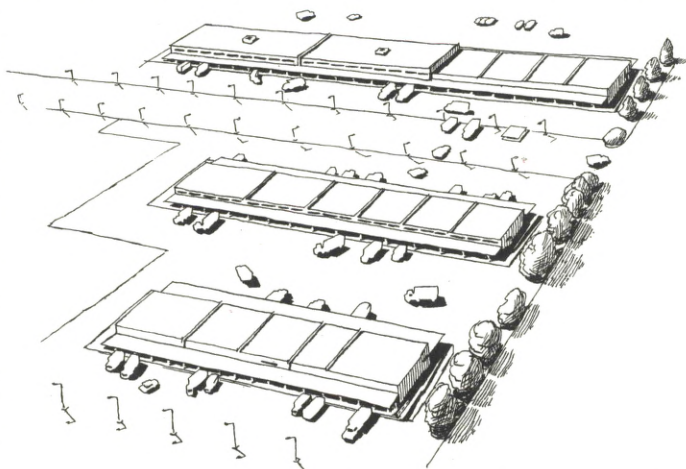
Center's wide streets and spacious parking areas. The buildings now in use on the 300 off-street acres look lonely in the huge domain reserved for future expansion.

The facilities

Facilities are still being constructed.

Those already built are parallel, multi-unit rows of 450 foot-long and 60 foot-deep structures, two stories high, with 20 separate units in each structure. As you might expect, they are specifically designed to meet the needs of the wholesale produce merchants, such as continuous platforms and floors on the same level with front and rear platforms to accommodate both receiving and shipping of produce—each designed to car-floor and truck levels. Special refrigeration facilities are provided for highly perishable foods such as seafood and meats. The produce rows consist of 70 units or stores with room for 50 additional units to be constructed as needed. The seafood section consists of 25 units.

Walking along the continuous platform and peering into the storage space of one merchant after another, you see stacks of bagged onions



or bagged potatoes, crates of lettuce or cabbage, mounds of sweet potatoes here and turnips there. What you don't see are the lobsters, fish, and other denizens of the sea, all tightly tucked behind doors to the freezers—so tight that not even your nose can detect them.

Taking an elevator to the second floor, you walk down a central corridor extending the whole length of the unit with doors opening to the right and left into the offices of the merchants, equipped with the customary office furniture, files, and machinery found in any office. Some quarters are also equipped with a piece of furniture not usually found in most offices, namely, a couch. This does not mean that wholesale food merchants are sleepier than other people; a couch is a necessity in this business because of its frightful hours. A clipping snipped out of a Philadelphia newspaper a few weeks ago says, "The executive vice president of the Philadelphia Fresh Food Terminal Corporation [the organization that runs the place] said the produce markets . . . would open at 10 p.m. instead of 2 a.m." and "Trucks will begin unloading at 6 p.m. instead of 10 p.m." During the night, produce gets pushed around; in the forenoon there is much telephoning and billing and bookkeeping; the afternoons afford to the merchants and their crews, some of whom practically live there, several hours to catch a few winks of sleep. Some of the offices are occupied by brokers, jobbers, news services, inspection agencies, and of course there are rest rooms—a modern convenience which old Dock Street sorely lacked.

In addition to the above-mentioned units, which might be called standard units, there are also a number of special facilities. They consist of buildings particularly designed to accommodate the wholesaling and prepackaging of fresh-

food items. Among them are a large—in fact the country's largest—banana processing and packaging plant, and a seafood warehouse occupying two acres and operated by one of the leading chain stores of the area. In various stages of planning and construction are also a 10-acre perishable-food project for another big chain store, a 6.5 million-dollar commissary for a large Philadelphia baking concern, a wholesale dry grocery establishment to occupy 21 acres, a special unit for prepackaging of fresh fruits and vegetables, a huge food warehouse and distribution facility to occupy a 45-acre site acquired by one of the leading chain-store organizations, and other facilities for processing and distributing meats, butter, eggs, cheese, and dressed poultry. One Philadelphia bank already has a branch on the premises, and still to be built are a central administration building and service area, including a 200-room motel, additional office space, restaurants, and lounges.

The tenants

As the first year of operations of the new Food Distribution Center draws to a close the project is well in orbit. The Food Center now serves 125 tenants, consisting of wholesale merchants specializing in one or several branches of related food items, representatives of the big chain stores who specialize in almost everything, and numerous brokers and jobbers who never, or hardly ever, come in direct contact with a truckload of eggs or carload of potatoes but who buy and sell a tremendous volume of produce of all kinds, mostly over the telephone.

Though the Dock Street Market has fortunately passed into history, not all of the former Dock Street operators moved into the new Food Distribution Center. Some went out of business;

a few of the smaller jobbers drifted up to Cal-lowhill Street or elsewhere. The largest of the former Dock Street operators, however, moved into the new center and the dollar volume of business at the new downtown market, as the new food center is sometimes called, over-shadows the former volume of Dock Street business. Many of the former Dock Street operators now doing business in the new center report that customers whom they had lost years ago to other areas are now returning. In the market one sees trucks from Scranton, Reading, and Harrisburg, and from distant cities such as Rochester, Roanoke, Charleston, and Fort Lauderdale.

The totality

The new Food Distribution Center is just one part of Philadelphia's comprehensive Redevelopment Program apparent throughout many parts of the city, and it is typical of the thoroughness with which improvements are being made. If citizens could have seen the unsanitary conditions under which their food at wholesale was handled formerly, many of them would have given up eating. But improved sanitation is only one of the by-products of the new Food Distribution Center. The huge saving in time and

money in the conduct of wholesale produce operations is another benefit. Another advantage is the decrease in traffic congestion. Fewer of the monstrous motor trucks, the size of a freight car, now travel through the center of Philadelphia. The easy accessibility to the new center afforded by all forms of transportation can also be readily appreciated.

The unique feature of the new Food Distribution Center, however, is its totality—the fact that it is a thoroughly integrated wholesale food market. It is a department store for retailers—a grocers' supermarket. First and foremost, it is an accessible place with enough space with 20th century facilities and modern standards of cleanliness for the handling of food at wholesale. But it is more than that. It is set up to embrace all the auxiliary services such as banking, insurance, Government inspection, news and price reporting, along with such facilities as restaurants, motels, service stations, drug stores, barber shops, and everything required to make a completely integrated operation. As such, the new Food Distribution Center is another in the long and imposing list of Philadelphia firsts.

Sketches adapted from photographs in: "Marketing Research Report No. 201," Agricultural Marketing Service, U.S. Department of Agriculture; "The New Food Distribution Center," published by the Greater Philadelphia Movement; *Fourth Annual Report*, May 1959, Food Distribution Center Corporation.

Part II

PLANS AND PROCEDURES

It appears that member banks in the Third

District are making definite progress toward automation. Several already have electronic computers and a dozen others plan to get them. Sorter-readers are slated by 16 banks.

This abstract graphic design is a collage of various elements. At the top left is a vertical film strip with sprocket holes. To its right is a rectangular area containing a grid of small black squares, resembling a data table or a barcode. Below the film strip is a stylized atomic symbol with three elliptical orbits. To the right of the atom is a molecular structure consisting of three circles connected by lines. Below the molecular structure is a car wheel with a three-spoke hubcap. To the right of the wheel is a rocket-like object with a cylindrical body and a conical nose. The entire design is rendered in a high-contrast, black-and-white style with a mix of geometric and organic shapes.

ing accounts. The majority of Philadelphia banks and a sizable group of country banks have started the job of printing their routing symbol-transit number in magnetic ink on their checks. Many more will do it soon.

Naturally the large banks are ahead but some small banks, too, are achieving a measure of automation. Electronic bookkeeping machines (tronic) are operated by ten banks with deposits of less than \$5 million.

Most banks are doing some hard thinking about the cooperative use of automated equipment. One in three now favors it, and the service bureau method is most popular.

These are some of the things our survey shows. But before going into the results in detail, we shall tell something about the survey itself.



THE POLLING

Our survey includes approximately 450 banks of all sizes and covers most of the major types of machinery that banks use, from glamorous computers to work-a-day bookkeeping machines.

In February 1960, we mailed out questionnaires to all member banks in the Third District with deposits under \$100 million. The larger banks we contacted in person. At the cut-off date in mid-March, we had received a usable response of 88 per cent—100 per cent from banks over \$20 million. These are high percentages, due undoubtedly to the keen interest bankers are taking in mechanization.

We addressed our questionnaires to the top operating officer in each bank. He either completed it himself or turned it over to the officer directly concerned with mechanization. We are grateful to these bankers for their time and effort.

The questionnaire asked for estimates when exact information was unknown. This means that our results are approximations rather than precise figures. Branch totals were included in all replies.

Since only member banks in the Third District participated in this survey, the findings are by no means representative of the nation—nor even of all commercial banks in the district. Member banks, on the average, are larger than nonmembers and banks in the Northeast section of the country are generally larger than those in some other regions. Our survey results, therefore, probably overstate the degree of mechanization in the United States banking system as a whole.

ELECTRONIC EXPECTATIONS

We asked a number of questions about plans and preferences as well as accomplished facts. This is what we were told.

Account numbers

Assigning numbers to checking accounts is necessary because most of the new machines identify accounts by number rather than name. Tronics can be operated without numbered accounts but they are more efficient with them and computers virtually require numbers. Since numbering takes months to complete, it is usually started well before new equipment is delivered.

When the first banks began numbering several years ago, they expected considerable customer resistance. According to reports, most banks have been pleasantly surprised. Of course, there are always a few curmudgeons who bluster about having to put their numbers on checks and deposit slips but, for the most part, depositors have cooperated willingly. Banks have sold them the idea that numbering means a more efficient system and better service.

There are two principal methods of assigning account numbers. One system is called "alpha-numeric" and, in essence, it works this way. Accounts are put in alphabetical order. Then numbers are assigned. The first account, Mr. Aaronson, gets number one. In order to provide for future growth, several numbers are skipped, and the next account, Mr. Able, gets, say, number five. In that way, numbers two, three, and four are saved for possible future customers whose names fall alphabetically between Aaronson and Able. The remaining accounts are numbered in the same manner, with gaps between each one. Mathematicians have figured out just how many growth spaces are necessary, and their formulas are available.

The other method is the "numeric" system. It makes no provision whatsoever for maintaining alphabetical order. Consecutive numbers are assigned to each account. A new account is given

ACCOUNT NUMBERS

The Status of Plans to Number Demand Deposit Accounts

	Deposit Size (\$ millions)					
	Under 5	5-10	10-20	20-100	Over 100	All Banks
Percentage of All Banks in Size Group with Accounts Now Numbered	4%	24%	39%	60%	77%	23%
Numbering System Used:						
Numeric	25%	24%	4%	24%	70%	24%
Alpha-Numeric	75	69	92	62	30	69
Other	—	7	4	14	—	7
	100%	100%	100%	100%	100%	100%
Percentage of All Banks with Definite Plans to Number Accounts	4%	11%	19%	21%	23%	10%
Numbering System Planned:						
Numeric	25%	15%	17%	30%	—	26%
Alpha-Numeric	25	15	17	10	100	15
Undecided	50	70	66	60	—	59
	100%	100%	100%	100%	100%	100%

the next number in sequence no matter how the name is spelled.

According to our survey, 23 per cent of all Third District member banks have at least part of their checking accounts numbered. Since numbering is a harbinger of advanced mechanization, it is not surprising that the percentage of banks with numbered accounts increases with bank size.

The "alpha-numeric" system is used by 69 per cent of the banks with numbered accounts. Only in the largest size group is the "numeric" system employed extensively. There it accounts for 70 per cent of the systems in operation.

Another 10 per cent of the survey banks have definite plans to number their accounts. About two-thirds of these expect to start by the end

of this year. The majority is still undecided about which system to use.

Magnetic ink

All banks should imprint their routing symbol-transit number (an electronic bank identification number) in magnetic ink on their checks.* These numbers are a vital first ingredient in banking automation. They will enable the larger correspondent banks and the Federal Reserve Banks to automate their check-handling operations. Only in this way can banking maintain an efficient check collection system in years to come. The number of checks written ten years

* Banks considering the use of electronic sorters—either alone or as a cooperative venture—may find it to their advantage to imprint account numbers in magnetic ink at the same time.

MAGNETIC INK IMPRINTING

*The Status of Plans to Imprint Routing Symbol-Transit Numbers
On Checks in Magnetic Ink.*

	Deposit Size (\$ millions)					
	Under 5	5-10	10-20	20-100	Over 100	All Banks
The Percentage of Banks in Each Size Group Which Has Started Imprinting Routing Symbol-Transit Number	3%	4%	6%	10%	69%	7%
Percentage with Definite Plans to Imprint Routing Symbol-Transit Number	18	17	27	32	31	20
Percentage with Routing Symbol-Transit Number Not Imprinted and With No Plans to Do So	79	79	67	58	—	73
	100%	100%	100%	100%	100%	100%

from now will be more than two-thirds greater than it is today. If you placed all the checks that will be written in 1970 end to end, it would take the fastest rocket 17 days to reach the last check.

How is this vital printing job progressing? About 7 per cent of the banks in the survey already had started imprinting their routing symbol-transit number when they answered the questionnaire. This figure included many of the larger banks in the area. We estimate that the banks in this 7 per cent held almost 30 per cent of all checking accounts in Third District member banks.

A fifth of all Third District member banks reported definite plans to imprint in magnetic ink. More than two-thirds of these banks expect to begin in 1960, the remainder in 1961. According to these intentions, it looks as if about half of the checking accounts in the district will be imprinted by the end of next year.

Still, 73 per cent of all banks have no magnetic ink plans whatsoever. The bulk of them are small banks, it is true, but far from all of them are. More than half of the banks in the \$20 million to \$100 million deposit class did not express imprinting intentions. Of course, the situation may have changed since March. Magnetic ink has received a lot of publicity in the last several months. There also is reason to hope that more and more banks will decide in favor of magnetic ink as time goes on. There may be the sort of a snowball effect which occurs in automobile marketing. Dealers say that one of the things that stimulates the sales of new-model cars is for prospective customers to see a lot of them on the road. As bankers see more and more magnetic ink checks in use, they may decide to join the band wagon themselves.

Banks with fully automated "on us" book-keeping systems will have to print magnetic ink

PLANS FOR NEW EQUIPMENT

The Number and Percentage of Banks in Each Size Group with Definite Plans to Acquire New Machinery. The Number of Banks Is Shown in Black. The Percentage of All Banks in Size Group Is Shown in Red.

Type of Machinery	Deposit Size (\$ millions)				
	Under 5	5-10	10-20	20-100	Over 100
Electronic Bookkeeping Machines	1 .5%	4 3%	6 9%	6 13%	— —
Punched-Card Installations	— —	— —	— —	4 8%	— —
Magnetic Ink Sorter-Readers	— —	— —	— —	6 13%	10 77%
Electronic Computer	— —	— —	— —	3 6%	10 77%

account numbers on deposit slips as well as checks. The growing popularity of "snap-out" slips may make this difficult. "Snap outs" with their flimsy paper and carbon inserts present a problem to the printers. True, only 9 per cent of all district banks use "snap outs" but in the largest group where such automation is most likely, the figure is 46 per cent.

For future delivery

Big banks are taking an avid interest in electronics. In the over \$100 million size class, ten banks reported definite plans to install a new computer. One of these will be a two-computer bank. In addition, three banks with less than \$100 million in deposits are counting on putting in a computer.

All banks are planning to use their new computers for several operations at least. In many cases, demand deposit accounting will be programmed first, with other jobs such as installment loans and trust accounting following soon.

Visions of magnetic ink sorter-readers also

are dancing through bankers' heads. None of these machines was installed at the survey date but 16 banks had definite plans—ten in the over \$100 million class and six in the next largest group. Several banks expected to put four units in operation and three other banks had ordered a pair. All banks plan to use the machinery on proof and transit operations.

Delivery of sorter-readers and especially new computers is slow. Sometimes it takes a year or more before a bank receives its new equipment order. It is reasonable, therefore, to expect that a major upswing in electronic automation will not occur until 1961 at the earliest.

New punched-card tabulating installations are planned by four banks, all in the \$20 million to \$100 million size group. Most of the larger banks have punched-card equipment now and the smaller banks evidently don't consider it practical. Certainly many banks will be adding to or changing existing installations, but this is beyond the scope of our survey.

Tronics remain popular. Another 17 banks

are planning to join the 100 or so that now have the machines. None of the largest banks expect to add trionics, however. Rather than convert additional operations to trionics, most of these banks seem to be waiting to take the giant step to a computer.

Cooperative use

Only large banks have the work volume to justify the expense of presently available automated equipment such as computers or sorter-readers. Nobody knows the number of banks in the nation which qualify but it is probably in the hundreds. This leaves many thousands of banks that now are not able to take major steps toward automation on their own.

These banks may be at a serious competitive disadvantage. The larger, more automated institutions should be able to perform services more efficiently. With this kind of an edge, they may win more and more customers away from the smaller, less mechanized banks. In areas where competition is keen, this could be a crushing blow to the little banks.

What's the answer? Must the smaller banks wither or merge? Not necessarily. The price of new automated equipment will undoubtedly decline as manufacturers gain experience and volume, making automation feasible for an ever-increasing number of banks. Furthermore, there is no reason why used electronic equipment won't become available at reasonable prices. Already there is an embryo market in used computers, we are told. But how long will this filtering down process take and how far will it go? Certainly individual automation will remain impractical for a vast number of American banks in the foreseeable future.

There is another answer for smaller banks, however—the cooperative use of automated machinery. A group of banks could, in some way,

share the use and cost of such equipment provided, of course, they have their accounts properly numbered and imprinted. Thus each participant might operate as efficiently as the large automated banks. Some bankers see cooperative use as the small banks' salvation when the electronic age reaches full flower.

But others shy away from cooperative use. They don't like to send vital records off the banking premises. They fear breaches of secrecy; they don't like cooperating with long-time competitors. In some cases, they just plain distrust machine methods. "I'm not putting my records on a piece of tape. I want them on paper so I can read them any time."

We asked Third District bankers how they felt about the cooperative use of automated equipment. About one-third of the surveyed bankers are for it. The highest favorable percentage (54 per cent) is in the \$20 million to \$100 million group.

There are several methods by which banks could share automated equipment. The banks in our survey prefer a service bureau owned by the equipment manufacturers. There are two variations of service bureaus. In one, manufacturers' personnel operate the machines. The banks drop off the raw work and stop back later to pick up the finished products. The other type is a sort of "computomat." The manufacturer just furnishes the machines and the banks' own people run them. The former type appeals most to small banks because they do not have trained operators.

Another way of sharing automation is for an existing bankers organization—a clearing house, county association, etc.—to acquire and run the equipment. This method is in second place on the preference list. It has considerable attraction for the smaller banks.

COOPERATIVE USE

The Percentage of Banks in Each Size Group Favoring Cooperative Use of Automated Equipment, and the Method Preferred.

	Deposit Size (\$ millions)					
	Under 5	5-10	10-20	20-100	Over 100	All Banks
Percentage Favoring Cooperative Use	24%	46%	30%	54%	23%	34%
Method Preferred						
Joint Ownership and Operation by a Group of Banks	21%	16%	11%	50%	33%	23%
Ownership and Operation by Clearing House, County Bankers Association, etc.	34	30	32	—	—	26
A Service Bureau Run By Equipment Manufacturers	34	39	47	46	67	40
Use of Equipment Owned by a Larger Bank	9	11	10	—	—	8
Method Unspecified	2	4	—	4	—	3
	100%	100%	100%	100%	100%	100%

A group of nearby banks could own (or rent) and operate the necessary machinery themselves. We found that 23 per cent of the banks favoring cooperative use prefer this arrangement.

Almost two-thirds of the banks in the largest size class expect to make their computers and check sorters available to their smaller "cousins." This will help the big bank pay for the machinery and will cement correspondent ties. The smaller banks aren't particularly enthusiastic about the idea, however. Only 8 per cent of the banks which favor cooperative use are inclined toward this system.

THE BUSINESS BANKS DO

While delving into machinery usage, we found out what services the banks offer and what vol-

ume of business they do. The findings shed some light on the composition of Third District banking activities.

In general, the larger the bank, the wider the range of services offered. This applies not only to the basic banking services we asked about but to the new ideas that the industry has been pioneering in the last few years. (See the October 1959 issue of the *Business Review*.)

Regular checking and regular savings accounts, business loans, and mortgages are services extended by every bank in the survey. Special savings accounts (Christmas and vacation clubs, etc.) are available in all but a very few banks.

It is interesting to note that in this debt age 10 per cent of the survey banks did not report

SERVICES OFFERED

The Percentage of Banks in Each Size Group Engaging in the Various Types of Operations.

Type of Operation	Deposit Size (\$ millions)					
	Under 5	5-10	10-20	20-100	Over 100	All Banks
Special Checking Accounts	61%	71%	58%	83%	92%	67%
Regular Checking Accounts	100	100	100	100	100	100
Regular Savings and/or Time Deposits	100	100	100	100	100	100
Special Savings (Christmas Club, Etc.)	95	98	100	100	100	97
Consumer Installment Credit	84	91	97	100	100	90
Revolving Check Credit	—	4	14	25	85	8
Business and Agricultural Loans	100	100	100	100	100	100
Mortgages	100	100	100	100	100	100
Personal Trusts	17	48	80	96	100	46
Corporate Trusts	10	28	63	79	100	33

any consumer installment loans outstanding. This does not mean that these banks never make loans to individuals for consumption purposes. Some do, but carry the credit as a commercial transaction. On the other hand, a number of banks still avoid such lending as a matter of principle.

Revolving check credit, one of the latest wrinkles in consumer banking, now is offered by 36 Third District member banks. The majority are large banks. In Philadelphia, all but one of the large member banks have a plan in operation. Revolving credit also appears once in a while in smaller banks. There are five banks in the district with deposits between \$5 million and \$10 million that have it.

The banks in the survey had more regular savings accounts than any other type of deposit. The average bank held about 5,000 of them. In

total there were almost 1 million more savings accounts than checking accounts in the surveyed banks, which points up the importance of commercial banks as savings institutions.

On each operation the average number of accounts or notes jumped sharply from the \$20 million-\$100 million group to the over \$100 million group. This seems to indicate a big difference between the two groups in the amount of automation that is practical. The large banks with their significantly greater volume should be able to automate much more and much faster than the next largest group.

MACHINES AT WORK

We asked what kind of machines banks had and how they used them. Some of the highlights are summarized here; the details are in the appendix beginning on page 24.

EQUIPMENT ON HAND

The Percentage of Banks in Each Size Group Using the Various Types of Machinery.

Type of Machinery	Deposit Size (\$ millions)					
	Under 5	5-10	10-20	20-100	Over 100	All Banks
Conventional Bookkeeping Machines	100%	100%	97%	100%	100%	99%
Window Posting Machines	23	47	56	75	38	41
Proof Machines	34	77	95	100	100	64
Electronic Bookkeeping Machines (Tronics)	5	20	39	69	85	23
Punched-Card Tabulating	—	—	—	8	92	4
Electronic Computer	—	—	—	—	15	.5

The conventional work horse

Conventional bookkeeping machines are the common denominator of bank mechanization. They work on every banking job and in virtually every bank. They are the first and often the only major machine in many small banks. Conventionals keep track of all sorts of things—deposits, loans, trusts, etc. Their job is to make entries on cards. They can describe a transaction and compute and print a new balance.

There are over 2,000 conventionals in the survey banks—an average of about five per bank. They are most frequently used in demand deposit accounting. For special checking accounts, 71 per cent of all survey banks used conventionals exclusively. For regular checking accounts, the figure was 78 per cent.

On the average, about one full-time machine was used on special checking accounts and two and one-half machines on regulars. The difference is due in large measure to the greater activity of regulars which include many business

accounts. The average number of regular accounts per bank exceeds the specials by only 42 per cent.

Conventionals get heavy use on all other operations except special savings accounts and payrolls where manual methods are common, and proof and transit (check sorting) where proof machines prevail. The fact that conventionals are found at all on proof and transit is testimony to their versatility.

The amazing tronics

Tronics do the same basic job as conventionals—posting ledger cards—but they do it more automatically. The card has magnetic stripes on its back where information is stored. The machine “reads” these data electronically and uses them to compute and print the transaction.

About one out of every four banks has tronics. The proportion rises with bank size to 85 per cent of all banks in the over \$100 million category. The average number of tronics per bank is

four and the range is from one to 46. The total number of machines in the surveyed banks is 424.

Tronics are not used on so many different operations as are conventionals. The survey shows tronics employed on only five of 13 basic banking operations. This does not mean that tronics are not flexible. It could be a reflection of their youth. Tronics have only been on the market for three years and bankers haven't had much time to apply them to tasks other than their designed specialty—demand deposit accounting.

Tronics cost in the neighborhood of \$12,000, yet ten banks in the under \$5 million category have them. The smallest bank owning a tronic has just over \$3 million in deposits. A tronic is used in one bank that has only 1,000 demand deposit accounts. We contacted both these banks by telephone and they seemed satisfied with their machines.

The tronic wave has created something of a backwash. When a bank buys tronics, it usually sells its old conventionals. Recent heavy sales have depressed the price of used conventionals and made them especially attractive. Several bankers have told us they would like to have a tronic but they can't pass up the bargains in used conventionals.

Conventionals vs. tronics

How do the two types of bookkeeping machines compare in actual performance? It seems very roughly that one tronic can do the work of two conventionals. According to the survey, the average tronic handles about 2,600 special checking accounts, the average conventional about 1,200. For regular checking accounts, the figures are tronics 2,200 accounts, conventionals 1,000.

Average daily items per machine tell much

the same story. The score on specials shows tronics ahead approximately 1,300 items to 600 items. On regulars, the average tronic processed 2,200 items—about 1,400 more than the average conventional.

These figures should not be considered exact measures of machine efficiency. In the first place, the information is based in part on bankers' estimates. But more important, the figures have not been adjusted for differences in the way the machines are used. There seem to be at least two schools of thought on how to use bookkeeping machines (either tronics or conventionals) on demand deposits. In some banks the operator uses the machine only part of the time. It stands idle while she does ancillary jobs such as filing and sorting. In other banks, the operator runs the machine straight through the day and the allied jobs are done by special clerks.

Differences in work methods and operating systems could have distorted the performance figures we cite above. Yet our sample is large and the differences could have canceled themselves out. We can't say for sure, so use the figures with discretion.

We do know, however, that differences in methods account for some out-of-line figures when accounts and items per machine are broken down by size of bank (see the appendix). For example, Table 4, page 26, shows that banks in the four smallest categories average over 1,100 regular checking accounts per conventional machine. Then the figure for the over \$100 million group drops to 720 accounts. We called some of the large banks to find out why. It seems there is a personnel shortage in the big cities and operators are hard to keep. These banks use the machines only part time in order to make the operator's job more attractive. The girls run their machines about four

NUMBER OF MACHINES

The Average Number of Machines Per Bank Is Shown in Black. The Range (Low-High) Is Shown in Red.

Type of Machinery	Deposit Size (\$ millions)					
	Under 5	5-10	10-20	20-100	Over 100	All Banks
Conventional Bookkeeping Machines	2 1-7	3 1-12	5 1-13	8 1-22	37 6-133	5 1-133
Window Posting Machines	1 1-4	1 1-4	1 1-6	4 1-16	25 2-50	3 1-50
Proof Machines	1 1-1	1 1-4	2 1-4	4 1-9	29 9-85	3 1-85
Electronic Bookkeeping Machines (Tronics)	1 1-2	1 1-3	2 1-7	4 1-8	18 2-46	4 1-46
Electronic Computer	— —	— —	— —	— —	1 1-1	1 1-1

hours a day then switch to other work for a pleasant change of pace.

The machine in the window

A window posting machine sits all day in the teller's cage. The teller sticks a passbook and a ledger card in its "mouth" and it receipts the book and posts the card all in the same operation.

Window posting machines are used on regular savings accounts by 28 per cent of the banks. Other applications are special savings accounts, consumer installment credit, and mortgages.

About 40 per cent of the banks have window posting machines. The average bank has three and the range is from one to 50. The percentage of banks using the machines rises steadily from the smallest to the next-to-largest category, then it drops in the over \$100 million group. This is because punched-card tabulating equipment has

taken over the posting machine's jobs in many of the largest banks.

Proof positive

Proof machines are used for sorting. They have a number of pockets into which the operator drops documents one by one. The machine keeps running totals for each pocket and a grand total.

These machines are specialists, mainly sorting and proving batches of checks. Some banks also apply proof machines to other accounting jobs such as general ledger.

Almost two-thirds of the banks had proof machines, including all banks with deposits of more than \$20 million. The average bank has three machines; no bank under \$5 million has more than one, while one large bank has 85. The average proof machine handles 5,600 items a day.

It's in the cards

Punched-card tabulating equipment, known as "tab," is a big-bank mainstay. All but one of the banks with more than \$100 million deposits have installations. In the next largest category, four banks have them. The smallest bank using the equipment has about \$21 million in deposits.

Tab is versatile. The machines can be wired to handle most of banking's jobs. The most frequent applications are special savings accounts, payroll, trust accounting, and installment credit. More than half of the largest banks have these operations on cards.

Proof and transit is the only thing that tab does not do. It is used infrequently on regular demand deposits and business loans. The latter are hard to automate; there are so many special situations. Almost every loan has its own special combination of terms and conditions. In the largest size group, 77 per cent of the banks use the flexible conventionals on business loans. In smaller banks these loans are often processed by hand.

Tab needs volume to make it pay. The average installation handles over 28,000 special checking accounts, 42,000 regular savings accounts, and 24,000 installment loans. But since tab installations vary widely—some have a big battery of the latest machines, others have only a few old standbys—the banker should be wary when comparing his own figures to these averages.

If they could only cook

Computers can't prepare a meal or wash the dishes. But they can do almost everything else.

They can play chess, compose symphonies, translate Russian, forecast the weather, operate manufacturing plants, decide when to bunt and when to hit-and-run, and perform many banking tasks.

There are two computers now at work in banks in the Third District. Both are in Philadelphia banks and both are still in the getting-to-know-you stage. Each bank christened its computer in a different way. One started with special checking accounts. At the survey date this was the only operation actually performed, but others were scheduled to follow soon. There is a good chance that regular checking accounts will be next.

The other bank broke in its computer on consumer credit. At the time of the survey it was processing revolving credit. Since then, installment credit and special checking accounts have been added.

The number of accounts or loans and daily items handled by the two computers is not shown in our tables to avoid disclosing specific information about an individual bank.

WHAT MECHANIZATION MEANS

We have constructed a measure of mechanization and ranked each bank. In next month's *Business Review* we shall relate the degree of mechanization to selected items taken from call and earning reports. Do the more mechanized banks tend to have higher profits? Do they pay less for salaries and wages? These are the types of questions we will try to answer in the concluding article of this series.

STATISTICAL APPENDIX

Table Number 1**THE SURVEY MAKE-UP***The Percentage Participation of Third District Member Banks*

Deposit Size Group (\$ millions)	Number of Member Banks in Third Federal Reserve District (Feb. 1960)	Percentage of Usable Response
Under 5	236	82%
5-10	133	93
10-20	69	93
20-100	48	100
Over 100	13	100
All size groups	499	88%

Table Number 2**AVERAGE NUMBER OF ACCOUNTS OR NOTES PER BANK**

Type of Operation	Deposit Size (\$ millions)					
	Under 5	5-10	10-20	20-100	Over 100	All Banks
Special Checking Accounts	512	1,076	2,025	4,172	28,575	2,512
Regular Checking Accounts	1,086	2,100	3,895	7,639	37,754	3,570
Regular Savings and/or Time Deposits	1,359	3,094	5,333	12,853	53,538	5,209
Special Savings (Christmas Club, Etc.)	555	1,263	2,206	6,213	24,769	2,366
Consumer Installment Credit	417	1,008	1,896	5,140	45,362	2,851
Revolving Check Credit	—	105	86	757	3,956	1,476
Business and Agricultural Loans	292	553	1,224	1,352	4,804	750
Mortgages	195	334	1,554	1,055	2,354	592
Personal Trust Accounts	37	61	178	448	3,804	418
Corporate Trust Accounts	3	4	7	19	155	22

Table Number 3

THE NUMBER OF CONVENTIONALS

*Average Number of Conventional Bookkeeping Machines Used on Each Operation.**

Type of Operation	Deposit Size (\$ millions)					
	Under 5	5-10	10-20	20-100	Over 100	All Banks
Special Checking Accounts	0.5	1.0	1.4	2.2	8.5	0.9
Regular Checking Accounts	1.0	1.7	3.3	6.6	58.0	2.4
Regular Savings and/or Time Deposits	0.5	0.6	1.2	2.4	5.5	0.8
Special Savings Accounts	0.2	0.5	0.8	—	—	0.5
Consumer Installment Credit	0.3	0.5	0.6	1.1	5.0	0.7
Revolving Check Credit	—	0.4	0.2	0.6	1.2	0.5
Business and Agricultural Loans	0.4	0.4	0.5	1.0	1.9	0.6
Mortgages	0.3	0.4	0.4	0.7	1.5	0.4
Personal Trust Accounts	0.2	0.3	0.6	0.8	1.6	0.6
Corporate Trust Accounts	0.2	0.2	0.2	0.3	5.6	0.6
Payroll	0.3	0.3	0.2	0.3	0.8	0.3
Other Accounting	0.4	0.5	0.6	0.8	1.8	0.6
Proof and Transit	1.0	1.4	0.8	—	—	1.1

* Situations where conventionals are used in combination with other machinery on the same operation are excluded. The importance of such combinations is shown in Table 6.

Table Number 4

ACCOUNTS PER MACHINE

*Average Number of Accounts or Notes Per Full-Time Machine or Punched-Card Installation.**

Operation and Type of Machinery	Deposit Size (\$ millions)					
	Under 5	5-10	10-20	20-100	Over 100	All Banks
Special Checking Accounts						
Conventional Bookkeeping Machines	962	1,074	1,316	1,401	2,129	1,223
Electronic Bookkeeping Machines (Tronics)	2,116	2,846	2,466	2,735	2,690	2,654
Punched-Card Installations	—	—	—	**	35,167	28,625
Electronic Computer	—	—	—	—	**	**
Regular Checking Accounts						
Conventionals	1,114	1,246	1,176	1,121	720	1,041
Tronics	2,170	2,492	2,124	2,124	2,415	2,242
Regular Savings and/or Time Deposits						
Conventionals	3,005	4,756	4,718	5,967	4,909	4,453
Tronics	**	—	—	—	—	**
Punched-Card	—	—	—	9,250	46,167	42,214
Special Savings (Christmas Club, Etc.)						
Conventionals	2,039	2,046	3,004	—	—	2,347
Punched-Card	—	—	—	12,067	29,889	25,433
Consumer Installment Credit						
Conventionals	1,408	2,068	3,287	4,920	7,413	3,784
Punched-Card	—	—	—	**	28,417	23,763
Computer	—	—	—	—	**	**

ACCOUNTS PER MACHINE (Continued)

Operation and Type of Machinery	Deposit Size (\$ millions)					
	Under 5	5-10	10-20	20-100	Over 100	All Banks
Revolving Check Credit						
Conventionals	—	325	930	1,232	2,051	1,373
Tronics	—	—	—	—	**	**
Punched-Card	—	—	—	1,150	1,917	1,725
Computer	—	—	—	—	**	**
Business and Agricultural Loans						
Conventionals	1,015	1,433	2,670	1,428	2,943	1,752
Tronics	—	—	—	—	**	**
Punched-Card	—	—	—	—	2,000	2,000
Mortgages						
Conventionals	772	892	1,597	1,451	1,500	1,234
Punched-Card	—	—	—	2,700	2,588	2,625
Personal Trust Accounts						
Conventionals	315	242	394	484	696	458
Punched-Card	—	—	—	2,900	5,475	5,189
Corporate Trust Accounts						
Conventionals	12	18	31	59	9	24
Punched-Card	—	—	—	100	250	231
Payroll						
Conventionals	33	52	167	419	622	282
Punched-Card	—	—	—	214	1,474	1,222

* Situations where several types of machinery are used on the same operation are excluded. The importance of such combinations is shown in Table 6.

** One bank.

Table Number 5

NUMBER OF ITEMS

*Average Number of Daily Items (Checks, Deposit Tickets, Etc.) Per Full-Time Machine or Punched-Card Installation.**

Operation and Type of Machinery	Deposit Size (\$ millions)					All Banks
	Under 5	5-10	10-20	20-100	Over 100	
Special Checking Accounts						
Conventional Bookkeeping Machines	398	542	794	872	1,047	636
Electronic Bookkeeping Machines (Tronics)	798	1,214	1,324	1,104	1,530	1,352
Punched-Card Installations	—	—	—	**	22,167	18,000
Electronic Computer	—	—	—	—	**	**
Regular Checking Accounts						
Conventionals	550	741	860	890	1,122	847
Tronics	1,339	1,657	1,580	2,167	3,136	2,243
Punched-Card	—	—	—	—	**	**
Proof and Transit						
Conventionals	547	1,437	1,733	—	—	949
Proof Machines	1,567	2,548	3,530	5,721	7,519	5,593

* Situations where several types of machinery are used on the same operation are excluded. The importance of such combinations is shown in Table 6.

** One bank.

Table Number 6

HOW EACH OPERATION IS HANDLED

The Percentage of All Banks Using the Various Types of Machinery and Combinations Thereof.

Operation and Type of Machinery	Deposit Size (\$ millions)					
	Under 5	5-10	10-20	20-100	Over 100	All Banks
Special Checking Accounts						
Conventional Bookkeeping Machines	90%	78%	46%	38%	17%	71%
Electronic Bookkeeping Machines (Tronics)	9	17	51	53	50	24
Combination—Conventionals and Tronics	—	2	3	8	—	2
Punched-Card Installations	—	—	—	2	25	1
Electronic Computer	—	—	—	—	8	.3
No Major Machinery	2	2	—	—	—	1
Regular Checking Accounts						
Conventionals	95%	80%	64%	35%	31%	78%
Tronics	5	18	36	48	39	19
Combination—Conventionals and Tronics	—	2	—	17	23	3
Combination—Punched-Card and Tronics	—	—	—	—	8	.2
No Major Machinery	—	1	—	—	—	.2
Regular Savings Accounts						
Conventionals	55%	54%	42%	25%	15%	48%
Window Posting	16	33	38	52	39	28
Combination—Conventionals and Window Posting	4	8	16	19	—	9
Tronics	.5	—	—	—	—	.2
Punched-Card	—	—	—	4	39	2
Combination—Punched-Card and Window Posting	—	—	—	—	8	.2
No Major Machinery	25	6	5	—	—	13

(Continued next page)

HOW EACH OPERATION IS HANDLED (Continued)

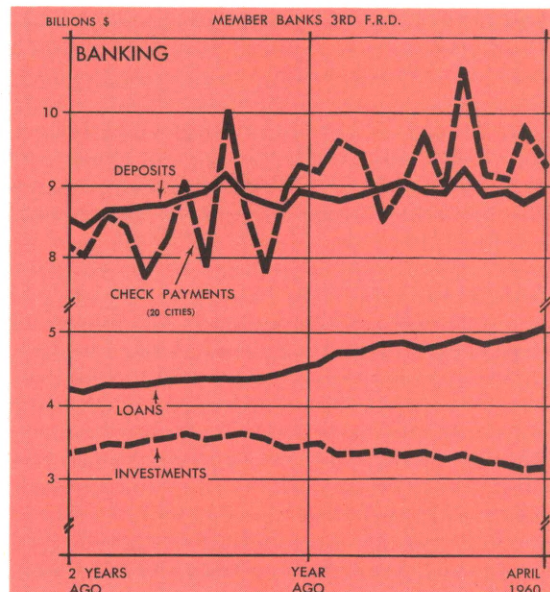
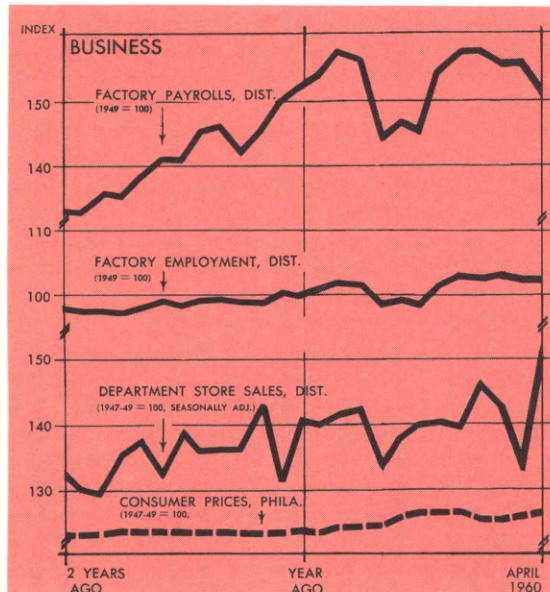
Operation and Type of Machinery	Deposit Size (\$ millions)					
	Under 5	5-10	10-20	20-100	Over 100	All Banks
Special Savings (Christmas Club, etc.)						
Conventionals	4%	8%	6%	—	—	5%
Window Posting	7	17	17	23	—	13
Combination—Conven- tionals and Window Post- ing	2	—	3	2	—	2
Punched-Card	—	—	—	6	69	3
No Major Machinery	88	76	73	69	31	78
Consumer Installment Credit						
Conventionals	34%	43%	63%	69%	23%	45%
Window Posting	16	25	17	15	—	18
Combination—Conven- tionals and Window Post- ing	6	7	3	2	—	5
Punched-Card	—	—	—	4	46	4
Combination—Conven- tionals and Punched-Card	—	—	—	—	15	.3
No Major Machinery	44	25	18	10	8	29
Revolving Check Credit						
Conventionals	—	60%	56%	73%	27%	53%
Tronics	—	—	—	—	9	3
Window Posting	—	20	22	—	—	8
Punched-Card	—	—	—	18	55	22
Computer	—	—	—	—	9	3
No Major Machinery	—	20	22	9	—	11
Business and Agricultural Loans						
Conventionals	45%	56%	79%	88%	77%	58%
Tronics	—	—	—	—	8	.2
Window Posting	2	3	5	4	—	3
Combination—Conven- tionals and Window Post- ing	.5	—	—	—	—	.2

HOW EACH OPERATION IS HANDLED (Continued)

Operation and Type of Machinery	Deposit Size (\$ millions)					
	Under 5	5-10	10-20	20-100	Over 100	All Banks
Punched-Card	—	—	—	—	15	.5
No Major Machinery	53	42	16	8	—	38
Mortgages						
Conventionals	32%	46%	66%	71%	69%	46%
Window Posting	14	16	14	10	—	14
Combination—Conven- tionals and Window Post- ing	7	5	5	2	—	5
Punched-Card	—	—	—	4	31	1
No Major Machinery	47	33	16	13	—	33
Personal Trust Accounts						
Conventionals	16%	39%	69%	94%	39%	55%
Punched-Card	—	—	—	2	62	5
No Major Machinery	84	61	31	4	—	41
Corporate Trust Accounts						
Conventionals	5%	34%	53%	79%	31%	47%
Punched-Card	—	—	—	3	54	6
Combination—Conven- tionals and Punched-Card	—	—	—	—	15	1
No Major Machinery	95	66	48	18	—	46
Payroll						
Conventionals	8%	12%	17%	42%	39%	15%
Punched-Card	—	—	—	4	62	2
No Major Machinery	92	89	83	54	—	83
Proof and Transit						
Conventionals	5%	4%	2%	—	—	4%
Proof Machines	34	74	88	100	100	62
Combination—Conven- tionals and Proof	—	2	8	—	—	2
No Major Machinery	61	20	3	—	—	32

Percentages do not add to 100% because of rounding.

FOR THE RECORD...



SUMMARY	Third Federal Reserve District			United States		
	Per cent change			Per cent change		
	Apr. 1960 from		4 mos. 1960 from year ago	Apr. 1960 from		4 mos. 1960 from year ago
	mo. ago	year ago		mo. ago	year ago	
OUTPUT						
Manufacturing production...	-3	-2	+1	-1	+1	+6
Construction contracts...	+27	+20	+10	+10	+11	+8
Coal mining	-9	0	+1	-2	+4	+1
EMPLOYMENT AND INCOME						
Factory employment (Total)	0	+2	+3	-1	+2	+4
Factory wage income.....	-3	0	+5	....	....	....
TRADE*						
Department store sales...	+12	+8	+6	+12	+7	+4
Department store stocks...	+1	+4	....	-2	+5	....
BANKING (All member banks)						
Deposits	+2	+1	+1	+2	-1	-1
Loans	+2	+12	+12	+1	+11	+12
Investments	+1	-8	-9	+3	-12	-13
U.S. Govt. securities.....	+2	-10	-12	+4	-14	-16
Other	-1	-3	-2	-1	-6	-3
Check payments	-5†	+1†	+7†	-8	0	+7
PRICES						
Wholesale	0†	....	....	0	0	0
Consumer	0†	+2†	+2†	0	+2	+2

*Adjusted for seasonal variation.

†20 Cities

‡Philadelphia

LOCAL CHANGES	Factory*				Department Store†				Check Payments	
	Employ- ment		Payrolls		Sales		Stocks			
	Per cent change Apr. 1960 from		Per cent change Apr. 1960 from		Per cent change Apr. 1960 from		Per cent change Apr. 1960 from		Per cent change Apr. 1960 from	
	mo. ago	year ago	mo. ago	year ago	mo. ago	year ago	mo. ago	year ago	mo. ago	year ago
Lehigh Valley	+ 3	+ 5	+ 3	+ 4	....	....	....	....	- 5	+ 3
Harrisburg ...	- 3	+ 1	- 3	+ 2	....	....	....	....	- 9	- 3
Lancaster	0	+ 2	- 4	- 1	+36	+ 5	- 1	+10	- 6	+ 2
Philadelphia ..	0	+ 3	- 2	+ 3	+12	+ 8	+ 1	+ 2	- 5	- 1
Reading	- 1	+ 2	- 2	0	+21	+ 8	0	+ 2	- 7	+ 4
Scranton	0	0	- 2	0	+ 4	+ 7	- 3	0	- 9	- 4
Trenton	+ 1	+ 2	- 2	+ 1	+ 4	+ 7	+ 6	+16	+29	+10
Wilkes-Barre ..	+ 1	+ 2	- 4	+ 2	+16	+ 7	- 2	+ 7	-11	- 4
Wilmington ...	- 1	- 1	- 5	- 7	+13	+10	+ 8	+ 7	- 8	+10
York	0	+ 2	- 3	0	+25	+14	+ 9	+ 6	- 4	0

*Not restricted to corporate limits of cities but covers areas of one or more counties.

†Adjusted for seasonal variation.